Chokecherry and Sierra Madre Wind Energy Project
Aquatic Resources Inventory Report

Phase I Wind Turbine Development

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1.0 INTRODUCTION

Power Company of Wyoming LLC (PCW) proposes to construct, operate, maintain, and decommission the Chokecherry and Sierra Madre Wind Energy Project (CCSM Project) located in Carbon County, Wyoming. The CCSM Project consists of up to 1,000 wind turbines capable of generating approximately 2,000 to 3,000 megawatts (MW) of clean renewable wind energy. The primary components of the CCSM Project include the wind turbine generators, an internal road network, a rail facility, a quarry, an internal electrical collection and transmission system, substations, and operations and maintenance buildings.

The CCSM Project is located south of the city of Rawlins, primarily within the bounds of the Overland Trail Ranch (Ranch). The Ranch is owned and operated by PCW affiliate, The Overland Trail Cattle Company LLC (TOTCO). The Ranch is situated within an area of alternating sections of private and federal lands commonly referred to as the "checkerboard." The majority of the private lands are owned by TOTCO and the federal lands are administered by the Bureau of Land Management (BLM) Rawlins Field Office (RFO). A small percentage of the land within the Ranch is owned by the state of Wyoming and is administered by the State Board of Land Commissioners. Finally, Anadarko Land Corporation owns some sections located on the periphery of the northwest boundary of the Ranch.

In 2008, PCW applied to BLM for right-of-way grants to construct, operate, maintain, and decommission the CCSM Project on federal land within the CCSM Project Area. On June 29, 2012, the Notice of Availability for the Final Environmental Impact Statement (EIS) concerning the CCSM Project was published in the Federal Register (77 FR 63328). On October 9, 2012, the Secretary of the Interior signed the Record of Decision (ROD). In the ROD, BLM determined that more than 200,000 acres within the CCSM Project Area are suitable for wind energy development subject to the requirements described under the Selected Alternative in the ROD. The area that was determined to be suitable for wind energy development consists of two wind development areas (WDAs) in which turbines would be located. The northern WDA is known as Chokecherry and the southern WDA is known as Sierra Madre. The WDAs are located approximately 9 miles apart.

Prior to issuing right-of-way grants for the CCSM Project, BLM will conduct subsequent environmental analysis of site-specific plans of development submitted by PCW. The site-specific plans of development will be screened against the analysis conducted in the EIS and the requirements described under the Selected Alternative in the ROD. This Aquatic Resources Inventory Report addresses the Phase I Wind Turbine Development (Study Area), an integral part of the CCSM Project. The Phase I Wind Turbine Development for the CCSM Project consists of 500 wind turbines along with associated facilities and infrastructure designed to provide approximately 1,500 MW of clean renewable wind energy. In addition to the 500 wind turbines, the Phase I Wind Turbine Development includes approximately 170 miles of access roads; 65 miles of overhead

collection and transmission lines; nine meteorological towers; two water stations; three long-term facilities (Operations Center, Chokecherry Maintenance Building, and Sierra Madre Maintenance Building); and temporary facilities including the construction camp and laydown yards.

In September 2012, PCW and ERO Resources Corporation (ERO) met with the U.S. Army Corps of Engineers (Corps) to discuss the CCSM Project, the wetland delineation method, and the Clean Water Act Section 404 permitting approach for the CCSM Project. Based on the approach to identifying and delineating wetlands and other waters agreed to at the meeting with the Corps, SWCA Environmental Consultants (SWCA) implemented the wetland delineation methods described below. SWCA delineated wetlands and other waters in the Phase I Wind Turbine Development from June through November 2013 and in May and June 2014 (field survey).

2.0 LOCATION

The CCSM Project is south of Rawlins in Carbon County, Wyoming. The Study Area is located in the westernmost portions of the Chokecherry and Sierra Madre WDAs south of Rawlins (Figure 1). The UTM coordinates of the approximate center of the Study Area are 320623mE, 4608105mN, Zone 13. The latitude/longitude of the project area is 41.604514°N/107.152587°W.

2.1 DIRECTIONS TO THE SITE

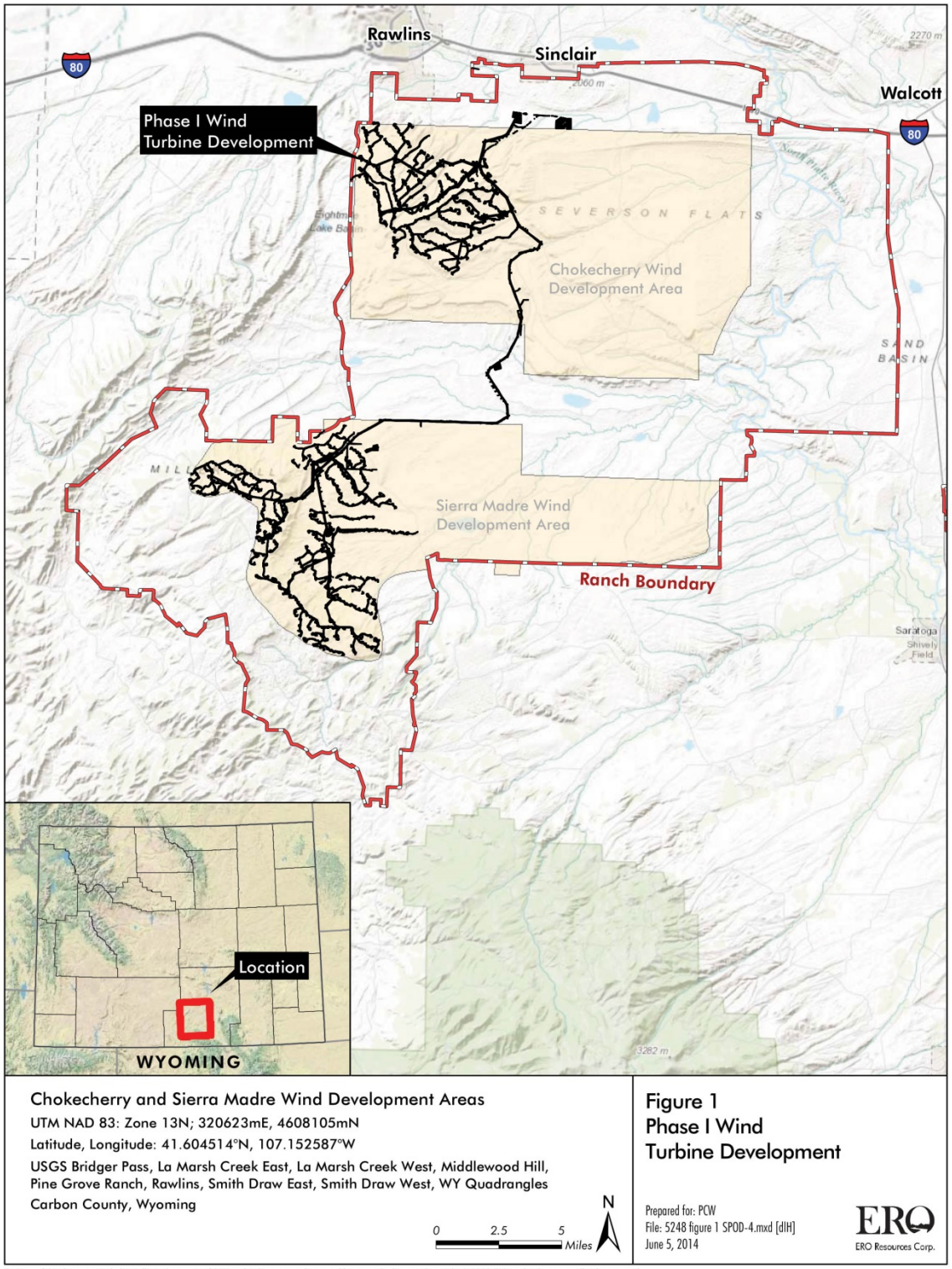
From Cheyenne, take Interstate 80 east to Rawlins, Wyoming. Take exit 214 toward Rawlins and turn right onto Higley Road and then an immediate left onto WY-71/Sage Creek Road. The Study Area is south and east of Sage Creek Road.

3.0 SITE CONDITIONS

The Study Area contains a variety of topographic, hydrological, and vegetative characteristics of the region. The topography ranges from fairly flat land and low rolling or flat-topped hills to high elevations containing mountain shrub vegetation. The vegetation communities within the Study Area exist almost entirely within the Intermountain Semi-Desert Province (sagebrush steppe) and the Southern Rocky Mountain Steppe-Open Woodland-Coniferous Forest Province (transition from grass- and shrub-dominated areas to shrub- and tree-dominated areas). Sections of the Study Area have been previously irrigated, with a majority of the land used for grazing.

All of the drainages that the Study Area crosses are in the Muddy, Wyoming basin and the Upper North Platte basin. The Study Area crosses multiple drainages, with most being ephemeral or intermittent. The perennial drainages to be crossed include Little Sage Creek, Deadman Creek, Lone Tree Creek, La Marsh Creek, McKinney Creek, Stoney Creek, and Rasmussen Creek. The Study Area traverses hydrologic unit codes 10180002 and 14050004.

Figure 1. Phase I Wind Turbine Development



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4.0 METHODS

4.1 WETLAND DELINEATION

SWCA evaluated the Study Area for potential isolated wetlands, jurisdictional wetlands, and other waters of the U.S. The limits for the wetland delineation in the Study Area were based on the maximum limits of disturbance for the access roads, turbines, and other associated facilities. Using methods outlined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008a), and guidance from the Wyoming Regulatory Office of the Corps (May 1, 2011), SWCA determined the presence of wetlands based on three wetland indicators: hydrophytic vegetation, hydric soils, and wetland hydrology. SWCA followed the routine method under the 1987 Corps manual for areas that are equal to or less than 5 acres. Although the Study Area is more than 5 acres, based on conversations with the Corps, it was determined the routine method was appropriate and the transect method was not necessary. This is based on the determination that, because the Study Area is generally linear in nature, areas of wetland impacts would be less than 5 acres.

SWCA applied the routine method by determining the plant community types at areas of proposed disturbance within the Study Area and completed data forms for representative points within each community type. Wetland determination data forms from the Regional Supplement were completed for each representative data point to determine which community types were wetlands. Where wetlands border uplands, data were collected from a set of upland and wetland data points, which determined indicators of the boundary between wetlands and nonwetlands. Each data point was assigned a unique label.

The wetland indicator status of plant species was identified using the *National Wetland Plant List* (Lichvar and Kartesz 2009) and taxonomy was determined using *Vascular Plants of Wyoming* (Dorn 2001). The plot size for each data point followed the Regional Supplement guidelines and absolute cover was recorded on each data form. Soil profile data were collected to a depth of 20 inches whenever possible to adequately characterize the soil profile; however, due to the time of year, for some data points, a soil profile could only be collected to 4 inches or could not be taken due to frozen ground. Photos were taken at each data point of the vegetation community and soil profile, when a soil profile was recorded.

Plant communities in the delineated area of the Study Area were characterized as wetland or nonwetland (upland) plant communities based on data gathered from the data points within each community type including dominant plant species, landscape position, soils, and hydrological conditions. Each community type was based on the U.S. National Vegetation Classification (USNVC) as described in NatureServe (NatureServe 2013) and *Field Guide to Wetland and Riparian Plant Associations in Colorado* (Carsey et al. 2003) (Field Guide). The Field Guide for Colorado was used because a similar publication has

not been completed for Wyoming and many of the plant communities are the same for both states. When the communities found within the delineated area of the Study Area did not fit USNVC descriptions, the communities were described based on dominant plant species and landscape position. In some communities, such as Aspen Forest, the USNVC descriptions include both wetlands and uplands, depending on landscape position and hydrological conditions. For this report, these communities were separated into wetlands and uplands.

Wetland boundaries within the delineated area of the Study Area were determined by plant communities, topographic changes, and other visible distinctions between wetlands and uplands. Additional data points were established, if necessary, to help define the wetland/upland boundary if an area was determined to be atypical or if an area had mosaic characteristics that were not identified from previous data points.

Intermittent, ephemeral, and perennial drainages with characteristics of an active channel, such as a defined bed and bank, ordinary high water mark (OHWM), and other erosional features, were also identified. When determining the OHWM, SWCA used *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (Corps 2008b). Any other potential waters of the U.S., including playas, salt flats, canals, and ditches, were also identified during the survey. Photos were taken of each type of feature identified in the Study Area.

The dimensions of drainages with the characteristics and boundaries of wetlands were mapped using a Trimble GEOXT Global Positioning System (GPS) unit or drawn onto aerial photography when appropriate. Data were differentially corrected using the CompassCom base station. All differential corrections were completed using Trimble Pathfinder Office 5.40 software. GPS data were incorporated onto base mapping using ARC Geographic Information System (GIS) software. Ponds, lakes, and other water bodies were identified and mapped using the higher of either the water surface elevation or OHWM.

4.2 WETLAND CLASSIFICATION

Wetlands are classified according to the U.S. Fish and Wildlife Service's (Service) Cowardin classification system (Cowardin et al. 1979) combined with a hydrogeomorphic (HGM) approach (Brinson 1993). HGM classes found in Wyoming are mineral soil flats, organic soil flats, riverine, lacustrine fringe, slope, and depressional. The Cowardin classification uses a hierarchical structure of systems, subsystems, and classes to classify both wetlands and deepwater habitats. Wetlands with persistent vegetation are classified in the Cowardin system as palustrine, which typically includes wetlands referred to as marshes, fens, wet meadows, and sloughs. The palustrine system also includes small, shallow, permanent, or intermittent water bodies such as ponds. Palustrine wetlands may be situated shoreward of lakes and river channels, on river floodplains, in isolated catchments, or on slopes (Cowardin et al. 1979). Under the palustrine system, wetlands are classified as emergent (erect, rooted, herbaceous, and

usually perennial hydrophytes that remain standing until at least the next growing season); scrub-shrub (woody vegetation less than 20 feet tall); or forested (woody vegetation 20 feet or taller).

The Cowardin riverine system includes wetlands and deepwater habitats contained within a channel, with the exception of wetlands dominated by trees, shrubs, and emergent vegetation. The riverine system usually contains flowing water and is bounded on the landward side by uplands, channel banks, or other wetlands. Within the riverine system, wetlands are divided into the tidal, lower perennial (low gradient and slow water); upper perennial (high gradient and fast water); and intermittent subsystems. Within these subsystems, riverine wetlands are further classified as unconsolidated bottom, aquatic bed, streambed, rocky shore, unconsolidated shore, and emergent wetland (nonpersistent).

5.0 WETLANDS AND OTHER WATERS

SWCA delineated 41.99 acres of wetlands and 2.07 acres of other waters of the U.S. in the Study Area (Figures 2-1 through 2-33). Wetlands and other waters in the Study Area are described below. Wetland determination data forms were completed at 121 data points within the Study Area. Table 20 summarizes the wetlands or other waters of the U.S. mapped in the Study Area and lists each data form label and its wetland type if wetlands were present.

Palustrine emergent wetlands and palustrine scrub-shrub wetlands are the two types of Cowardin-classified vegetated wetlands within the delineated area of the Study Area. Palustrine emergent wetlands are nontidal wetlands dominated by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. Within the delineated area, these wetlands are included under the subclass “persistent” because the vegetation persists until the next growing season. Palustrine scrub-shrub are nontidal wetlands dominated by woody vegetation less than 20 feet tall. Within the delineated area, these wetlands are included under the subclass “broad-leaved” deciduous.

The communities, along with their Cowardin classification, prevalent species, and species wetland indicators found in the delineated area are described below. The definitions of the wetland indicator for each species are:

- Obligate Wetland (OBL)—Occurs with an estimated 99% probability in wetlands.
- Facultative Wetland (FACW)—Estimated 67%–99% probability of occurrence in wetlands.
- Facultative (FAC)—Equally likely to occur in wetlands and nonwetlands (34%–66% probability).
- Facultative Upland (FACU)—67%–99% probability in nonwetlands, 1%–33% in wetlands.
- Upland (UPL)—>99% probability in nonwetlands in this region.
- NI—No Indicator or no information available.

6.0 WETLAND COMMUNITIES

6.1 WETLAND – ASPEN FOREST

This wetland is classified as a palustrine forested community and grows along drainage swales and on hillsides within the Study Area. This community differs from the upland Aspen Forest community by the dominance of wetland herbaceous species beneath the trees (Photo 1; Table 1).

Table 1. Prevalent species in Aspen Forest community

Scientific Name	Common Name	Wetland Indicator
Agrostis stolonifera	Creeping bentgrass	FACW
Carex aquatilis	Water sedge	OBL
Carex nebrascensis	Nebraska sedge	OBL
Carex praegracilis	Clustered field sedge	FACW
Juncus arcticus	Mountain (Arctic) rush	FACW
Oxytropis sericea	White locoweed	UPL
Populus tremuloides	Quaking aspen	FACU
Salix planifolia	Diamondleaf willow	OBL

Soils – Soil data were gathered at two data points (WT-18(3) and WT-36, Figures 2-22 and 2-31). The soils had a matrix chroma of 10YR 4/2 and 10YR 3/2, with redox features of 10YR 5/6 and 10YR 4/6. These characteristics met the criteria for the redox dark surface and depleted matrix. The soils were primarily sandy clay or silty loam.

Hydrology – The primary hydrology indicator for this community was surface water and saturation at 5 inches, with a successful FAC-Neutral test and drainage patterns as secondary indicators.

Photo 1. Aspen Forest wetlands observed at WT-18(3).

6.2 WETLAND – CATTAIL HERBACEOUS VEGETATION

This wetland is classified as a palustrine emergent wetland. Cattails dominate the center of swales and other areas that are usually saturated to inundated throughout the growing season. This community was observed at one location in the Study Area (Photo 3; Table 2). The community transitioned abruptly to the Rubber Rabbitbrush/Great Basin Wildrye community.

Table 2. Prevalent species in Cattail Herbaceous Vegetation community

Scientific Name	Common Name	Wetland Indicator
Eleocharis palustris	Common spikerush	OBL
Hordeum jubatum	Foxtail barley	FAC
Juncus arcticus	Mountain (Arctic) rush	FACW
Juncus compressus	Roundfruit rush	OBL
Tiglochin sp.	Arrowgrass	OBL
Typha angustifolia	Narrow-leaf cattail	OBL
Typha latifolia	Broadleaf cattail	OBL

Soils – Soil data were gathered at two data points (WT-41 and WT-07, Figures 2-25 and 2-28). The soils had a matrix chroma of Gley 1 5/N, Gley 1 6/N, and Gley 1 7/N, with redox features of 10YR 4/6 and 7.5YR 6/8 between 0 and 4 inches below the ground surface (bgs). These characteristics met the criteria for the loamy gleyed matrix and the hydrogen sulfide odor. The soils were primarily clay or clay loam.

Hydrology – The primary hydrology indicator for this community was a high water table at 2 inches, saturation at the surface, surface soil cracks, water-stained leaves, and a hydrogen sulfide odor, with a successful FAC-Neutral test as a secondary indicator.

Photo 2. Cattail Herbaceous Vegetation wetland at WT-41.

6.3 WETLAND – MEADOW BARLEY HERBACEOUS VEGETATION

This palustrine emergent wetland community is common throughout the Study Area and occurs on flat stream benches, around ponds, and in roadside ditches (Photo 3; Table 3). This community generally occurs in seasonally saturated soils and is dominated by meadow barley, with some mountain rush and sandberg bluegrass observed. This community often transitions to the Big Sagebrush Steppe Group community.

Table 3. Prevalent species in Meadow Barley Herbaceous Vegetation community

Scientific Name	Common Name	Wetland Indicator
Hordeum bractyantherum	Meadow barley	FACW
Juncus arcticus	Mountain (Arctic) rush	FACW
Poa secunda	Sandberg bluegrass	FACU

Soils –Soil data were gathered at two data points (WT-06(3) and WT-06(4), Figure 2-28). The soils had a matrix ranging from 10YR 4/1 to 10YR 4/2. Mottles were present at both data points with a chroma of 7.5YR 4/6. The soils met criteria for the depleted matrix hydric soil indicator. The soils were clay.

Hydrology – The primary hydrology indicators for this community were the presence of surface water, surface soil cracks, and oxidized rhizospheres on living roots. Secondary hydrology indicators included a successful FAC-Neutral test.

Photo 3. Meadow Barley Herbaceous Vegetation wetland at WT-06(4).

6.4 WETLAND – MOUNTAIN RUSH HERBACEOUS VEGETATION

This palustrine emergent wetland community is common throughout the Study Area and occurs on flat stream benches, in irrigated meadows, around ponds, and on side-slope seeps (Photos 4 and 5; Table 4). This community generally occurs in seasonally saturated soils and is dominated by mountain rush, with a variety of other herbaceous wetland vegetation commonly observed. This community often transitions to the Big Sagebrush Steppe Group community.

Table 4. Prevalent species in Mountain Rush Herbaceous Vegetation community

Scientific Name	Common Name	Wetland Indicator
Agrostis gigantea	Redtop (black bent)	FACW
Agrostis stolinifera	Creeping bentgrass	FACW
Calamagrostis canadensis	Bluejoint	FACW
Carex nebrascensis	Nebraska sedge	OBL
Carex praegracilis	Clustered field sedge	FACW
Carex vesicaria	Blister sedge	OBL
Deschampsia cespitosa	Tufted hairgrass	FACW
Distichlis spicata	Inland salt grass	FAC
Eleocharis palustris	Common spikerush	OBL
Elymus tractycaulus	Slender wheatgrass	FACU
Ericameria nauseosa	Rubber rabbitbrush	UPL
Festuca sp.	Fescue sp.	FAC to UPL
Hordeum bractyantherum	Meadow barley	FACW
Hordeum jubatum	Foxtail barley	FAC
Iris missouriensis	Iris	FACW
Juncus arcticus	Mountain (Arctic) rush	FACW
Juncus dudleyi	Dudley's rush	FAC
Leymus cinereus	Basin wildrye (Great Basin lyme grass)	FAC
Pascopyrum smithii	Western wheatgrass	FAC
Poa secunda	Sandberg bluegrass	FACU
Schoenoplectus maritimus	Cosmopolitan bulrush	OBL

Scientific Name	Common Name	Wetland Indicator
Sporobolus airoides	Alkali-sacaton	FAC
Triglochin sp.	Arrowgrass	OBL

Soils –Soil data were gathered at 30 data points (WT-03(2), WT-04, WT-05, WT-06(2), WT-08, WT-10, WT-10(2), WT-11, WT-13, WT-14, WT-14(2), WT-14(3), WT-15, WT-16, WT-18, WT-18(2), WT-23, WT-25, WT-27, WT-29, WT-31, WT-32, WT-34, WT-38, WT-39, WT-42, WT-43, WT-44, WT-45, and WT-47, Figures 2-1 through 2-33). The soils had a matrix ranging from 10YR 3/1 to 7.5YR 4/2. Mottles were present at all data points ranging from a chroma of 2.5YR 6/8 to 10YR 5/6. The soils met criteria for the depleted matrix and/or the redox dark surface hydric soil indicator. The soils were silty clay to sandy clay loam.

Hydrology – The primary hydrology indicators for this community were the presence of surface water, saturation, biotic crust, and oxidized rhizospheres on living roots. Secondary hydrology indicators included drainage patterns, water marks, and a successful FAC-Neutral test.

Photo 4. Mountain Rush Herbaceous Vegetation wetland at WT-04.

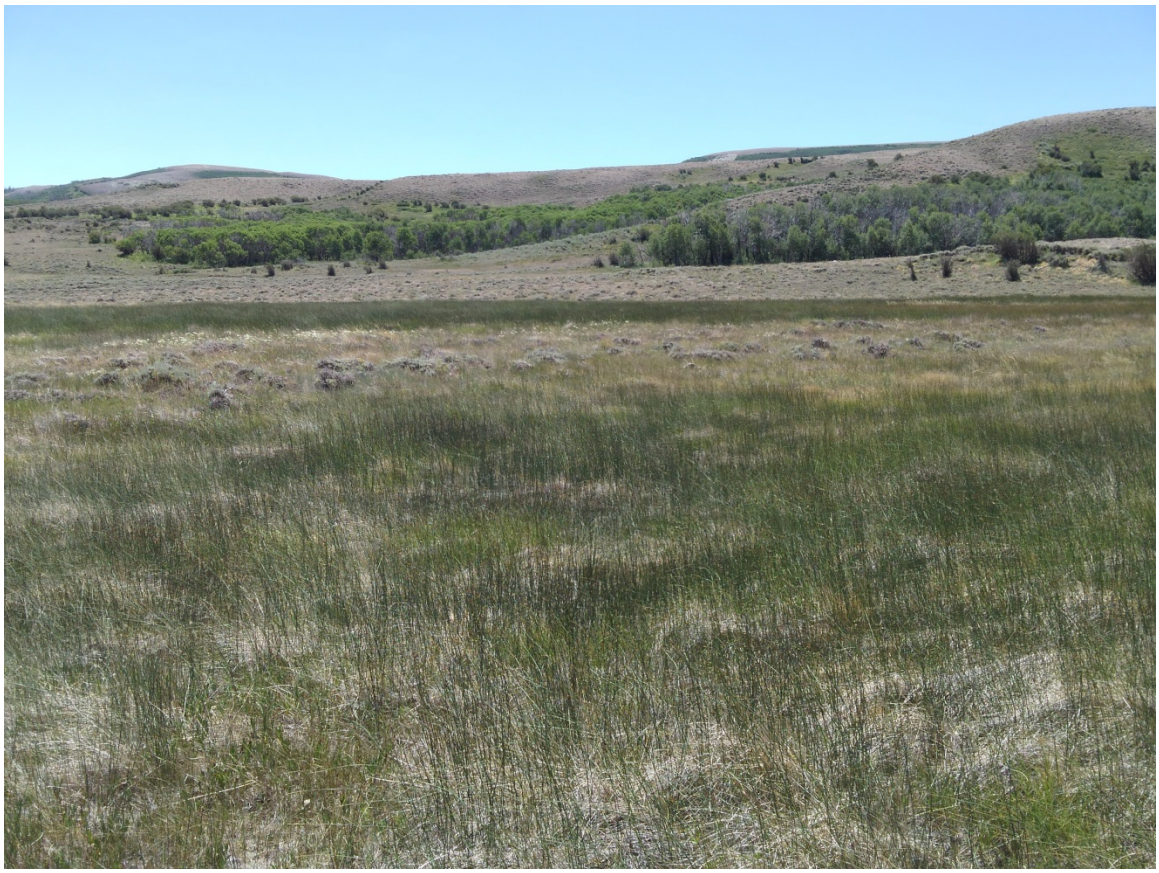


Photo 5. Mountain Rush Herbaceous Vegetation at WT-38.

6.5 WETLAND – MOUNTAIN WILLOW AND OTHER WILLOW SHRUBLAND

This wetland is classified as a palustrine scrub-shrub wetland. Typically found on the slopes of streams, this community is dominated by mountain willow and other willow species with an understory of mostly wetland herbaceous species (Photos 6 and 7; Table 5). This community often transitioned to other wetland communities, to the Mountain Willow Shrubland upland community, or to the Big Sagebrush Steppe Group community.

Table 5. Prevalent species in Mountain Willow and Other Willow Shrubland community

Scientific Name	Common Name	Wetland Indicator
Alopecurus pratensis	Meadow foxtail	FACW
Amelanchier alnifolia	Saskatoon serviceberry	FACU
Carex aquatilis	Water sedge	OBL
Carex nebrascensis	Nebraska sedge	OBL
Cirsium arvense	Canada thistle	FACU
Deschampsia cespitosa	Tufted hairgrass	FACW
Elymus cinereus	Basin wildrye	UPL
Juncus arcticus	Mountain (Arctic) rush	FACW
Salix amygdaloides	Peachleaf willow	FACW
Salix monticola	Mountain willow	OBL
Salix planifolia	Diamondleaf willow	OBL

Soils – Soil data were gathered at nine data points (WT-09, WT-17, WT-18(4), WT-18(5), WT-20, WT-24, WT-40, WT-46, and WT-50, Figures 2-1 through 2-33). The soils had a matrix chroma ranging from 10YR 2/1 to 10YR 6/1 with redox features of 10YR 4/6 to 2.5YR 4/8. The soils met the depleted matrix or redox dark surface hydric soil indicators. The soils were sandy clay to silty clay loam.

Hydrology – The primary hydrology indicators for this community were water-stained leaves, surface soil cracks, oxidized rhizospheres on living roots, and saturation at 2 inches, with secondary indicators of drift deposits, drainage patterns, and a successful FAC-Neutral test.

Photo 6. Mountain Willow and Other Willow Shrubland community observed at WT-20.

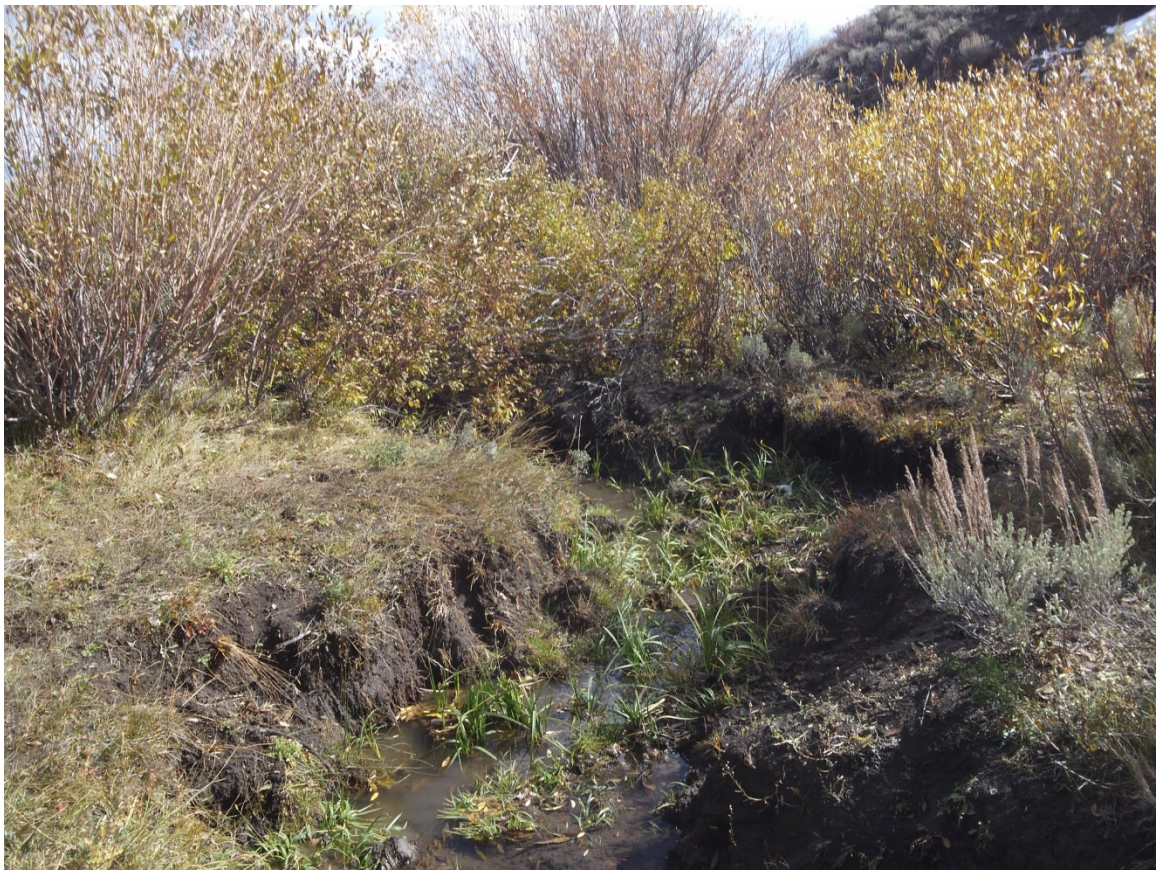


Photo 7. Mountain Willow and Other Willow Shrubland community observed at WT-18(5).

6.6 WETLAND – NEBRASKA SEDGE HERBACEOUS WETLANDS

Nebraska sedge dominates this palustrine emergent wetland community, which is found occasionally within the Study Area on flat floodplains adjacent to stream channels or near springs (Photo 8; Table 6). Within the Study Area, the Nebraska Sedge Herbaceous Wetlands community transitioned abruptly to the Big Sagebrush Steppe Group community or Riparian Grasslands community.

Table 6. Prevalent species in Nebraska Sedge Herbaceous Wetlands community

Scientific Name	Common Name	Wetland Indicator
Artemisia cana	Silver sagebrush	FACU
Calamagrostis canadensis	Bluejoint	FACW
Carex nebrascensis	Nebraska sedge	OBL
Deschampsia cespitosa	Tufted hairgrass	FACW
Hordeum jubatum	Foxtail barley	FAC
Juncus arcticus	Mountain (Arctic) rush	FACW

Soils – Soil data were gathered at four data points in this community (WT-06, WT-19, WT-28, and WT-33, Figures 2-20, 2-22, and 2-28). The soils had a matrix chroma ranging from 10YR 4/1 to 7.5YR 5/1 with redox features of 10YR 4/6 and 7.5YR 5/6, which met the criteria for the depleted matrix hydric soil indicator. The soils were silty clay to clay loam.

Hydrology – The primary hydrology indicators for this community were surface water, saturation at the surface, high water table, and the presence of oxidized rhizospheres along living roots, with a secondary hydrology indicator of a successful FAC-Neutral test.

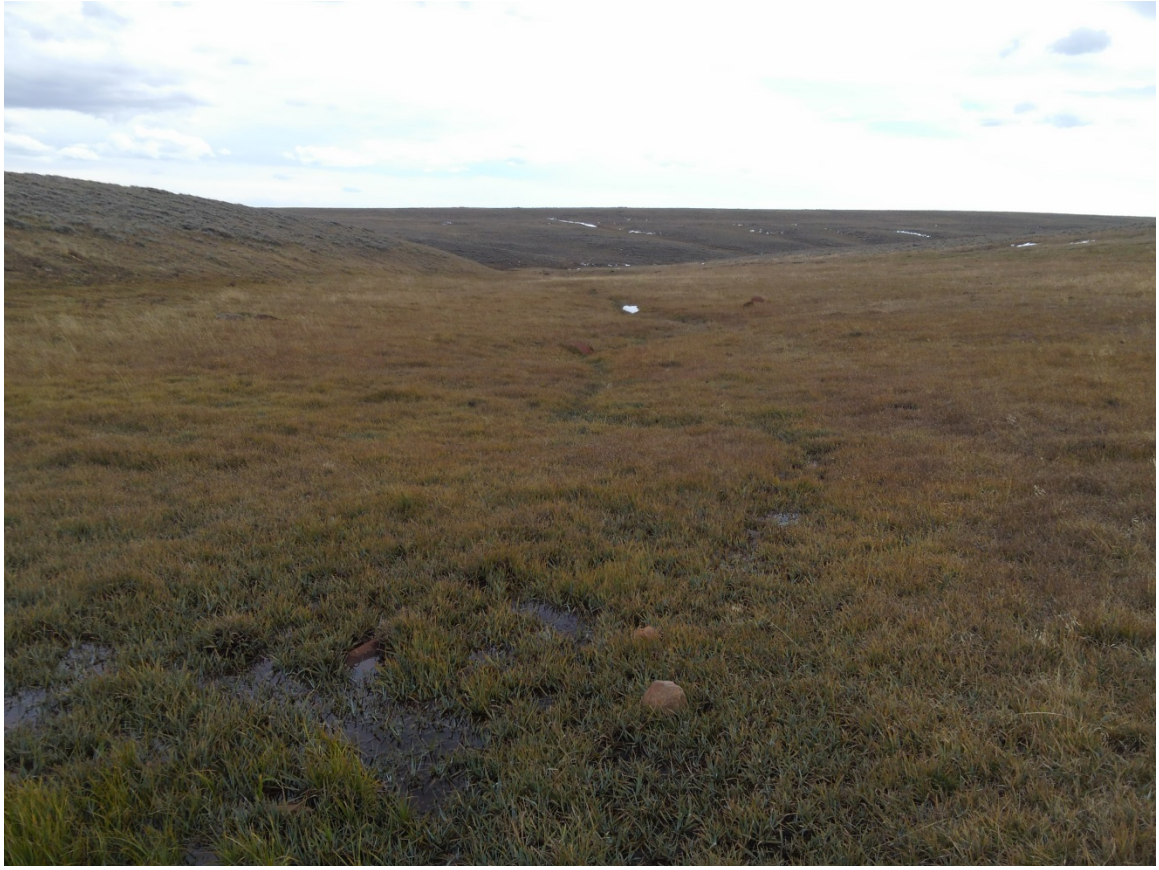


Photo 8. Nebraska Sedge Herbaceous Wetlands observed at WT-33.

6.7 WETLAND – REED CANARYGRASS HERBACEOUS WETLANDS

Reed canarygrass dominates this palustrine emergent wetland community, which was found once in the Study Area within a wetland swale (Photo 9; Table 7). This community transitioned abruptly to the Big Sagebrush Steppe Group community.

Table 7. Prevalent species in Reed Canarygrass Herbaceous Wetlands community

Scientific Name	Common Name	Wetland Indicator
Alopecurus pratensis	Meadow foxtail	FACW
Eleocharis palustris	Common spikerush	OBL
Juncus arcticus	Artic rush	FACW
Phalaris arundinacea	Reed canarygrass	FACW

Soils – Soil data were gathered at one data point in this community (WT-37, Figure 2-31). The soils had a matrix chroma of 10YR 5/1 with redox features of 10YR 5/6, which met the criteria for the depleted matrix hydric soil indicator. The soils were clay loam.

Hydrology – The primary hydrology indicator for this community was saturation at 12 inches, with a secondary hydrology indicator of a successful FAC-Neutral test.

Photo 9. Reed Canarygrass Herbaceous Wetlands observed at WT-37.

6.8 WETLAND – SANDBAR WILLOW / MESIC GRAMINOID

Typically found on the slopes of streams, this palustrine scrub-shrub community is dominated by sandbar willows with an understory of mostly wetland herbaceous species, although upland species may be common (Photo 10; Table 8).

Table 8. Prevalent species in Sandbar Willow / Mesic Graminoid community

Scientific Name	Common Name	Wetland Indicator
Agrostis gigantea	Redtop (black bent)	FACW
Alopecurus pratensis	Meadow foxtail	FACW
Artemisia cana	Silver sagebrush	FACU
Beckmannia syzigachne	American sloughgrass	OBL
Carex nebrascensis	Nebraska sedge	OBL
Eleocharis palustris	Common spikerush	OBL
Elymus trachycaulus	Slender wildrye	FACU
Hordeum brachyantherum	Meadow barley	FACW
Iris missouriensis	Rocky mountain iris	FACW
Juncus arcticus	Mountain (Arctic) rush	FACW
Phleum pratense	Timothy	FACU
Salix exigua	Sandbar (narrowleaf) willow	FACW
Salix monticola	Mountain willow	OBL

Soils – Soil data were gathered at six data points (WT-01, WT-02, WT-21, WT-22, WT-30, and WT-35, Figures 2-17, 2-22, 2-28, and 2-29). At these data points, the soils had a matrix chroma of 2.5Y 4/2, 10YR 4/1-4/2, 7.5YR 3/2, or Gley 1 N/4, with mottles of 7.5YR 4/6, 7.5YR 5/2, 10YR 4/6, or 10YR 5/8, meeting the criteria for the depleted matrix, loamy gleyed matrix, or depleted dark surface hydric soil indicator. The soils were clay, clay loam, or sandy clay.

Hydrology – The primary hydrology indicators for this community were surface water, water-stained leaves, oxidized rhizospheres on living roots, and surface soil cracks, with secondary indicators of drift deposits, drainage patterns, and a successful FAC-Neutral test.

Photo 10. Sandbar Willow / Mesic Graminoid Wetlands observed at WT-21.

6.9 WETLAND – WATER SEDGE HERBACEOUS WETLANDS

Water sedge dominates this palustrine emergent wetland community, which was found once in the Study Area within a wetland swale (Photo 11; Table 9). This community transitioned abruptly to the Big Sagebrush Steppe Group community.

Table 9. Prevalent species in Water Sedge Herbaceous Wetlands community

Scientific Name	Common Name	Wetland Indicator
Carex aquatilis	Water sedge	OBL

Soils – Soil data were gathered at two data points in this community (WT-12 and WT-26, Figures 2-9 and 2-20). The soils had a matrix chroma of 10YR 2/1-5/1 and Gley 1 5/N with redox features of 7.5YR 5/8 and 5YR 5/8, which met the criteria for the redox dark surface or loamy gleyed matrix hydric soil indicators. The soils were silty clay loam, clay loam, or silty clay.

Hydrology – The primary hydrology indicators for this community were surface water, saturation at the surface, high water table, and a biotic crust, with a secondary hydrology indicator of drainage patterns and a successful FAC-Neutral test.

Photo 11. Water Sedge Herbaceous Wetlands observed at WT-26.

7.0 UPLAND COMMUNITIES

7.1 UPLAND – ASPEN FOREST

This upland forest community grows along drainage swales and on hillsides within the Study Area. This community differs from the wetland Aspen Forest community by the dominance of upland herbaceous species beneath the trees (Photo 12; Table 10). Two soil data points were taken from within this community (UP-18 and UP-24, Figures 2-22, 2-24, and 2-30). At these data points, the soil had a matrix chroma ranging from 7.5YR 2.5/1 to 10YR 5/2. No redox features were observed and the soils did not meet any of the hydric soil indicators. The soils were silty clay to silty loam. No hydrology indicators were observed at either data point.

Table 10. Prevalent species in Aspen Forest community

Scientific Name	Common Name	Wetland Indicator
Artemisia tridentata wyomingensis	Wyoming big sagebrush	UPL
Elymus trachycaulus	Slender wheatgrass	FACU
Ericameria parryi	Parry's rabbitbrush	UPL
Eriogonum umbillatum	Sulphur-flower buckwheat	UPL
Festuca idahoensis	Idaho fescue	FACU
Juniperus communis	Common juniper	FACU
Koeleria macrantha	Prairie junegrass	FACW
Mahonia repens	Creeping barberry	UPL
Poa pratensis	Kentucky bluegrass	FAC
Populus tremuloides	Quaking aspen	FACU
Rosa woodsii	Woods' rose	FACU
Symphoricarpos albus	Snowberry	FACU

Photo 12. Aspen Forest observed at Crossing Form 9.

7.2 UPLAND – BIG SAGEBRUSH STEPPE GROUP

The Big Sagebrush Steppe Group community includes several plant associations depending on the associated shrubs and herbaceous species, with big sagebrush being the dominant species in all plant associations. Big sagebrush covers the level plains and mountain slopes and commonly occurs adjacent to wetlands (Photos 13 and 14; Table 11). Soil data were gathered at 26 data points within this community in the Study Area (UP-03, UP-05, UP-06, UP-06(2), UP-09, UP-10, UP-11, UP-13, UP-14, UP-15, UP-16, UP-19, UP-20, UP-22, UP-25, UP-26, UP-27, UP-28, UP-29, UP-30, UP-31, UP-32, UP-37, UP-38, UP-42, and UP-43, Figures 2-1 through 2-33). At these data points, the soil had a matrix chroma ranging from 10YR 4/4 to 7.5YR 4/3. No redox features were observed at a majority of these data points and the soils did not meet any of the hydric soil indicators. At two data points, UP-06(2) and UP-20, the soils had redox features of 10YR 4/6-5/6 and met the depleted matrix hydric soil indicator; however, hydrophytic vegetation and hydrology were not present. Only one data point, UP-11, contained hydrologic indicators of water marks and drift deposits; however, hydrophytic vegetation and hydric soils were not present. The soils were silty loam to silty clay loam.

Table 11. Prevalent species in Big Sagebrush Steppe Group community

Scientific Name	Common Name	Wetland Indicator
Artemisia tridentata subsp. *tridentata*	Basin big sagebrush	UPL
Chrysothamnus viscidiflorus	Yellow rabbitbrush	UPL
Elymus elymoides	Squirreltail	FACU
Elymus trachycaulus	Slender wheatgrass	UPL
Eriacameria nauseosa	Rubber rabbitbrush	FACU
Eriogonum umbellatum	Sulphur-flower buckwheat	UPL
Fagopyrum esculentum	Buckwheat	UPL
Festuca idahoensis	Idaho fescue	UPL
Gutierrezia sarothrae	Broom snakeweed	FACU
Juncus arcticus	Mountain (Arctic) rush	UPL
Koeleria macrantha	Prairie junegrass	FACW
Leymus cinereus	Great Basin wildrye	UPL
Nassella viridula	Green needlegrass	UPL
Pascopyrum smithii	Western wheatgrass	FAC
Phlox hoodii	Spiny phlox	FAC
Poa pratensis	Kentucky bluegrass	UPL
Pseudoroegneria spicata	Bluebunch wheatgrass	FAC
Purshia tridentata	Antelope bitterbrush	UPL
Rosa woodsii	Woods' rose	UPL
Salix exigua	Sandbar (narrowleaf) willow	FACU
Sarcobatus vermiculatus	Black greasewood	FACW
Stenotus acaulis	Stemless mock goldenweed	FAC
Symphoricarpos sp.	Snowberry	UPL
Thinopyrum intermedium	Intermediate wheatgrass	UPL

Photo 13. Big Sagebrush Steppe Group vegetation adjacent to a wetland swale at UP-25.

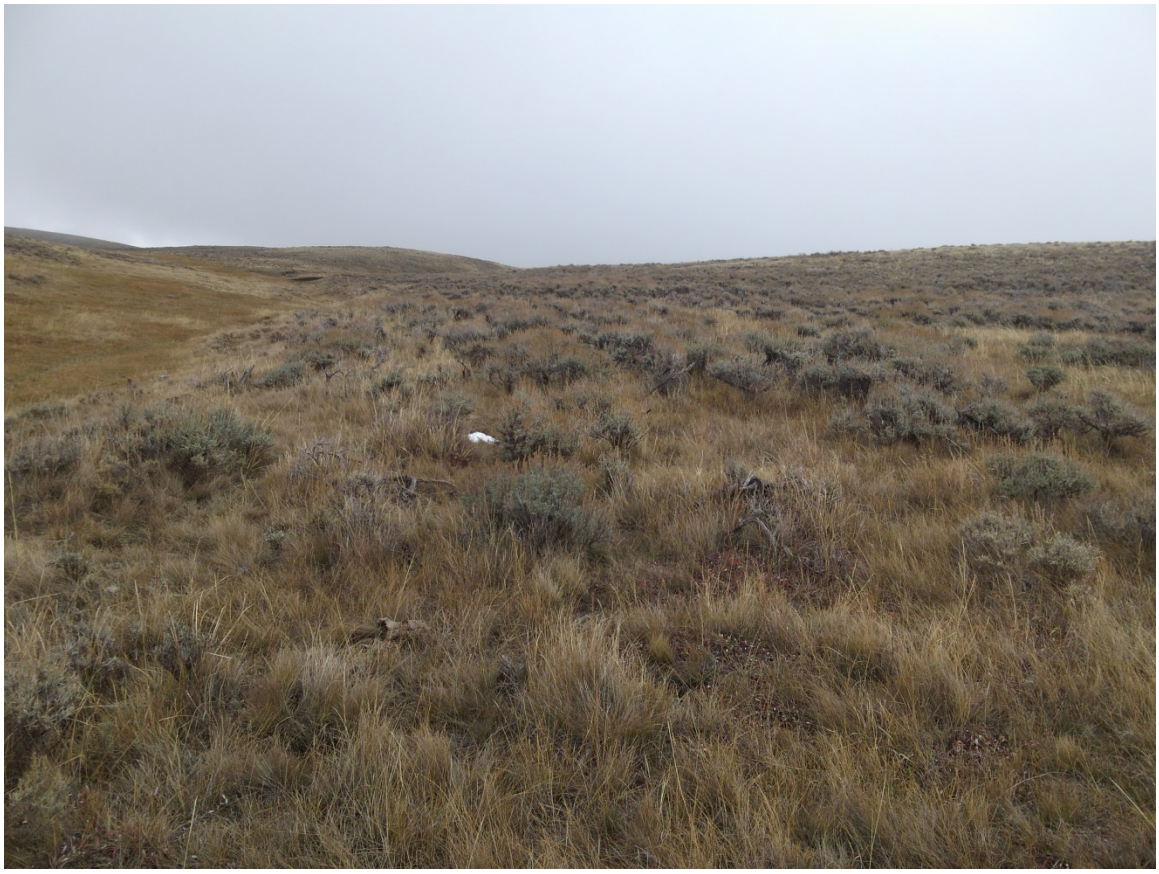


Photo 14. Big Sagebrush Steppe Group vegetation at UP-28.

7.3 UPLAND – BLACK GREASEWOOD / INLAND SALTGRASS SHRUBLAND

This community commonly occurs on the upper slopes adjacent to drainages (Photo 15; Table 12). The understory species vary, with black greasewood being the dominant overstory species. The soils are fine-textured and alkaline. The lack of hydrology, increase in upland herbaceous understory, and topographic change separate this community from the Black Greasewood wetland community. Soil data were gathered at two data points within this community in the Study Area (UP-07 and UP-17, Figures 2-22 and 2-25). At these data points, the soil had a matrix chroma of 10YR 3/3 or 2.5Y 4/2 with no redox features observed. The soils were silty loam or sandy clay. No hydrology indicators were observed at either data point.

Table 12. Prevalent species in Black Greasewood / Inland Saltgrass Shrubland community

Scientific Name	Common Name	Wetland Indicator
Agropyron cristatum	Crested wheatgrass	UPL
Artemisia arbuscola	Little sagebrush	UPL
Artemisia tridentata subsp. *tridentata*	Basin big sagebrush	UPL
Astragalus bisulcatus	Twogrooved milkvetch	UPL
Atriplex canescens	Four-wing saltbush	UPL
Atriplex confertifolia	Shadscale saltbrush	UPL
Atriplex gardneri	Gardner's saltbush	UPL
Chrysothamnus visicidflorus	Yellow rabbitbrush	UPL
Cirsium arvense	Canada thistle	FACU
Distichlis spicata	Saltgrass	FAC
Elymus elymoides	Western bottle-brush grass	FACU
Ericameria nauseosa	Rubber rabbitbrush	UPL
Juncus arcticus	Mountain (Arctic) rush	FACW
Pascopyrum smithii	Western wheatgrass	FAC
Poa secunda	Curly bluegrass	FACU
Puccinellia nuttalliana	Nuttall's alkaligrass	FACW
Salicornia rubra	Glasswort	OBL
Sarcobatus vermiculatus	Black greasewood	FAC
Sueda calceoliformis	Pursh seepweed	FACW

Photo 15. Black Greasewood / Inland Saltgrass Shrubland vegetation at UP-07.

7.4 UPLAND – GARDNER'S SALTBUSH DWARF SHRUBLAND

This community, dominated by Gardner's saltbush, occurs in the Study Area at a few locations (Photo 16; Table 13). Soil data were gathered at four data points within this community in the Study Area (UP-06(3), UP-21, UP-44, and UP-45, Figures 2-25 and 2-28). At these data points, the soil had a matrix chroma of 10YR 2/1-4/2 with no redox features observed at most of the sites. At data point UP-06(3), the soils had redox features of 10YR 4/6 and met the depleted matrix hydric soil indicator; however, at this data point it lacked hydrophytic vegetation and hydrology. The soils were silty clay to sand clay loam.

Table 13. Prevalent species in Gardner's Saltbush Dwarf Shrubland community

Scientific Name	Common Name	Wetland Indicator
Artemisia tridentata subsp. *tridentata*	Basin big sagebrush	UPL
Atriplex gardneri	Gardner's saltbush	UPL
Elymus trachycaulus	Slender wheatgrass	FACU
Poa secunda	Sandberg bluegrass	FACU
Sarcobatus vermiculatus	Black greasewood	FACW
Stenotus acaulis	Stemless mock goldenweed	FAC

Photo 16. Uplands consisting of Gardner's Saltbush Dwarf Shrubland community at UP-21.

7.5 UPLAND – LOW SAGEBRUSH / IDAHO FESCUE SHRUB HERBACEOUS

This shrub community primarily occurs on lower toe slopes and undulating hills (Photo 17; Table 14). In the Study Area, this community occurs in shallow vegetated swales, sometimes with a narrow drainage (Figures 2-4, 2-5, 2-10, 2-14, and 2-16).

Table 14. Prevalent species in Low Sagebrush / Idaho Fescue Shrub Herbaceous community

Scientific Name	Common Name	Wetland Indicator
Artemisia arbuscula	Little (low) sagebrush	UPL
Elymus trachycaulus	Slender wheatgrass	FACU
Festuca idahoensis	Idaho fescue	FACU
Koeleria macrantha	Prairie junegrass	UPL
Pseudoroegneria spicata	Bluebunch wheatgrass	UPL
Sarcobatus vermiculatus	Black greasewood	FAC
Sporobolus airoides	Alkali-sacaton	FAC

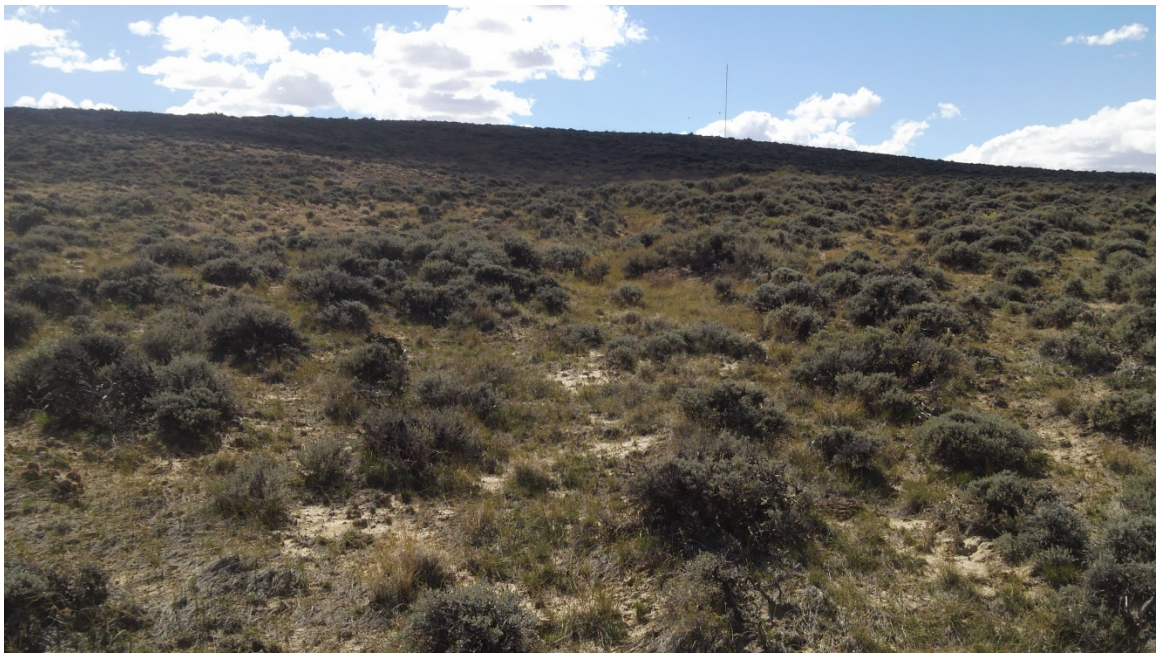


Photo 17. A vegetated swale dominated by Low Sagebrush / Idaho Fescue Shrub Herbaceous upland vegetation at Crossing Form 432.

7.6 UPLAND – MOUNTAIN WILLOW AND OTHER WILLOW SHRUBLAND

This upland community occurs in riparian areas (Photo 18; Table 15). Mountain willow is the dominant overstory species with an understory of facultative upland and upland herbaceous species. The presence of facultative upland and upland herbaceous species in the understory is what differentiates this community from the Mountain Willow and Other Willow Shrubland wetland community.

Table 15. Prevalent species in Mountain Willow and Other Willow Shrubland community

Scientific Name	Common Name	Wetland Indicator
Alyssum sp.	Alyssum	UPL
Elymus trachycaulis	Slender wheatgrass	FACU
Festuca idahoensis	Idaho fescue	FACU
Lactuca serriola	Prickly lettuce	FACU
Pseudorignea spicata	Bluebunch wheatgrass	UPL
Ribes aureum	Golden currant	FAC
Salix monticola	Mountain willow	OBL

Photo 18. An upland vegetated swale dominated by the Mountain Willow and Other Willow Shrubland upland community at Crossing Form 125.

7.7 UPLAND –SNOWBERRY / WOODS' ROSE RIPARIAN SHRUBLAND

This upland community is the transition between emergent wetlands and Sagebrush Shrublands (Photo 19; Table 16). It is commonly found on slightly elevated rises and edges of irrigated fields. Upland grasses are also common. Wetland soils or hydrology are not present in this community. At UP-01 (Figure 2-28), the soils had a matrix chroma of 7.5YR 3/2 with no mottles present. The soils were clay loam. No hydrology indicators were observed.

Table 16. Prevalent species in Snowberry / Woods' Rose Riparian Shrubland community

Scientific Name	Common Name	Wetland Indicator
Achillea millefolium	Common yarrow	FACU
Artemisia tridentata subsp. *tridentata*	Basin big sagebrush	UPL
Chrysothamnus visicidflorus	Yellow rabbitbrush	UPL
Juncus arcticus	Mountain (Arctic) rush	FACW
Mertensia ciliate	Tall fringed bluebells	FACW
Poa secunda	Sandberg bluegrass	FACU
Rosa woodsii	Woods' rose	FACU
Salix exigua	Sandbar willow	FACW
Symphoricarpos albus	Common snowberry	FACU

Photo 19. Snowberry / Woods' Rose Riparian Shrubland community at UP-01.

7.8 UPLAND – RIPARIAN GRASSLANDS

The Riparian Grasslands community contains a variety of mostly upland grasses and occurs in vegetated swales and around ephemeral drainages (Photo 20; Table 17). Riparian Grasslands also form the upland border around wetland stream systems. A soil profile was described at seven data points for this community (UP-02, UP-03, UP-33, UP-36, UP-39, UP-40, and UP-50, Figures 2-03, 2-20, 2-28, 2-29, and 2-31). The soils had a matrix chroma of 10YR 4/1-3/3 to 7.5YR 4/2-3/3 with no redox features observed. The soils were silty loam to clay loam.

Table 17. Prevalent species in Riparian Grasslands community

Scientific Name	Common Name	Wetland Indicator
Achillea millefolium	Common yarrow	FACU
Alopecurus geniculatus	Water foxtail	OBL
Antennaria arcuata	Box pussytoes	FACW
Artemisia ludoviciana	White sagebrush	FACU
Astragalus racemosus	Cream milkvetch	UPL
Bromus inermis	Smooth brome	FACU
Bromus tectorum	Cheatgrass	UPL
Carex praegracilis	Clustered field sedge	FACW
Comandra umbellate	Bastard toadflax	UPL
Elymus lanceolatus	Thickspike wheatgrass	UPL
Elymus trachycaulus	Slender wheatgrass	FACU
Fagopyrum esculentum	Buckwheat	UPL
Hesperostipa comata	Needle and thread	UPL
Iris missouriensis	Iris	FACW
Juncus arcticus	Mountain (Arctic) rush	FACW
Koeleria macrantha	Prairie junegrass	UPL
Leymus cinereus	Great Basin wildrye	FAC
Nassella viridula	Green needlegrass	UPL
Panicum capillare	Witchgrass	FACU
Pascopyrum smithii	Western wheatgrass	FAC
Phleum pratense	Timothy	FACU
Poa pratensis	Kentucky bluegrass	FAC
Poa secunda	Sandberg bluegrass	FACU
Rosa woodsii	Woods' rose	FACU
Symphoricarpos oreophilus	Mountain snowberry	UPL
Taraxacum officinale	Common dandelion	FACU
Trifolium repens	White clover	FACU

Photo 20. Riparian Grasslands observed at UP-03.

7.9 UPLAND – RUBBER RABBITBRUSH / GREAT BASIN WILDRYE

This community occurs in or adjacent to drainage swales (Photo 21; Table 18). Soil profiles were described at eight data points for this community (UP-04, UP-08, UP-12, UP-14(2), UP-23, UP-35, UP-41, and UP-47, Figures 2-8, 2-9, 2-11, 2-14, 2-17, and 2-28). The soils had a matrix chroma ranging from 2.5Y 4/3 to 10YR 5/2-6/4 with no redox features observed at a majority of the data points. At UP-35, redox features of 10YR 5/6 were observed below 5 inches bgs and the soils met the depleted matrix hydric soil indicator. However UP-35 did not contain any hydrology indicators or hydrophytic vegetation. The soils were sandy clay loam or silty clay loam. No hydrology indicators were observed at any of the data points.

Table 18. Prevalent species in Rubber Rabbitbrush / Great Basin Wildrye community

Scientific Name	Common Name	Wetland Indicator
Artemisia cana	Silver sagebrush	UPL
Artemesia tridentata subsp. *tridentata*	Basin big sagebrush	UPL
Atriplex gardneri	Gardner's saltbush	UPL
Chrysothamnus visicidflorus	Yellow rabbitbrush	UPL
Distichlis spicata	Inland salt grass	FAC
Elymus elymoides	Squirreltail	FACU
Elymus trachycaulus	Slender wheatgrass	FACU
Equisetum arvense	Field horsetail	FAC
Ericameria nauseosa	Rubber rabbitbrush	UPL
Ericameria parryi	Parry's rabbitbrush	UPL
Krascheninnikovia lanata	Winterfat	UPL
Leymus cinereus	Great Basin wildrye	FAC
Nassella viridula	Green needlegrass	UPL
Pascopyrum smithii	Western wheatgrass	FAC
Poa secunda	Sandberg bluegrass	FACU
Sarcobatus vermiculatus	Black greasewood	FAC
Sporobolus airoides	Alkali-sacaton	FAC
Tetradymia spinosa	Shortspine horsebrush	UPL

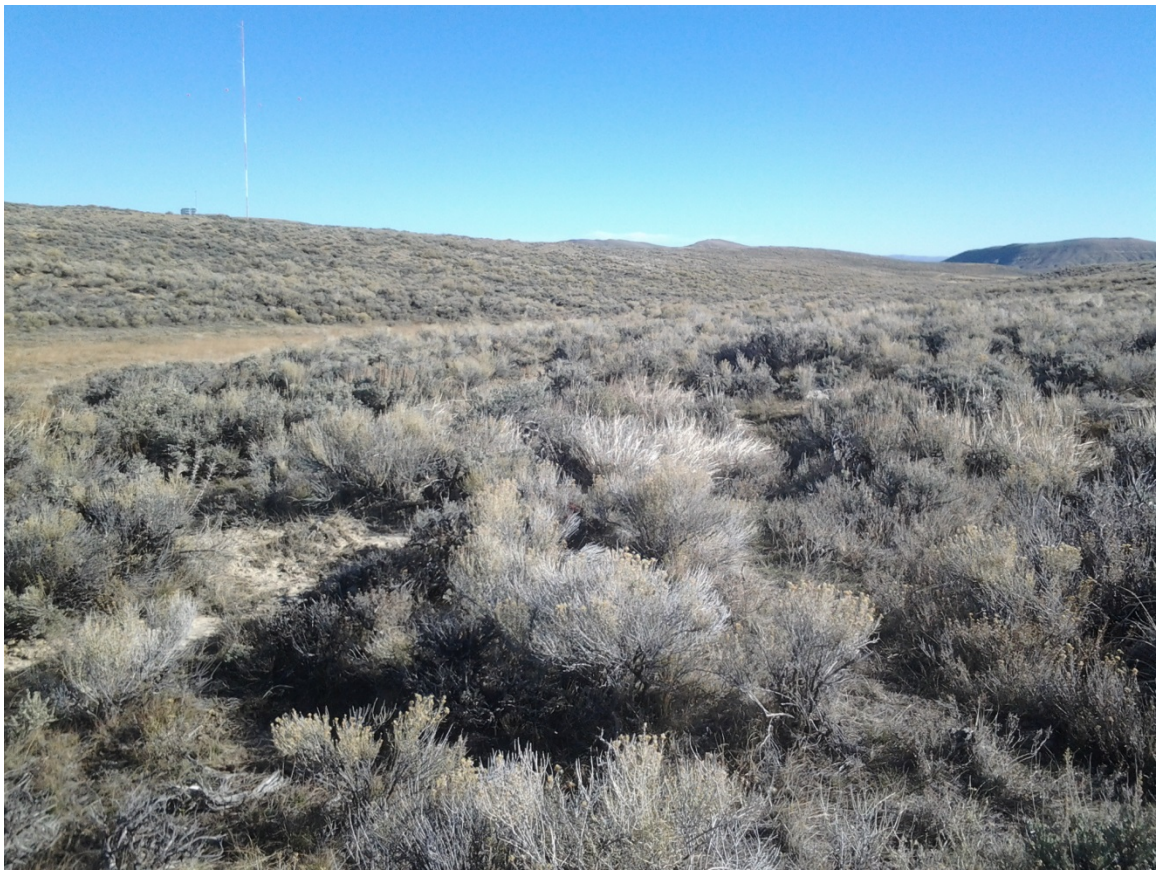


Photo 21. Upland area dominated by the Rubber Rabbitbrush / Great Basin Wildrye community at UP-47.

7.10 UPLAND – WYOMING BIG SAGEBRUSH-ANTELOPE BITTERBRUSH / BLUEBUNCH WHEATGRASS SHRUBLAND

This community is common on the hills of the Study Area (Photo 22; Table 19). It is found along upland drainage swales and also surrounding dry stream channels (Figures 2-4, 2-5, 2-9, and 2-23).

Table 19. Prevalent species in Wyoming Big Sagebrush-Antelope Bitterbrush / Bluebunch Wheatgrass Shrubland community

Scientific Name	Common Name	Wetland Indicator
Artemisia tridentata subsp. *wyomingensis*	Wyoming big sagebrush	UPL
Festuca idahoensis	Idaho fescue	FACU
Pascopyrum smithii	Western wheatgrass	FAC
Poa pratensis	Kentucky bluegrass	FAC
Pseudoroegneria spicata	Bluebunch wheatgrass	UPL
Purshia tridentata	Antelope bitterbrush	UPL

Photo 22. Upland area dominated by the Wyoming Big Sagebrush-Antelope Bitterbrush / Bluebunch Wheatgrass Shrubland community at Crossing Form 406.

Table 20. Summary of wetlands and other waters in the Study Area.

Site ID	Associated Data Point(s)	Aquatic Resource Type	Primary Vegetation Community	Total Delineated Acres
Wetland 1	WT-01, UP-01	Wetland	Sandbar Willow/ Mesic Graminoid	0.227
Wetland 2	WT-2, UP-2	Wetland	Sandbar Willow/ Mesic Graminoid	0.149
Wetland 3	WT-03, WT-03(2), UP-03, UP-03(2)	Wetland	Mountain Willow and Other Willow Shrubland	1.483
Wetland 4	WT-04, UP-04	Wetland	Mountain Rush Herbaceous Vegetation	0.154
Wetland 5	WT-05, UP-05	Wetland	Mountain Rush Herbaceous Vegetation	0.095
Wetland 6	86, 89, WT-06, WT-06(2), WT-06(3), WT-06(4), UP-06, UP-06(2)	Wetland	Nebraska Sedge Herbaceous Wetlands	2.228
Wetland 7	143, WT-07, UP-07	Wetland	Cattail Herbaceous Vegetation	0.162
Wetland 8	WT-08, UP-08	Wetland	Mountain Rush Herbaceous Vegetation	0.464
Wetland 9	WT-09, UP-09	Wetland	Mountain Willow and Other Willow Shrubland	0.600
Wetland 10	238, WT-10, UP-10	Wetland	Mountain Rush Herbaceous Vegetation	0.274
Wetland 11	WT-11, UP-11	Wetland	Mountain Rush Herbaceous Vegetation	0.112
Wetland 12	WT-12, UP-12	Wetland	Water Sedge Herbaceous Wetlands	0.415
Wetland 13	WT-13, UP-13	Wetland	Mountain Rush Herbaceous Vegetation	1.032
Wetland 14	330, 331, WT-14, WT-14(2), WT-14(3), WT-14(4), UP-14, UP-14(2)	Wetland	Mountain Rush Herbaceous Vegetation	1.316
Wetland 15	WT-15, UP-15	Wetland	Mountain Rush Herbaceous Vegetation	0.411
Wetland 16	WT-16, UP-16	Wetland	Mountain Rush Herbaceous Vegetation	0.829
Wetland 17	WT-17, UP-17	Wetland	Mountain Willow and Other Willow Shrubland	0.284
Wetland 18	163, WT-18, WT-18(2), WT-18(3), WT-18(4), WT-18(5), UP-18	Wetland	Mountain Rush Herbaceous Vegetation	1.252
Wetland 19	WT-19, UP-19	Wetland	Nebraska Sedge Herbaceous Wetlands	0.291
Wetland 20	WT-20, UP-20	Wetland	Mountain Willow and Other Willow Shrubland	0.065

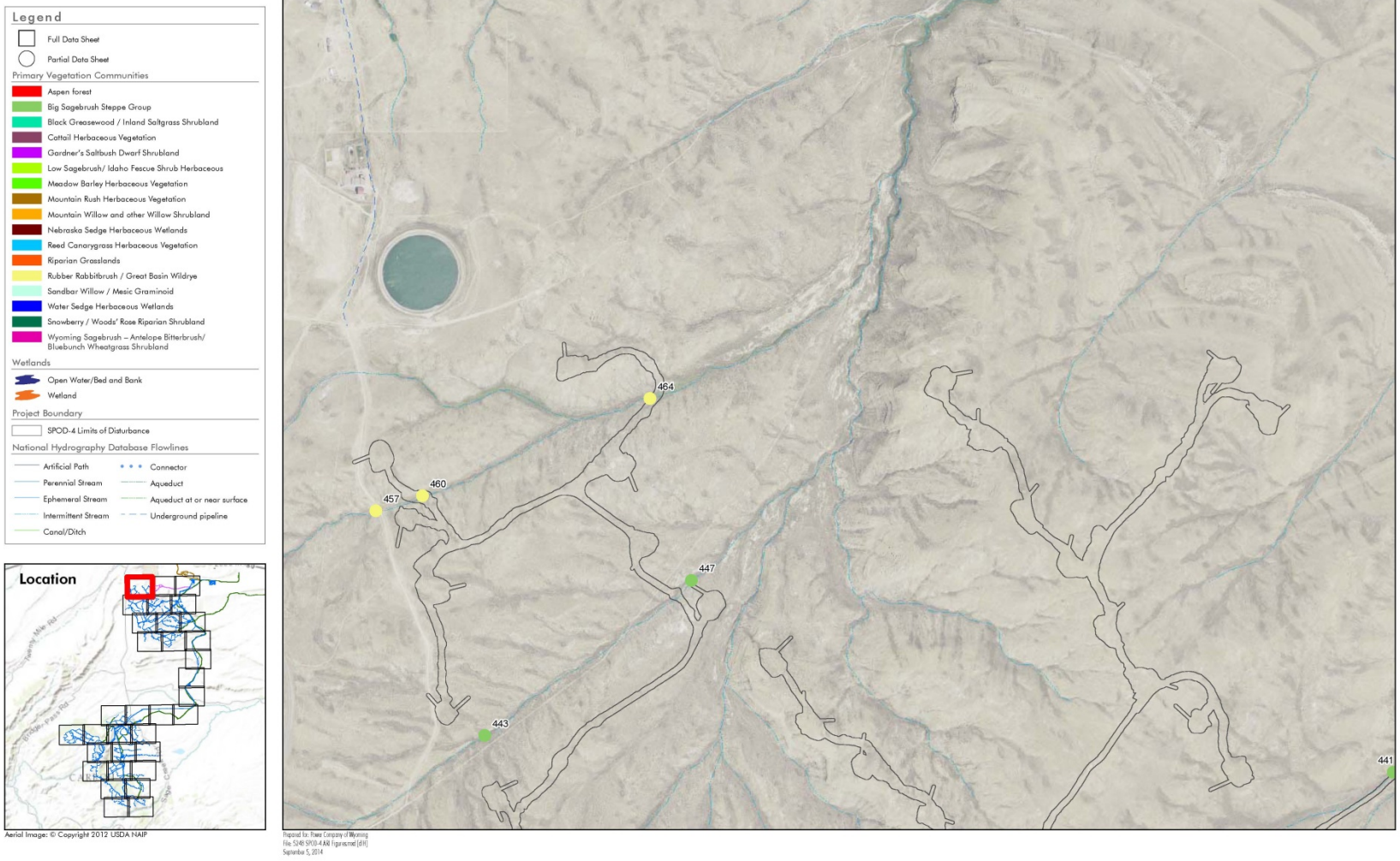
Wetland 21	WT-21, UP-21	Wetland	Sandbar Willow/ Mesic Graminoid	0.459
Wetland 22	WT-22, UP-22	Wetland	Sandbar Willow/ Mesic Graminoid	0.142
Wetland 23	42, WT-23, UP-23	Wetland	Mountain Rush Herbaceous Vegetation	0.103
Wetland 24	WT-24, UP-24	Wetland	Mountain Willow and Other Willow Shrubland	0.095
Wetland 25	WT-25, UP-25	Wetland	Mountain Rush Herbaceous Vegetation	0.109
Wetland 26	183, WT-26, UP-26	Wetland	Water Sedge Herbaceous Wetlands	0.020
Wetland 27	191, WT-27, UP-27	Wetland	Mountain Rush Herbaceous Vegetation	0.064
Wetland 28	WT-28, UP-28	Wetland	Nebraska Sedge Herbaceous Wetlands	0.132
Wetland 29	191, WT-27, UP-27	Wetland	Mountain Rush Herbaceous Vegetation	0.552
Wetland 30	WT-30, UP-30	Wetland	Sandbar Willow/ Mesic Graminoid	0.068
Wetland 31	WT-31, UP-31	Wetland	Mountain Rush Herbaceous Vegetation	0.123
Wetland 32	WT-32, UP-32	Wetland	Mountain Rush Herbaceous Vegetation	0.460
Wetland 33	172, WT-33, UP-33	Wetland	Nebraska Sedge Herbaceous Wetlands	0.351
Wetlands 34 and 35	WT-34, WT-35, UP-35	Wetland	Sandbar Willow/ Mesic Graminoid	2.185
Wetland 36	WT-36, UP-36	Wetland	Aspen Forest	0.615
Wetland 37	21, WT-37, UP-37	Wetland	Reed Canarygrass Herbaceous Vegetation	3.281
Wetland 38	WT-38, UP-38	Wetland	Mountain Rush Herbaceous Vegetation	1.434
Wetland 39	WT-39, UP-39	Wetland	Mountain Rush Herbaceous Vegetation	2.262
Wetland 40	WT-40, UP-40	Wetland	Mountain Willow and Other Willow Shrubland	2.816
Wetland 40	505	Wetland	Mountain Rush Herbaceous Vegetation	2.726
Wetland 41	WT041, UP-41	Wetland	Cattail Herbaceous Vegetation	2.379
Wetland 42	13, WT-42, UP-42	Wetland	Mountain Rush Herbaceous Vegetation	2.737
Wetland 43	112, WT-43, UP-43	Wetland	Mountain Rush Herbaceous Vegetation	0.031
Wetland 44	114, WT-44, UP-44	Wetland	Mountain Rush Herbaceous Vegetation	1.240
Wetlands 45 and 46	143, WT-45, WT-46, UP-46	Wetland	Mountain Willow and Other Willow Shrubland	0.693
Wetland 47	WT-47, UP-47	Wetland	Mountain Rush Herbaceous Vegetation	0.507
Wetland 50	WT-50, UP-50	Wetland	Mountain Willow and Other Willow Shrubland	0.089
Wetland 51	345, WT-51, UP-51	Wetland	Mountain Rush Herbaceous Vegetation	0.312
Wetland 52	48	Wetland	Mountain Rush Herbaceous Vegetation	0.336

Wetland 53	515	Wetland	Mountain Rush Herbaceous Vegetation	0.049
Wetland 54	17	Wetland	Mountain Rush Herbaceous Vegetation	0.279
Wetland 55	WT-55, 53	Wetland	Mountain Rush Herbaceous Vegetation	0.178
Wetland 56	WT-56, UP-56	Wetland	Mountain Willow and Other Willow Shrubland	0.016
Wetland 57	WT-57, UP-57	Wetland	Mountain Rush Herbaceous Vegetation	0.046
Wetland 58	522	Wetland	Mountain Rush Herbaceous Vegetation	0.146
Wetland 59	125, WT-59, UP-59	Wetland	Mountain Willow and Other Willow Shrubland	0.195
Wetland 60	WT-60, UP-60	Wetland	Mountain Willow and Other Willow Shrubland	0.126
Wetland 61	WT-61, UP-61	Wetland	Cattail Herbaceous Vegetation	1.550
Wetland 62	WT-62, UP-62	Wetland	Mountain Willow and Other Willow Shrubland	0.447
Wetland 63	230, WT-63, UP-63	Wetland	Mountain Rush Herbaceous Vegetation	0.791
Total Wetlands Delineated				**41.99**
N/A	127	Open Water/Bed and Bank	Mountain Willow and Other Willow Shrubland	0.043
N/A	147	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.043
N/A	159	Open Water/Bed and Bank	Riparian Grasslands	0.027
N/A	173	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.007
N/A	178	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.007
N/A	201	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.014
N/A	211	Open Water/Bed and Bank	Riparian Grasslands	0.005
N/A	217	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.024
N/A	218, 219, WT-09, UP-09	Open Water/Bed and Bank	Mountain Willow and Other Willow Shrubland	0.262
N/A	230	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.008
N/A	261, WT-34, WT-35, UP-35	Open Water/Bed and Bank	Mountain Rush Herbaceous Vegetation	0.148
N/A	268	Open Water/Bed and Bank	Black Greasewood/ Inland Saltgrass Shrubland	0.118
N/A	271	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.061
N/A	272	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.022
N/A	274	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.028
N/A	278	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.562
N/A	286	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.101

N/A	288	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.033
N/A	289	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.060
N/A	290	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.127
N/A	405	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.016
N/A	423	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.022
N/A	46	Open Water/Bed and Bank	Mountain Willow and Other Willow Shrubland	0.001
N/A	48	Open Water/Bed and Bank	Mountain Rush Herbaceous Vegetation	0.018
N/A	489	Open Water/Bed and Bank	Rubber Rabbitbrush/ Great Basin Wildrye	0.030
N/A	59	Open Water/Bed and Bank	Mountain Willow and Other Willow Shrubland	0.012
N/A	519	Open Water/Bed and Bank	Low Sagebrush / Idaho Fescue Shrub Herbaceous	0.005
N/A	505	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.020
N/A	173	Open Water/Bed and Bank	Big Sagebrush Steppe Group	0.179
N/A	WT-03(2), UP-03(2)	Open Water/Bed and Bank	Mountain Rush Herbaceous Vegetation	0.062
N/A	WT-50, UP-50	Open Water/Bed and Bank	Mountain Willow and Other Willow Shrubland	0.007
Total Open Water/Bed and Bank Delineated				**2.07**
Grand Total				**44.06**

Figures 2-1 through 2-33. Wetlands and Other Waters of the U.S.

Figure 2–1
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–2
Potential Waters of the U.S. Including Wetlands

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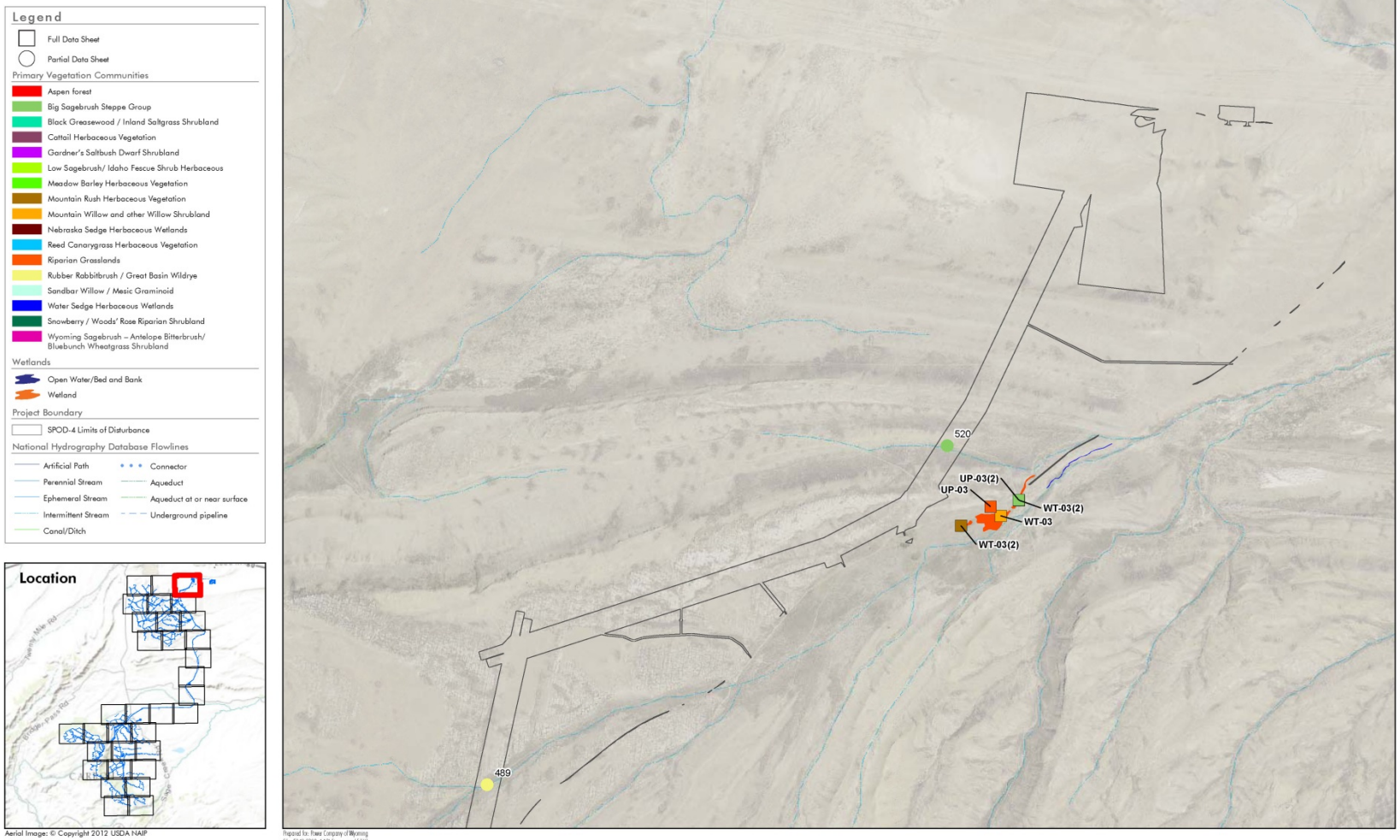
September 5, 2014

Figure 2–3
Potential Waters of the U.S. Including Wetlands



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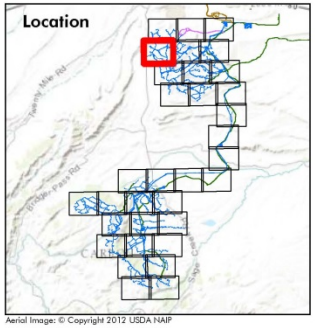
July 2, 2014

Figure 2–4
Potential Waters of the U.S. Including Wetlands



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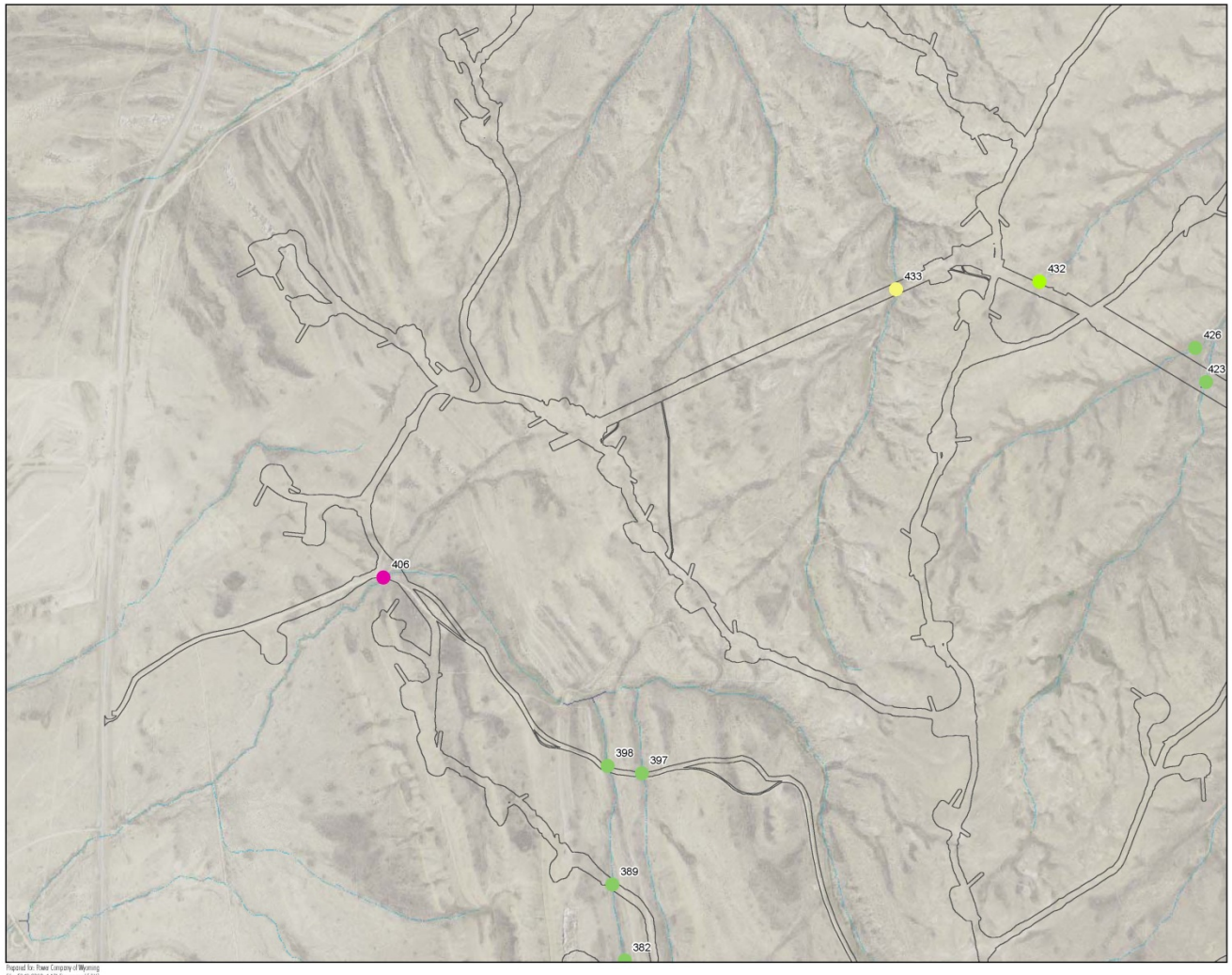

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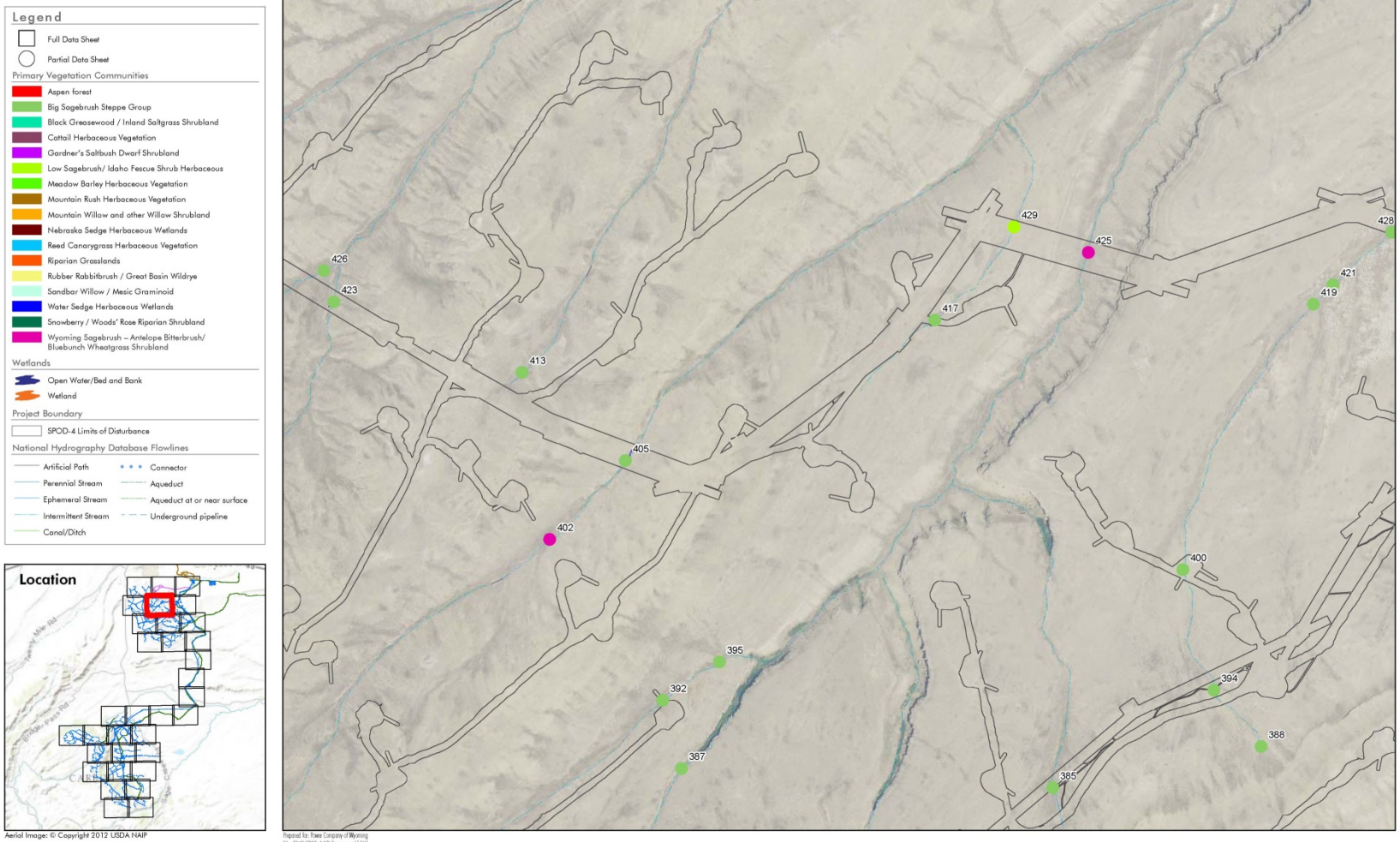
File: 5240-SPOD-4-AAI Figures.mxd (dlh)
September 5, 2014

Figure 2–5
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–6
Potential Waters of the U.S. Including Wetlands

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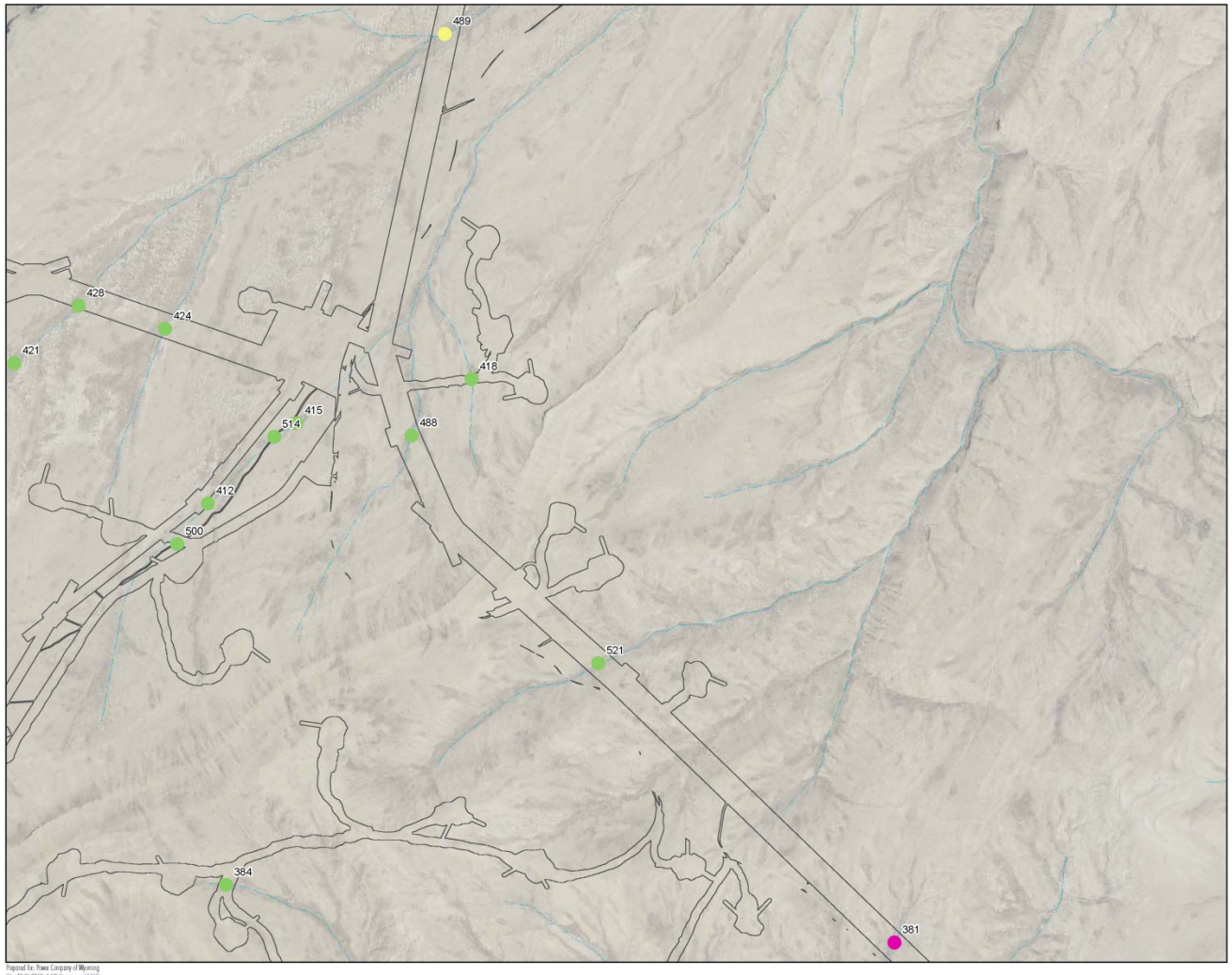

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File: 5248-SPOD-4-AAR Figures.mxd (dH)
September 5, 2014

Figure 2–7
Potential Waters of the U.S. Including Wetlands

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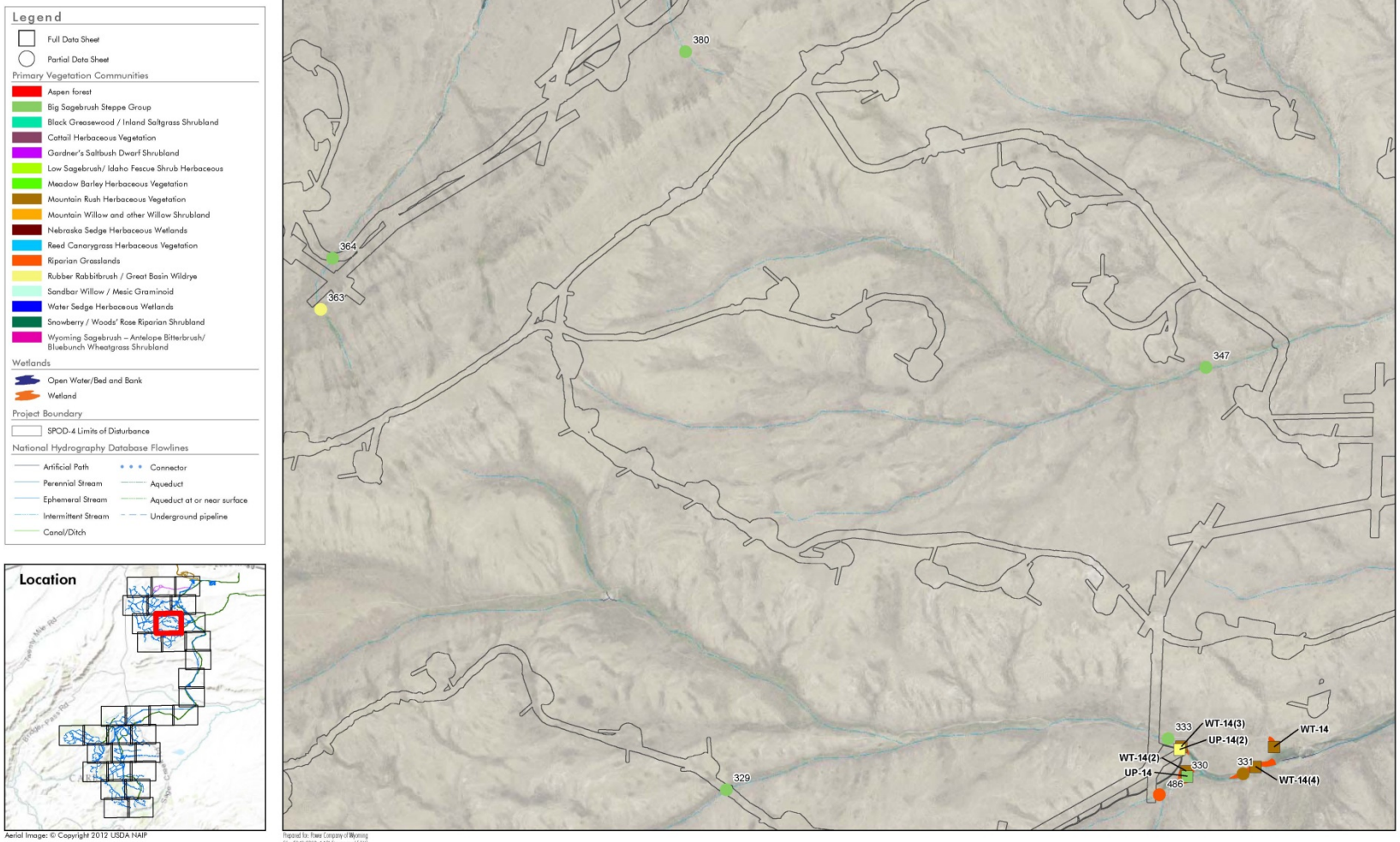
September 5, 2014

Figure 2–8
Potential Waters of the U.S. Including Wetlands



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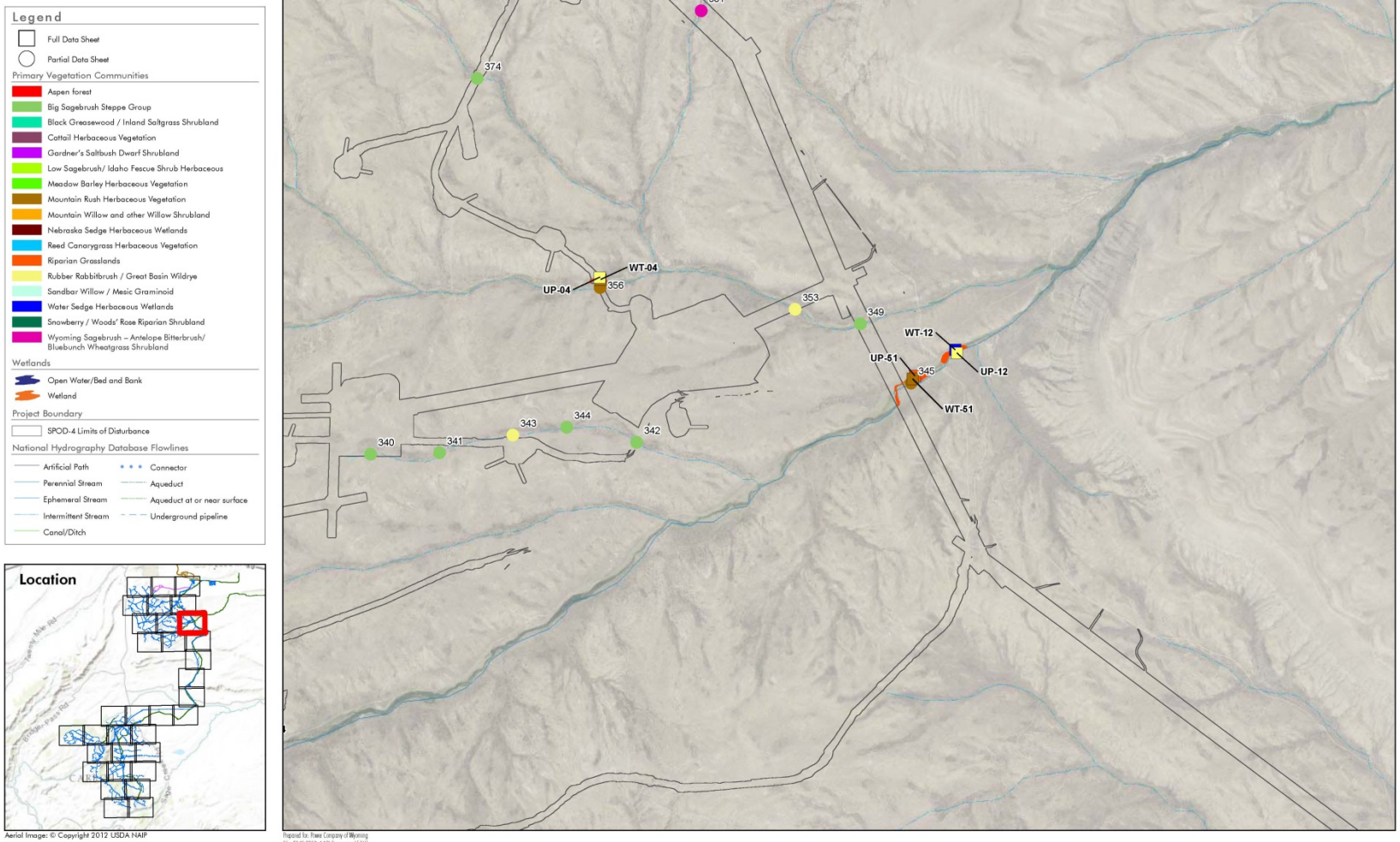
File: 5248 SPOD-4 AAR Figures.mxd (dH)
September 5, 2014

Figure 2–9
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–10
Potential Waters of the U.S. Including Wetlands

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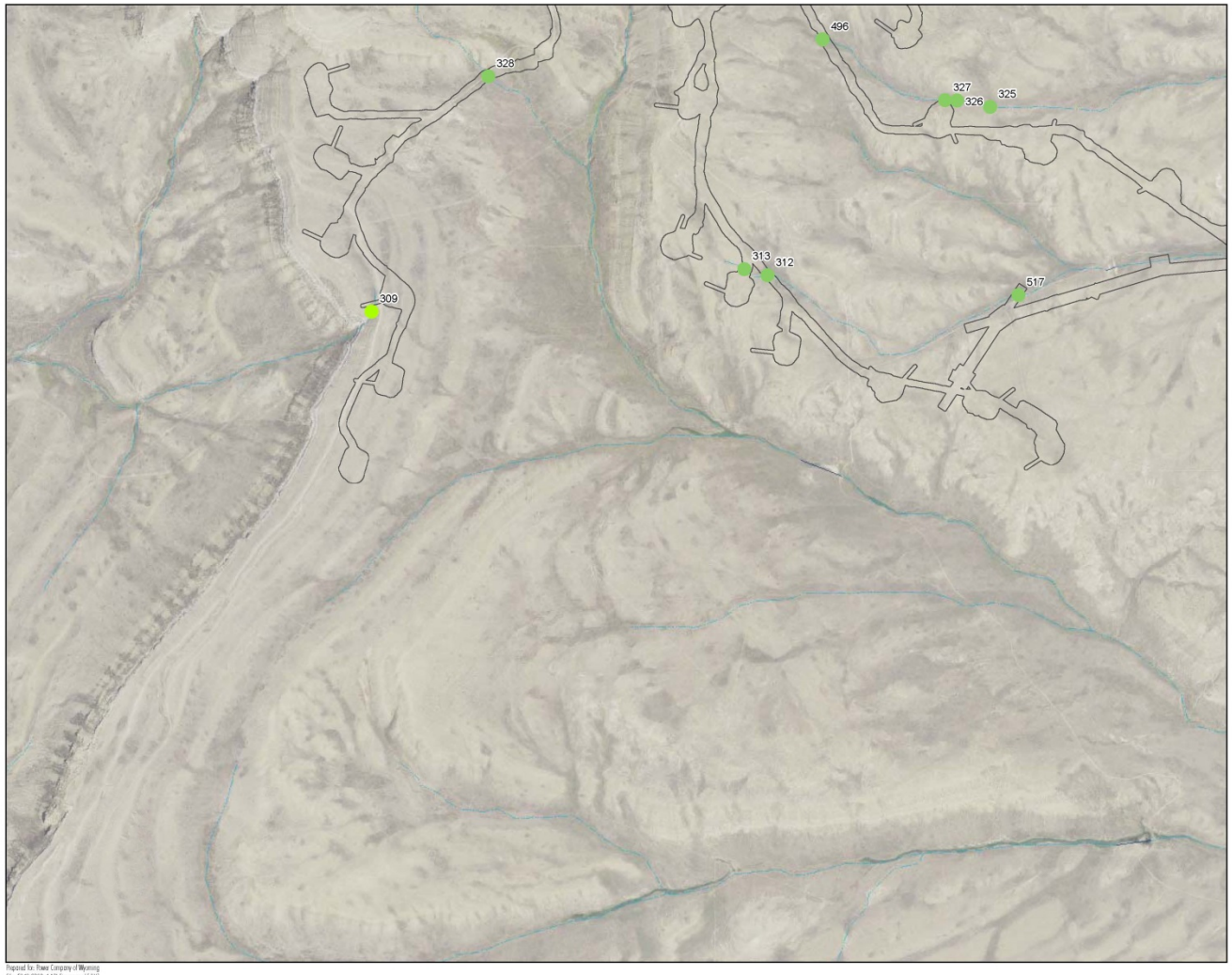
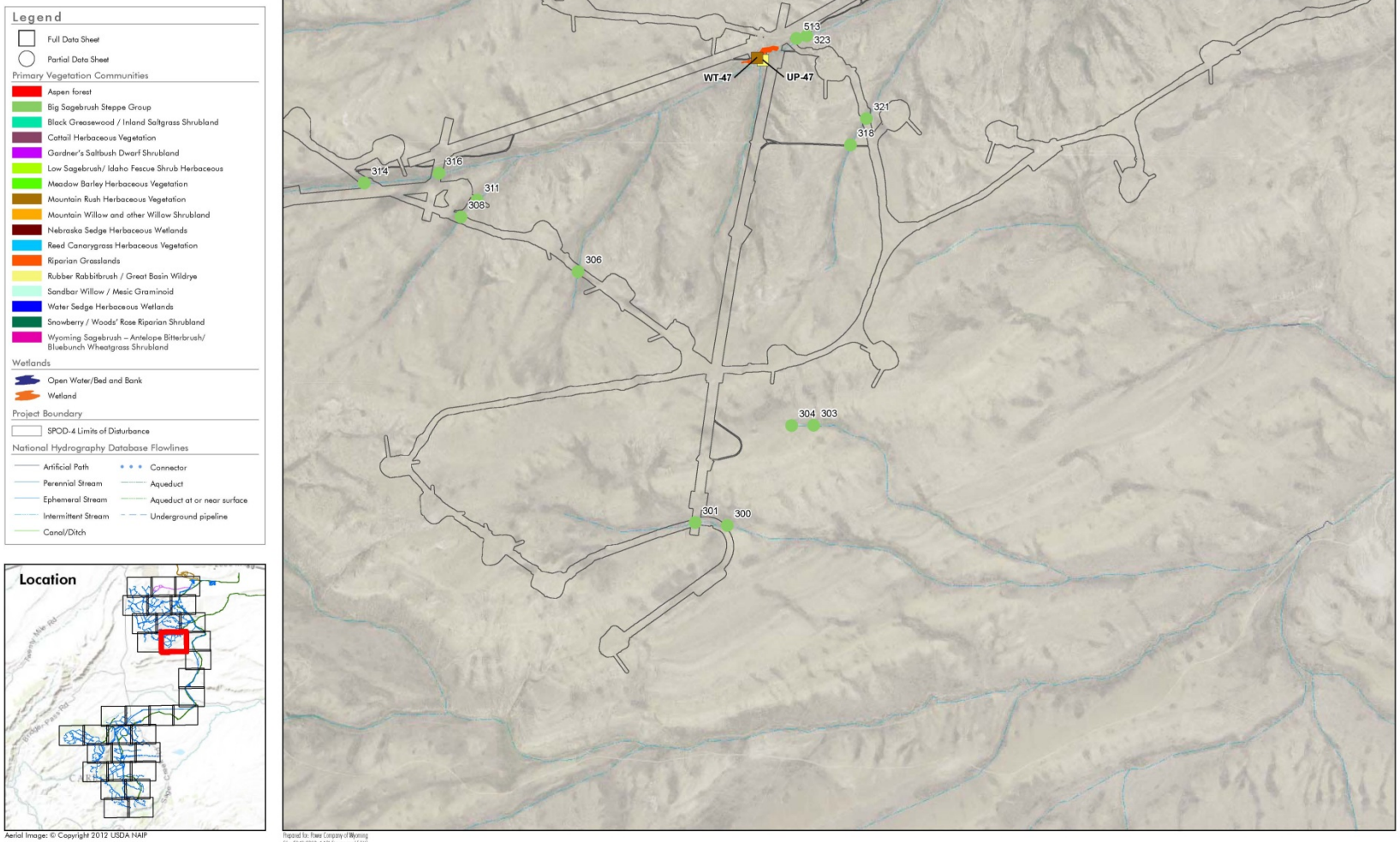


Prepared for: Power Company of Wyoming
File: 5248-SPOD-4.AAI Figures.mxd (dH)
September 5, 2014

Figure 2–11
Potential Waters of the U.S. Including Wetlands



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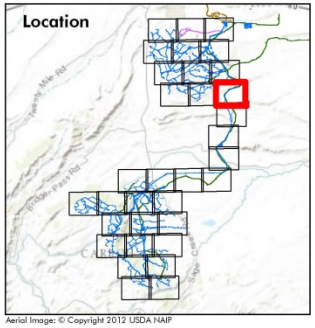
September 5, 2014

Figure 2–12
Potential Waters of the U.S. Including Wetlands



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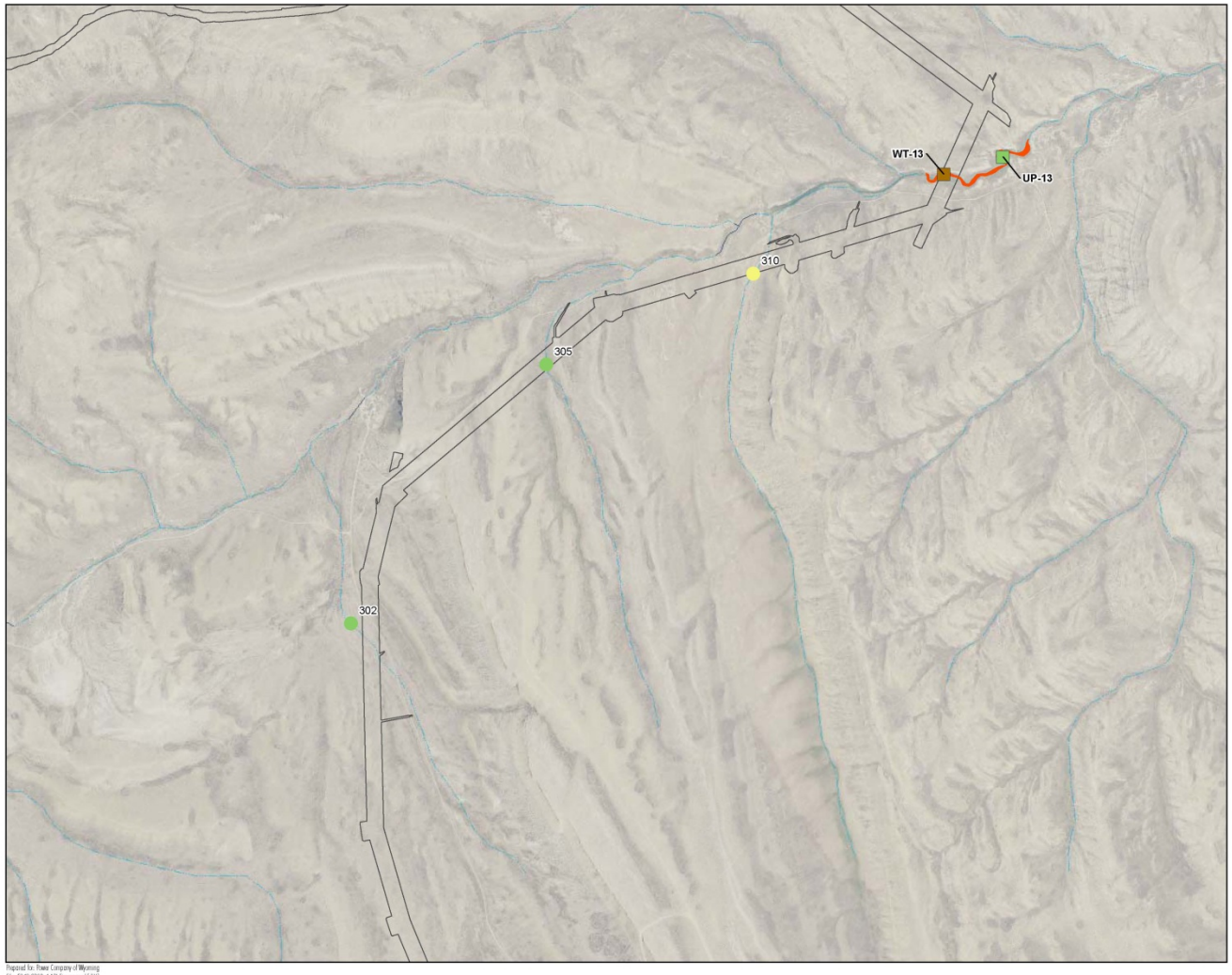

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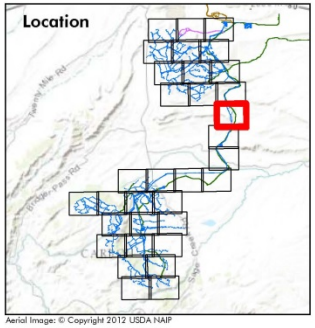
File: 5248-SPOD-4.AAI Figures.mxd (dlh)
September 5, 2014

Figure 2–13
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–14
Potential Waters of the U.S. Including Wetlands

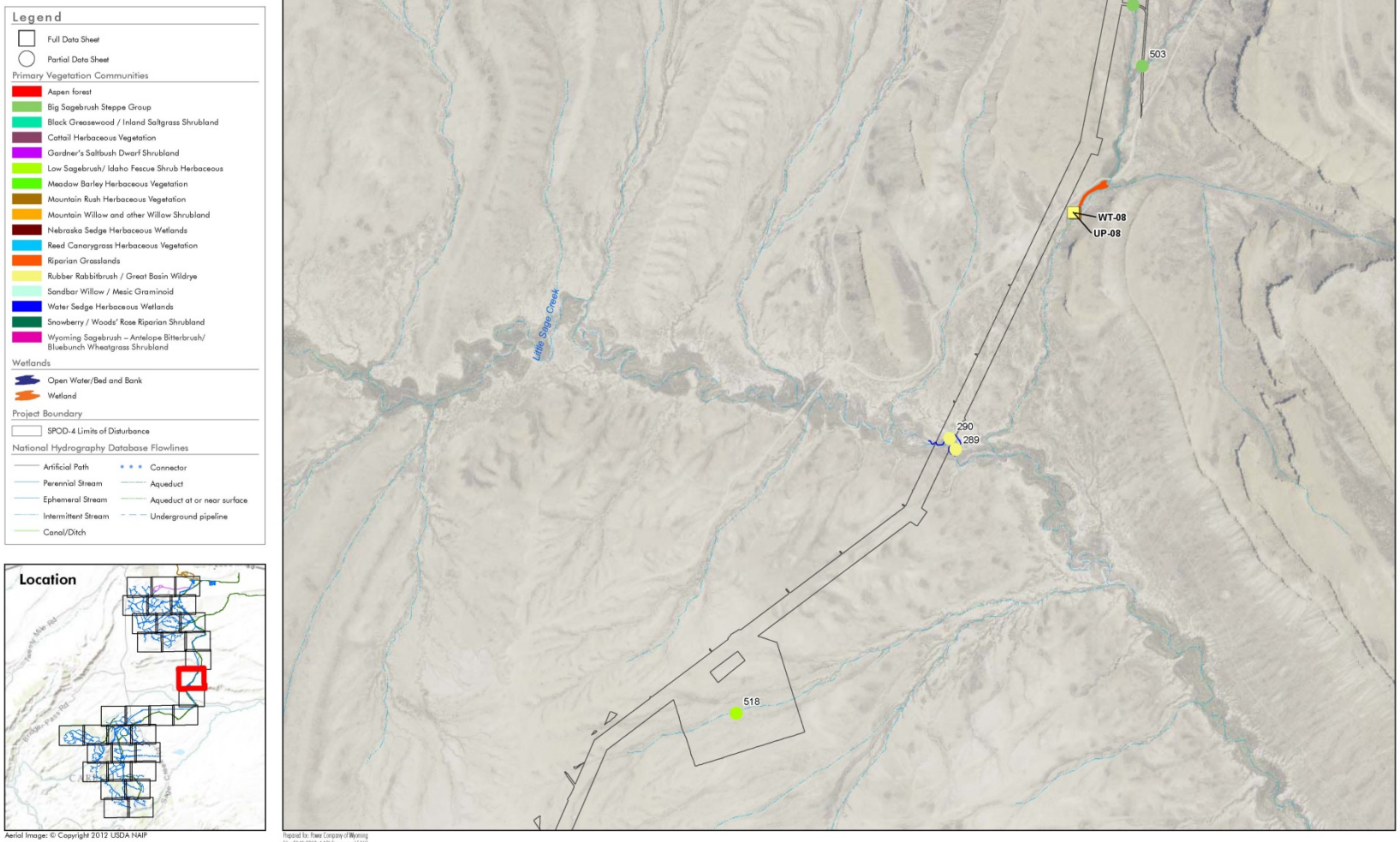
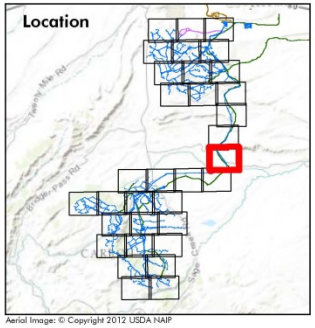


Figure 2–15
Potential Waters of the U.S. Including Wetlands



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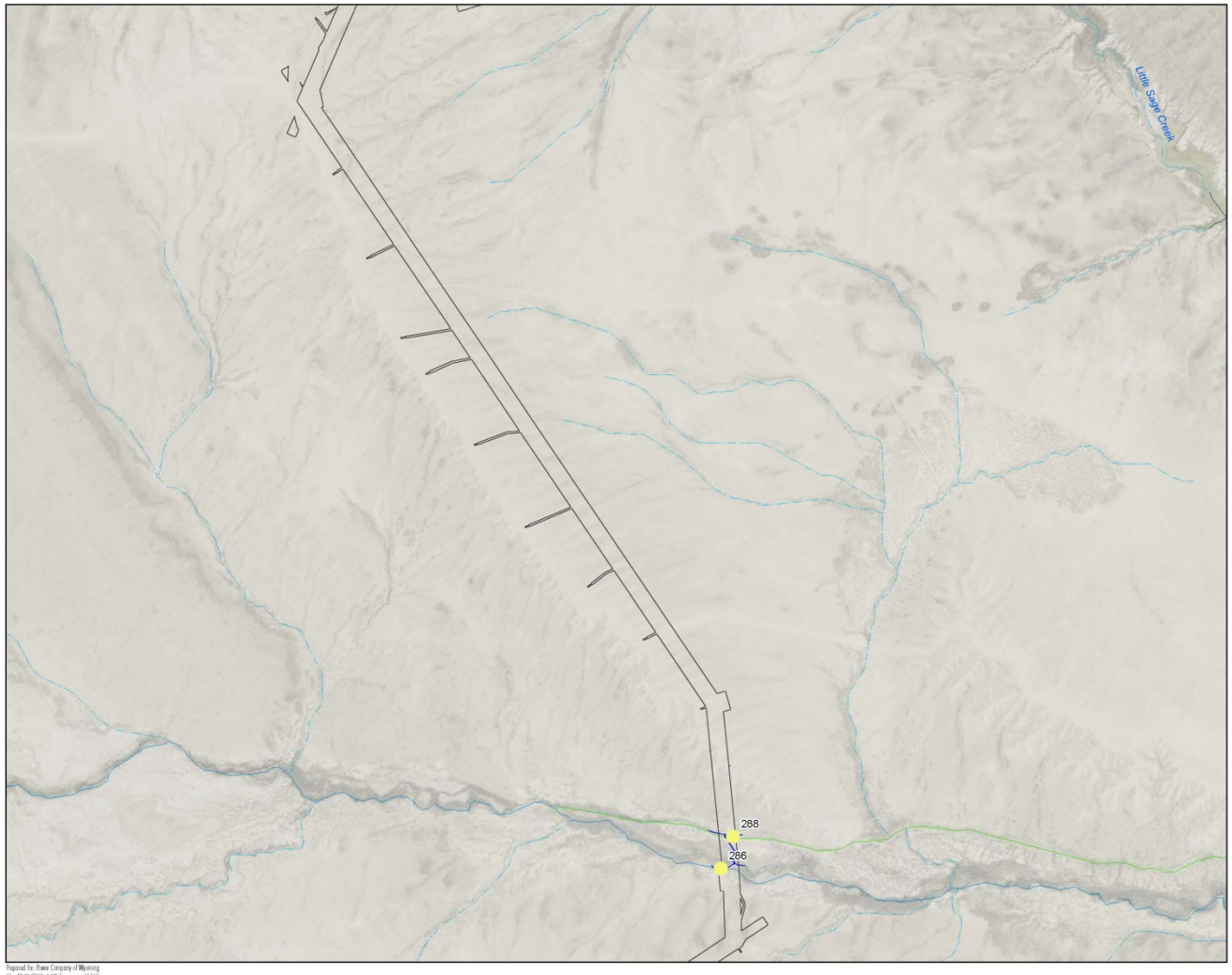

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September 5, 2014

Figure 2–16
Potential Waters of the U.S. Including Wetlands

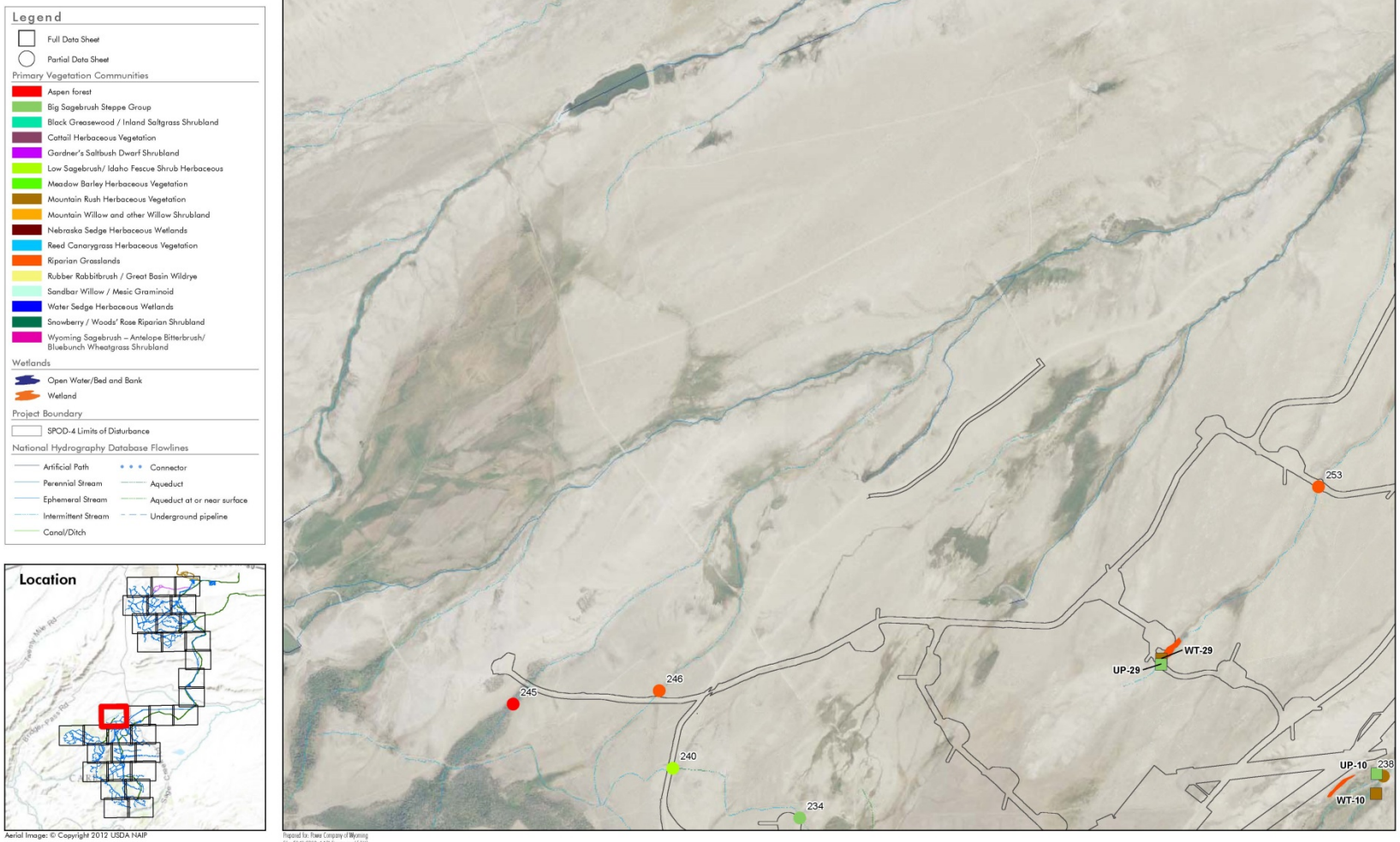

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Figure 2–17
Potential Waters of the U.S. Including Wetlands

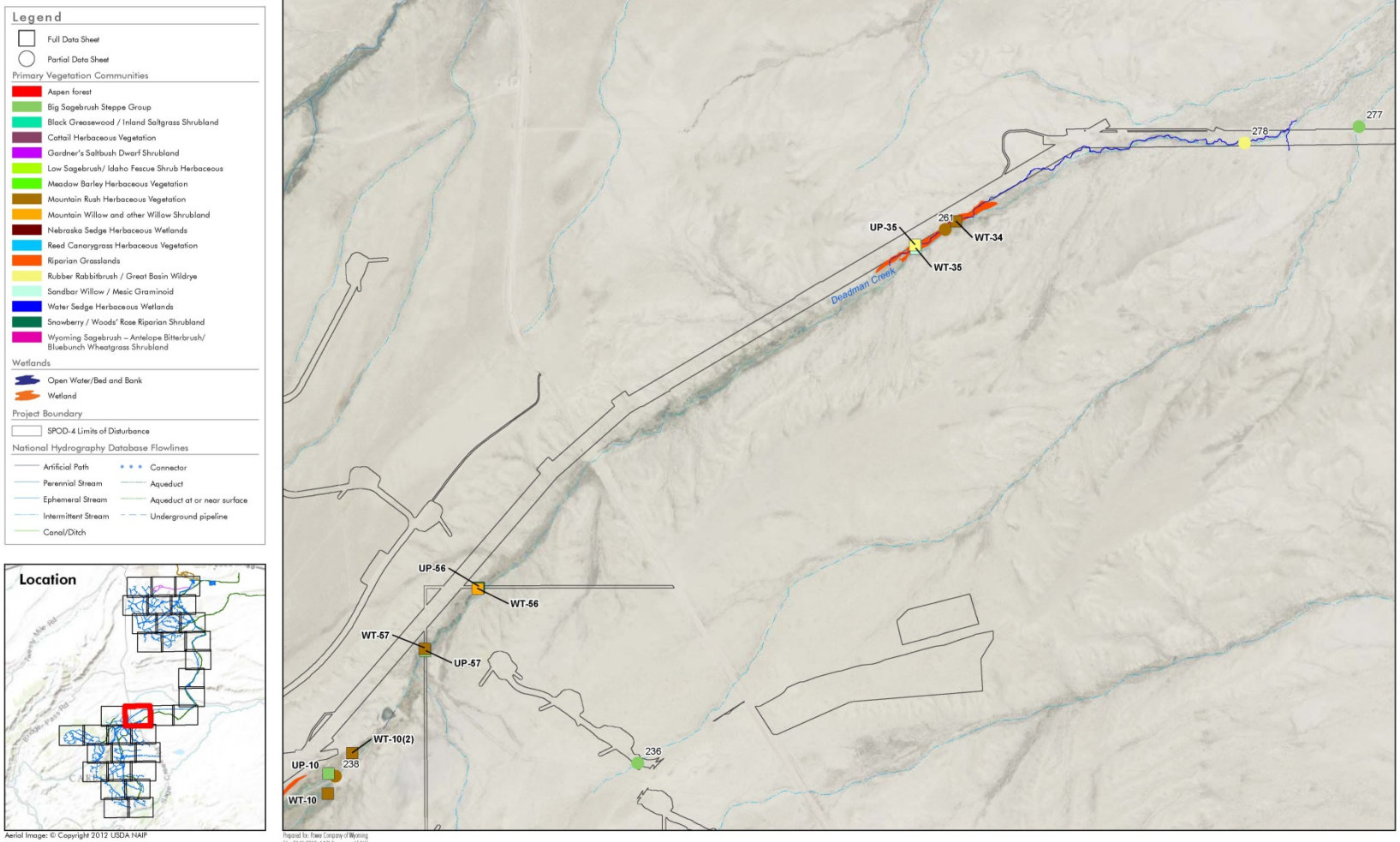
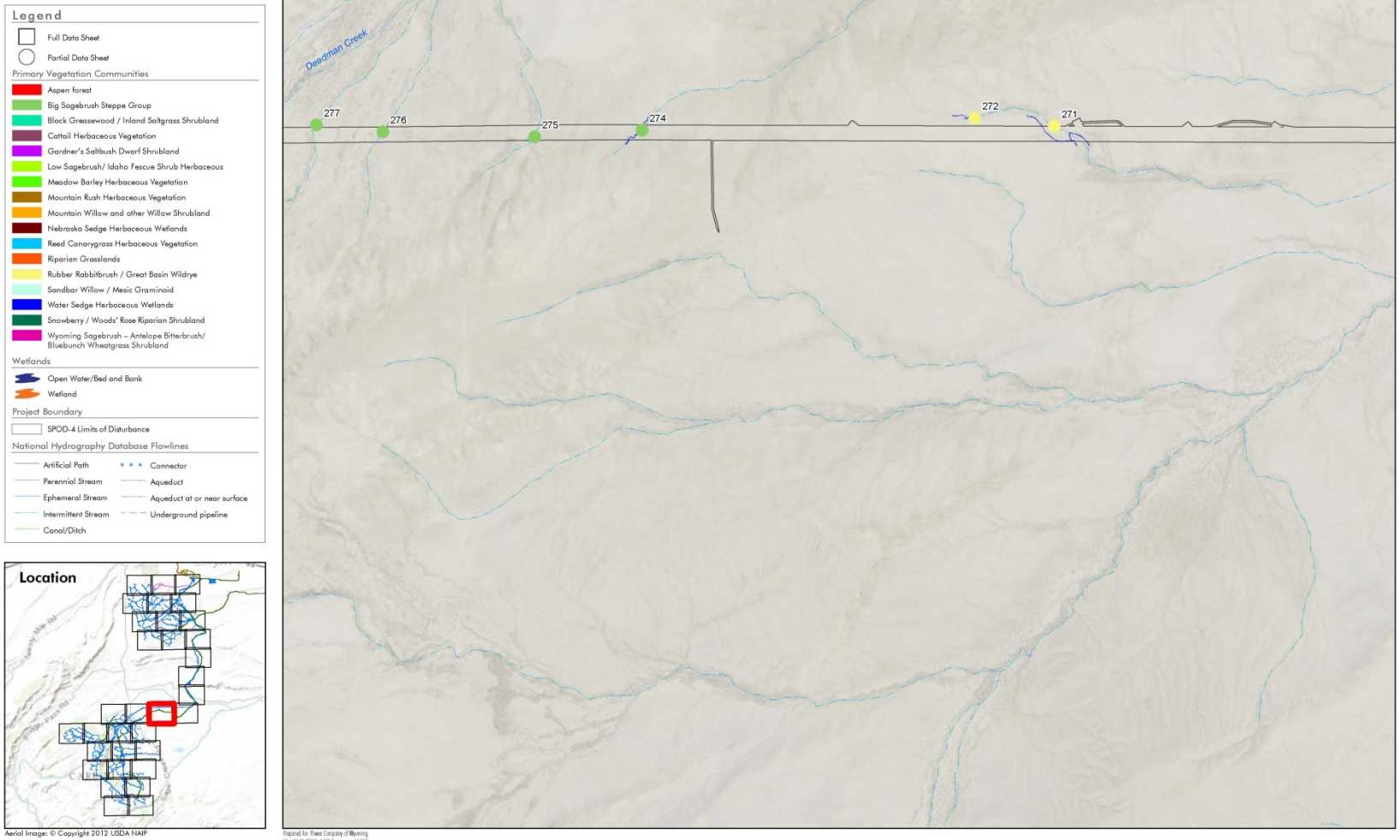


Figure 2–18
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–19
Potential Waters of the U.S. Including Wetlands

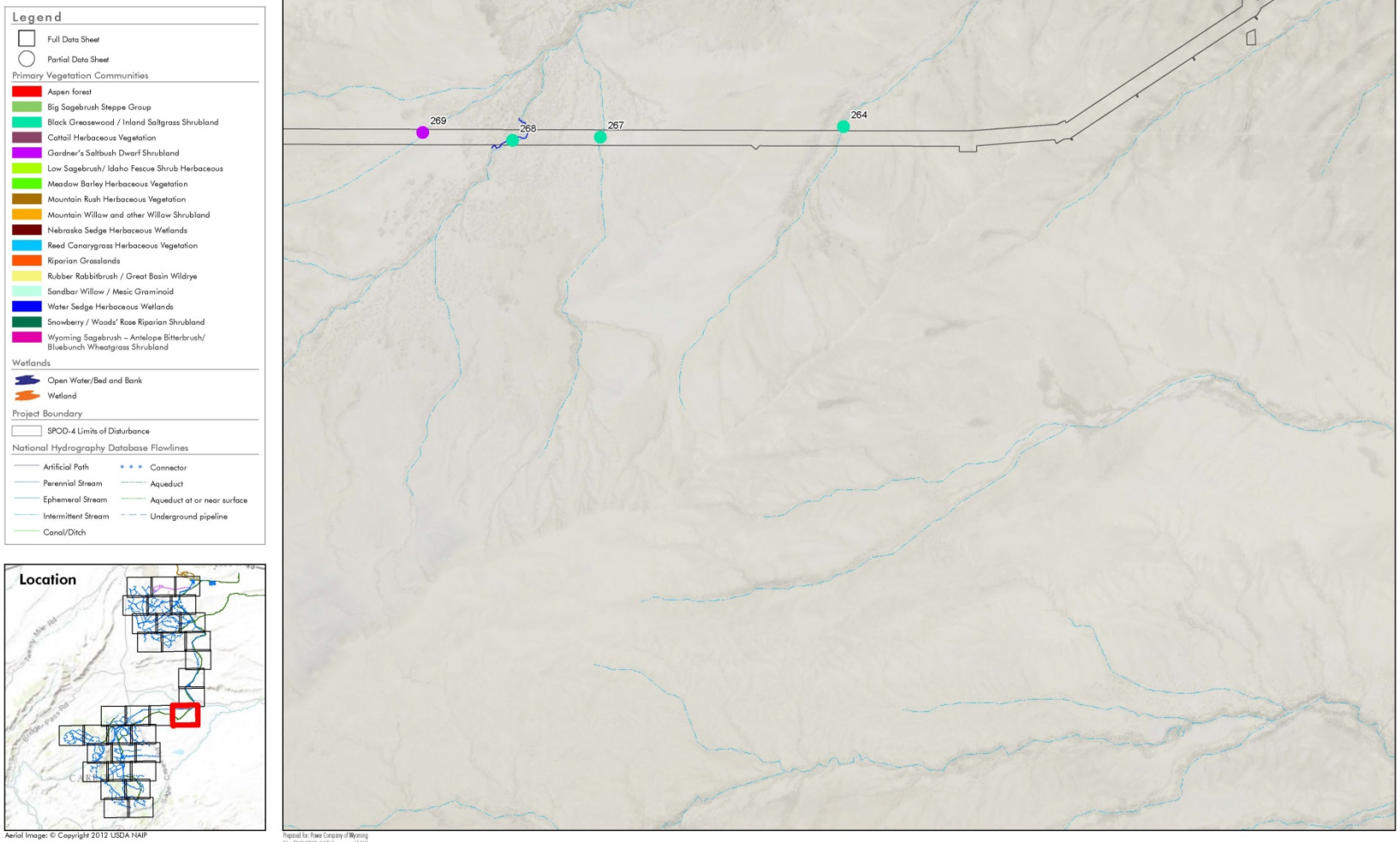

Figure 2–20
Potential Waters of the U.S. Including Wetlands

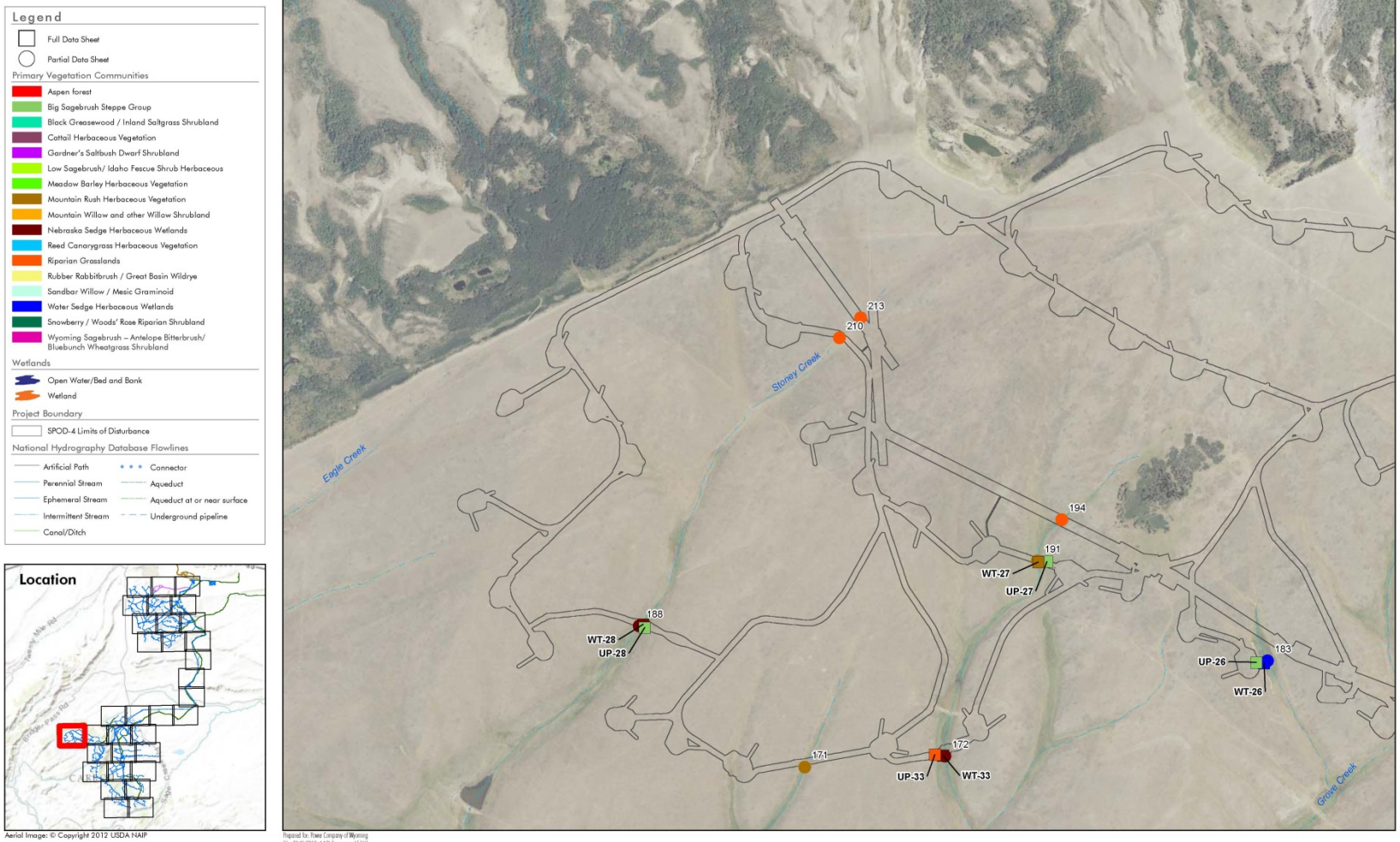

Figure 2–21
Potential Waters of the U.S. Including Wetlands

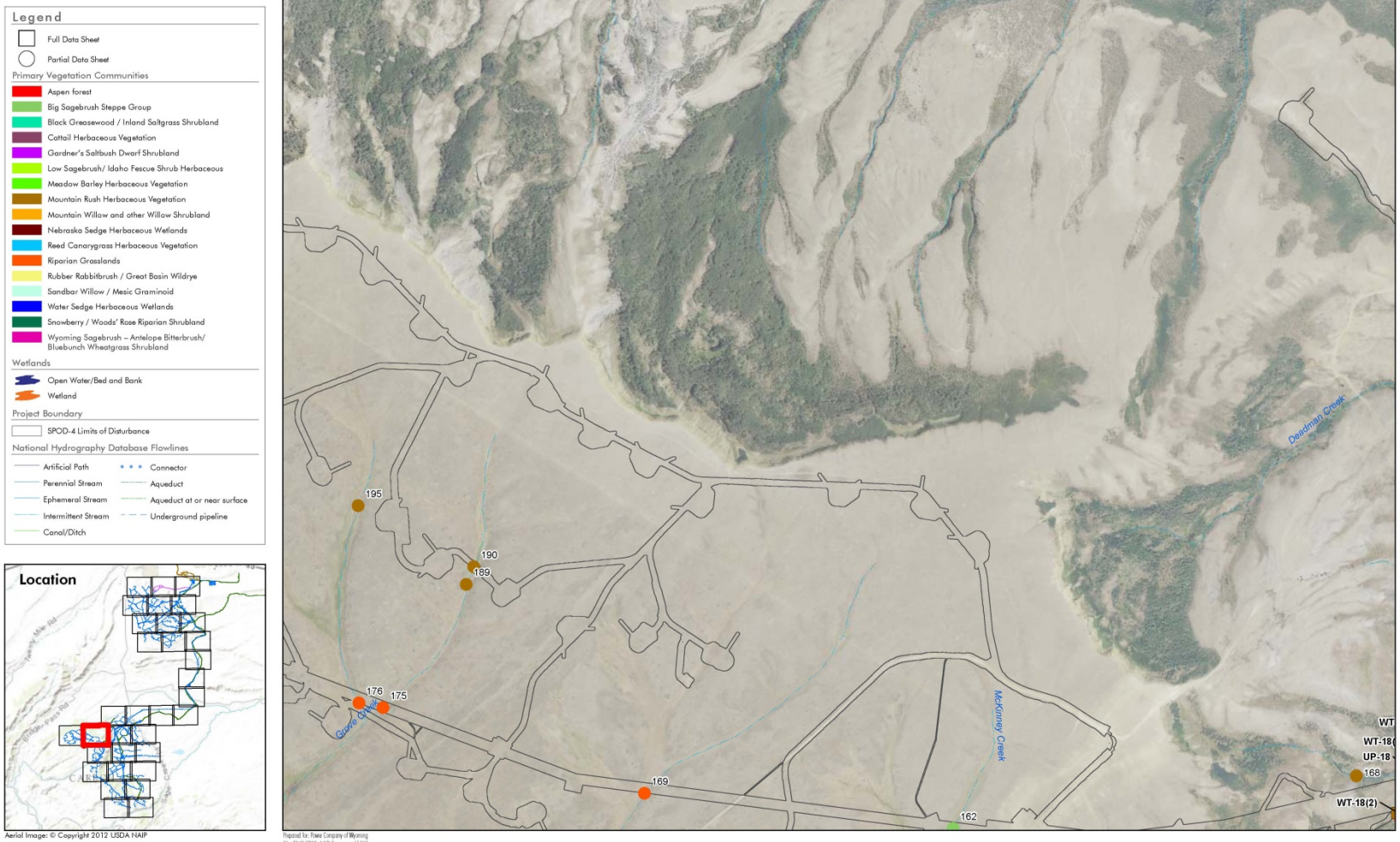

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Figure 2–22
Potential Waters of the U.S. Including Wetlands

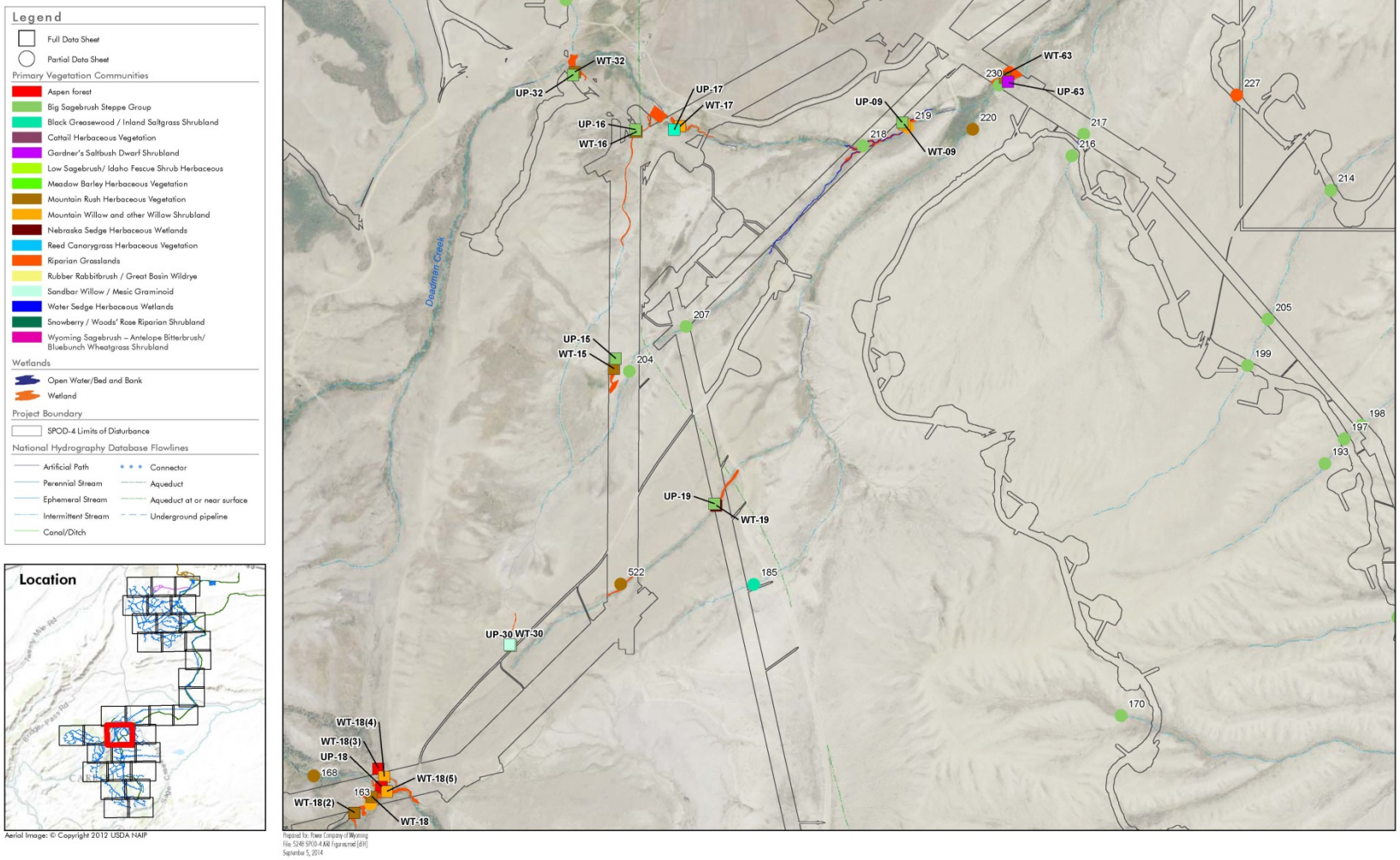
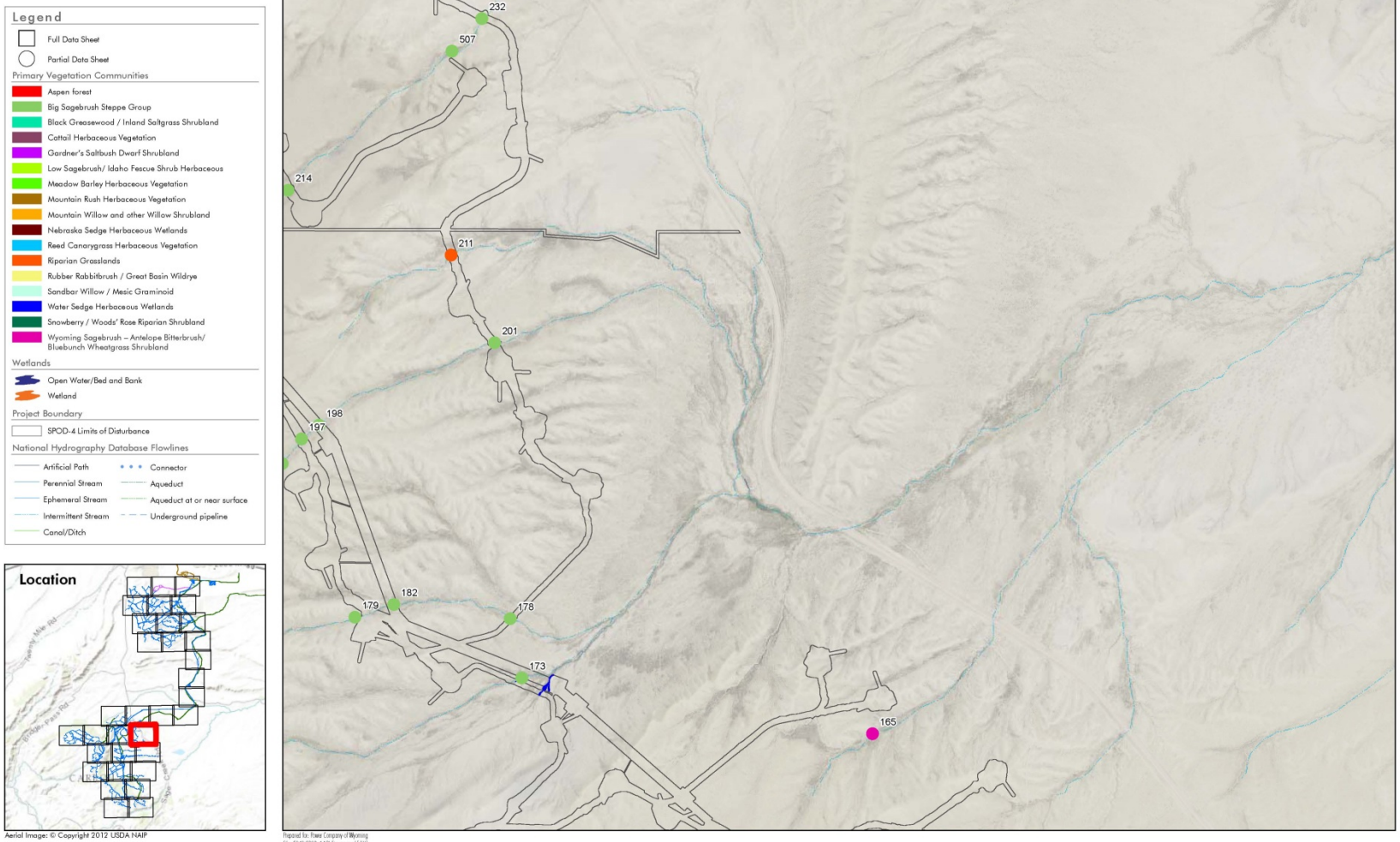


Figure 2–23
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–24
Potential Waters of the U.S. Including Wetlands

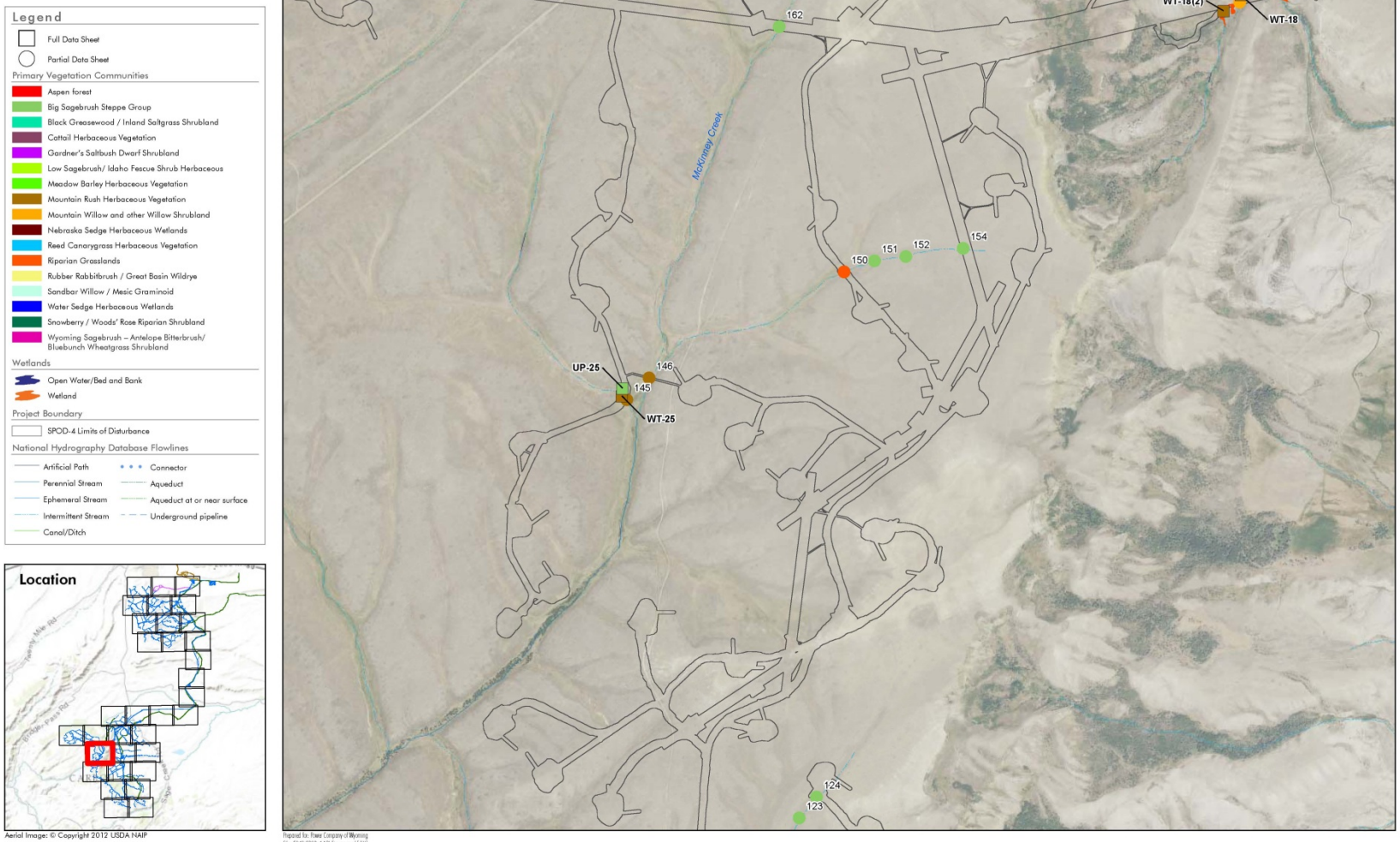
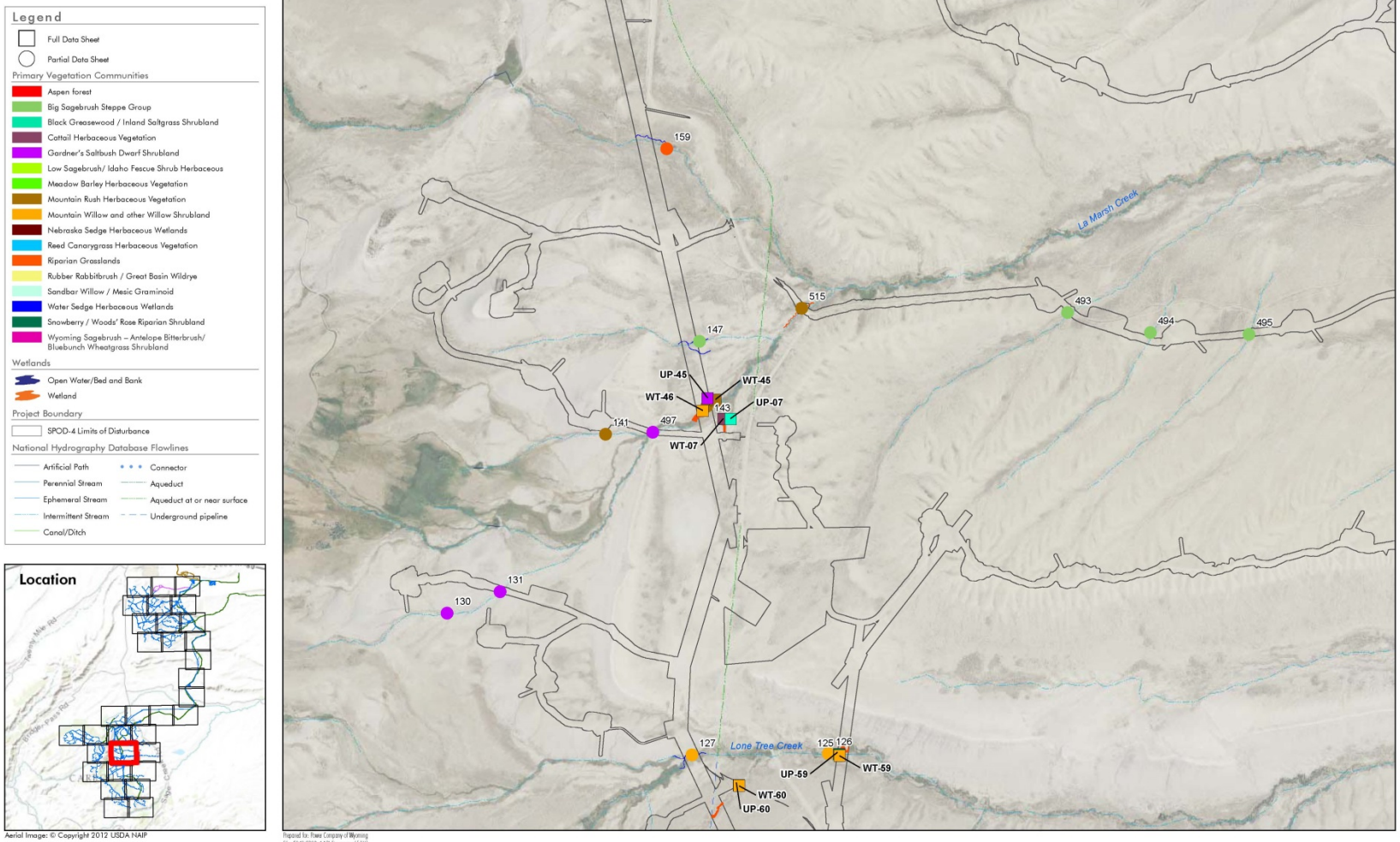


Figure 2–25
Potential Waters of the U.S. Including Wetlands



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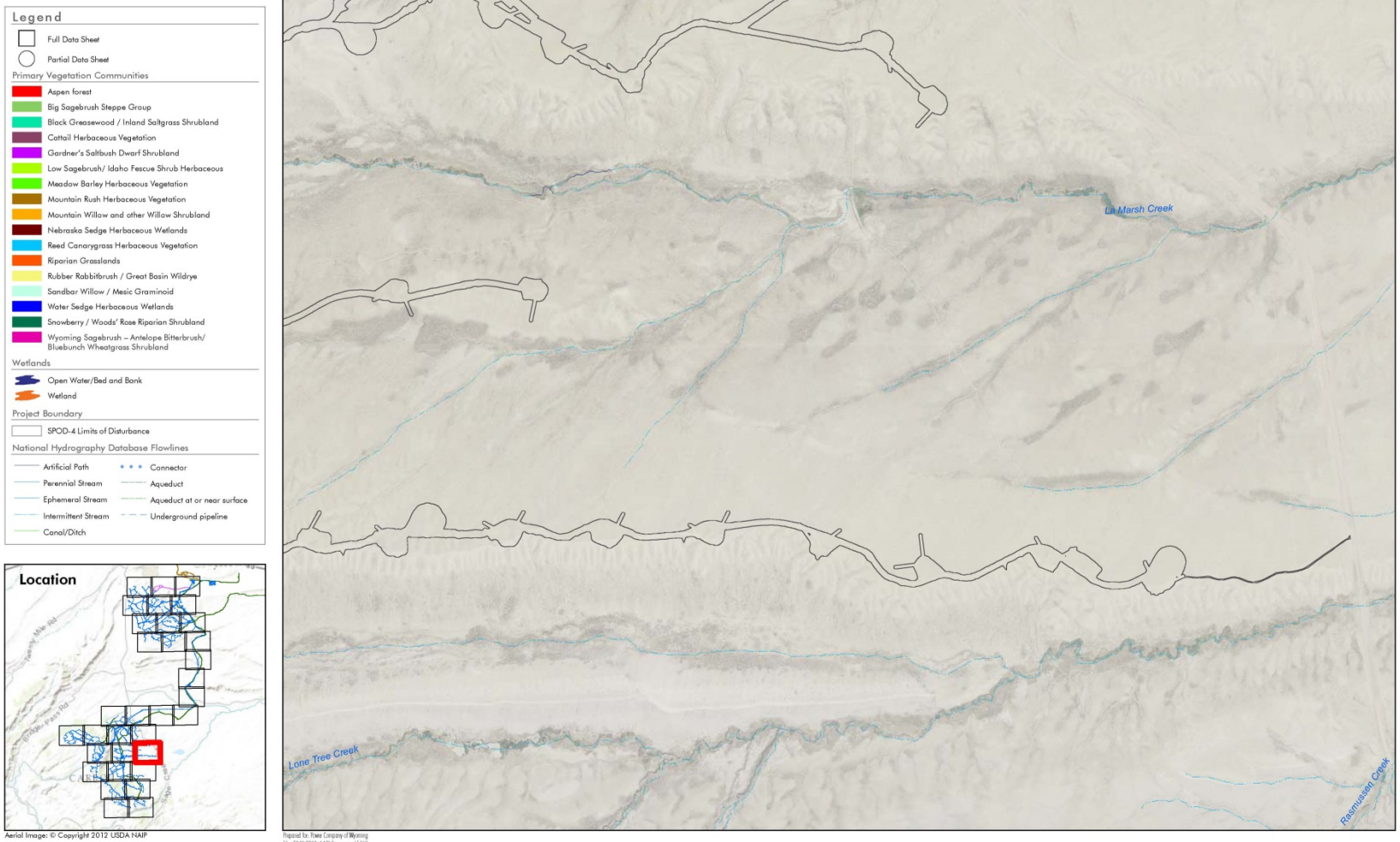
September 5, 2014

Figure 2–26
Potential Waters of the U.S. Including Wetlands



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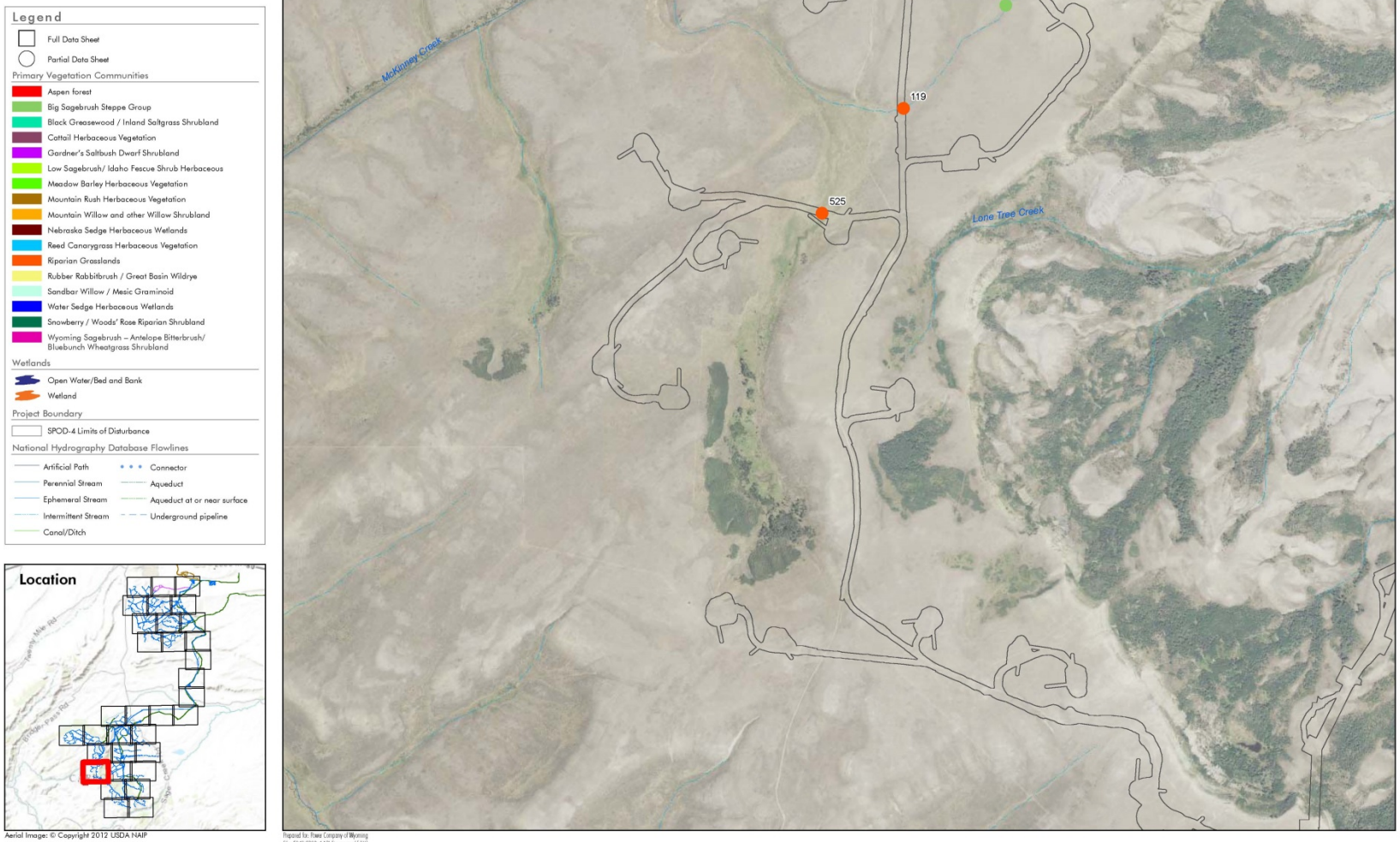
File: 5248-SPOD-4-AAR Figures.mxd (dlh)
September 5, 2014

Figure 2–27
Potential Waters of the U.S. Including Wetlands



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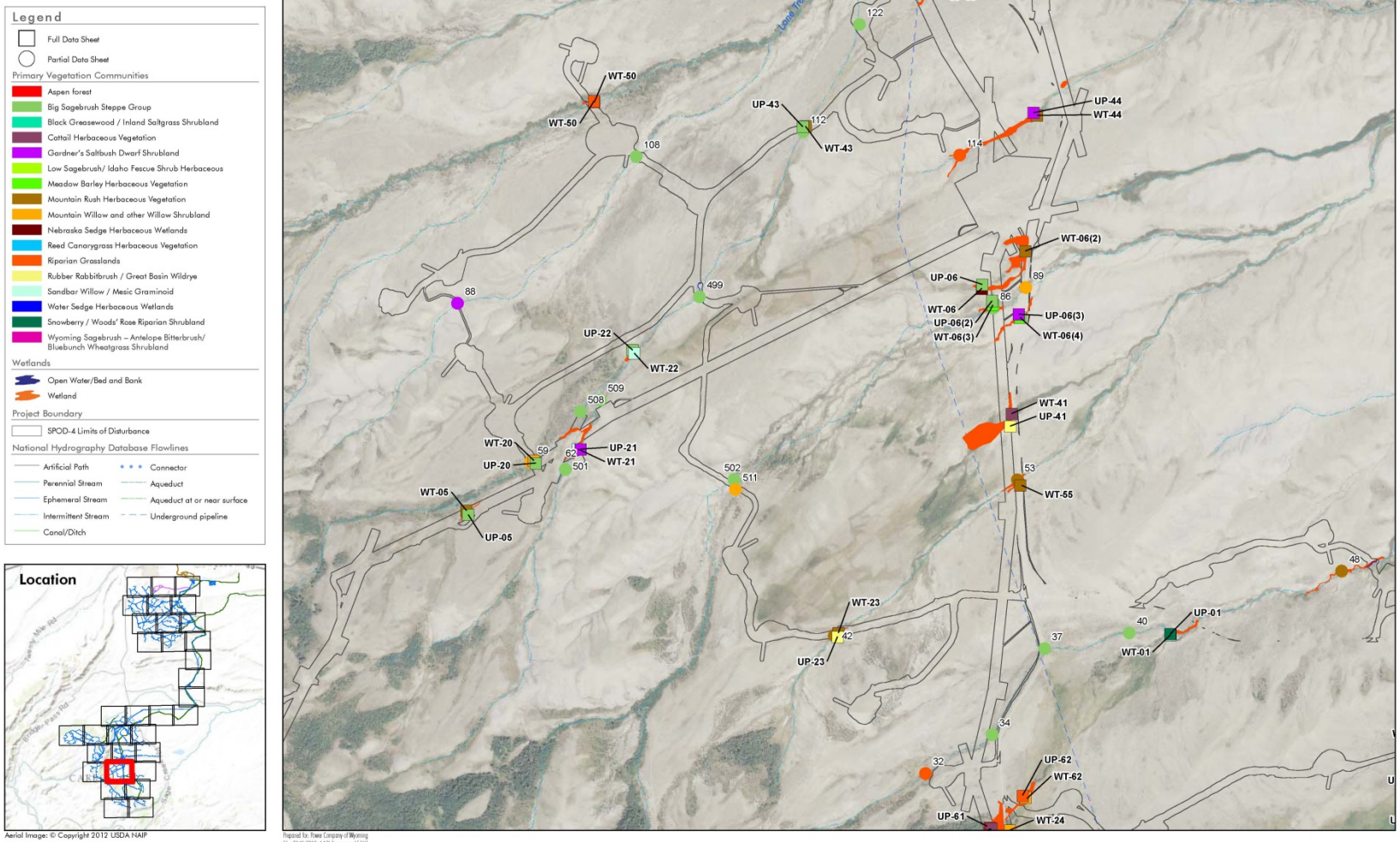
File: 5248-SPOD-4.AAI Figures.mxd (dH)
September 5, 2014

Figure 2–28
Potential Waters of the U.S. Including Wetlands



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September 5, 2014

Figure 2–29
Potential Waters of the U.S. Including Wetlands

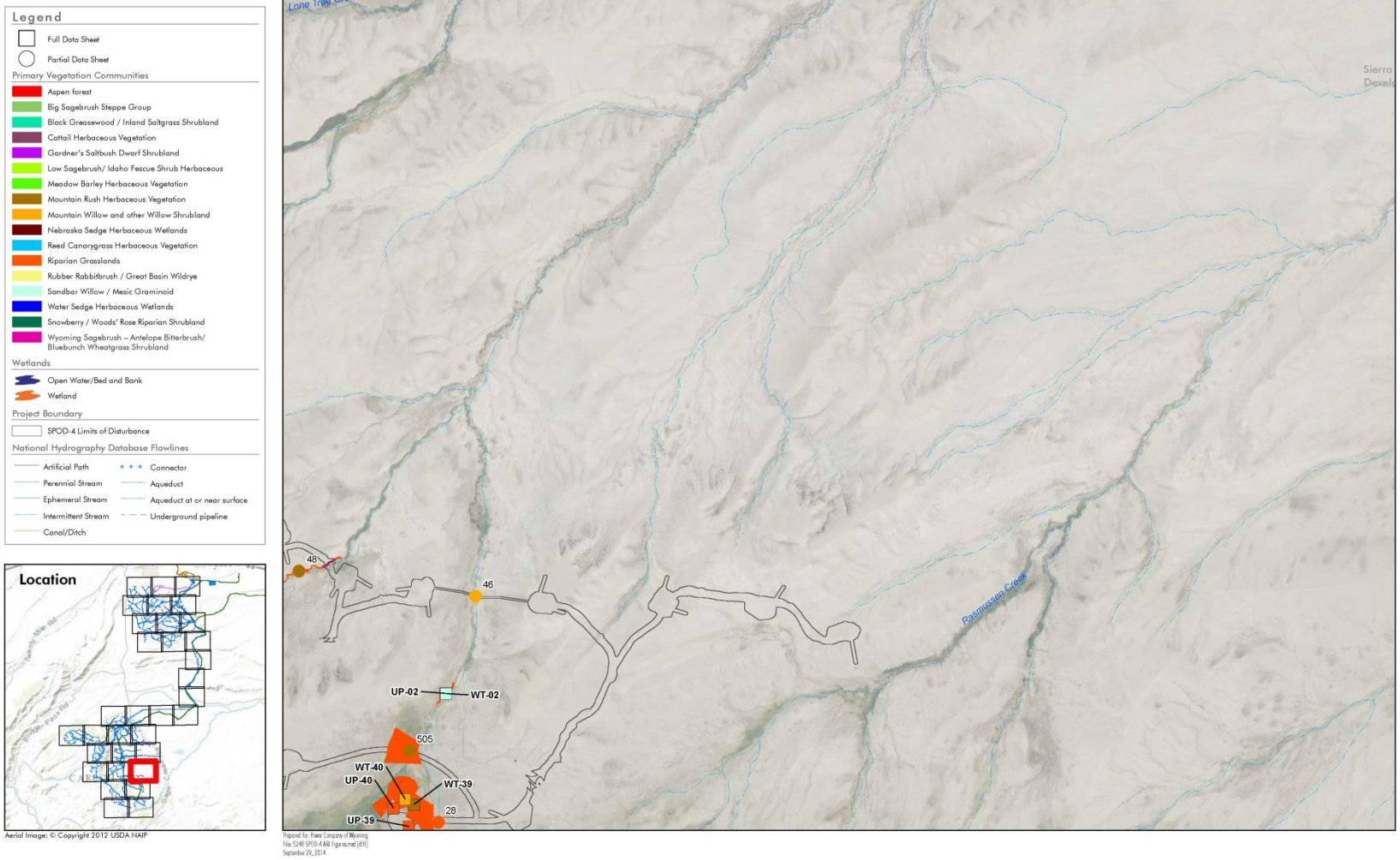

Figure 2–30
Potential Waters of the U.S. Including Wetlands

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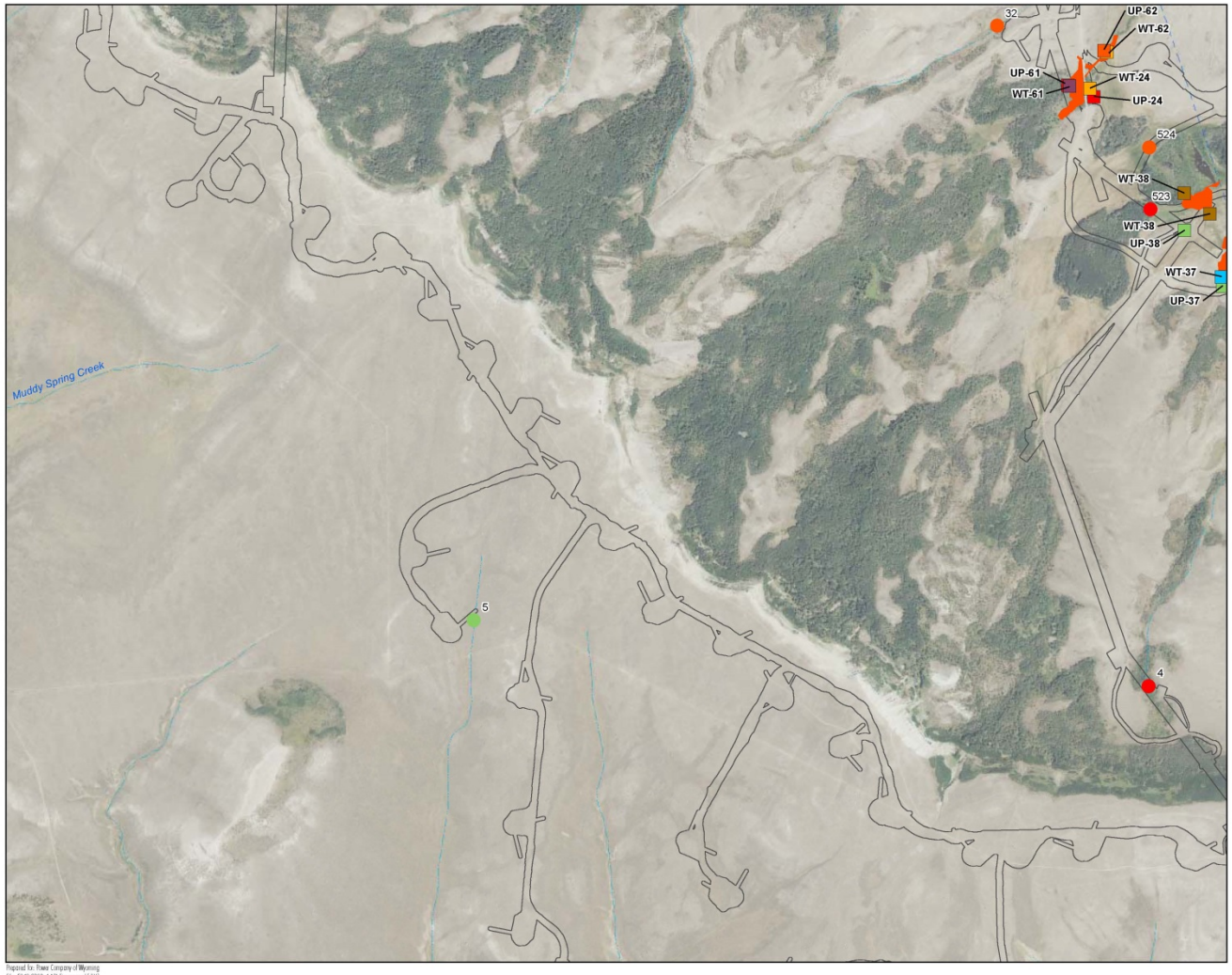

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File: 5248-SPOD-4.AR Figures.mxd (dH)
September 5, 2014

Figure 2–31
Potential Waters of the U.S. Including Wetlands

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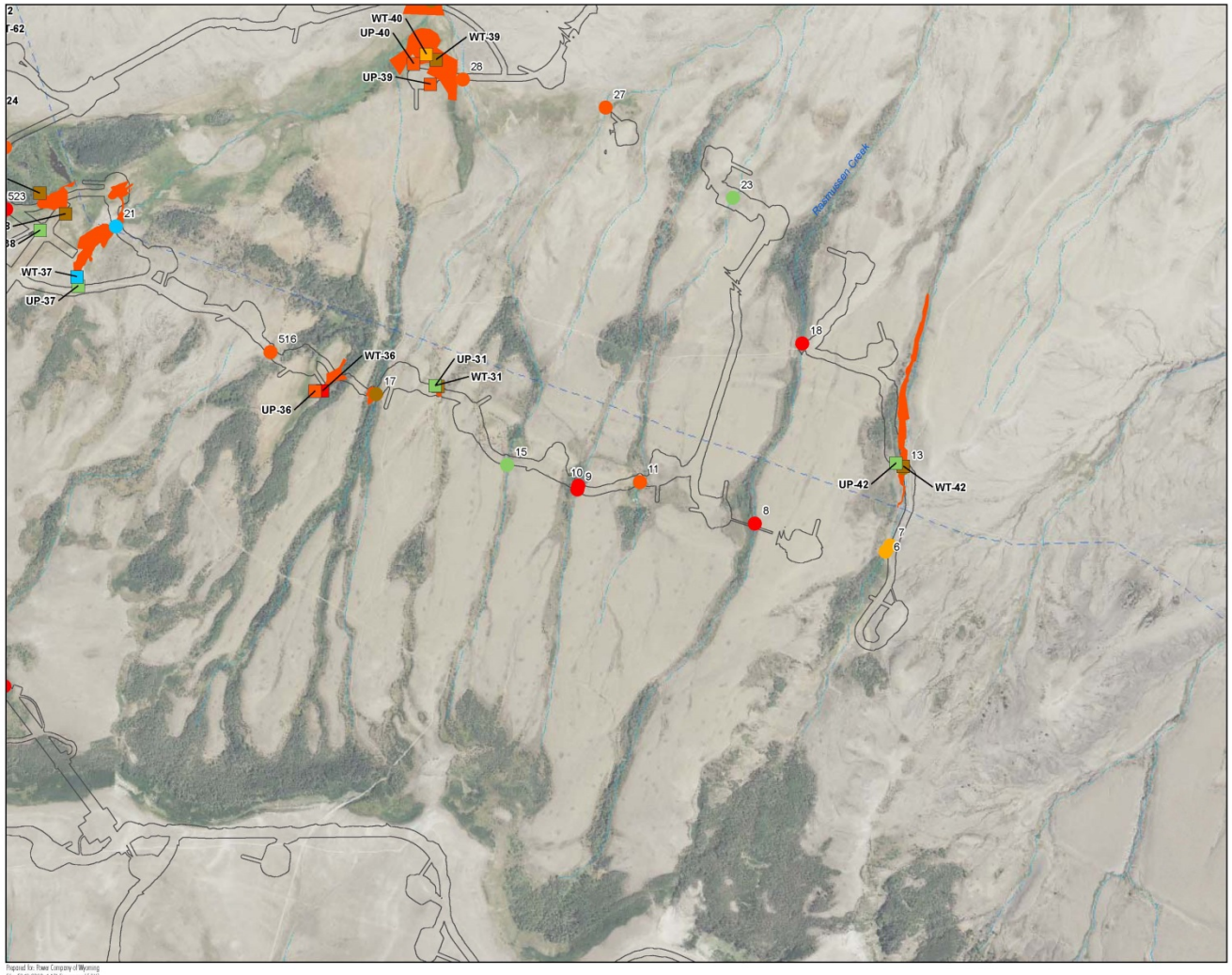

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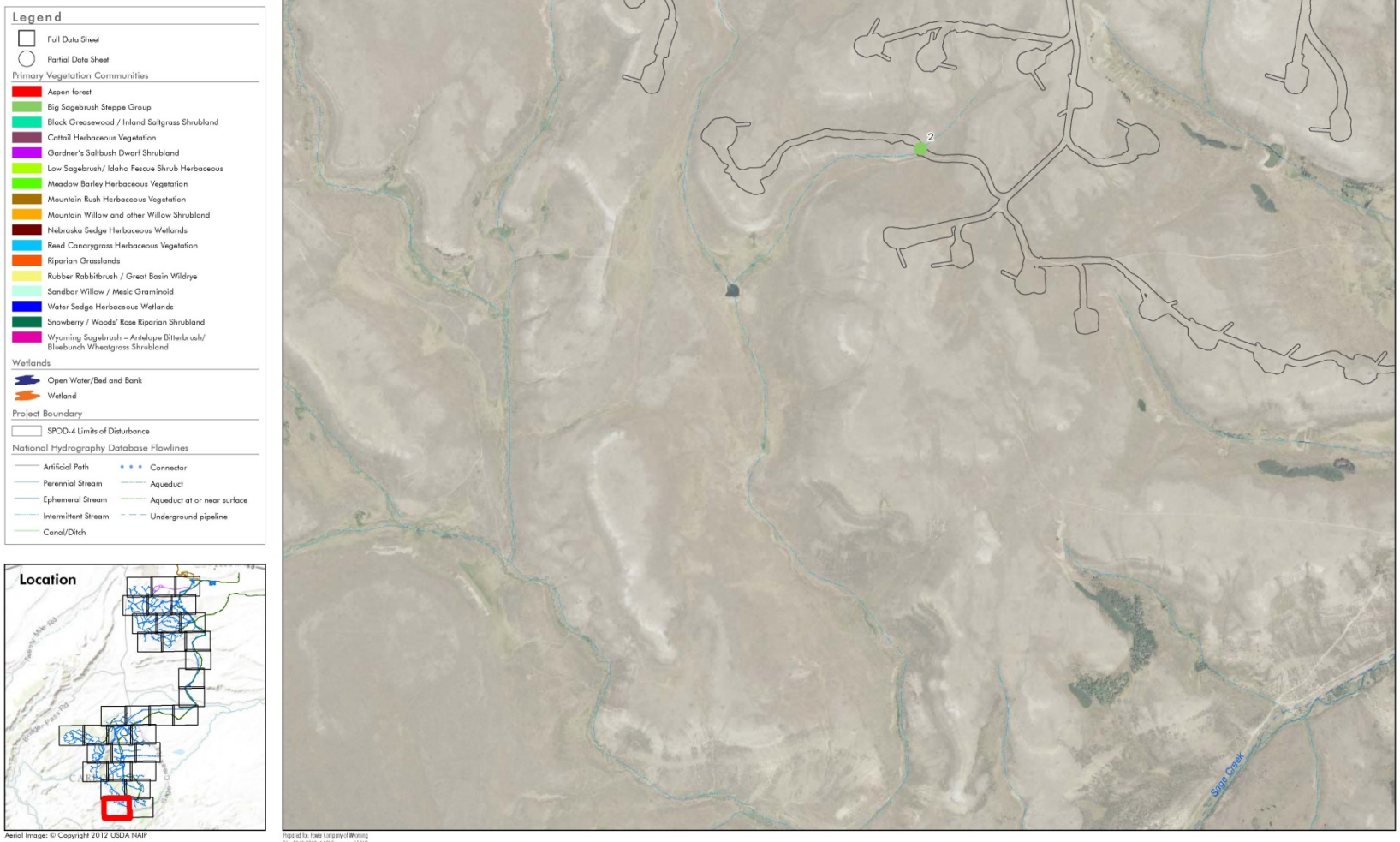
Figure 2–32
Potential Waters of the U.S. Including Wetlands



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File: 5248 SPOD-4 AAR Figures.mxd (dlh)
September 5, 2014

Figure 2–33
Potential Waters of the U.S. Including Wetlands

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September 5, 2014

8.0 Conclusions

A total of 41.99 acres of wetlands and 2.07 acres of other waters were mapped in or near the Study Area. The wetlands are riverine palustrine emergent or scrub-shrub wetlands. The wetlands' hydrology source is primarily surface water for all of the wetlands present in the delineated area of the Study Area. All of the wetlands in the Study Area are assumed to have a surface connection to a known traditionally navigable water, such as the North Platte River.

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U.S. Army Corps of Engineers (Corps). 2008b. *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States.* U.S. Army Engineer Research and Development Center, Hanover, NH.

Appendix A

Data Forms – Routine Wetland Determination and Crossing Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: June 5, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-01
Investigator(s): Gornall and Vicenik Section, Township, Range: T17N R88W section 2
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47807 Long: -107.27004 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____	No **X**	
Wetland Hydrology Present?	Yes _____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Symphoricarpos albus*	25	Yes	FACU
2. *Rosa woodsii*	15	Yes	FACU
3. *Salix exigua*	10	No	FACW
4. *Artemisia tridentata*	5	No	UPL
5. *Chrysothamnus viscidiflorus*	5	No	UPL
	60 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	40	Yes	FACU
2. *Achillea millefolium*	30	Yes	FACU
3. *Mertensia ciliata*	5	No	FACW
4. *Juncus balticus*	5	No	FACW
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**20**	x 2 =	**40**
FAC species	**0**	x 3 =	**0**
FACU species	**110**	x 4 =	**440**
UPL species	**10**	x 5 =	**50**
Column Totals:	**140** (A)		**530** (B)

Prevalence Index = B/A = **3.79**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-01**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 3/2	100	None	—	—	—	Clay Loam	
5-20	7.5YR 3/2	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: June 5, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-02
Investigator(s): Gornall and Vicenik Section, Township, Range: T17N R88W section 1
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47807 Long: -107.27004 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	
Hydric Soil Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Rosa woodsii*	1	Yes	FACU
2. *Chrysothamnus viscidiflorus*	1	Yes	UPL
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Pascopyrum smithii*	60	Yes	FAC
2. *Antennaria arcuata*	10	No	FACW
3. *Iris missouriensis*	5	No	FACW
4. *Achillea millefolium*	3	No	FACU
5.			
6.			
7.			
8.			
	78 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 22 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**15**	x 2 =	**30**
FAC species	**60**	x 3 =	**180**
FACU species	**4**	x 4 =	**16**
UPL species	**1**	x 5 =	**5**
Column Totals:	**80** (A)		**231** (B)

Prevalence Index = B/A = **2.89**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **UP-02**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	7.5YR 4/2	100	None	—	—	—	Loam	
2-10	7.5YR 3/2	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 23, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-03(2)
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S1 T20N R87W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.73555 Long: -107.14717 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	10	Yes	UPL
2. *Chrysothamnus viscidiflorus*	5	Yes	UPL
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	10	Yes	FACW
2. *Cirsium arvense*	10	Yes	FACU
3. *Leymus cinereus*	10	Yes	FAC
4. *Symphyotrichum lanceolatum*	1	No	OBL
5.			
6.			
7.			
8.			
	31 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 69 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**1**	x 1 =	**1**
FACW species	**10**	x 2 =	**20**
FAC species	**10**	x 3 =	**30**
FACU species	**10**	x 4 =	**40**
UPL species	**15**	x 5 =	**75**
Column Totals:	**46** (A)		**166** (B)

Prevalence Index = B/A = **3.61**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-03(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/1	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 16, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-03
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S1 T20N R87W
Landform (hillslope, terrace, etc.): Prairie Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.73615 Long: -107.14593 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Sarcobatus vermiculatus*	5	Yes	FAC
2. *Gutierrezia sarothrae*	5	Yes	UPL
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Hesperostipa comata*	40	Yes	UPL
2. *Panicum capillare*	35	Yes	FACU
3. *Pascopyrum smithii*	20	Yes	FAC
4. *Koeleria macrantha*	4	No	UPL
5. *Tragopogon dubius*	1	No	UPL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**25**	x 3 =	**75**
FACU species	**35**	x 4 =	**140**
UPL species	**50**	x 5 =	**250**
Column Totals:	**110** (A)		**465** (B)

Prevalence Index = B/A = **4.23**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-03**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 23, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-04
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S23 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69298 Long: -107.15427 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Chrysothamnus viscidiflorus*	20	Yes	UPL
2. *Artemisia tridentata*	20	Yes	UPL
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus elymoides*	10	Yes	FACW
2. *Equisetum arvense*	5	Yes	FAC
3. *Phlox hoodii*	2	No	UPL
4.			
5.			
6.			
7.			
8.			
	17 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 83 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**10**	x 2 =	**20**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**42**	x 5 =	**210**
Column Totals:	**57** (A)		**245** (B)

Prevalence Index = B/A = **4.30**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-04**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 5/2	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-05
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48186 Long: -107.29953 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2. *Artemisia nova*	10	Yes	UPL
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Pseudoroegneria spicata*	25	Yes	UPL
2. *Elymus trachycaulus*	10	Yes	FACU
3. *Phlox hoodii*	10	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	45 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 55 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**85**	x 5 =	**425**
Column Totals:	**95** (A)		**465** (B)

Prevalence Index = B/A = **4.89**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-05**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	100	None	—	—	—	Sandy Clay Loam	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth(inches): 8

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**
Water Table Present? Yes ____ No **X** Depth (inches): **>20**
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-06(2)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48859 Long: -107.27752 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	25	Yes	UPL
2. *Sarcobatus vermiculatus*	20	Yes	FAC
3. *Chrysothamnus viscidiflorus*	10	No	UPL
4.			
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**20**	x 3 =	**60**
FACU species	**10**	x 4 =	**40**
UPL species	**35**	x 5 =	**175**
Column Totals:	**65** (A)		**275** (B)

Prevalence Index = B/A = **4.23**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-06(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5Y 4/2	97	10YR 4/6	3	C	M	Clay	
12-20	10YR 4/2	80	10YR 4/6	20	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- **X** Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** **X** **No** _____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes _____	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes _____	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-06(3)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48816 Long: -107.27641 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	
Hydric Soil Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Atriplex gardneri*	50	Yes	UPL
2. *Sarcobatus vermiculatus*	10	No	FAC
3. *Artemisia tridentata*	5	No	UPL
4.			
5.			
	65 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**10**	x 3 =	**30**
FACU species	**0**	x 4 =	**0**
UPL species	**55**	x 5 =	**275**
Column Totals:	**65** (A)		**305** (B)

Prevalence Index = B/A = **4.69**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-06(3)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	80	10YR 4/6	20	C	M	Clay	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Shovel Rejection

Depth(inches): 6

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-06
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48909 Long: -107.27794 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	15	Yes	UPL
2. *Sarcobatus vermiculatus*	15	Yes	FAC
3. *Amelanchier pumila*	10	Yes	UPL
4. *Chrysothamnus viscidiflorus*	5	No	UPL
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	20	Yes	FACU
2. *Leymus cinereus*	15	Yes	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 65 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**30**	x 3 =	**90**
FACU species	**20**	x 4 =	**80**
UPL species	**30**	x 5 =	**150**
Column Totals:	**80** (A)		**320** (B)

Prevalence Index = B/A = **4.00**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-06**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/3	100	None	—	—	—	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-07
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S26 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51043 Long: -107.27982 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Sarcobatus vermiculatus*	20	Yes	FAC
2. *Artemisia tridentata*	15	Yes	UPL
3. *Atriplex gardneri*	10	No	UPL
4. *Chrysothamnus viscidiflorus*	10	No	UPL
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	20	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 80 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**20**	x 3 =	**60**
FACU species	**20**	x 4 =	**80**
UPL species	**35**	x 5 =	**175**
Column Totals:	**75** (A)		**315** (B)

Prevalence Index = B/A = **4.20**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-07**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/2	100	None	—	—	—	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-08
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S13 T19N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.61815 Long: -107.13777 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	
Hydric Soil Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Leymus cinereus*	60	Yes	FACW
2. *Sarcobatus vermiculatus*	10	No	FAC
3. *Juncus balticus*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**65**	x 2 =	**130**
FAC species	**10**	x 3 =	**30**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**75** (A)		**160** (B)

Prevalence Index = B/A = **2.13**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **UP-08**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 5/6	100	None	—	—	—	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-09
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54498 Long: -107.27988 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	60	Yes	UPL
2. *Chrysothamnus viscidiflorus*	10	No	UPL
3.			
4.			
5.			
	70 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa pratensis*	2	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 98 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**2**	x 3 =	**6**
FACU species	**0**	x 4 =	**0**
UPL species	**70**	x 5 =	**350**
Column Totals:	**72** (A)		**356** (B)

Prevalence Index = B/A = **4.94**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-09**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-17	2.5Y 4/3	100	None	—	—	—	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-10
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.55022 Long: -107.26975 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	30	Yes	UPL
2. *Sarcobatus vermiculatus*	11	Yes	FAC
3.			
4.			
5.			
	41 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**11**	x 3 =	**33**
FACU species	**0**	x 4 =	**0**
UPL species	**30**	x 5 =	**150**
Column Totals:	**41** (A)		**183** (B)

Prevalence Index = B/A = **4.46**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-10**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/3	100	None	—	—	—	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 21, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-11
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S20 T20N R87W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69180 Long: -107.22352 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and hydric soils.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	60	Yes	UPL
2. *Chrysothamnus viscidiflorus*	40	Yes	UPL
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Leymus cinereus*	40	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**40**	x 3 =	**120**
FACU species	**0**	x 4 =	**0**
UPL species	**100**	x 5 =	**500**
Column Totals:	**140** (A)		**620** (B)

Prevalence Index = B/A = **4.43**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-11**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

X Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
X Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** **X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-12
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S24 T20N R87W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69067 Long: -107.13932 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	
Hydric Soil Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Chrysothamnus viscidiflorus*	10	Yes	UPL
2. *Tetradymia spinosa*	10	Yes	UPL
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Distichlis spicata*	45	Yes	FACW
2. *Sporobolus airoides*	25	Yes	FAC
3. *Juncus balticus*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**50**	x 2 =	**100**
FAC species	**25**	x 3 =	**75**
FACU species	**0**	x 4 =	**0**
UPL species	**20**	x 5 =	**100**
Column Totals:	**95** (A)		**275** (B)

Prevalence Index = B/A = **2.89**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes **X** No ____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **UP-12**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 6/4	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-13
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S30 T20N R86W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67286 Long: -107.12027 Datum: NAD_83
Soil Map Unit Name: Quealman sandy loam, 0 to 6 percent slopes NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____	No **X**	
Wetland Hydrology Present?	Yes _____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	30	Yes	UPL
2. *Sarcobatus vermiculatus*	10	No	FAC
3. *Chrysothamnus viscidiflorus*	10	No	UPL
4. *Tetradymia canescens*	5	No	UPL
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	5	Yes	FACU
2. *Pleuraphis jamesii*	1	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	6 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 94 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**10**	x 3 =	**30**
FACU species	**5**	x 4 =	**20**
UPL species	**46**	x 5 =	**230**
Column Totals:	**61** (A)		**280** (B)

Prevalence Index = B/A = **4.59**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-13**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/3	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-14(2)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67816 Long: -107.17383 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Chrysothamnus viscidiflorus*	60	Yes	UPL
2. *Artemisia tridentata*	15	Yes	UPL
3.			
4.			
5.			
	75 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**75**	x 5 =	**375**
Column Totals:	**85** (A)		**415** (B)

Prevalence Index = B/A = **4.88**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-14(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 4/3	100	None	—	—	—	Sandy Clay Loam	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth(inches): 8

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**
Water Table Present? Yes ____ No **X** Depth (inches): **>20**
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 21, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-14
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67732 Long: -107.17351 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	45	Yes	UPL
2. *Sarcobatus vermiculatus*	17	Yes	FAC
3.			
4.			
5.			
	62 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus elymoides*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**17**	x 3 =	**51**
FACU species	**10**	x 4 =	**40**
UPL species	**45**	x 5 =	**225**
Column Totals:	**72** (A)		**316** (B)

Prevalence Index = B/A = **4.39**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-14**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 4/3	100	None	—	—	—	Silty Clay	
11-16	10YR 5/2	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-15
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53755 Long: -107.29193 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Sarcobatus vermiculatus*	10	Yes	FAC
2. *Artemisia tridentata*	5	Yes	UPL
3. *Atriplex gardneri*	5	Yes	UPL
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa arida*	30	Yes	FAC
2. *Elymus trachycaulus*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 60 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**40**	x 3 =	**120**
FACU species	**10**	x 4 =	**40**
UPL species	**10**	x 5 =	**50**
Column Totals:	**60** (A)		**210** (B)

Prevalence Index = B/A = **3.50**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-15**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	2.5Y 4/3	100	None	—	—	—	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-16
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54475 Long: -107.29109 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	25	Yes	UPL
2. *Chrysothamnus viscidiflorus*	15	Yes	UPL
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	25 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 75 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**25**	x 4 =	**100**
UPL species	**40**	x 5 =	**200**
Column Totals:	**65** (A)		**300** (B)

Prevalence Index = B/A = **4.62**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-16**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	100	None	—	—	—	Sandy Clay Loam	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth(inches): 10

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**
Water Table Present? Yes ____ No **X** Depth (inches): **>20**
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 7, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-17
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LLR D Lat: 41.54475 Long: -107.28946 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Symphoricarpos albus*	30	Yes	FACU
2. *Artemisia tridentata*	15	Yes	UPL
3. *Ericameria nauseosa*	10	No	UPL
4.			
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	30	Yes	FACW
2. *Nassella viridula*	30	Yes	UPL
3. *Koeleria macrantha*	20	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **20%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**30**	x 2 =	**60**
FAC species	**0**	x 3 =	**0**
FACU species	**30**	x 4 =	**120**
UPL species	**75**	x 5 =	**375**
Column Totals:	**135** (A)		**555** (B)

Prevalence Index = B/A = **4.11**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-17**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/3	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 13, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-18
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52408 Long: -107.30178 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	15	Yes	FACU
2.			
3.			
4.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	25	Yes	UPL
2. *Amelanchier alnifolia*	5	No	FACU
3. *Rosa woodsii*	5	No	FACU
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Festuca idahoensis*	17	Yes	FACU
2. *Cirsium arvense*	6	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	23 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 77 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**48**	x 4 =	**192**
UPL species	**25**	x 5 =	**125**
Column Totals:	**73** (A)		**317** (B)

Prevalence Index = B/A = **4.34**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-18**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100	None	—	—	—	Silty Clay	
6-12	10YR 5/2	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-19
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53299 Long: -107.28778 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	50	Yes	UPL
2. *Chrysothamnus viscidiflorus*	5	No	UPL
3.			
4.			
5.			
	55 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Stenotus armerioides*	10	Yes	UPL
2. *Nassella viridula*	10	Yes	UPL
3. *Poa secunda*	5	No	FACU
4. *Elymus trachycaulus*	5	No	FACU
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**75**	x 5 =	**375**
Column Totals:	**85** (A)		**415** (B)

Prevalence Index = B/A = **4.88**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-19**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/3	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-20
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48348 Long: -107.29669 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	
Hydric Soil Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2. *Chrysothamnus vascidiflorus*	10	No	UPL
3. *Amelanchier pumila*	20	Yes	UPL
4.			
5.			
	70 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	15	Yes	FACU
2. *Pseudoroegneria spicata*	15	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**15**	x 4 =	**60**
UPL species	**85**	x 5 =	**425**
Column Totals:	**100** (A)		**485** (B)

Prevalence Index = B/A = **4.85**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-20**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	96	10YR 5/6	4	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-21
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48392 Long: -107.29481 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Atriplex gardneri*	35	Yes	UPL
2. *Artemisia tridentata*	10	Yes	UPL
3.			
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**45**	x 5 =	**225**
Column Totals:	**50** (A)		**245** (B)

Prevalence Index = B/A = **4.90**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-21**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100	None	—	—	—	Sandy Clay Loam	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth(inches): 8

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**
Water Table Present? Yes ____ No **X** Depth (inches): **>20**
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-22
Investigator(s): Vicenik and Isaacs Section, Township, Range: S34 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48704 Long: -107.29262 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2. *Chrysothamnus viscidiflorus*	10	Yes	UPL
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	10	Yes	FACU
2. *Elymus trachycaulus*	5	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	15 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 85 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**15**	x 4 =	**60**
UPL species	**50**	x 5 =	**250**
Column Totals:	**65** (A)		**310** (B)

Prevalence Index = B/A = **4.77**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-22**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/3	100	None	—	—	—	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-23
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S2 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47802 Long: -107.28402 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Ericameria nauseosa*	40	Yes	UPL
2. *Artemisia tridentata*	5	No	UPL
3.			
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa pratensis*	10	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**10**	x 3 =	**30**
FACU species	**0**	x 4 =	**0**
UPL species	**45**	x 5 =	**225**
Column Totals:	**55** (A)		**255** (B)

Prevalence Index = B/A = **4.64**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-23**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-24
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S2 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 15-20
Subregion (LRR): LRR D Lat: 41.47169 Long: -107.27664 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Forested Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	30	Yes	FACU
2.			
3.			
4.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Symphoricarpos albus*	15	Yes	FACU
2.			
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa pratensis*	45	Yes	FAC
2. *Mahonia repens*	20	Yes	UPL
3. *Koeleria macrantha*	20	Yes	UPL
4. *Cirsium undulatum*	5	No	FACU
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **20%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**45**	x 3 =	**135**
FACU species	**50**	x 4 =	**200**
UPL species	**40**	x 5 =	**200**
Column Totals:	**135** (A)		**535** (B)

Prevalence Index = B/A = **3.96**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-24**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 2.5/1	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-25
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S29 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51141 Long: -107.32818 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	60	Yes	UPL
2.			
3.			
4.			
5.			
	60 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Nassella viridula*	35	Yes	UPL
3. *Poa pratensis*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**60**	x 2 =	**120**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**95**	x 5 =	**475**
Column Totals:	**160** (A)		**610** (B)

Prevalence Index = B/A = **3.81**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-25**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-26
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S18 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 15-20
Subregion (LRR): LRR D Lat: 41.52800 Long: -107.35289 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	30	Yes	UPL
2.			
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Nassella viridula*	40	Yes	UPL
2. *Poa pratensis*	30	Yes	FAC
3. *Fagopyrum esculentum*	20	Yes	UPL
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**30**	x 3 =	**90**
FACU species	**0**	x 4 =	**0**
UPL species	**90**	x 5 =	**450**
Column Totals:	**120** (A)		**540** (B)

Prevalence Index = B/A = **4.50**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-26**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 3/3	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-27
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S13 T18N R89W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53117 Long: -107.36169 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Nassella viridula*	40	Yes	UPL
2. *Thinopyrum intermedium*	35	Yes	UPL
3. *Juncus balticus*	15	No	FACW
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**15**	x 2 =	**30**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**115**	x 5 =	**575**
Column Totals:	**130** (A)		**605** (B)

Prevalence Index = B/A = **4.65**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-27**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/2	100	None	—	—	—	Silty Clay Loam	
8-16	7.5YR 4/3	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-28
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S14 T18N R89W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52908 Long: -107.37860 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Fagopyrum esculentum*	25	Yes	UPL
2. *Nassella viridula*	25	Yes	UPL
3. *Koeleria macrantha*	20	Yes	UPL
4. *Juncus balticus*	20	Yes	FACW
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **20%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**20**	x 2 =	**40**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**110**	x 5 =	**550**
Column Totals:	**130** (A)		**590** (B)

Prevalence Index = B/A = **4.54**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-28**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-29
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.55366 Long: -107.27881 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**5**	x 5 =	**25**
Column Totals:	**10** (A)		**45** (B)

Prevalence Index = B/A = **4.50**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-29**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/3	98	10YR 5/6	2	C	M	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-30
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52878 Long: -107.29629 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	20	Yes	UPL
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Cirsium arvense*	10	Yes	FACU
2. *Elymus trachycaulus*	10	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	20 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 80 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**20**	x 4 =	**80**
UPL species	**20**	x 5 =	**100**
Column Totals:	**40** (A)		**180** (B)

Prevalence Index = B/A = **4.50**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-30**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/3	98	10YR 5/6	2	C	PL	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: November 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-31
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46339 Long: -107.25806 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	50	Yes	UPL
2.			
3.			
4.			
5.			
	50 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	4	Yes	FACU
2. *Stenotus acaulis*	3	Yes	UPL
3. *Poa secunda*	1	No	FACU
4.			
5.			
6.			
7.			
8.			
	8 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 92 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**53**	x 5 =	**265**
Column Totals:	**58** (A)		**285** (B)

Prevalence Index = B/A = **4.91**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-31**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	100	None	—	—	—	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: November 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-32
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54647 Long: -107.29372 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	40	Yes	UPL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	10	Yes	FACW
2. *Phleum pratense*	4	Yes	FACU
3. *Elymus trachycaulus*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
	16 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 84 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**10**	x 2 =	**20**
FAC species	**0**	x 3 =	**0**
FACU species	**6**	x 4 =	**24**
UPL species	**40**	x 5 =	**200**
Column Totals:	**56** (A)		**244** (B)

Prevalence Index = B/A = **4.36**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-32**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 5/6	100	None	—	—	—	Loamy Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-33
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S24 T18N R89W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52509 Long: -107.36641 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Fagopyrum esculentum*	20	Yes	UPL
2. *Poa pratensis*	20	Yes	FAC
3. *Juncus balticus*	15	Yes	FACW
4. *Nassella viridula*	15	Yes	UPL
5. *Taraxacum officinale*	10	No	FACU
6. *Koeleria macrantha*	10	No	UPL
7. *Trifolium repens*	5	No	FACU
8. *Elymus lanceolatus*	5	No	UPL
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**15**	x 2 =	**30**
FAC species	**20**	x 3 =	**60**
FACU species	**15**	x 4 =	**60**
UPL species	**50**	x 5 =	**250**
Column Totals:	**100** (A)		**400** (B)

Prevalence Index = B/A = **4.00**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-33**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 3/3	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-35
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S6 T18N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.56683 Long: -107.24507 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	
Hydric Soil Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydrophytic vegetation and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Chrysothamnus viscidiflorus*	50	Yes	UPL
2. *Atriplex gardneri*	38	Yes	UPL
3. *Artemisia tridentata*	10	No	UPL
4.			
5.			
	98 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa secunda*	3	Yes	FACU
2. *Hypericum scouleri*	1	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	4 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 96 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**1**	x 2 =	**2**
FAC species	**0**	x 3 =	**0**
FACU species	**3**	x 4 =	**12**
UPL species	**98**	x 5 =	**490**
Column Totals:	**102** (A)		**504** (B)

Prevalence Index = B/A = **4.94**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-35**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	2.5YR 4/3	100	None	—	—	—	Sandy Loam	
5-8	10YR 2/2	100	None	—	—	—	Silt Loam	
8-20	10YR 4/2	94	10YR 5/6	6	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** ____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-36
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Prairie Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46324 Long: -107.26266 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	
Hydric Soil Present?	Yes _____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** **X**
Wetland Hydrology Present?	Yes _____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of hydric soils and wetland hydrology.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	25	Yes	FACW
2. *Poa pratensis*	15	Yes	FAC
3. *Artemisia ludoviciana*	10	Yes	FACU
4. *Pascopyrum smithii*	10	Yes	FAC
5. *Alopecurus geniculatus*	10	Yes	OBL
6. *Elymus lanceolatus*	5	No	UPL
7. *Tragopogon dubius*	4	No	UPL
8. *Castilleja sessiliflora*	1	No	UPL
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **80%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**10**	x 1 =	**10**
FACW species	**25**	x 2 =	**50**
FAC species	**25**	x 3 =	**75**
FACU species	**10**	x 4 =	**40**
UPL species	**10**	x 5 =	**50**
Column Totals:	**80** (A)		**225** (B)

Prevalence Index = B/A = **2.81**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** **X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **UP-36**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/3	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-37
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S11 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46626 Long: -107.27171 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	30	Yes	UPL
2. *Gutierrezia serothrae*	10	Yes	UPL
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Muhlenbergia cuspidata*	15	Yes	UPL
2. *Pseudoroegneria spicata*	15	Yes	UPL
3. *Grindelia squarrosa*	10	Yes	FACU
4. *Koeleria macrantha*	5	No	UPL
5.			
6.			
7.			
8.			
	45 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 55 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**75**	x 5 =	**375**
Column Totals:	**85** (A)		**415** (B)

Prevalence Index = B/A = **4.88**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-37**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100	None	—	—	—	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-38
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S11 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46785 Long: -107.27317 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	30	Yes	UPL
2. *Gutierrezia sarothrae*	5	No	UPL
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Pseudoroegneria spicata*	35	Yes	UPL
2. *Thinopyrum intermedium*	30	Yes	UPL
3. *Grindelia squarrosa*	15	No	FACU
4. *Muhlenbergia cuspidata*	15	No	UPL
5. *Achnatherum hymenoides*	3	No	UPL
6. *Elymus elymoides*	2	No	FACU
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**17**	x 4 =	**68**
UPL species	**118**	x 5 =	**590**
Column Totals:	**135** (A)		**658** (B)

Prevalence Index = B/A = **4.87**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-38**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-39
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S1 T17N R88W
Landform (hillslope, terrace, etc.): Prairie Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47204 Long: -107.25823 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Nassella viridula*	30	Yes	UPL
2. *Koeleria macrantha*	25	Yes	UPL
3. *Bromus inermis*	24	Yes	FACU
4. *Comandra umbellata*	20	Yes	UPL
5. *Thlaspi arvense*	1	No	UPL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**24**	x 4 =	**96**
UPL species	**76**	x 5 =	**380**
Column Totals:	**100** (A)		**476** (B)

Prevalence Index = B/A = **4.76**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-39**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-40
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S1 T17N R88W
Landform (hillslope, terrace, etc.): Prairie Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47262 Long: -107.25888 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Nassella viridula*	30	Yes	UPL
2. *Koeleria macrantha*	30	Yes	UPL
3. *Comandra umbellata*	15	No	UPL
4. *Astragalus racemosus*	15	No	UPL
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**90**	x 5 =	**450**
Column Totals:	**90** (A)		**450** (B)

Prevalence Index = B/A = **5.00**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-40**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/2	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 25, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-41
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48463 Long: -107.27676 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Krascheninnikovia lanata*	15	Yes	UPL
2. *Chrysothamnus nauseosus*	15	Yes	UPL
3. *Artemisia cana*	10	Yes	FACU
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Nassella viridula*	20	Yes	UPL
2. *Elymus elymoides*	10	Yes	FACU
3. *Grindelia squarrosa*	5	No	FACU
4.			
5.			
6.			
7.			
8.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 65 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**25**	x 4 =	**100**
UPL species	**50**	x 5 =	**250**
Column Totals:	**75** (A)		**350** (B)

Prevalence Index = B/A = **4.67**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-41**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/3	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 18, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-42
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S7 T17N R87W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46107 Long: -107.24043 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____	No **X**	
Wetland Hydrology Present?	Yes _____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	60	Yes	UPL
2. *Atriplex argentea*	5	No	FAC
3.			
4.			
5.			
	65 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus lanceolatus*	20	Yes	UPL
2. *Koeleria macrantha*	15	Yes	UPL
3. *Grindelia squarrosa*	5	No	FACU
4. *Cirsium undulatum*	1	No	FACU
5.			
6.			
7.			
8.			
	41 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 59 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**5**	x 3 =	**15**
FACU species	**6**	x 4 =	**24**
UPL species	**95**	x 5 =	**475**
Column Totals:	**106** (A)		**514** (B)

Prevalence Index = B/A = **4.85**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-42**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	10YR 4/1	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 18, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-42
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S7 T17N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46107 Long: -107.24016 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	55	Yes	FACW
2. *Carex aquatilis*	20	Yes	OBL
3. *Alopecurus geniculatus*	10	No	OBL
4. *Carex praegracilis*	10	No	FACW
5. *Glyceria grandis*	3	No	OBL
6. *Bromus ciliatus*	1	No	FAC
7. *Hordeum jubatum*	1	No	FAC
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**33**	x 1 =	**33**
FACW species	**65**	x 2 =	**130**
FAC species	**2**	x 3 =	**6**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**169** (B)

Prevalence Index = B/A = **1.69**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

West boundary of wetland is bordered by aspens and cottonwoods.

SOIL

Sampling Point: **WT-42**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/1	95	7.5YR 6/8	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- X Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): N/A
Water Table Present?	Yes ____	No X	Depth (inches): >20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): >20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 18, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP06
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Prairie Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46317 Long: -107.26041 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Forested Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** **X**
Hydric Soil Present?	Yes _____	No **X**	
Wetland Hydrology Present?	Yes _____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	40	Yes	FACU
2.			
3.			
4.			
	40 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Poa pratensis*	75	Yes	FAC
2. *Grindelia squarrosa*	10	No	FACU
3. *Lupinus argenteus*	5	No	UPL
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**75**	x 3 =	**225**
FACU species	**50**	x 4 =	**200**
UPL species	**5**	x 5 =	**25**
Column Totals:	**130** (A)		**450** (B)

Prevalence Index = B/A = **3.46**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP06**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-16	7.5YR 4/1	100	None	—	—	—	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 18, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WET06
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46309 Long: -107.26050 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is bordered by aspens.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Persicaria lapathifolia*	30	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	30 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 70 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**30**	x 2 =	**60**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**30** (A)		**60** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WET06**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	95	10YR 5/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-43
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S34 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.49406 Long: -107.28547 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	60	Yes	UPL
2. *Chrysothamnus viscidiflorus*	10	No	UPL
3.			
4.			
5.			
	70 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus elymoides*	5	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 95 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**70**	x 5 =	**350**
Column Totals:	**75** (A)		**370** (B)

Prevalence Index = B/A = **4.93**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-43**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-44
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.49450 Long: -107.27578 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Atriplex gardneri*	100	Yes	UPL
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 100 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**100**	x 5 =	**500**
Column Totals:	**100** (A)		**500** (B)

Prevalence Index = B/A = **5.00**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-44**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
X Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-45
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S26 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51109 Long: -107.28079 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: Herbaceous Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** Yes ____ No **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Atriplex gardneri*	75	Yes	UPL
2. *Poa secunda*	7	No	FACU
3. *Stenotus acaulis*	5	No	UPL
4.			
5.			
6.			
7.			
8.			
	87 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 13 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**7**	x 4 =	**28**
UPL species	**80**	x 5 =	**400**
Column Totals:	**87** (A)		**428** (B)

Prevalence Index = B/A = **4.92**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-45**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 2/1	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** _____ **No** **X**

Remarks:

No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): **N/A**

Water Table Present? Yes _____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes _____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** _____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: UP-47
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Basin Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67412 Long: -107.18223 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: Scrub/Shrub Upland
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No **X**	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** **X**
Hydric Soil Present?	Yes ____	No **X**	
Wetland Hydrology Present?	Yes ____	No **X**	

Remarks:
This point was determined not to be within a wetland due to the lack of all three wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Chrysothamnus viscidiflorus*	60	Yes	UPL
2. *Artemisia tridentata*	15	Yes	UPL
3.			
4.			
5.			
	75 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Elymus trachycaulus*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**75**	x 5 =	**375**
Column Totals:	**85** (A)		**415** (B)

Prevalence Index = B/A = **4.88**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
____ Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydrophytic vegetation was observed (≥50% of dominant species indexed as FACU or drier).

SOIL

Sampling Point: **UP-47**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 4/3	100	None	—	—	—	Sandy Clay Loam	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

____ Histosol (A1)
____ Histic Epipedon (A2)
____ Black Histic (A3)
____ Hydrogen Sulfide (A4)
____ Stratified Layers (A5) **(LRR C)**
____ 1 cm Muck (A9) **(LRR D)**
____ Depleted Below Dark Surface (A11)
____ Thick Dark Surface (A12)
____ Sandy Mucky Mineral (S1)
____ Sandy Gleyed Matrix (S4)
____ Sandy Redox (S5)
____ Stripped Matrix (S6)
____ Loamy Mucky Mineral (F1)
____ Loamy Gleyed Matrix (F2)
____ Depleted Matrix (F3)
____ Redox Dark Surface (F6)
____ Depleted Dark Surface (F7)
____ Redox Depressions (F8)
____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

____ 1 cm Muck (A9) **(LRR C)**
____ 2 cm Muck (A10) **(LRR B)**
____ Reduced Vertic (F18)
____ Red Parent Material (TF2)
____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock
Depth(inches): 8

Hydric Soil Present? **Yes** ____ **No** **X**

Remarks:
No positive indication of hydric soils was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

____ Surface Water (A1)
____ High Water Table (A2)
____ Saturation (A3)
____ Water Marks (B1) **(Nonriverine)**
____ Sediment Deposits (B2) **(Nonriverine)**
____ Drift Deposits (B3) **(Nonriverine)**
____ Surface Soil Cracks (B6)
____ Inundation Visible on Aerial Imagery (B7)
____ Water-Stained Leaves (B9)
____ Salt Crust (B11)
____ Biotic Crust (B12)
____ Aquatic Invertebrates (B13)
____ Hydrogen Sulfide Odor (C1)
____ Oxidized Rhizospheres along Living Roots (C3)
____ Presence of Reduced Iron (C4)
____ Recent Iron Reduction in Tilled Soils (C6)
____ Thin Muck Surface (C7)
____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

____ Water Marks (B1) **(Riverine)**
____ Sediment Deposits (B2) **(Riverine)**
____ Drift Deposits (B3) **(Riverine)**
____ Drainage Patterns (B10)
____ Dry-Season Water Table (C2)
____ Crayfish Burrows (C8)
____ Saturation Visible on Aerial Imagery (C9)
____ Shallow Aquitard (D3)
____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**
Water Table Present? Yes ____ No **X** Depth (inches): **>20**
Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** ____ **No** **X**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
No positive indication of wetland hydrology was observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Lone Tree Creek City/County: Carbon County Sampling Date: 08/11/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: UP59

Investigator(s): P.Gordon, J.Silva, R.Duncan Section, Township, Range: S26 T18N R88W

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): none Slope (%): 5

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°29'59.569"N Long: 107°16'30.993"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Site on upper bank at edge of willows adjacent to a drainage.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 3M X 1M)	Absolute % Cover	Dominant Species?	Indicator Status
1. Artemisia cana	25	YES	FACU
2. Symphoricarpos albus	5	NO	FACU
3. Salix exigua	5	NO	FACW
4. Rosa woodsii	2	NO	FACU
5. Salix bootrii	2	NO	FACW
	39	= Total Cover	

Herb Stratum (Plot size: 3M X 1M)	Absolute % Cover	Dominant Species?	Indicator Status
1. Juncus balticus	2	NO	FACW
2. Symphyotrichum eatorii	15	YES	FAC
3. Phleum pratense	1	NO	FACU
4. Achillea millifolium	1	NO	FACU
5. Taraxicum officianate	10	YES	FACU
6. Cardoria draba	1	NO	UPL
7. Poa prentensis	5	NO	FAC
8.			
	35	= Total Cover	

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 65 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	9	x 2 =	18
FAC species	20	x 3 =	60
FACU species	44	x 4 =	176
UPL species	0	x 5 =	0
Column Totals:	73 (A)		254 (B)

Prevalence Index = B/A = 3.47

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Mostly upland plants with some encroachment of hydrophytes from channel below.

SOIL

Sampling Point: UP59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/1	100	none				clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soil contains depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): none

Water Table Present? Yes ___ No X Depth (inches): none

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): none

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Lone Tree Creek Tributary City/County: Carbon County Sampling Date: 08/11/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: UP60

Investigator(s): P. Gordon, R.Duncan, & J.Silva Section, Township, Range: S35 T18N R88W

Landform (hillslope, terrace, etc.): Bench Local relief (concave, convex, none): Convex Slope (%): <5%

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°29'56.114"N Long: 107°16'46.127"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Site is located on an upland bench above a narrow channel in an eroded drainage.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 8M X 1M)			
1. Artemesia cana	30	YES	FACU
2. Chrysothamnus viscidiflorus	2	NO	UPL
3. Symphoricarpos albus	15	YES	FACU
4. Rosa woodsii	1	NO	FACU
5.			
	48 = Total Cover		
Herb Stratum (Plot size: 3M X 1M)			
1. Symphyotrichum eatonii	2	YES	FAC
2. Poa pratensis	5	YES	FAC
3. Juncus balticus	1	NO	FACW
4. Achillea millifolium	1	NO	FACU
5. Bromus inermis	1	NO	FACU
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 90 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	1	x 2 = 2
FAC species	2	x 3 = 6
FACU species	5	x 4 = 20
UPL species	1	x 5 = 5
Column Totals:	9 (A)	33 (B)

Prevalence Index = B/A = 3.67

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Upland vegetation with some encroachment of Juncus balticus.

SOIL

Sampling Point: UP60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/1	100					clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No indicators present

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): none

Water Table Present? Yes _____ No X Depth (inches): none

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): none

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

No indicators of hydrology observed

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW- Pine Grove City/County: Carbon County Sampling Date: 8/12/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: UP-61

Investigator(s): R.Duncan & J.Silva Section, Township, Range: S2 T17N R88W

Landform (hillslope, terrace, etc.): Bottomland Local relief (concave, convex, none): linear concave Slope (%): <2

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°28'19.274"N Long: 107°16'39.44"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sample site located at or near wetland/upland vegetation break, which is undulating at embayments

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 1M X 3M)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus tremuloides	10	YES	FACU
2.			
3.			
4.			
	10	= Total Cover	

Sapling/Shrub Stratum (Plot size: 1M X 3M)			
1. Populus tremuloides	30	YES	FACU
2. Cornus stolonifera	30	YES	FACW
3.			
4.			
5.			
	60	= Total Cover	

Herb Stratum (Plot size: 1M X 3M)			
1. Phleum pratensis	10	YES	FACU
2. Poa pratense	5	NO	FAC
3. Agrostis stolonifera	10	YES	FACW
4. Taraxicum officionale	2	NO	FACU
5. Corsium arvense	1	NO	FACU
6. Juncus balticus	5	NO	FACW
7. Equisetum sp.	2	NO	FAC
8.			
	35	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 65 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 = 0
FACW species	45	x 2 = 90
FAC species	7	x 3 = 21
FACU species	53	x 4 = 212
UPL species	0	x 5 = 0
Column Totals:	105 (A)	323 (B)

Prevalence Index = B/A = 3.1

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Mostly upland plant species with some encroachment of hydrophytes from wetland/pond.

SOIL

Sampling Point: UP-61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 3/2	100	none				loam	
4-18	10 YR 2/2	100	none				clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Pine Grove City/County: Carbon County Sampling Date: 8/12/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: UP62

Investigator(s): R.Duncan & J.Silva Section, Township, Range: S2 T17N R88W

Landform (hillslope, terrace, etc.): bottomland, interior valley Local relief (concave, convex, none): concave, linear Slope (%): 1

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°28'22.71"N Long: 107°16'34.207"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No x	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** x
Hydric Soil Present?	Yes _____	No x	
Wetland Hydrology Present?	Yes _____	No x	

Remarks:

Immediately upland of wetland and ponded and flowing water.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Rosa woodsii	5	YES	FACU
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Poa prantensis	5	NO	FAC
2. Juncus balticus	10	YES	FACW
3. Iris missouriensis	2	NO	FACW
4. Phleum pratense	20	YES	FACU
5. Grindellia squarrosa	15	YES	NI
6. Achillea millefolium	5	NO	FACU
7. Puccinellia nuttalliana	2	NO	FACW
8. Astragallus sp.	1	NO	FAC
	60	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	14	x 2 =	28
FAC species	6	x 3 =	18
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	50 (A)		166 (B)

Prevalence Index = B/A = 3.32

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Few hydrophytic species infringe from wetland below.

SOIL

Sampling Point: UP62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10 YR 4/1	100	none				clay loam	
4-18	10 YR 4/2	100	none				clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

No hydric soil indicators observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
___ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
___ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

No wetland hydrology indicators observed.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW- Deadman Creek City/County: Carbon County Sampling Date: 8/14/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: UP-63

Investigator(s): P.Gordon, J.Silva Section, Township, Range: S11 T18N R88W

Landform (hillslope, terrace, etc.): Terrace above drainage Local relief (concave, convex, none): convex Slope (%): 1

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°32'46.502"N Long: 107°16'31.568"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Site within Deadman Creek and is bound by two sloping ridges running to the northeast. Surface water has dried up, so sample site is located in drainage bottom

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Sarcobatus vermiculatus	2	NO	FAC
2. Chrysothamnus viscidiflorus	10	YES	UPL
3. Ericameria nauseosa	1	NO	UPL
4. Artemisia tridentata	1	NO	UPL
5. Atriplex gardneri	30	YES	UPL
	44 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Iva axillaris	20	YES	FAC
2. Poa secunda	5	NO	FACU
3. Pascopyrum smithii	2	NO	FAC
4. Leymus cinereus	10	NO	FAC
5.			
6.			
7.			
8.			
	37 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 63 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 =
FACW species	0	x 2 =
FAC species	34	x 3 = 102
FACU species	5	x 4 = 20
UPL species	42	x 5 = 210
Column Totals:	81 (A)	332 (B)

Prevalence Index = B/A = 4.09

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:

Site located on edge of terrace above drainage/wetland in vegetation dominated by saline lowland species.

SOIL

Sampling Point: UP-63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	2.5Y 3/2	100	None				Loam	
10-18	2.5Y 4/2	100	None				Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

Root zone (0-10 inches) is browner and lighter textured. No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

No wetland hydrology indicators present.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: June 5, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-01
Investigator(s): Gornall and Vicenik Section, Township, Range: T17N R88W section 2
Landform (hillslope, terrace, etc.): Meadow Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47807 Long: -107.27004 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

The site includes a channelized feature in a topographic low that supports wetland characteristics.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	25	Yes	FACW
2.			
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	45	Yes	FACW
2. *Mertensia ciliata*	20	Yes	FACW
3. *Symphoricarpos albus*	15	No	FACU
4. *Carex praegracilis*	10	No	FACW
5. *Taraxacum officinale*	5	No	FACU
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**100**	x 2 =	**200**
FAC species	**0**	x 3 =	**0**
FACU species	**20**	x 4 =	**80**
UPL species	**0**	x 5 =	**0**
Column Totals:	**120** (A)		**280** (B)

Prevalence Index = B/A = **2.33**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-01**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 3/2	100	None	—	—	—	Loam	Root Zone
5-20	7.5YR 3/2	80	7.5YR 6/2	20	D	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- X Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: June 5, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-02
Investigator(s): Gornall and Vicenik Section, Township, Range: T17N R88W section 1
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47807 Long: -107.27004 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

The site includes a channelized feature in a topographic low that supports wetland characteristics.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	60	Yes	OBL
2. *Juncus balticus*	30	Yes	FACW
3. *Carex praegracilis*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**60**	x 1 =	**60**
FACW species	**45**	x 2 =	**90**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**105** (A)		**150** (B)

Prevalence Index = B/A = **1.43**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-02**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	7.5YR 2/1	100	None	—	—	—	Clay Loam	
5-18	N 4/0	80	7.5YR 3/3	20	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): **N/A**

Water Table Present? Yes ___ No X Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): **18**

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 23, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-03(2)
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S1 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Slope Local relief (concave, convex, none): None Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.73634 Long: -107.14473 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2. *Leymus cinereus*	7	No	FAC
3. *Sarcobatus vermiculatus*	2	No	FAC
4. *Chrysothamnus viscidiflorus*	1	No	UPL
5. *Elymus trachycaulus*	1	No	FACU
6.			
7.			
8.			
	101 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**90**	x 2 =	**180**
FAC species	**9**	x 3 =	**27**
FACU species	**1**	x 4 =	**4**
UPL species	**1**	x 5 =	**5**
Column Totals:	**101** (A)		**216** (B)

Prevalence Index = B/A = **2.14**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-03(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	97	2.5YR 6/8	3	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	1
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 17, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-03
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S18 T17N R87W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.44306 Long: -107.23882 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Juniperus scopulorum*	5	Yes	UPL
2.			
3.			
4.			
	5 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix discolor*	10	Yes	FACW
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2. *Alopecurus arundinaceus*	5	No	FAC
3. *Agrostis stolonifera*	4	No	FACW
4. *Hordeum pusillum*	1	No	FACU
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**104**	x 2 =	**208**
FAC species	**5**	x 3 =	**15**
FACU species	**1**	x 4 =	**4**
UPL species	**5**	x 5 =	**25**
Column Totals:	**115** (A)		**252** (B)

Prevalence Index = B/A = **2.19**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

Sampling Point: **WT-03**

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	7.5YR 2.5/1	100	None	—	—	—	Clay Loam	
3-10	7.5YR 2.5/1	95	7.5YR 4/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): **N/A**

Water Table Present? Yes ___ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes ___ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 23, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-04
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S23 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69290 Long: -107.15424 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	72	Yes	FACW
2. *Leymus cinereus*	15	No	FAC
3. *Distichlis spicata*	10	No	FAC
4. *Symphyotrichum lanceolatum*	2	No	OBL
5. *Equisetum arvense*	1	No	FAC
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**2**	x 1 =	**2**
FACW species	**72**	x 2 =	**144**
FAC species	**26**	x 3 =	**78**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**224** (B)

Prevalence Index = B/A = **2.24**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-04**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	95	2.5YR 6/8	5	C	M	Silty Clay	
12-16	10YR 5/4	95	2.5YR 6/8	5	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-05
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48199 Long: -107.29961 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Amelanchier pumila*	10	Yes	UPL
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Alopecurus pratensis*	20	Yes	FACW
3. *Poa arida*	5	No	FAC
4. *Hordeum brachyantherum*	5	No	FACW
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**85**	x 2 =	**170**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**10**	x 5 =	**50**
Column Totals:	**100** (A)		**235** (B)

Prevalence Index = B/A = **2.35**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-05**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/1	95	10YR 4/6	5	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-06(2)
Investigator(s): Vicenik and Isaacs Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.49014 Long: -107.27613 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus Balticus*	80	Yes	FACW
2. *Poa secunda*	5	No	FACU
3. *Hordeum brachyantherum*	5	No	FACW
4. *Alopecurus pratensis*	5	No	FACW
5. *Symphyotrichum lanceolatum*	5	No	OBL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**5**	x 1 =	**5**
FACW species	**90**	x 2 =	**180**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**205** (B)

Prevalence Index = B/A = **2.05**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-06(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-17	10YR 4/2	94	10YR 4/6	6	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	**N/A**
Water Table Present?	Yes ____	No X	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-06(3)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48846 Long: -107.27749 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Hordeum brachyantherum*	80	Yes	FACW
2. *Poa secunda*	5	No	FACU
3. *Juncus balticus*	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**85**	x 2 =	**170**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**190** (B)

Prevalence Index = B/A = **2.11**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-06(3)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	98	10YR 4/6	2	C	PL	Clay	
6-20	10YR 4/1	85	10YR 4/6	15	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	1
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-06(4)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48806 Long: -107.27635 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Hordeum brachyantherum*	60	Yes	FACW
2. *Juncus balticus*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**70**	x 2 =	**140**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**70** (A)		**140** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-06(4)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	88	10YR 4/6	12	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	1
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-06
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48897 Long: -107.27795 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	30	Yes	FACW
2. *Carex nebrascensis*	30	Yes	OBL
3. *Alopecurus pratensis*	20	Yes	FACW
4. *Deschampsia caespitosa*	15	No	FACW
5. *Rumex crispus*	5	No	FAC
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**30**	x 1 =	**30**
FACW species	**65**	x 2 =	**130**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**175** (B)

Prevalence Index = B/A = **1.75**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-06**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	85	10YR 4/6	15	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1

Water Table Present? Yes X No ___ Depth (inches): 15

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-07
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S26 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51044 Long: -107.28012 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Typha latifolia*	100	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**100**	x 1 =	**100**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**100** (B)

Prevalence Index = B/A = **1.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-07**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	N 5/0	80	10YR 4/6	20	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-08
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S13 T19N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.61812 Long: -107.13769 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	20	Yes	FACW
2. *Carex nebrascensis*	15	Yes	OBL
3. *Ranunculus cymbalaria*	10	Yes	OBL
4. *Taraxacum officinale*	5	No	FACU
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 50 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**25**	x 1 =	**25**
FACW species	**20**	x 2 =	**40**
FAC species	**0**	x 3 =	**0**
FACU species	**5**	x 4 =	**20**
UPL species	**0**	x 5 =	**0**
Column Totals:	**50** (A)		**85** (B)

Prevalence Index = B/A = **1.70**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-08**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	90	2.5YR 4/8	10	C	M	Sandy Clay	
14-17	10YR 6/4	90	2.5YR 4/8	10	C	M	Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	2

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-09
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54492 Long: -107.27980 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix monticola*	10	Yes	OBL
2. *Salix planifolia*	2	No	OBL
3. *Ribes inerme*	1	No	FAC
4.			
5.			
	13 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	40	Yes	FACW
2. *Carex nebrascensis*	20	Yes	OBL
3. *Leymus cinereus*	10	No	FAC
4. *Carex praegracilis*	5	No	FACW
5. *Rumex stenophyllus*	2	No	FACW
6. *Grindelia squarrosa*	1	No	FACU
7. *Agrostis stolonifera*	1	No	FACW
8. *Cirsium arvense*	1	No	FACU
	80 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**32**	x 1 =	**32**
FACW species	**48**	x 2 =	**96**
FAC species	**11**	x 3 =	**33**
FACU species	**2**	x 4 =	**8**
UPL species	**0**	x 5 =	**0**
Column Totals:	**93** (A)		**169** (B)

Prevalence Index = B/A = **1.82**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-09**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/1	90	7.5YR 4/6	10	C	M	Sandy Clay Loam	
5-20	10YR 4/2	96	7.5YR 5/6	4	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-10(2)
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.55086 Long: -107.26875 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	48	Yes	FACW
2. *Hordeum brachyantherum*	10	No	FACW
3. *Iris missouriensis*	2	No	FACW
4. *Carex praegracilis*	2	No	FACW
5.			
6.			
7.			
8.			
	62 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 38 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**62**	x 2 =	**124**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**62** (A)		**124** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-10(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 3/2	90	7.5YR 4/6	10	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- X Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-10
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54959 Long: -107.26978 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Sarcobatus vermiculatus*	1	Yes	FAC
2.			
3.			
4.			
5.			
	1 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Elymus trachycaulus*	8	No	FACU
3. *Carex douglasii*	2	No	FAC
4. *Iris missouriensis*	1	No	FACW
5. *Triglochin maritima*	1	No	OBL
6. *Taraxacum officinale*	1	No	FACU
7.			
8.			
	63 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 37 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**1**	x 1 =	**1**
FACW species	**51**	x 2 =	**102**
FAC species	**3**	x 3 =	**9**
FACU species	**9**	x 4 =	**36**
UPL species	**0**	x 5 =	**0**
Column Totals:	**64** (A)		**148** (B)

Prevalence Index = B/A = **2.31**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-10**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 5/2	92	10YR 5/8	8	C	M	Sandy Clay Loam	
11-20	10YR 5/1	97	10YR 4/6	3	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- X Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- X Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	2
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 21, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-11
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S20 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69177 Long: -107.22345 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	30	Yes	FACW
2. *Hordeum brachyantherum*	15	Yes	FACW
3. *Elymus trachycaulus*	10	No	FACU
4. *Poa secunda*	7	No	FACU
5. *Artemisia ludoviciana*	5	No	FACU
6. *Taraxacum officinale*	5	No	FACU
7. *Conium maculatum*	2	No	FACW
8.			
	74 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 26 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**47**	x 2 =	**94**
FAC species	**0**	x 3 =	**0**
FACU species	**27**	x 4 =	**108**
UPL species	**0**	x 5 =	**0**
Column Totals:	**74** (A)		**202** (B)

Prevalence Index = B/A = **2.73**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-11**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	90	2.5YR 4/8	10	C	M	Silty Clay Loam	
8-16	10YR 4/2	80	2.5YR 4/8	20	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-12
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S24 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.69057 Long: -107.13924 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex aquatilis*	80	Yes	OBL
2. *Juncus balticus*	15	No	FACW
3. *Triglochin maritima*	5	No	OBL
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**85**	x 1 =	**85**
FACW species	**15**	x 2 =	**30**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**115** (B)

Prevalence Index = B/A = **1.15**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-12**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100	None	—	—	—	Silty Clay Loam	
10-20	N 5/0	100	None	—	—	—	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	2
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-13
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S30 T20N R86W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67238 Long: -107.12253 Datum: NAD_83
Soil Map Unit Name: Quealman sandy loam, 0 to 6 percent slopes NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	85	Yes	FACW
2. *Poa secunda*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**85**	x 2 =	**170**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**0**	x 5 =	**0**
Column Totals:	**95** (A)		**210** (B)

Prevalence Index = B/A = **2.21**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-13**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	100	None	—	—	—	Sandy Clay Loam	
4-7	10YR 4/1	65	5YR 5/8	35	C	M	Silt Loam	
7-17	10YR 4/2	85	5YR 5/8	15	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- X Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): **N/A**

Water Table Present? Yes ____ No X Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): **>20**

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 21, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-14(2)
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67748 Long: -107.17355 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex vesicaria*	35	Yes	OBL
2. *Juncus balticus*	25	Yes	FACW
3. *Agrostis stolonifera*	10	No	FACW
4. *Cirsium scariosum*	2	No	FAC
5.			
6.			
7.			
8.			
	72 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 28 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**35**	x 1 =	**35**
FACW species	**35**	x 2 =	**70**
FAC species	**2**	x 3 =	**6**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**72** (A)		**111** (B)

Prevalence Index = B/A = **1.54**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-14(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	93	2.5YR 6/8	5	C	M	Silty Clay	
			10YR 5/1	2	D	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-14(3)
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67825 Long: -107.17375 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**90**	x 2 =	**180**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**180** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-14(3)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	2.5Y 4/2	85	10YR 4/6	15	C	M	Sandy Clay Loam	
16-20	2.5Y 4/2	96	10YR 4/6	4	C	M	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 21, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-14
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S26 T20N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67823 Long: -107.16984 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Poa secunda*	15	No	FACU
3. *Carex praegracilis*	10	No	FACW
4. *Elymus trachycaulus*	5	No	FACU
5. *Cirsium scariosum*	2	No	FAC
6. *Stenotus armerioides*	2	No	UPL
7.			
8.			
	84 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 16 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**60**	x 2 =	**120**
FAC species	**2**	x 3 =	**6**
FACU species	**20**	x 4 =	**80**
UPL species	**2**	x 5 =	**10**
Column Totals:	**84** (A)		**216** (B)

Prevalence Index = B/A = **2.57**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-14**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/1	98	2.5YR 6/8	2	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	4
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-15
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53723 Long: -107.29200 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Poa arida*	20	Yes	FAC
3. *Rumex paucifolius*	20	Yes	FAC
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**50**	x 2 =	**100**
FAC species	**40**	x 3 =	**120**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**220** (B)

Prevalence Index = B/A = **2.44**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-15**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-5	2.5Y 4/2	97	10YR 4/6	3	C	PL	Sandy Loam	
5-20	2.5Y 4/2	100	None	—	—	—	Sandy Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-16
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54469 Long: -107.29105 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2. *Rumex crispus*	5	No	FAC
3.			
4.			
5.			
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**90**	x 2 =	**180**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**95** (A)		**195** (B)

Prevalence Index = B/A = **2.05**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-16**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/2	95	10YR 5/6	5	C	M	Clay	Shovel Rejection

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Rock

Depth(inches): 16

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 7, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-17
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LLR D Lat: 41.54486 Long: -107.28923 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is located within a drainage.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix amygdaloides*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Carex aquatilis*	50	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**50**	x 1 =	**50**
FACW species	**70**	x 2 =	**140**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**120** (A)		**190** (B)

Prevalence Index = B/A = **1.58**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-17**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 5/1	80	2.5YR 4/8	20	C	M	Clay Loam	
2-16	10YR 6/1	80	10YR 5/8	20	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 16, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-18(2)
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52327 Long: -107.30293 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Carex nebrascensis*	15	No	OBL
3. *Carex praegracilis*	2	No	FACW
4. *Achillea millefolium*	2	No	FACU
5.			
6.			
7.			
8.			
	79 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 21 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**15**	x 1 =	**15**
FACW species	**62**	x 2 =	**124**
FAC species	**0**	x 3 =	**0**
FACU species	**2**	x 4 =	**8**
UPL species	**0**	x 5 =	**0**
Column Totals:	**79** (A)		**147** (B)

Prevalence Index = B/A = **1.86**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-18(2)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	92	2.5YR 6/8	8	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No **X** Depth (inches): **N/A**

Water Table Present? Yes ____ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes ____ No **X** Depth (inches): **>20**

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 13, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-18(3)
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52466 Long: -107.30192 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	20	Yes	FACU
2.			
3.			
4.			
	20 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix planifolia*	20	Yes	OBL
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	25	Yes	FACW
2. *Carex nebrascensis*	5	No	OBL
3. *Carex praegracilis*	1	No	FACW
4.			
5.			
6.			
7.			
8.			
	31 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 69 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**25**	x 1 =	**25**
FACW species	**26**	x 2 =	**52**
FAC species	**0**	x 3 =	**0**
FACU species	**20**	x 4 =	**80**
UPL species	**0**	x 5 =	**0**
Column Totals:	**71** (A)		**157** (B)

Prevalence Index = B/A = **2.21**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-18(3)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	87	10YR 4/6	13	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	1
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 13, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-18(4)
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52441 Long: -107.30167 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix amygdaloides*	20	Yes	FACW
2. *Salix monticola*	20	Yes	OBL
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	40	Yes	FACW
2. *Deschampsia caespitosa*	15	Yes	FACW
3. *Alopecurus pratensis*	12	No	FACW
4. *Leymus cinereus*	3	No	FAC
5. *Symphyotrichum lanceolatum*	2	No	OBL
6. *Rosa woodsii*	1	No	FACU
7. *Achillea millefolium*	1	No	FACU
8.			
	74 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 26 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**22**	x 1 =	**22**
FACW species	**87**	x 2 =	**174**
FAC species	**3**	x 3 =	**9**
FACU species	**2**	x 4 =	**8**
UPL species	**0**	x 5 =	**0**
Column Totals:	**114** (A)		**213** (B)

Prevalence Index = B/A = **1.87**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-18(4)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	90	2.5YR 5/8	10	C	M	Clay	
8-14	10YR 2/1	98	2.5YR 4/8	2	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No **X** Depth (inches): **N/A**

Water Table Present? Yes ___ No **X** Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes **X** No ___ Depth (inches): **2**

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 13, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-18(5)
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52394 Long: -107.30155 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix planifolia*	50	Yes	OBL
2. *Salix monticola*	10	No	OBL
3. *Amelanchier alnifolia*	5	No	FACU
4. *Artemisia tridentata*	1	No	UPL
5. *Artemisia cana*	1	No	FACU
	67 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	10	Yes	OBL
2. *Cirsium arvense*	5	Yes	FACU
3. *Rumex crispus*	4	No	FAC
4. *Taraxacum officinale*	2	No	FACU
5.			
6.			
7.			
8.			
	21 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 79 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**70**	x 1 =	**70**
FACW species	**0**	x 2 =	**0**
FAC species	**4**	x 3 =	**12**
FACU species	**13**	x 4 =	**52**
UPL species	**1**	x 5 =	**5**
Column Totals:	**88** (A)		**139** (B)

Prevalence Index = B/A = **1.58**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-18(5)**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	90	2.5YR 5/8	10	C	M	Sandy Clay	
8-14	10YR 2/1	98	2.5YR 5/8	2	C	M	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 13, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-18
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S22 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52378 Long: -107.30220 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Alopecurus pratensis*	7	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	57 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 43 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**57**	x 2 =	**114**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**57** (A)		**114** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-18**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/2	90	2.5YR 4/3	10	C	M	Silty Clay	
4-16	N 4/0	60	10YR 6/2	20	D	M	Silty Clay	
			2.5YR 6/8	20	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- **X** Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** **X** **No** _____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- **X** Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes _____	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes _____	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes** **X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-19
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53293 Long: -107.28771 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia cana*	35	Yes	FACU
2.			
3.			
4.			
5.			
	35 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	50	Yes	OBL
2. *Symphyotrichum lanceolatum*	5	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	55 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 45 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**55**	x 1 =	**55**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**35**	x 4 =	**140**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**195** (B)

Prevalence Index = B/A = **2.17**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-19**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100	None	—	—	—	Sandy Clay Loam	
2-20	10YR 4/1	80	7.5YR 4/6	20	C	PL	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-20
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48357 Long: -107.29678 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix monticola*	20	Yes	OBL
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	30	Yes	OBL
2. *Deschampsia caespitosa*	15	Yes	FACW
3. *Alopecurus pratensis*	10	No	FACW
4. *Juncus balticus*	10	No	FACW
5. *Rumex crispus*	5	No	FAC
6.			
7.			
8.			
	70 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**50**	x 1 =	**50**
FACW species	**35**	x 2 =	**70**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**135** (B)

Prevalence Index = B/A = **1.50**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-20**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	85	10YR 4/6	15	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-21
Investigator(s): Vicenik and Isaacs Section, Township, Range: S3 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48392 Long: -107.29491 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	65	Yes	FACW
2. *Alopecurus pratensis*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 25 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**95**	x 2 =	**190**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**95** (A)		**190** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-21**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/2	87	7.5YR 4/6	13	C	PL	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- X Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-22
Investigator(s): Vicenik and Isaacs Section, Township, Range: S34 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48694 Long: -107.29255 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	25	Yes	FACW
2. *Salix monticola*	20	Yes	OBL
3.			
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	35	Yes	FACW
2. *Alopecurus pratensis*	10	No	FACW
3. *Iris missouriensis*	10	No	FACW
4. *Deschampsia caespitosa*	5	No	FACW
5.			
6.			
7.			
8.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 40 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**20**	x 1 =	**20**
FACW species	**85**	x 2 =	**170**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**105** (A)		**190** (B)

Prevalence Index = B/A = **1.81**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-22**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	94	10YR 5/8	6	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-23
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S2 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47813 Long: -107.28398 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is in a drainage running down a slight hill.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Alopecurus pratensis*	20	Yes	FACW
3. *Iris missouriensis*	20	Yes	FACW
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**100**	x 2 =	**200**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**200** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-23**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 5/1	90	10YR 5/8	10	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-24
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S2 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47193 Long: -107.27678 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is located in streambed and slightly up on banks.

VEGETATION - Use scientific names of plants.

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix amygdaloides*	60	Yes	FACW
2.			
3.			
4.			
5.			
	60 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	97	Yes	FACW
2. *Cirsium undulatum*	3	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**157**	x 2 =	**314**
FAC species	**0**	x 3 =	**0**
FACU species	**3**	x 4 =	**12**
UPL species	**0**	x 5 =	**0**
Column Totals:	**160** (A)		**326** (B)

Prevalence Index = B/A = **2.04**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-24**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/1	75	10YR 6/6	25	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	10

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-25
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S29 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51116 Long: -107.32820 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is located in a drainage with a rocky, vegetated streambed.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Artemisia tridentata*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	80	Yes	FACW
2. *Juncus dudleyi*	19	No	FAC
3. *Calamagrostis canadensis*	1	No	FACW
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**81**	x 2 =	**162**
FAC species	**19**	x 3 =	**57**
FACU species	**0**	x 4 =	**0**
UPL species	**5**	x 5 =	**25**
Column Totals:	**105** (A)		**244** (B)

Prevalence Index = B/A = **2.32**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-25**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 4/2	95	5YR 4/6	5	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- X Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-26
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S18 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52798 Long: -107.35257 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is located in a wide, flat drainage between two hills.

VEGETATION - Use scientific names of plants.

	Absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex aquatilis*	100	Yes	OBL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**100**	x 1 =	**100**
FACW species	**0**	x 2 =	**0**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**100** (B)

Prevalence Index = B/A = **1.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-26**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	80	5YR 5/8	20	C	M	Clay Loam	
10-20	10YR 5/1	95	7.5YR 5/8	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1

Water Table Present? Yes X No ___ Depth (inches): 16

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-27
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S13 T18N R89W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.53115 Long: -107.36205 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland located in a drainage.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	80	Yes	FACW
2. *Calamagrostis canadensis*	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**100**	x 2 =	**200**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**200** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-27**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	7.5YR 3/1	90	7.5YR 4/6	10	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): **N/A**

Water Table Present? Yes ____ No X Depth (inches): **>20**

Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): **14**

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-28
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S14 T18N R89W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52919 Long: -107.37866 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	90	Yes	OBL
2. *Juncus balticus*	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**90**	x 1 =	**90**
FACW species	**10**	x 2 =	**20**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**110** (B)

Prevalence Index = B/A = **1.10**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-28**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 4/1	95	7.5YR 5/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-29
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S11 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.55384 Long: -107.27879 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2. *Carex nebrascensis*	10	No	OBL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**10**	x 1 =	**10**
FACW species	**90**	x 2 =	**180**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**190** (B)

Prevalence Index = B/A = **1.90**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-29**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/1	92	10YR 4/6	8	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 12, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-30
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S15 T18N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52890 Long: -107.29632 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Deschampsia caespitosa*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 35 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**85**	x 2 =	**170**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**85** (A)		**170** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-30**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	2.5Y 4/2	88	10YR 5/8	12	C	M	Sandy Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches):	4
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: November 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-31
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46338 Long: -107.25795 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	30	Yes	FACW
2. *Alopecurus pratensis*	30	Yes	FACW
3. *Poa secunda*	4	No	FACU
4. *Elymus trachycaulus*	4	No	FACU
5. *Stenotus acaulis*	3	No	UPL
6. *Achillea millefolium*	3	No	FACU
7. *Hordeum brachyantherum*	2	No	FACW
8.			
	76 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 24 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**62**	x 2 =	**124**
FAC species	**0**	x 3 =	**0**
FACU species	**11**	x 4 =	**44**
UPL species	**3**	x 5 =	**15**
Column Totals:	**76** (A)		**183** (B)

Prevalence Index = B/A = **2.41**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-31**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/2	87	10YR 6/8	13	C	M	Clay Loam	
9-17	10YR 3/4	60	10YR 6/8	40	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: November 8, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-32
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S10 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.54656 Long: -107.29364 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	25	Yes	FACW
2.			
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	75	Yes	FACW
2. *Phleum pratense*	15	No	FACU
3. *Elymus lanceolatus*	10	No	UPL
4. *Iris missouriensis*	5	No	FACW
5.			
6.			
7.			
8.			
	105 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**105**	x 2 =	**210**
FAC species	**0**	x 3 =	**0**
FACU species	**15**	x 4 =	**60**
UPL species	**10**	x 5 =	**50**
Column Totals:	**130** (A)		**320** (B)

Prevalence Index = B/A = **2.46**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-32**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 2/1	95	2.5YR 6/8	5	C	M	Silty Clay	
7-18	10YR 2/1	90	2.5YR 6/8	10	C	M	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 9, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-33
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S24 T18N R89W
Landform (hillslope, terrace, etc.): Drainage Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.52507 Long: -107.36607 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Wetland is located in a large, multi-channel drainage.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex nebrascensis*	95	Yes	OBL
2. *Calamagrostis canadensis*	5	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**95**	x 1 =	**95**
FACW species	**5**	x 2 =	**10**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**105** (B)

Prevalence Index = B/A = **1.05**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-33**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	7.5YR 5/1	90	7.5YR 5/6	10	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 1

Water Table Present? Yes X No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-34
Investigator(s): DuWaldt and Isaacs Section, Township, Range: S6 T18N R87W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.56757 Long: -107.24334 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No** ,Soil **No** ,or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	45	Yes	FACW
2. *Elymus trachycaulus*	15	Yes	FACU
3. *Leymus cinereus*	5	No	FAC
4. *Symphyotrichum lanceolatum*	2	No	OBL
5. *Cirsium arvense*	1	No	FACU
6.			
7.			
8.			
	68 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 32 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**2**	x 1 =	**2**
FACW species	**45**	x 2 =	**90**
FAC species	**5**	x 3 =	**15**
FACU species	**16**	x 4 =	**64**
UPL species	**0**	x 5 =	**0**
Column Totals:	**68** (A)		**171** (B)

Prevalence Index = B/A = **2.51**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-34**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/2	80	10YR 4/6	20	C	M	Clay	
7-20	10YR 4/1	78	10YR 4/6	22	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-35
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S6 T18N R87W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.56672 Long: -107.24504 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix exigua*	65	Yes	FACW
2.			
3.			
4.			
5.			
	65 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	45	Yes	FACW
2. *Hordeum brachyantherum*	40	Yes	FACW
3. *Elymus trachycaulus*	7	No	FACU
4. *Rosa woodsii*	2	No	FACU
5. *Hypericum scouleri*	2	No	FACW
6. *Taraxacum officinale*	1	No	FACU
7.			
8.			
	97 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 3 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**152**	x 2 =	**304**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**0**	x 5 =	**0**
Column Totals:	**162** (A)		**344** (B)

Prevalence Index = B/A = **2.12**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-35**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/2	80	10YR 4/6	20	C	M	Clay	
7-20	10YR 4/1	78	10YR 4/6	22	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 19, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-36
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S12 T17N R88W
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46325 Long: -107.26237 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *Populus tremuloides*	10	Yes	FACU
2.			
3.			
4.			
	10 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	75	Yes	FACW
2. *Carex aquatilis*	15	No	OBL
3. *Agrostis stolonifera*	5	No	FACW
4. *Oxytropis sericea*	4	No	UPL
5. *Tragopogon dubius*	1	No	UPL
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**15**	x 1 =	**15**
FACW species	**80**	x 2 =	**160**
FAC species	**0**	x 3 =	**0**
FACU species	**10**	x 4 =	**40**
UPL species	**5**	x 5 =	**25**
Column Totals:	**110** (A)		**240** (B)

Prevalence Index = B/A = **2.18**

Hydrophytic Vegetation Indicators:

____ Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
____ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-36**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100	None	—	—	—	Silt Loam	
6-12	10YR 3/2	95	10YR 5/6	5	C	M	Silt Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- ____ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	5

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-37
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S11 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46652 Long: -107.27176 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Phalaris arundinacea*	80	Yes	FACW
2. *Juncus balticus*	10	No	FACW
3. *Alopecurus pratensis*	5	No	FACW
4. *Eleocharis palustris*	5	No	OBL
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**5**	x 1 =	**5**
FACW species	**95**	x 2 =	**190**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**195** (B)

Prevalence Index = B/A = **1.95**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-37**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/2	100	None	—	—	—	Clay Loam	
2-16	10YR 5/1	90	10YR 5/6	10	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	12

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 22, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-38
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S11 T17N R88W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46833 Long: -107.27221 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	80	Yes	FACW
2. *Phalaris arundinacea*	15	No	FACW
3. *Hordeum jubatum*	5	No	FAC
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**95**	x 2 =	**190**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**205** (B)

Prevalence Index = B/A = **2.05**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-38**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	100	None	—	—	—	Silty Clay Loam	
6-20	10YR 5/1	85	7.5YR 6/8	15	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- X Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- ____ Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ____	Depth (inches):	6

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-39
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S1 T17N R88W
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47274 Long: -107.25802 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	50	Yes	FACW
2. *Alopecurus pratensis*	20	Yes	FACW
3. *Agrostis stolonifera*	20	Yes	FACW
4. *Trifolium hybridum*	10	No	FAC
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**90**	x 2 =	**180**
FAC species	**10**	x 3 =	**30**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**210** (B)

Prevalence Index = B/A = **2.10**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-39**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1	100	None	—	—	—	Clay Loam	
6-16	10YR 2/1	98	10YR 4/6	2	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 24, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-40
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S1 T17N R88W
Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.47290 Long: -107.25840 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

Creek with flowing water meanders through wetland.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix amygdaloides*	60	Yes	FACW
2. *Salix X fragilis*	20	Yes	FAC
3.			
4.			
5.			
	80 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	20	Yes	FACW
2. *Carex aquatilis*	20	Yes	OBL
3. *Carex nebrascensis*	20	Yes	OBL
4. *Carex microptera*	20	Yes	FAC
5. *Poa palustris*	15	No	FAC
6. *Cicuta maculata*	2	No	OBL
7. *Equisetum arvense*	2	No	FAC
8. *Agrostis exarata*	1	No	FACW
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **6** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**42**	x 1 =	**42**
FACW species	**81**	x 2 =	**162**
FAC species	**57**	x 3 =	**171**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**180** (A)		**375** (B)

Prevalence Index = B/A = **2.08**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-40**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100	None	—	—	—	Silty Clay Loam	
8-16	10YR 2/1	98	10YR 4/6	2	C	M	Silty Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes X	No ___	Depth (inches):	6
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: July 25, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-41
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.48503 Long: -107.27670 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Typha angustifolia*	40	Yes	OBL
2. *Eleocharis palustris*	25	Yes	OBL
3. *Juncus balticus*	20	Yes	FACW
4. *Juncus compressus*	10	No	OBL
5. *Hordeum jubatum*	3	No	FAC
6. *Plantago major*	2	No	FAC
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**75**	x 1 =	**75**
FACW species	**20**	x 2 =	**40**
FAC species	**5**	x 3 =	**15**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**130** (B)

Prevalence Index = B/A = **1.30**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-41**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	N 6/0	90	7.5YR 6/8	10	C	M	Clay Loam	
4-16	N 7/0	100	None	—	—	—	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- X Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- X Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes X	No ___	Depth (inches):	2
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	0

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 18, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-42
Investigator(s): Kimberly Ip and Vicenik Section, Township, Range: S7 T17N R87W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.46107 Long: -107.24016 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	55	Yes	FACW
2. *Carex aquatilis*	20	Yes	OBL
3. *Alopecurus geniculatus*	10	No	OBL
4. *Carex praegracilis*	10	No	FACW
5. *Glyceria grandis*	3	No	OBL
6. *Bromus ciliatus*	1	No	FAC
7. *Hordeum jubatum*	1	No	FAC
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**33**	x 1 =	**33**
FACW species	**65**	x 2 =	**130**
FAC species	**2**	x 3 =	**6**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**100** (A)		**169** (B)

Prevalence Index = B/A = **1.69**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

West boundary of wetland is bordered by aspens and cottonwoods.

SOIL

Sampling Point: **WT-42**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/1	95	7.5YR 6/8	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-43
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S34 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.49407 Long: -107.28535 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	60	Yes	FACW
2. *Deschampsia caespitosa*	10	No	FACW
3. *Carex praegracilis*	10	No	FACW
4. *Eleocharis palustris*	5	No	OBL
5.			
6.			
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 15 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**5**	x 1 =	**5**
FACW species	**80**	x 2 =	**160**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**85** (A)		**165** (B)

Prevalence Index = B/A = **1.94**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-43**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/2	95	2.5YR 4/6	5	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- X Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-44
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S35 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.49442 Long: -107.27564 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Carex atherodes*	45	Yes	OBL
2. *Juncus balticus*	30	Yes	FACW
3. *Deschampsia caespitosa*	14	No	FACW
4. *Eleocharis palustris*	5	No	OBL
5.			
6.			
7.			
8.			
	94 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 6 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**50**	x 1 =	**50**
FACW species	**44**	x 2 =	**88**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**94** (A)		**138** (B)

Prevalence Index = B/A = **1.47**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-44**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5YR 5/6	100	None	—	—	—	Clay Loam	
4-16	10GY 4/1	98	10YR 2/1	2	C	M	Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) **(LRR C)**
- ___ 1 cm Muck (A9) **(LRR D)**
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- X Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) **(LRR C)**
- ___ 2 cm Muck (A10) **(LRR B)**
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: ___

Depth(inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) **(Nonriverine)**
- ___ Sediment Deposits (B2) **(Nonriverine)**
- ___ Drift Deposits (B3) **(Nonriverine)**
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) **(Riverine)**
- ___ Sediment Deposits (B2) **(Riverine)**
- ___ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches):	N/A
Water Table Present?	Yes ___	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches):	6

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-45
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S26 T18N R88W
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51104 Long: -107.28046 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	75	Yes	FACW
2. *Carex praegracilis*	4	No	FACW
3. *Achillea millefolium*	2	No	FACU
4.			
5.			
6.			
7.			
8.			
	81 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 19 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**79**	x 2 =	**158**
FAC species	**0**	x 3 =	**0**
FACU species	**2**	x 4 =	**8**
UPL species	**0**	x 5 =	**0**
Column Totals:	**81** (A)		**166** (B)

Prevalence Index = B/A = **2.05**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-45**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	95	2.5YR 6/8	5	C	M	Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- X Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 10, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-46
Investigator(s): DuWaldt and Vicenik Section, Township, Range: S26 T18N R88W
Landform (hillslope, terrace, etc.): Drainage Channel Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.51070 Long: -107.28100 Datum: NAD 83
Soil Map Unit Name: No Digital Data Available NWI classification: PSS
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No _____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No _____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No _____	**Is the Sampled Area within a Wetland?** **Yes X** **No** _____
Hydric Soil Present?	Yes **X**	No _____	
Wetland Hydrology Present?	Yes **X**	No _____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *Salix planifolia*	90	Yes	OBL
2.			
3.			
4.			
5.			
	90 = Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	10	Yes	FACW
2. *Elymus cinereus*	6	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	16 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 84 % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**90**	x 1 =	**90**
FACW species	**10**	x 2 =	**20**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**6**	x 5 =	**30**
Column Totals:	**106** (A)		**140** (B)

Prevalence Index = B/A = **1.32**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** _____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-46**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10GY 5/1	80	2.5YR 6/8	20	C	M	Silty Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- **X** Loamy Gleyed Matrix (F2)
- ____ Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** **X** **No** _____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- **X** Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- **X** Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- **X** FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No **X**	Depth (inches):	**N/A**
Water Table Present?	Yes _____	No **X**	Depth (inches):	**>20**
Saturation Present? (includes capillary fringe)	Yes _____	No **X**	Depth (inches):	**>20**

Wetland Hydrology Present? **Yes** **X** **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Chokecherry Sierra Madre County: Carbon Sampling Date: October 26, 2013
Applicant/Owner: PCW State: Wyoming Sampling Point: WT-47
Investigator(s): Vicenik and Duwaldt Section, Township, Range: S27 T20N R87W
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-5
Subregion (LRR): LRR D Lat: 41.67419 Long: -107.18247 Datum: NAD_83
Soil Map Unit Name: No Digital Data Available NWI classification: PEM
Are climatic / hydrologic conditions on the site typical for this time of year? Yes **X** No ____ (If no, explain in Remarks.)
Are Vegetation **No**, Soil **No**, or Hydrology **No** significantly disturbed? Are "Normal Circumstances" present? Yes **X** No ____
Are Vegetation **No**, Soil **No**, or Hydrology **No** naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes **X**	No ____	**Is the Sampled Area within a Wetland?** **Yes X** **No** ____
Hydric Soil Present?	Yes **X**	No ____	
Wetland Hydrology Present?	Yes **X**	No ____	

Remarks:
This point was determined to be within a wetland due to the presence of all 3 wetland criteria.

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30 ft.)	Absolute % cover	Dominant Species?	Indicator Status
1. *None Observed*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 ft.)			
1. *None Observed*			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 ft.)			
1. *Juncus balticus*	90	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 ft.)			
1. *None Observed*			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	**0**	x 1 =	**0**
FACW species	**90**	x 2 =	**180**
FAC species	**0**	x 3 =	**0**
FACU species	**0**	x 4 =	**0**
UPL species	**0**	x 5 =	**0**
Column Totals:	**90** (A)		**180** (B)

Prevalence Index = B/A = **2.00**

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%
X Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes X** **No** ____

Remarks:
A positive indication of hydrophytic vegetation was observed (>50% of dominant species indexed as OBL, FACW, or FAC).
A positive indication of hydrophytic vegetation was observed (Prevalence Index is ≤ 3.0).

SOIL

Sampling Point: **WT-47**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-16	2.5Y 4/2	85	10YR 4/6	15	C	M	Sandy Clay Loam	
16-20	2.5Y 4/2	96	10YR 4/6	4	C	M	Sandy Clay Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soils Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ____ Histosol (A1)
- ____ Histic Epipedon (A2)
- ____ Black Histic (A3)
- ____ Hydrogen Sulfide (A4)
- ____ Stratified Layers (A5) **(LRR C)**
- ____ 1 cm Muck (A9) **(LRR D)**
- ____ Depleted Below Dark Surface (A11)
- ____ Thick Dark Surface (A12)
- ____ Sandy Mucky Mineral (S1)
- ____ Sandy Gleyed Matrix (S4)
- ____ Sandy Redox (S5)
- ____ Stripped Matrix (S6)
- ____ Loamy Mucky Mineral (F1)
- ____ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ____ Redox Dark Surface (F6)
- ____ Depleted Dark Surface (F7)
- ____ Redox Depressions (F8)
- ____ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ____ 1 cm Muck (A9) **(LRR C)**
- ____ 2 cm Muck (A10) **(LRR B)**
- ____ Reduced Vertic (F18)
- ____ Red Parent Material (TF2)
- ____ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth(inches): _____

Hydric Soil Present? **Yes** X **No** ____

Remarks:

A positive indication of hydric soil was observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ____ Surface Water (A1)
- ____ High Water Table (A2)
- ____ Saturation (A3)
- ____ Water Marks (B1) **(Nonriverine)**
- ____ Sediment Deposits (B2) **(Nonriverine)**
- ____ Drift Deposits (B3) **(Nonriverine)**
- ____ Surface Soil Cracks (B6)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Water-Stained Leaves (B9)
- ____ Salt Crust (B11)
- ____ Biotic Crust (B12)
- ____ Aquatic Invertebrates (B13)
- ____ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres along Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ____ Water Marks (B1) **(Riverine)**
- ____ Sediment Deposits (B2) **(Riverine)**
- ____ Drift Deposits (B3) **(Riverine)**
- X Drainage Patterns (B10)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Shallow Aquitard (D3)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches):	N/A
Water Table Present?	Yes ____	No X	Depth (inches):	>20
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches):	>20

Wetland Hydrology Present? **Yes** X **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A positive indication of wetland hydrology was observed (at least one primary indicator).

A positive indication of wetland hydrology was observed (at least two secondary indicators).

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Chokecherry Sierra Madre City/County: Carbon County Sampling Date: 5/28/2014

Applicant/Owner: PCW State: WY Sampling Point: WT-50

Investigator(s): Ashli Gornall Section, Township, Range: _____

Landform (hillslope, terrace, etc.): drainage channel Local relief (concave, convex, none): convex Slope (%): 2

Subregion (LRR): Interior Deserts (D) Lat: -107.294242 Long: 41.494870 Datum: NAD83

Soil Map Unit Name: _____ NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Vegetated channelized drainage contains wetland indicators.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet)			
1. Salix monticola	40	Y	OBL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 feet)			
1. Juncus arcticus	50	Y	FacW
2. Alopecurus pratensis	10	Y	FacW
3. Rosa sp.	3	N	FacU
4.			
5.			
6.			
7.			
8.			
	63 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet)			
1. none			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 37 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Hydrophytic vegetation present according to the rapid assessment and dominance test. No additional indicators are necessary.

SOIL

Sampling Point: WT-50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10 YR 4/1	70	none				clay loam	root zone 0-2
	10 YR 4/3	30	none				clay loam	dual matrix

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): ___

Hydric Soil Present? Yes X No ___

Remarks:

Low chroma, depleted soils observed throughout the dual matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ✓ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): none

Water Table Present? Yes X No ___ Depth (inches): 5"

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): throughout pit

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Several indicators of hydrology observed at data point - the channel contains flowing water approximately 18" from pit.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Lone Tree Creek City/County: Carbon County Sampling Date: 08/11/2104

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: WT59

Investigator(s): P.Gordon, J.Silva, R.Duncan Section, Township, Range: S26 T18N R88W

Landform (hillslope, terrace, etc.): Drainage channel Local relief (concave, convex, none): Concave Slope (%): 5

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°29'59.439"N Long: 107°16'30.903"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

Sample site on lower bench immediately above channel. Site within willow shrubland community with hydrophytic plant understory. No water present, but it isn't long gone.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 3M X 1M)			
1. Salix exigua	5	YES	FACW
2. Salix lutea	5	YES	OBL
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 3M X 1M)			
1. Eleocharis palustris	20	YES	OBL
2. Agrostis gigantea	5	NO	FACW
3. Puccinellia nuttalliana	20	YES	FACW
4. Carex nebrascensis	20	YES	OBL
5. Juncus balticus	1	NO	FACW
6. Symphyotrichum eatorii	1	NO	FAC
7. Phleum pratense	15	YES	FACU
8. Poa prantensis	1	NO	FAC
	83	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 17 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks:

Willow shrubland community with hydrophytic plant understory.

SOIL

Sampling Point: WT-59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5Y 4/1	98	10YR 5/8	2	C	M	clay loam	
12-20	2.5Y 3/1	90	10YR 5/8	10	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): 0-20

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Ribbon not passing 2", texture similar throughout profile. More organic in lower levels (incorporated black leaves below 12").

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ✓ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Leaf litter and twigs deposited among Eleocharis, oxidized rhizosphere on living roots

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Lone Tree Creek Tributary City/County: Carbon County Sampling Date: 8/11/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: WT-60

Investigator(s): P. Gordon, R. Duncan, & J. Silva Section, Township, Range: S35 T18N R88W

Landform (hillslope, terrace, etc.): Drainage channel Local relief (concave, convex, none): Concave Slope (%): <5%

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°29'56.055"N Long: 107°16'46.072"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Channel bottom (intermittant) within Mountain sage flats. Eroded (steep) banks with a mix of upland and wetland vegetation. Some terraces/benches within drainage containing non-wetland vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 3M X 1M)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix boothii	40	YES	FACW
2. Salix lutea	30	YES	OBL
3. Rosa woodsii	1	NO	FACU
4. Symphoricarpos albus	1	NO	FACU
5. Artemesia cana	2	NO	FACU
	74	= Total Cover	

Herb Stratum (Plot size: 3M X 1M)	Absolute % Cover	Dominant Species?	Indicator Status
1. Carex nebrascensis	15	YES	OBL
2. Poa pratensis	2	NO	FAC
3. Symphyotrichum eatonii	2	NO	FAC
4. Geranium richardsonii	1	NO	FACU
5. Achillea millefolium	1	NO	FACU
6. Phleum pratense	1	NO	FACU
7. Juncus balticus	1	NO	FACW
8. Potentilla gracilis	1	NO	FAC
	24	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 76 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Salix overstory with Carex basal vegetation.

SOIL

Sampling Point: WT-60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-6	2.5Y 4/2	100	None				clay loam	
6-20	2.5Y 4/2	98	10 YR 5/8	2	C	M	clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): N/A

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soil profile generally homogeneous, with redox concentrations below 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ✓ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Surface water seen in this drainage within last month. (R. Duncan, personal observ.)

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW- Pine Grove City/County: Carbon County Sampling Date: 8/12/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: WT-61

Investigator(s): R.Duncan & J.Silva Section, Township, Range: S2 T17N R88W

Landform (hillslope, terrace, etc.): Bottomland Local relief (concave, convex, none): concave Slope (%): 1-2

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°28'19.259"N Long: 107°16'39.365"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Pond and adjacent Typha-sedge dominated wetland

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. None			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Typha latifolia	75	YES	OBL
2. Carex nebrascensis	30	NO	OBL
3. Juncus balticus	5	NO	FACW
4. Agrostis gigantea	5	NO	FACW
5. Puccinellia nuttalliana	5	NO	FACW
6. Stuckenia pectinata	30	NO	OBL
7. Rumex aquaticus	5	NO	FACW
8. Ranunculus aquatilis	1	NO	OBL
	156	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Potamogeton pectinatus covers approx. 30-50% of water habitats (i.e Pond); Lemna minor present.

SOIL

Sampling Point: WT-61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** _____

Remarks:

No wetland pit excavated due to extent of ponded water

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ✓ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ✓ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 6"

Water Table Present? Yes X No _____ Depth (inches): throughout

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): throughout

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Several indicators observed

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW / Pine Grove City/County: Carbon County Sampling Date: 8/12/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: WT-62

Investigator(s): R.Duncan & J.Silva Section, Township, Range: S2 T17N R88W

Landform (hillslope, terrace, etc.): Bottomland Local relief (concave, convex, none): concave, linear Slope (%): 1

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°28'22.686"N Long: 107°16'34.09"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Areas of wetland soils are almost completely inundated with water.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. Picea engeelmanii (dead)	2	YES	FACU
2.			
3.			
4.			
	2 = Total Cover		
Sapling/Shrub Stratum (Plot size: 3M X 1M)			
1. Salix lutea	5	YES	OBL
2. Salix boothii	5	YES	FACW
3. Betula occidentalis	5	YES	FACW
4. Cornus stolonifera	5	YES	FAC
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 3M X 1M)			
1. Eleocharis palustris	10	NO	OBL
2. Juncus balticus	10	NO	FACW
3. Carex nebrascensis	20	YES	OBL
4. Carex aquatilis	10	NO	OBL
5. Rumex aquaticus	2	NO	FACW
6. Rumex crispus	2	NO	FAC
7. Stuckenia pectinata (in water)	20	YES	OBL
8. Sparganium angustifolium (in water)	15	NO	OBL
	90 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet)			
1. None			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 85.7 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Other species present at the site include: Ranunculus gmelinii-1%, Hippuris vulgaris-2%, Lemna minor, Phleum pratense-1%, Bromus inermis, Agrostis giganteus, Puccinella nuttallii, Typha sp.

SOIL

Sampling Point: WT-62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10 YR 4/1		none	100			clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Soil is low chroma throughout, depleted matrix.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ✓ Surface Water (A1)
- ✓ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ✓ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes X	No ___	Depth (inches): 4"
Water Table Present?	Yes X	No ___	Depth (inches): throughout
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): throughout

Wetland Hydrology Present? **Yes** X **No** ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Ponding of surface water the result of beaver activity

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: PCW- Deadman Creek City/County: Carbon County Sampling Date: 8/14/2014

Applicant/Owner: Power Company of Wyoming State: WY Sampling Point: WT-63

Investigator(s): P.Gordon, J.Silva Section, Township, Range: S11 T18N R88W

Landform (hillslope, terrace, etc.): Drainage bottom Local relief (concave, convex, none): convex Slope (%): 1

Subregion (LRR): Western Range and Irrigated Region (D) Lat: 41°32'46.994"N Long: 107°16'32.029"W Datum: NAD83

Soil Map Unit Name: None available NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Site within Deadman Creek and is bound by two sloping ridges running to the northeast. Surface water has dried up, so sample site is located in drainage bottom

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. None			
2.			
3.			
4.			
	0	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. None			
2.			
3.			
4.			
5.			
	0	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Carex nebrascensis	10	NO	OBL
2. Juncus balticus	20	YES	FACW
3. Carex praegracilis	60	YES	FACW
4. Hordeum brachyantherum	2	NO	FACW
5. Agrostis gigantea	2	NO	FACW
6. Elymus repens	1	NO	FAC
7. Symphyotrichum eatonii	1	NO	FAC
8. Alopecurus arundinaceus	2	NO	FAC
	98	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1. None			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 2 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

Some Salix species (boothii and lutea) scattered within the drainage nearby.

SOIL

Sampling Point: WT-63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 2/2	100	none					Organics and roots
2-10	10YR 4/2	98	10YR 5/8	2	C	M	Loam	
10-18	2.5Y 5/2	95	10YR 5/8	5	C	M	Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ✓ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: none

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** _____

Remarks:

Matrix is mottled with red redox concentrations in the two lower layers. Lowest layer had a much lighter matrix color.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ✓ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ✓ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): throughout

Wetland Hydrology Present? **Yes** X **No** _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

NWI, Aerial photography

Remarks:

Oxidized rhizospheres on living roots evident.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _ERO_122_SWCA_FID_5_____ Date: May 23, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☐Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_1_____ Date: July 10, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ☒ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain rush herbaceous	**100**	**Wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_2_____ Date: October 28, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_4_____ Date: October 8, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5__%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen Forest	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_5_____ Date: July 9, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_6_____ Date: June 10, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope ___5-10_%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**80**	**wetland**	**PSS**
2. Aspen woodland	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☒ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_7_____ Date: June 10, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope ___5-10_%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**80**	**wetland**	**PSS**
2. Aspen woodland	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☒ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_8_____ Date: June 4, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen forest	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_9_____ Date: June 4, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen forest	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_10_____ Date: June 4, 2013

Investigators __Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen Forest	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_11_____ Date: June 4, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe	**30**	**upland**	
2. Riparian grassland	**70**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_13_____ Date: October 17, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5____%

Shape of drainage: ❑ V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous Vegetation	**100**	**Wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _____SWCA wetland05a and 05b_____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_15_____ Date: June 4, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**40**	**upland**	
2. Riparian grassland	**40**	**upland**	
3. Mountain shrubland	**20**	**upland**	
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_17_____ Date: June 4, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous Vegetation	**100**	**Wetland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_18_____ Date: June 10, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen forest	**50**	**upland**	
2. Big sagebrush steppe group	**50**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_21_____ Date: June 4, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ☒ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain rush herbaceous	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☒ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _____Wetland08_____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_23_____ Date: June 10, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10__%

Shape of drainage: ☒ V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑Yes Data Point ID(s) ____ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_27_____ Date: June 5, 2013

Investigators _Kehmeier_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grassland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_28_____ Date: June 5, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grassland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: Ditch in agricultural hay meadow

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_32_____ Date: June 5, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain willow shrubland	**10**	**upland**	
2. Riparian grassland	**90**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_34_____ Date: September 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other– Channel present but no OHWM

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**90**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_37_____ Date: September 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other– Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**80**	**upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_40_____ Date: September 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other– Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**80**	**upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_42_____ Date: June 5, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ☒ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	**90**	**Wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) Wetland 3005

Remarks: Delineated 10/8/2013

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_46_____ Date: May 18, 2013

Investigators __Eberhardt_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____3_____

Physical Setting/Stressors

Slope _<5%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☒ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**50**	**Wetland**	**PSS**
2. Riparian grasslands	**50**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) ___near Wetland 2998b_____

Remarks: Delineated 10/19/2013

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_48_____ Date: June 10, 2013

Investigators __Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____5_____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☒ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_59_____ Date: June 10, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) ____7_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☒ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**50**	**Wetland**	**PSS**
2. Mountain Rush Herbaceous	**50**	**Wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: Not delineated.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_62_____ Date: September 6, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Sandbar willow/Mesic Graminoid	**100**	**Wetland**	**PSS**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_86_____ Date: September 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒ WUS Only ❑ Other

Width of WUS in feet (if present) _____4_____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_88_____ Date: June 12, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other _Erosional feature_

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ☒Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Gardner's Saltbush Dwarf Shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_89_____ Date: September 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**100**	**Wetland**	**PSS**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

❑Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

There is an ERO delineated wetland (OBJECTID 77) at this haul road crossing. Possible that WOUD determination has already been made at this location

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 108 Date: Jun 12, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☒ WUS Only ☐ Other _____

Width of WUS in feet (if present) 2

Physical Setting/Stressors

Slope < 5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☒ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	90	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 112 Date: Jun 12, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope < 5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 114 Date: Sep 5, 2013

Investigators Grosch

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☒ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☒ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian Grassland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_119_____ Date: October 24, 2013

Investigators _DuWaldt_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grasslands	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_122_____ Date: June 12, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grasslands	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_123_____ Date: October 24, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_124_____ Date: October 24, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 125 Date: Sep 5, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and Other Willow Shrubland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 126 Date: Sep 5, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and Other Willow Shrubland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_130_____ Date: June 13, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Gardner's Saltbush Dwarf Shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 131 Date: Jun 13, 2013

Investigators Hennely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Gardner's Saltbush Dwarf Shrubland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 141 Date: Sep 4, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☒ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☒ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	100	wetland	PEM
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 143 Date: Sep 16, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☒ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☒ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow Shrub Land	100	upland	
2. Mountain Rush Herbaceous Vegetation	100	wetland	PEM
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☒ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 145 Date: Jun 27, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☒ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☒ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	100	wetland	PEM
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 146 Date: Jun 27, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☒ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☒ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	100	wetland	PEM
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 147 Date: Sep 16, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☐ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 150 Date: Oct 1, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian Grassland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_151_____ Date: July 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_152_____ Date: July 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**80**	**Upland**	
2. Riparian grassland	**20**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_154_____ Date: July 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**80**	**Upland**	
2. Riparian grassland	**20**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_159_____ Date: September 4, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**40**	**Upland**	
2. Riparian grassland	**50**	**Upland**	
3. Mountain willow	**10**	**Wetland**	**PSS**
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks: long crossing with riparian grasses and willows – 2 data points and 4 photos

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_162_____ Date: October 1, 2013_____

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**85**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_163_____ Date: October 1, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _10_____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☒ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen Forest Community	**20**	**Wetland**	**PFO**
2. Mountain Willow and other Willow Shrubland	**30**	**Wetland**	**PSS**
3. Mountain Rush Herbaceous	**50**	**Wetland**	**PEM**
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_165_____ Date: September 6, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Wyoming Sagebrush – Antelope Bitterbrush Shrubland	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_168_____ Date: October 1, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen Forest	**20**	**Upland**	
2. Mountain Rush Herbaceous	**80**	**Wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_169_____ Date: October 1, 2013_____

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Upland grassland community	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_170_____ Date: October 31, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: data taken at new crossing point which moved 300' downstream

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_171_____ Date: June 26, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ Yes❑ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	**100**	**Wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_172_____ Date: June 26, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Nebraska Sedge Herbaceous Wetlands	**80**	**Wetland**	**PEM**
2. Riparian grassland	**20**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _ _wetland840 10/9/13_____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_173_____ Date: September 16, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other

Width of WUS in feet (if present) _12_____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_175_____ Date: October 1, 2013_____

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Upland grassland community	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_176_____ Date: June 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Upland Grassland community	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_178_____ Date: June 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other

Width of WUS in feet (if present) _10_____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**50**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_179_____ Date: June 1, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**80**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_182_____ Date: June 1, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_183_____ Date: October 9, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ **Yes** ❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Water sedge herbaceous	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _Wetland3022 _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_185_____ Date: May 22, 2013_____

Investigators _Paul_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Black Greasewood/ Inland Saltgrass Shrubland	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_188_____ Date: October 10, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Nebraska sedge herbaceous	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _Wetland3026_____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_189_____ Date: June 24, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**10**	**Upland**	
2. Mountain Rush Herbaceous	**90**	**wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks: 200' from delineated Wetland3020 at crossing 190. The wetland looks like it continues to this crossing, but was not delineated beyond crossing 190.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_190_____ Date: June 24, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**10**	**Upland**	
2. Mountain Rush Herbaceous	**90**	**wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_191_____ Date: October 9, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Nebraska sedge herbaceous	**20**	**wetland**	**PEM**
2. Mountain Rush Herbaceous	**80**	**wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) _Wetland3025_____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_193_____ Date: June 1, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_194_____ Date: October 2, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**20**	**Upland**	
2. Riparian Grassland	**80**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_195_____ Date: June 24, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**10**	**upland**	
2. Mountain Rush herbaceous	**50**	**wetland**	**PEM**
3. Riparian grassland	**40**	**upland**	
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☒ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: looks like wet meadow in photos but was not delineated.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_197_____ Date: September 16, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_198_____ Date: September 16, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_199_____ Date: June 1, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_201_____ Date: June 1, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒WUS Only ❑ Other _

Width of WUS in feet (if present) __5_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_204_____ Date: May 23, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**70**	**upland**	
2. Great Basin wildrye herbaceous	**30**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: near SWCA wetland 2979 and ERO wetland 19

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_205_____ Date: June 1, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_207_____ Date: May 23, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**70**	**upland**	
2. Great Basin wildrye	**30**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_210_____ Date: June 26, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**25**	**upland**	
2. Riparian grassland	**75**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_211_____ Date: June 1, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒ WUS Only ❑ Other _

Width of WUS in feet (if present) __3_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**25**	**upland**	
2. Riparian grassland	**75**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_213_____ Date: June 26, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**25**	**upland**	
2. Riparian grassland	**75**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_214_____ Date: May 30, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_216_____ Date: May 29, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒WUS Only ❑ Other _

Width of WUS in feet (if present) __4_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ☒Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_217_____ Date: May 29, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒WUS Only ❑ Other _

Width of WUS in feet (if present) _____4_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ☒Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_218_____ Date: October 8, 2013

Investigators _Vicenik/Duwaldt_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒WUS Only ❑ Other _

Width of WUS in feet (if present) ___2_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**80**	**upland**	
2. Great Basin wildrye	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☒ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

❑ Upland and wetland communities noted

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) ____2978_____

Remarks:

SWCA wetland point 2978 downstream within crossing 218.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_219_____ Date: October 8, 2013

Investigators _SWCA wetland delineation_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ☒WUS w/Wet ❑WUS Only ❑ Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _____%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and other Willow Shrubland	**80**	**Wetland**	**PSS**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

❑ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _SWCA site ID: 2978 wt-1

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_220_____ Date: August 29, 2013

Investigators _Gornall_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _____%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush/Nebraska Sedge Herbaceous	**100**	**Wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

❑GPS point taken ☒WUS/Wetland GPSed

❑Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ❑ No ☒ Yes Data Point ID(s) __SWCA wetland 18__

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_227_____ Date: May 30, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**40**	**upland**	
2. Riparian grassland	**60**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: 4 photos

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_230_ _____ Date: May 23, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☐ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☒Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_232_____ Date: May 30, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**80**	**upland**	
2. Riparian grassland	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_234_____ Date: May 22, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ☒Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**85**	**upland**	
2. Riparian grassland	**15**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Roadside ditch.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_236_____ Date: May 30, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_238_____ Date: September 3, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous Vegetation	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_240_____ Date: October 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Low Sagebrush	**80**	**upland**	
2. Mountain willow	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_245_____ Date: May 19, 2013

Investigators _Yelton_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen forest	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_246_____ Date: May 21, 2013

Investigators _Yelton_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ☒Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grassland	**80**	**upland**	
2. Black sage	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_253_____ Date: May 23, 2013

Investigators _Yelton_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**30**	**upland**	
2. Riparian grassland	**70**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_261_____ Date: September 3, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other–

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ☒Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☒Yes❑No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain rush	**100**	**wetland**	**PEM**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_264_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Black greasewood/ inland saltgrass shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_267_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Black greasewood inland saltgrass shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_268_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other– Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Black greasewood/ inland saltgrass shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_269_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Gardner's Saltbush Dwarf Shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_271_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _

Width of WUS in feet (if present) __2_____

Physical Setting/Stressors

Slope _10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_272_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _

Width of WUS in feet (if present) __2_____

Physical Setting/Stressors

Slope _10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_274_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ☒WUS Only ❑ Other

Width of WUS in feet (if present) __6_____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_275_____ Date: September 18, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_277_____ Date: May 8, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_278_____ Date: October 23, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _

Width of WUS in feet (if present) __8_____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_286_____ Date: October 23, 2013

Investigators __Vicenik_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____10_____

Physical Setting/Stressors

Slope _<5%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**50**	**upland**	
2. Big sagebrush steppe	**50**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: 4 photos

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_288_____ Date: October 23, 2013

Investigators __Vicenik_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____7_____

Physical Setting/Stressors

Slope _<5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ☒ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**50**	**upland**	
2. Big sagebrush steppe	**25**	**upland**	
3. Mountain willow shrub	**25**	**wetland**	**PSS**
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

canal with water

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_290_____ Date: _November 10, 2013

Investigators __DuWaldt_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____5_____

Physical Setting/Stressors

Slope _<5%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**80**	**upland**	
2. Riparian grassland	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Near delineated wetland - ERO OBJECTID 30

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_290_____ Date: _November 10, 2013

Investigators __DuWaldt_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ☒ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____5_____

Physical Setting/Stressors

Slope _<5%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ☒ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**80**	**upland**	
2. Riparian grassland	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Near delineated wetland - ERO OBJECTID 30

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD 293_____ Date: June 2, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other _Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**90**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Dandelion common along grass and silver sage dominated drainage bottom.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_300_____ Date: July 24, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_301_____ Date: July 24, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_302_____ Date: September 20, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_303_____ Date: September 26, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_304_____ Date: September 26, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_305_____ Date: September 26, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _>10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**75**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**25**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_306_____ Date: July 24, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**75**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**25**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHDs_308 & 311_____ Date: October 28, 2013

Investigators _Kehmeier_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ☒ Basin

HGM Class: ❑ Riverine ☒ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_309_____ Date: October 26, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _>10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ☒ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Low Sagebrush / Idaho Fescue Shrub Herbaceous	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_310_____ Date: October 25, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other channel w/o OHWM

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber rabbitbrush/ Great Basin wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_312_____ Date: July 22, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_313_____ Date: July 22, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_314_____ Date: July 24, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**75**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**25**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_316_____ Date: July 24, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**80**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_318_ _____ Date: May 28, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☒Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☒Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_321_____ Date: August 5, 2013

Investigators __Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Photos taken from turbine location above the crossing site.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_323_____ Date: October 21, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**50**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**50**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_325_____ Date: July 23, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**75**	**Upland**	
2. Rubber Rabbitbrush / Great Basin Wildrye	**25**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_326_____ Date: July 23, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	75	Upland	
2. Rubber Rabbitbrush / Great Basin Wildrye	25	Upland	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_327_____ Date: July 23, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	75	Upland	
2. Rubber Rabbitbrush / Great Basin Wildrye	25	Upland	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_328_____ Date: July 24, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	80	Upland	
2. Rubber Rabbitbrush / Great Basin Wildrye	20	Upland	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_329_____ Date: July 23, 2013_____

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	Upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_330_____ Date: September 26, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian Grasslands	80	Upland	
2. Mountain Rush Herbaceous Vegetation	20	Wetland	PEM
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_331_____ Date: September 26, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒ **Yes**❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous Vegetation	**50**	**Wetland**	**PEM**
2. Riparian Grasslands	**50**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD 333__ _____ Date: May 28, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _ _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☐ **Yes**☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sage Brush Steppe Group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Clear 333.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_340_____ Date: August 6, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_341_____ Date: August 6, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_342_____ Date: June 3, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_343_____ Date: August 6, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_344_____ Date: August 6, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD 347_____ Date: August 7, 2013

Investigators __Gornall_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) Not Applicable

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ☒ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☐ Stream ☒ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**90**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: Upland swale dominated by *Artemisia tridentate*/*Leymus cinereus.*

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_348_____ Date: August 8, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**40**	**Upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**60**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_349_____ Date: September 21, 2013

Investigators _Ams_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _5_____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**80**	**Upland**	
2. Great Basin wildrye	**20**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_350_____ Date: August 7, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_352_____ Date: August 8, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_353_____ Date: September 26, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**40**	**upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**60**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_354_____ Date: August 7, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_355_____ Date: August 8, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**40**	**upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**60**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_356_____ Date: August 6, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ☒Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes❑No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Great Basin wildrye	**40**	**upland**	
2. Mountain Rush Herbaceous	**60**	**wetland**	**PEM**
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_358_____ Date: August 7, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_359_____ Date: October 21, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush/ Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_360_____ Date: October 171, 2013

Investigators _Ip_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _10__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

❑ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush/ Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_362_____ Date: October 21, 2013

Investigators _Jad_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑ Yes☒ No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush/ Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_363_____ Date: September 24, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**20**	**upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**80**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_364_____ Date: August 15, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**90**	**upland**	
2. Great Basin wildrye	**10**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_365_____ Date: August 8, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_366_____ Date: _November 8, 2013_____

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5__%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**50**	**Upland**	
2. Riparian Grassland	**50**	**Upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Drainage crossing at an existing road

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_374_____ Date: August 5, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_379_____ Date: October 25, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_380_____ Date: September 24, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_381_____ Date: October 25, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑ **Yes**☒ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Wyoming Big Sagebrush-Antelope Bitterbrush / Bluebunch Wheatgrass	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_382_____ Date: August 15, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_384_____ Date: October 25, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_385_____ Date: August 15, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_387_____ Date: October 21, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ☒ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**60**	**upland**	
2. Great Basin wildrye	**40**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_388_____ Date: August 15, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_389_____ Date: August 15, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_392_____ Date: September 25, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**50**	**upland**	
2. Great Basin wild rye herbaceous	**50**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_394_____ Date: September 24, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**90**	**upland**	
2. Great Basin wildrye	**10**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_395_____ Date: September 25, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**90**	**upland**	
2. Riparian grasslands	**10**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_397_ _____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ☒ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_398_____ Date: August 15, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_400_____ Date: September 24, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other – Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush steppe group	**90**	**upland**	
2. Riparian grasslands	**10**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_402_____ Date: October 25, 2013

Investigators _Vicenik_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Wyoming Big Sagebrush-Antelope Bitterbrush / Bluebunch Wheatgrass	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 405 Date: Sep 29, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	90	upland	
2. Great Basin Wildrye	10	upland	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 406 Date: Aug 15, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Wyoming Big Sagebrush-Antelope Bitterbrush-Bluebench Wheatgrass Shrubland	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 412 Date: Sep 24, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 413 Date: Aug 15, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_415_____ Date: Sept 24, 2013

Investigators __Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

No clear drainage. Flows follow existing road ditch

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 417 Date: Aug 20, 2013

Investigators Hannely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 418 Date: Aug. 7, 2013

Investigators Hannely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 419 Date: Aug 13, 2013

Investigators Hannely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 421 Date: Aug 13, 2013

Investigators Hannely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 423 Date: Sep 25, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☒ WUS Only ☐ Other _____

Width of WUS in feet (if present) 50

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☒ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☐ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	90	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 424 Date: Sep 25, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_425_____ Date: September 25, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ☒V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Wyoming Big Sagebrush-Antelope Bitterbrush / Bluebunch Wheatgrass	**80**	**upland**	
2. Great Basin wildrye	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 426 Date: Sep 25, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☒ WUS Only ☐ Other _____

Width of WUS in feet (if present) 35

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☒ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	75	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 428 Date: Sep 25, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_429_____ Date: September 29, 2013

Investigators _Anderson_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Low Sagebrush / Idaho Fescue Shrub Herbaceous	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 432 Date: Sep 25, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Low Sagebrush / Idaho Fescue Shrub Herbaceous	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 433 Date: Sep 24, 2013

Investigators Ams

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush/ Great Basin Wildrye	50	upland	
2. Big Sagebrush Steppe Group	50	upland	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 441 Date: Aug 20, 2013

Investigators Hannely

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☐ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☒ V-shaped ☐ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 443 Date: Sep 21, 2013

Investigators Hay

SITE CONDITIONS

Type of Feature:

☐ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☒ WUS Only ☐ Other _____

Width of WUS in feet (if present) 25

Physical Setting/Stressors

Slope 5-10 %

Shape of drainage: ☐ V-shaped ☐ Flat-bottomed ☒ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☒ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☒ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☒ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☐ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐ Upland and wetland communities noted

☒ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID _NHD_446_____ Date: June 6, 2013

Investigators __Kehmeier_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ☒ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ☒ Irrigation (overflow from berm)

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Black Greasewood/Inland Saltgrass Shrubland	**100**	**Upland**	**NA**
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: Data point is an upland greasewood community. Point collected northeast of wetland/berm.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) NHD 447 Date: Aug 20, 2013

Investigators Warren

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ☐ Wetland-vegetated swale ☐ WUS w/Wet ☐ WUS Only ☒ Other Erosional feature

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope <5 %

Shape of drainage: ☐ V-shaped ☒ Flat-bottomed ☐ Incised channel w/overbank ☐ Salt flat ☐ Wet meadow ☐ Basin

HGM Class: ☐ Riverine ☐ Depression ☐ Slope ☐ Lacustrine

Water Source: ☐ Stream ☐ Groundwater ☐ Irrigation

Water Supply: ☐ Perennial ☐ Intermittent ☐ Ephemeral

Barriers: ☐ Road/culvert ☐ Rock outcrop/vertical face ☐ Fences

☒ Livestock use

☒ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes ☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	100	upland	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

☐ WUS/Wetland GPSed

☐ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☐ No ☐ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_457_____ Date: August 20, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __5-10___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

☒Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**40**	**upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**60**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Weeds along existing disturbance (road)

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_460_____ Date: September 21, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ☒ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**30**	**upland**	
2. Rubber Rabbitbrush/ Great Basin Wildrye	**70**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_464_____ Date: November 8, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑Other _

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope __<5___%

Shape of drainage: ❑V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑Perennial ❑Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**10**	**upland**	
2. Great basin wildrye herbaceous	**90**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_486_____ Date: September 26, 2013

Investigators _Hay_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5____%

Shape of drainage: ❑ V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ☒ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian grasslands	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_488_____ Date: August 7, 2013

Investigators _Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10____%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ❑ WUS/Wetland GPSed

☒Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☒ Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Large crossing segment with no channel at this point, but there is at point taken just downstream of crossing so downstream part of this crossing may be a WUS.

I saved all 4 photos.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_489_____ Date: September 24, 2013

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _<5____%

Shape of drainage: ☒ V-shaped ❑Flat-bottomed ❑Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ❑Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Rubber Rabbitbrush / Great Basin Wildrye	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_493 Date: May 31, 2013

Investigators __Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other: Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑Intermittent ☒ Ephemeral

Barriers: ☒ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

This is the westernmost point of the 3 crossings for DataGaps FID13

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_494 Date: May 31, 2013

Investigators __Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other: _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ❑ V-shaped ❑ Flat-bottomed ☒ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sage brush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Middle point of area marked for DataGaps FID13

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_495 Date: May 31, 2013

Investigators __Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ☒ Other: Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

☒ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Easternmost point in DataGaps FID13

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_496_____ Date: Oct 22, 2013

Investigators __Hannely_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ☒ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑Yes ☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big sagebrush steppe group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

❑ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_497_____ Date: May 23, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ☒Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☒Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☒Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☐Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Gardner's Saltbush Dwarf Shrubland	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: Potential hydrophytes growing downstream

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_498_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ☒V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☐Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_499_____ Date: May 27, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_500_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ☒ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☐**Yes**☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_501_____ Date: May 27, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☐Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_502_____ Date: May 27, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_503_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_504_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_505_____ Date: May 28, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☐Upland-vegetated swale ❑ Wetland-vegetated swale ☐WUS w/Wet ☒WUS Only ❑ Other _____

Width of WUS in feet (if present) ___12_____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ☒ Irrigation

Water Supply: ☒Perennial ☐Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☒Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☒Yes☐No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous Vegetation	**100 (above channel)**	**wetland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_507_____ Date: June 2, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other _Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic? ☐ Yes☒No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**90**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Dandelion common along grass and silver sage dominated drainage bottom.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_508_____ Date: June 2, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ❑ Other _Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☐ **Yes**☒**No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

A first order stream.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_509_____ Date: June 2, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ❑WUS w/Wet ❑WUS Only ☒ Other _Drainage_____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**95**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Water that would naturally be in this reach has been diverted upstream into a nearby irrigation ditch.

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_511_____ Date: June 2, 2014

Investigators __Duncan_____

SITE CONDITIONS

Type of Feature:

❑Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ☒ WUS Only ☒ Other _Drainage_____

Width of WUS in feet (if present) ___3'_____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒ V-shaped ❑ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑Fences

☒Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐ Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Willow and Other Willow Shrubland	**95**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

Cobble and rocks present indicate evidence of flow

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD-513_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_514_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☐Riverine ❑ Depression ☒Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD 515_____ Date: June 12, 2014

Investigators __Gornall_____

SITE CONDITIONS

Type of Feature:

❑ Upland-vegetated swale ❑ Wetland-vegetated swale ☒ WUS w/Wet ❑ WUS Only ❑ Other:_____

Width of WUS in feet (if present) 3 feet

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☒ V-shaped ☐Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑Wet meadow ❑ Basin

HGM Class: ☒ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ☒ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☒ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ☒ Road/culvert ☒ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION **Dominant Community Hydrophytic?** ☒Yes ❑ **No**

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Mountain Rush Herbaceous	**80**	**Both**	
2. Big sagebrush steppe group	**20**	**upland**	
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ❑ No ❑ Yes Data Point ID(s) _____

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_517_____ Date: July 22, 2013_____

Investigators _Warren_____

SITE CONDITIONS

Type of Feature:

☒ Upland-vegetated swale ❑ Wetland-vegetated swale ❑ WUS w/Wet ❑ WUS Only ❑ Other

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _5-10__%

Shape of drainage: ❑ V-shaped ☒ Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ❑ Wet meadow ❑ Basin

HGM Class: ❑ Riverine ❑ Depression ❑ Slope ❑Lacustrine

Water Source: ❑ Stream ❑ Groundwater ❑ Irrigation

Water Supply: ❑ Perennial ❑ Intermittent ❑ Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ❑ Fences

☒ Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ❑ Yes☒ No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Big Sagebrush Steppe Group	**100**	**Upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☒ Upland and wetland communities noted

❑ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _ _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_518_____ Date: May 27, 2014

Investigators __Hay_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ☒Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☒Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Low sagebrush / Idaho fescue shrub herbaceous	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_523_____ Date: August 22, 2014

Investigators __A. Gornall_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Aspen Forest	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_523_____ Date: August 22, 2014

Investigators __A. Gornall_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian Grasslands	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken ☐ WUS/Wetland GPSed

☒ Photos of crossing (u/s & d/s) ❑ WUS/Wetland drawn on map

☐Upland and wetland communities noted

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks:

CHOKECHERRY CROSSING SITE FORM

Crossing ID (road segment- number) _NHD_523_____ Date: August 22, 2014

Investigators __A. Gornall_____

SITE CONDITIONS

Type of Feature:

☒Upland-vegetated swale ❑ Wetland-vegetated swale ☐ WUS w/Wet ❑ WUS Only ❑ Other _____

Width of WUS in feet (if present) _____

Physical Setting/Stressors

Slope _0-5%

Shape of drainage: ☐V-shaped ☒Flat-bottomed ❑ Incised channel w/overbank ❑ Salt flat ☐ Wet meadow ❑ Basin

HGM Class: ❑Riverine ❑ Depression ☐Slope ❑Lacustrine

Water Source: ☐Stream ❑ Groundwater ❑ Irrigation

Water Supply: ☐Perennial ☐Intermittent ☐Ephemeral

Barriers: ❑ Road/culvert ❑ Rock outcrop/vertical face ☐Fences

☐Livestock use

❑ Noxious weeds

VEGETATION

Dominant Community Hydrophytic? ☐Yes☒No

Dominant Vegetation Communities	Relative Cover (%)	Wetland or Upland	Cowardin Code
1. Riparian Grasslands	**100**	**upland**	
2.			
3.			
4.			
5.			
6.			
7.			
8.			

System	Subsystem	Class	Subclass	Water Regime	Other Modifiers
Lacustrine	Littoral; Limnoral	Rock Bot. (RB) Uncon Bottom (UB) Aquatic Bed (AB) Rocky Shore (RS) Uncon Shore (US) Emergent(EM) Shrub-scrub (SS) Forested (FO)	Floating vascular (f); Rooted vascular (r); Algal (a); Persistent (p); Non-Persistent (n); Broad-leaved deciduous (b); Needle-leaved evergreen (e); Cobble – gravel (c); Sand (s); Mud (m); Organic (o)	Temporarily flooded (A); Saturated (B); Seasonally flooded (C); Seas.-fld./sat. (E); Semi-Perm. Flooded (F); Intermittently exposed (G); Artificially flooded (K); Sat./semiperm./Seas. (Y); Int. exposed/permanent (Z)	Hypersaline (7) ; Eusaline (8); Mixosaline (9); Fresh (0); Acid (a); Circumneutral (c); Alkaline/calcareous (i); Organic (g); Mineral (n); Beaver (b); Partially Drained/ditched (d); Farmed (f); Diked/impounded (h); Art. Substrate (r); Spoil (s); Excavated (x)
Palustrine	Palustrine				
Riverine	Lower perennial; Upper perennial; Intermittent				

DATA COLLECTION

☒ GPS point taken

☒ Photos of crossing (u/s & d/s)

☐Upland and wetland communities noted

☐ WUS/Wetland GPSed

❑ WUS/Wetland drawn on map

Routine Determination Form(s) Completed? ☒ No ❑ Yes Data Point ID(s) _____

Remarks: