
Appendix I

BLM Sensitive Species

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APPENDIX I

BLM SENSITIVE SPECIES

Table Appendix I, below, lists sensitive species that the BLM has determined to have potential to occur in the FORGE project area, and that have been documented there.

Table Appendix I also has additional BLM sensitive species not considered in Table 3-22 of the Salt Wells EIS but documented in or near the FORGE project area or that could occur there. The BLM identified these species following consultation with the NDOW and NNHP.

Finally, **Table Appendix I** includes species that were considered in the Salt Wells EIS but for which information has subsequently been updated in terms of distribution or range or other changed conditions.

Table Appendix I
BLM Sensitive Species

Species	Status¹	Habitat	Potential for Occurrence
BIRDS			
Bald eagle <i>Haliaeetus leucocephalus</i>	S/Delisted	Nests in tall trees or on cliffs near bodies of water that provide a food base. Usually roosts in thick cottonwood groves but sometimes in conifers or other sheltered sites. Winters throughout the state.	Potential to occur; no nesting or roosting habitat is in the project area, but it could occasionally forage there. Observed within 4 miles of the project area associated with Carson Lake (NDOW 2017).
Burrowing owl <i>Athene cunicularia</i>	S/—	Burrow sites in open, dry annual or perennial grasslands, deserts, and scrublands with low-growing vegetation and burrowing mammal populations.	Potential to occur; limited burrow opportunities present in project area. Known to occur near Fallon and Carson Lake and Pasture (Floyd et al. 2007).

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Species	Status¹	Habitat	Potential for Occurrence
Golden eagle <i>Aquila chrysaetos</i>	S/BCC	Nests on rocky scarps with large expanses of hunting territory.	Potential to occur; no nesting habitat is present in the project area, but suitable foraging habitat is present. In 2010, nests were located within 0.62 miles of Vulcan wells (BLM 2011); this location is approximately 3 miles from the FORGE project area. NDOW (2017) also lists observations in the vicinity of the project area.
Least bittern <i>Ixobrychus exilis</i>	S	Tall emergent vegetation in marshes, primarily freshwater. Prefers marshes with scattered bushes or other woody growth. Forages in shallow water or along banks. Heavy growth of cattail, bulrush, wild rice, water smartweed, and reeds are favored feeding sites.	Potential to occur. No nesting habitat is present in the project area, but the species may forage there. This species is known to occur in the vicinity of the project area, likely associated with the Carson Lake and Pasture (NDOW 2017).
Loggerhead shrike <i>Lanius ludovicianus</i>	S/BCC	Uses a wide range of open habitats including shrublands, pinyon juniper, pastures, and agricultural fields.	Known to occur; Suitable habitat present. Observed during the 2010 surveys conducted for Salt Wells EIS (BLM 2011), and have been documented within Lahontan Valley (Floyd et al. 2007, NO).
Long-billed curlew <i>Numenius americanus</i>	S/BCC	Nests in naturally short grasslands and agricultural fields with flooded fields or near wetlands with mudflats, wet soils along shallow shorelines.	Known to occur. Observed during 2010 surveys for the Salt Wells EIS. Known to nest at Carson Lake and Pasture. Agricultural fields, meadow, and playa wetland habitats provide suitable nesting sites (GBBO 2010; Floyd et al. 2007).
Peregrine falcon <i>Falco peregrinus</i>	S/—	Nests on a ledge or hole on the face of a rocky cliff or crag; also uses ledges of city high-rise buildings. Hunts in various open environments, including open water, desert shrub, and marshes, usually in close association with suitable nesting cliffs.	Potential to occur; no nesting habitat is in the project area, but it could occasionally forage there. Observed within 4 miles of the project area (NDOW 2017).

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Species	Status¹	Habitat	Potential for Occurrence
Sandhill crane (greater and lesser) <i>Antigone canadensis</i>	S/—	Breeds in open wetland habitats with shrubs or trees; nests in marshes, bogs, wet meadows, prairies, other moist habitats with standing water; winter roosting on shallow lakes or rivers at night, and spending the day in irrigated croplands, pastures, grasslands, or wetlands.	Potential to occur; suitable foraging habitat is present, and this species may use the project area during migration. Breeds in northern and northeastern Nevada but not in the project vicinity (Wildlife Action Plan Team 2012)
Short-eared owl <i>Asio flammeus</i>	S/—	Nests on ground. Expansive wet meadow or pasture and hay crops or similar grassland, buffered by open shrublands, marsh component beneficial, little or no urban encroachment.	Potential to occur. Marginally suitable foraging or breeding habitat may be present in the project area; much higher-quality habitat is likely present in the Carson Lake and Pasture area, south of the project area, where it is known to occur.
Swainson's hawk <i>Buteo swainsoni</i>	S/—	Nests in single old growth cottonwoods, next to foraging habitat of open riparian woodlands, with significant expanses of pasture, agricultural fields, wet meadows, or open shrublands with grass cover in the vicinity.	Potential to occur; no nesting habitat is present in the project area, but the species may forage there. This species is known in the vicinity (BLM 2011; NDOW 2017) and has been documented to nest within 1 mile of the project area (NNHP 2017).
Western snowy plover <i>Charadrius alexandrinus</i>	S/BCC	Associated with barren shorelines of playa lakes that contain water but have little or no emergent or shoreline vegetation.	Likely to occur; known to nest at Carson Lake and Pasture (NDOW 2017), and other sites in the Lahontan Valley (GBBO 2010; Floyd et al. 2007); wetland playa sites provide suitable nesting habitat.
MAMMALS			
Arizona myotis <i>M. occultus</i>	S/—	Most commonly found in conifer forests, between 6,000 and 9,000 feet, though it forages at lower elevations at orchards, permanent water, and riparian vegetation. Roosts in buildings, attics, bridges, and	Potential to occur; no roosting habitat is in the project area, but this species may forage there. Arizona myotis is known from the vicinity (NDOW 2017).

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Species	Status¹	Habitat	Potential for Occurrence
		cavities in dead conifer trees. No information on winter habits is available.	
Big brown bat <i>Eptesicus fuscus</i>	S/—	Occurs in a variety of habitats, including pinyon-juniper, blackbrush, creosote, sagebrush, and agricultural and urban habitats. Roosts in a variety of settings.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Big brown bat is known to roost in the vicinity of the project area (BLM 2011; NDOW 2017; NNHP 2017).
Botta's pocket gopher <i>Thomomys botae</i>	S/—	Associated with a wide range of vegetation and soil types. Resident of open habitats and meadows, where soils are deep enough to maintain permanent burrow systems.	Potential to occur. Suitable habitat is present in the project area, which is in the range of this species (Wildlife Action Plan Team 2012).
Brazilian free-tailed bat <i>Tadarida brasiliensis</i>	S/—	Most commonly associated with dry, lower elevation habitats, occasionally at higher elevations in mountain ranges. Roosts primarily in caves and rock crevices on cliffs.	Potential to occur; no roosting habitat is in the project area, but this species may forage there. Brazilian free-tailed bat is known from the vicinity (NDOW 2017); it was observed on the southern portion of the NAS Fallon Main Base in 1996 (NNHP 2017).
California myotis <i>Myotis californicus</i>	S/—	Found in a variety of habitats, from desert scrub to forests, but more common in the Mojave Desert. Roosts in a variety of settings.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. California myotis is known from the vicinity, including being observed foraging over canals at the NAS Fallon Main Base (BLM 2011; NDOW 2017; NAS Fallon 2014).
Canyon bat <i>Parastrellus hesperus</i>	S/—	Rocky canyons and outcrops; roosts in small crevices in rocks, mines, and caves.	Potential to occur; no roosting habitat is in the project area, but this species may forage there. Canyon bat is known from a 1939 occurrence in the Bunejug Mountains, approximately 2 miles from the project area (NNHP 2017).

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Species	Status¹	Habitat	Potential for Occurrence
Fringed myotis <i>M. thysanodes</i>	S/SP	Found in a wide range of habitats, from low desert scrub to high elevation coniferous forest. Roosts in a variety of settings.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Fringed myotis is known from the vicinity (BLM 2011; NDOW 2017).
Hoary Bat <i>Lasiurus cinereus</i>	S/—	Tree-associated species. Found primarily in forested upland habitats as well as in gallery-forest riparian zones, and agriculture habitats. Roosts primarily in trees.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Documented in Lahontan Valley (Bradley et al. 2006).
Little brown myotis <i>M. lucifugus</i>	S/—	Found primarily at higher elevations and higher latitudes, often associated with coniferous forest. Requires a nearby water source. Roosts in a variety of settings.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Little brown myotis is known to roost in the vicinity of the project area (NNHP 2017).
Long-eared myotis <i>M. evotis</i>	S/—	Semiarid shrublands, sage, chaparral, and agricultural areas, but usually associated with coniferous forests. Roosts under exfoliating tree bark, and in hollow trees, caves, mines, cliff crevices, sinkholes, and rocky outcrops on the ground; sometimes roosts in buildings and under bridges.	Potential to occur; no roosting habitat is in the project area, but the species may forage there.
Pallid bat <i>Antrozous pallidus</i>	S/SP	Found in a variety of habitats, from low desert to brushy terrain to coniferous forest and nonconiferous woodlands. Roosts in a variety of settings, such as rocks, trees, buildings, caves, and adits. ¹	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Pallid bat is known to roost in the vicinity of the project area (BLM 2011; NDOW 2017; NNHP 2017).
Spotted bat <i>Euderma maculatum</i>	S/—	Uses vegetation types that range from desert to sub-alpine meadows, including desert-scrub, pinyon-juniper woodland, ponderosa pine, mixed conifer forest, canyon	Potential to occur; no roosting habitat is in the project area, but the species may forage there.

¹ A passage leading into a mine.

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Species	Status¹	Habitat	Potential for Occurrence
		bottoms, rims of cliffs, riparian areas, fields, and open pasture, but distribution closely tied to cliff roosting habitat.	
Townsend's Big-eared Bat <i>Corynorhinus townsendii</i>	S/—	Highly associated with caves and mines. Found primarily in rural settings from deserts to lower, mid to high-elevation mixed coniferous-deciduous forest.	Potential to occur; only foraging habitat available. Documented in Lahontan Valley (Bradley et al. 2006) and in the vicinity of the project area (NDOW 2017).
Western red bat <i>Lasiurus blossevillii</i>	S/—	Primarily found in wooded habitats, including mesquite bosque and cottonwood/willow riparian areas. Roosts in tree foliage and possibly in leaf litter on the ground.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Summer resident in the Fallon area. Breeding has been confirmed in a private orchard in Fallon (Wildlife Action Plan Team 2012).
Western small-footed myotis <i>M. ciliolabrum</i>	S/—	Inhabits a variety of habitats, including desert scrub, grasslands, sagebrush steppe, blackbrush, greasewood, pinyon-juniper woodlands, pine-fir forests, and agricultural and urban areas. Roosts in caves, mines, and trees.	Potential to occur; no roosting habitat is in the project area, but the species may forage there. Small-footed myotis is known from the vicinity (BLM 2011; NDOW 2017).
Yuma myotis <i>M. yumanensis</i>	S/—	Usually associated with permanent sources of water, typically rivers and streams. Occurs in a variety of habitats, including riparian, arid scrublands and deserts, and forests. Roosts in bridges, buildings, cliff crevices, caves, mines, and trees.	Potential to occur; no roosting habitat is in the project area, but this species may forage there. Yuma myotis is known to roost in the vicinity of the project area (NNHP 2017).
REPTILES			
Desert horned lizard <i>Phrynosoma platyrhinos</i>	S/—	Open sandy areas in desert, chaparral, grassland vegetation, often near ant hills. Often seen basking on asphalt roads or low rocks in morning or afternoon.	Potential to occur. Suitable habitat is present in the project area, which is in the range of this species, and it has been documented in the vicinity (NDOW 2017; Wildlife Action Plan Team 2012).

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Species	Status¹	Habitat	Potential for Occurrence
Long-nosed leopard lizard <i>Gambelia wislizenii</i>	S/—	Sandy and gravelly desert and semi-desert areas, with scattered shrubs or other low plants, especially areas with abundant rodent burrows.	Potential to occur. Suitable habitat is present in the project area, which is in the range of this species, and it has been documented in the vicinity (NDOW 2017; Wildlife Action Plan Team 2012).
INSECTS			
Nevada alkali skipperling <i>Pseudocopa eodes flavus</i>	S/—	Desert saltgrass on alkali flats.	Potential to occur. Host plants likely present in project area; originally collected from Stillwater Marsh, northeast of the project area.
Pallid wood nymph <i>Cercyonis oetus pallescens</i>	S/—	Alkaline flats.	Potential to occur; potentially suitable habitat exists along playas where alkali meadows occur. Has been documented in Churchill County.
PLANTS			
Lahontan milkvetch <i>Astragalus porrectus</i>	S	Open, calcareous or alkaline, sandy to gravelly washes, alluvium, or gullies on clay badlands, knolls, or playa edges in the shadscale zone.	Potential to occur. Suitable habitat is likely present in the project area. This species has been documented in the Lahontan Valley, northeast of Hazen.
Nevada dune beardtongue <i>Penstemon arenarius</i>	S	Deep loose sandy soil in valley bottoms, eolian deposits and alkaline areas in shadscale habitats. Blooms May-June.	Potential to occur. Potentially suitable habitat is present. Known to occur in northern Churchill County along the Carson Sink (Morefield 2001).
Playa phacelia <i>Phacelia inundata</i>	S	Alkali playas and seasonally inundated areas with clay soils. Aquatic or wetland-dependent in Nevada.	Potential to occur. Suitable habitat is likely present in the project area. It has been documented only from Humboldt and Washoe Counties in Nevada, though systematic surveys have not been completed.

Sources: Morefield 2001; NatureServe 2017; NDOW 2017; NNHP 2017; BLM GIS 2017

Key to Status codes

S = BLM Sensitive species

BCC = USFWS bird of conservation concern

SP = State-protected

Listed below are BLM sensitive species for the Carson City District Office (NV-IM-2018-003), that are not present in the FORGE project area due to a lack of suitable habitat or a known or restricted distribution outside of the FORGE project area.

Amphibians

Western toad (*Anaxyrus boreas*), Dixie Valley toad (*Anaxyrus williamsi*), Northern leopard frog (*Lithobates pipiens*).

Arachnids

Nevada water mite (*Thermacarus nevadensis*).

Birds

Black rosy finch (*Leucosticte atrata*), Brewer's sparrow (*Spizella breweri*), Ferruginous hawk (*Buteo regalis*), flammulated owl (*Psiloscoops flammeolus*), gray-crowned rosy finch (*L. tephrocotis*), Great Basin willow flycatcher (*Empidonax traillii adastus*), Greater sage-grouse² (*Centrocercus urophasianus*), Lewis's woodpecker (*Melanerpes lewis*), mountain quail (*Oreortyx pictus*), northern goshawk (*Accipiter gentilis*), pinyon jay (*Gymnorhinus cyanocephalus*), sage thrasher (*Oreoscoptes montanus*).

Fish

Mountain whitefish (*Prosopium williamsoni*).

Mammals

Allen's chipmunk (*Neotamias senex*), American marten (*Martes americana*, *M. caurina*), American pika (*Ochotona princeps*), American water shrew (*S. palustris*), bighorn sheep (*Ovis canadensis nelsoni*), Dark kangaroo mouse (*Microdipodops megacephalus* ssp.), Inyo shrew (*S. tenellus*), long-legged myotis (*Myotis volans*), Merriam's shrew (*Sorex merriami*), mountain pocket gopher (*Thomomys monticola*), northern river otter (*Lontra canadensis*), pale kangaroo mouse (*Microdipodops pallidus*), pygmy rabbit (*Brachylagus idahoensis*), and Silver-haired bat (*Lasionycteris noctivagans*).

Reptiles

Great Basin collared lizard (*Crotaphytus bicinctores*), Northern rubber boa (*Charina bottae*), Sierra alligator lizard (*Elgaria coerulea palmeri*), and western pond turtle (*Actinemys marmorata*).

² When the Salt Wells EIS (BLM 2011) was published, greater sage-grouse was a candidate for listing under the ESA; however, on September 21, 2015, the Director of the BLM and the Assistant Secretary of Land and Minerals Management signed the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Sub-Region (BLM 2015). The USFWS had determined that the greater sage-grouse did not warrant protection under the ESA; however, the BLM considers the greater sage-grouse a sensitive species, and it is protected under the BLM's decision as a special status species and is thus considered in this EA.

Insects

Carson Valley silverspot (*Speyeria nokomis carsonensis*), Carson Valley wood nymph (*Cercyonis pegala carsonensis*), early blue (*Euphilotes enoptes primavera*), Great Basin small blue (*Philotiella speciosa septentrionalis*), Hardy's aegialian scarab (*Aegialia hardyi*), monarch butterfly (*Danaus plexippus plexippus*), Mono Basin skipper (*Hesperia uncas giulianii*), Reese River skipper (*Hesperia uncas reeseorum*), Sand Mountain aphodius scarab (*Aphodius* sp. 3), Sand Mountain blue (*E. pallescens arenamontana*), Sand Mountain pygmy scarab (*Coenonycha pygmaea*), and Sand Mountain serican scarab (*Serica psammobunus*).

Molluscs

California floater (*Anodonta californiensis*), Dixie Valley pyrg (*Pyrgulopsis dixensis*) Pyramid Lake pebblesnail (*Fluminicola dalli*), Virginia Mountains pebblesnail (*F. virginus*), Western Lahontan pyrg (*P. longiglans*), and Wong's pyrg (*P. wongi*).

Plants

Alexander's buckwheat (*Eriogonum alexanderae*), Alkali ivesia (*Ivesia kingii* var. *kingii*), altered andesite buckwheat (*E. robustum*), altered andesite popcornflower (*Plagiobothrys glomeratus*), Ames milkvetch (*Astragalus pulsiferae* var. *pulsiferae*), Beatley buckwheat (*E. beatleyae*), Bodie Hills draba (*Cusickiella quadricostata*), Bodie Hills rockcress (*Boechnera bodiensis*), Callaway milkvetch (*Astragalus callithrix*), Candelaria blazingstar (*Mentzelia candelariae*), Carson Valley monkeyflower (*Erythranthe carsonensis*), Churchill Narrows buckwheat (*E. diatomaceum*), Eastwood milkweed (*Asclepias eastwoodiana*), Inyo blazing star (*Mentzelia inyoensis*), Lahontan Basin buckwheat (*Eriogonum rubricaulis*), Lahontan beardtongue (*Penstemon palmeri* var. *macranthus*), Lavin eggvetch (*A. oophorus* var. *lavinii*), Lemmon buckwheat (*E. lemmonii*), Long Valley milkvetch (*A. johannis-howellii*), Margaret Rushy milkvetch (*A. convallarius* var. *margaretiae*), Masonic Mountain jewelflower (*Streptanthus oliganthus*), Mojave thistle (Virgin River thistle) (*Cirsium mohavense* [*C. virginense*]), Mono County phacelia (*P. monoensis*), Nevada suncup (*Camissonia nevadensis*), oryctes (*Oryctes nevadensis*), Pine Nut Mountains mousetails (*I. pityocharis*), Reese River phacelia (*Phacelia glaberrima*), sagebrush pygmyleaf (*Loeflingia squarrosa* ssp. *artemisiarum*), Sand cholla (*Grusonia pulchella*), Schoolcraft buckwheat (*E. microthecum* var. *schoolcraftii*), Shevock bristlegrass (*Orthotrichum shevockii*), Sodaville milkvetch (*A. lentiginosus* var. *sesquimetralis*), Sierra Valley mousetails (*Ivesia aperta* var. *aperta*), smooth dwarf greasebush (*Glossopetalon pungens* var. *glabrum*), Steamboat buckwheat (*E. ovalifolium* var. *williamsiae*), Steamboat monkeyflower (*Diplacus ovatus* [*Mimulus* o.]), Tahoe yellowcress (*Rorippa subumbellata*), Tiehm blazingstar (*M. tiehmii*), Tiehm peppergrass (*Stroganowia tiehmii*), Tonopah milkvetch (*A. pseudodanthus*), Washoe pine (*P. ponderosa* ssp. *washoensis*), Wassuk beardtongue (*Penstemon rubicundus*), Watson spinecup (*Oxytheca watsonii*), Whitebark pine (*Pinus albicaulis*), William's combleaf (*Polycytenium williamsiae*), and windloving buckwheat (*E. anemophilum*).

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