

Environmental Assessment

Prepared by
U.S. Department of the Interior
Bureau of Land Management

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Chapter 1. Introduction

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The purpose of this Environmental Assessment (EA) is to disclose and analyze the environmental consequences of renewing 17 Free-Use Gravel Permits for gravel pits utilized by the Washoe County Road Department for road maintenance. The EA is a site-specific analysis of potential impacts that could result with the implementation of any of the alternatives. The EA assists the Bureau of Land Management (BLM) in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and with other laws and policies affecting the alternatives. If the decision maker determines that this project has “significant” impacts following the analysis in the EA, then an Environmental Impact Statement (EIS) would be prepared for the project. If not, a Finding of No Significant Impact (FONSI) statement would be prepared, documenting the reasons why implementation of the selected alternative would not result in “significant” environmental impacts.

The Gravel Pits are located within Washoe County, Nevada.

See attached maps and Exhibit A for locations.

1.1. Background:

The Washoe County Gravel pits are open pit gravel mines that have been operated by Washoe County Road Department (WCRD) and BLM since at least the 1980's. WCRD is the permitted user and has received multiple 10 year Free-Use permits from BLM in the past. BLM also has Community Pits authorizations for 3 of the pits for material sales to the general public. All 17 pits are existing and have been utilized by WCRD under free-use permits. Free-use permits are granted to governmental agencies. However the 17 permits have expired and must be renewed in order for WCRD to continue to utilize gravel for road maintenance. The pits are existing and disturbance has occurred at all of the locations. As part of the renewal process WCRD has requested to expand the pits boundaries at 13 of the 17 pits. Topsoil at the pits and has been stockpiled along the perimeter of the disturbed area. The disturbed portions of the pits are primarily bare of vegetation. The expansion areas would extend each pit outward, pushing back the top-soil to extract the sand and gravel. The renewal of these pits would be analyzed through one NEPA document to have better consistency and efficiently process the renewal.

1.2. Purpose and Need for Action:

The purpose of the proposed action is for BLM to issue a 10 year, Free-Use Permits to Washoe County for 17 different pits. The Free-Use Permits is needed by Washoe County to allow for the extraction of materials (gravel) for the ongoing maintenance of existing county roads in the area of northwestern Nevada.

1.3. Decision to be Made

This EA discloses the environmental consequences of implementing the Proposed Action or an alternative to that action. The BLM, Surprise Field Office Manager is the Authorized Officer. His decision and the rationale for that decision would be stated in Decision Record (DR). Based on the information provided in this EA, the Authorized Officer would decide whether or not to issue the Free-Use permits, or if an EIS would be required.

1.4. Scoping, Public Involvement and Issues:

The BLM Surprise Field Office conducted internal scoping with an interdisciplinary team of specialists. Consultation was held with the Fort Bidwell and Summit Lake Paiute Tribes in May 2011. This consultation resulted in no concerns. The EA was made available for a 15 day public review and comment period beginning on July 13, 2012. The BLM received no comments.

1.5. Plan Conformance

The proposed action conforms to the Surprise Resource Management Plan and Record of Decision, April 2008. The proposed action has been determined to be in conformance with this plan as required by regulation (43 CFR 1610.5-3(a)).

1.6. Relationship to Statutes, Regulations, and Plans

Cultural Resources

Under the National Historic Preservation Act The California Bureau of Land Management (BLM) has responsibility to manage cultural resources on public lands pursuant to the 1966 National Historic Preservation Act, the 1980 Rangeland Programmatic Memorandum of Agreement with the Advisory Council on Historic Places (WO IM 80-369), the 1997 Programmatic Agreement Among the BLM, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Would Meet Its Responsibilities, and the primary agreement, which dictates how the BLM in California would meet its responsibilities under the above Statutes and Regulations, the 2007 State Protocol Agreement among the California State Director of the BLM, the California State Historic Preservation Officer, and the Nevada State historic Preservation Officer. The renewal of these gravel permits would comply with the above regulations.

Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

The proposed action is to issue 17 Free-Use Permits to Washoe County for the use of the 17 Gravel Pits on BLM lands listed in Exhibit A. The Free-Use Permits would allow the County to mine and extract up to 5,000 yards of material annually from each pit for a 10-year term. Three of the pits are currently operated by the BLM as a community pits. WCRD has held a free use permit for the past 20 years.

Future mining operation in the pits would occur for the next 10 years. Total permitted extraction would be 50,000 yards per pit during that period. All hauling would occur on County maintained roads. The mining plan would be to continually remove material from stockpiles located within the pits boundaries. Replenishment of the stockpiles would occur throughout the year as needed, generally between the months of April and November. The pits would be mined by processing material from the walls of the pits, generally working toward the pits proposed expansion areas or boundaries. Excavation at these pits would remain at least 75 feet from intermittent drainages. Prior to disturbance of any new surface, topsoil would be removed and stored on-site. As excavation continues, the sides of the pits would be sloped at not greater than 3:1 horizontal to vertical.

The material would be processed by excavating the material in place in the pits, and when necessary, passing it through a portable crusher and screen to produce road base gravel or chips, after which it would be stockpiled. There would be no explosives used at these pits.

Some of the pits would be renewed for the existing disturbance and acres under the previous Free-Use permit however some of the pits would be renewed and the gravel pit boundary would be expanded. See list below for details.

Table 2.1. Proposed Pits

BLM Serial Number	WCRD Pit Number	Pit Name	Total Acres	Action	Expansion Acres
58217	V-8A-4	POWER LINE	10	Renew and Expand	5.7
58221	V-8A-5	MASSACRE	4	Renew and Expand	2.1
59988	V-34-11	KYTE	3.5	Renew and Expand	1.2
58223	V-8A-6	EVANS	7	Renew and Expand	3.7
59987	V-8A-7	WALL CANYON	7	Renew and Expand	4
58213	V-34-2	NELLIE SPRINGS	9	Renew	0
58220	V-34-9	BIG POINT	15	Renew and Expand	9
58225	G-81-10	TULEDAD	4	Renew and Expand	.5
46217	G-81-2	REEDERVILLE	11	Renew and Expand	1.1
46219	G-81-9	FOX MOUNTAIN NORTH	10	Renew and Expand	8.6

60346	LOST CREEK-1	SUMMIT SPRINGS	6	Renew and Expand	2.7
58222	LOST CREEK-2	GRASS VALLEY	3	Renew	0
58214	V-34-10	BOARD CORRAL	12	Renew and Expand	9
46221	V-8A-3	OLD DUMP	9	Renew and Expand	2.2
58224	V-LR-2	BULL CREEK	8	Renew and Expand	2.5
60343	V-LR-3	LONG RANCH	3	Renew	0
87906		FOX MOUNTAIN SOUTH	5	Renew	0

2.2. Alternative 1- No Expansions:

Under this alternative the pits would be renewed under the current existing disturbance and acreage authorized under the previous Free-Use permit. No expansion would be authorized and the county would have to mine the gravel that is currently available in the previously disturbed areas.

2.3. Alternative 2 – No Action

Under the no action alternative, the proposed Free-Use permits would not be issued to the county and the pits would remain unauthorized or as a Community Pits. The county would not be authorized to use the gravel pits and would have to acquire gravel at other locations on private or state lands.

Chapter 3. ENVIRONMENTAL ANALYSIS:

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The affected environment is described below followed by the environmental consequences for each resource.

To comply with the National Environmental Policy Act, the following elements of the human environment (Supplemental Authorities) are subject to requirements specified in statute, regulation or executive order and must be considered.

Table 3.1.

Supplemental Authorities	Present	Not Present	Affected	Rationale
Air Quality				Section 3.1
Areas of Critical Environmental Concern (ACEC's)				Not present.
Cultural Resources				Section 3.2
Environmental Justice				Not affected.
Floodplains				Resource not present.
Global Climate Change				Emissions of greenhouse gases from the infrequent and short-term operation of motor vehicles and motorized equipment would have immeasurable effects on global climate change.
Invasive, Nonnative Species				Section 3.3
Migratory Birds				Because the pits would be located in previously disturbed areas, native habitat for migratory birds has been previously eliminated.
Native American Religious Concerns	X		X	Section 3.4
Prime or Unique Farmlands				Resource not present.
Threatened & Endangered Species				No species occur within or near the project area.
Wastes, Hazardous or Solid				Not present. The permit requires that any wastes created during operation be removed prior to periods of non-operation.
Water Quality (Surface/Ground)				No surface or ground water would be affected.

Wetlands and Riparian Zones				No wetland or riparian zones would be affected.
Wild and Scenic Rivers				Resource not present.
Wilderness				None of the pit locations are located within Wilderness Study Areas or designated Wilderness Areas.

In addition to the require elements described above (Supplemental Authorities) the Interdisciplinary Team considered the following resources and uses.

Table 3.2.

Resource or Use	Present	Not Present	Affected	Rationale
Livestock Grazing				The location of the project sites are within livestock grazing allotments, but due to the lack of forage plants and distance to water, there would be no impact on livestock grazing.
Recreation				Recreational target shooting does occur on the parcel but is not adversely affected. Recreational camping exists on a number of the pits but is not adversely affected.
Soils				Section 3.5
Socio-Economics				Section 3.6
Special Status Species				No special status plant or animal species are known from the project location or surrounding area.
Vegetation				Section 3.7
Visual Resources				Section 3.8
Wild Horses				Not Present
Wildlife				Section 3.9

3.1. Air Quality

A. Affected Environment

The Washoe County District Health Department, Air Quality Management Division, Washoe County, has jurisdiction over air quality issues throughout Washoe County and administers air quality regulations developed at the federal, State, and local levels. Weather in this region is influenced by the position of a semi-permanent high pressure cell in the North Pacific Ocean. Due to the positioning of this cell southward during winter months, an almost unbroken chain

of winter storms occurs in the Action Area, and a bulk of the precipitation in the Action Area occurs during this winter storm period. Weather systems in the region usually result in strong winds and unstable air masses, providing for good dispersion conditions. During fair weather periods, stable air conditions prevail throughout the region. Summers are hot and dry. Winds generally prevail from the south and southwest.

Air quality for the project area is generally good due to the remoteness and the limited amount of development/activity taking place within the project area. Air pollution in the region of the Action Area is predominately characterized by particulate matter (PM10) (CARB 2010), resulting from a variety of sources including fugitive dust from construction and the use of unsurfaced roads, windblown dust, vehicular and equipment emissions, and smoke from prescribed burns and wildfires during summer months, and wood-burning stoves and furnaces used for heating during winter months. Washoe County is designated by national standards as “Unclassified/Attainment” for 8-Hour Ozone, PM10, PM2.5, Carbon Monoxide, Nitrogen Dioxide, and Sulfur Dioxide (USEPA 2011). Strong dust events are common in this area during the spring through fall as strong south winds associated with frontal passage raise dust clouds from vast areas of un-vegetated dry lakebeds south of the pits location.

B. Environmental Consequences

1. Impacts of Proposed Action

Operation at the gravel pits would involve the excavation and preparation of gravel material, including rock crushing, as well as the hauling of gravel for use throughout the County. During these operations, dust (PM10) would be produced from pits activity and associated haul trips over dirt roads. Because the mining operations in the pits would be infrequent and of relatively short duration, a few weeks during the entire year, the dust production would be localized and short-term and would be similar to natural dust generation from un protected desert soils associated with winds and dust devils. Mining activities could potentially contribute to temporary, localized non-attainment of the PM10 ambient air quality national and state.

2. Impacts of Alternative 1

Impacts of this alternative would involve the similar effects as the proposed action however impacts would be less since the expansions would not occur. Although the county would not be able to expand they would still have operations and mining occurring in the pits.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to the gravel pits. Some pits would continue to operate as Community pits. There would be negligible emissions of dust as gravel is loaded into pickup trucks and dump trucks on an infrequent basis.

3.2. Cultural Resources

A. Affected Environment

The gravel pit renewals and proposed gravel pit expansions are located within Washoe and Humboldt Counties, Nevada about in proximity to Cedarville, California. Ethnographically, this area was part of the territory of the Northern Paiute; within the territorial boundaries of the Kidütökadö band. Many members of the Kidütökadö continue to reside at the Fort Bidwell

Reservation. Historically, this area has been used for sheep and cattle grazing by Euro-Americans. Cultural resource inventories within the overall project area indicate that the area was used by prehistoric people for resource procurement activities. In addition, seasonal, temporary campsites were established for the purposes of procuring tool stone material, game, and plant resources. Historic resources are associated with livestock grazing activities and early homesteading, emigrant and military trails, mining, and railroads.

The project area is within the area traditionally used by the Northern Paiute or Paviotso. The northern portion of the Complex falls within the area identified as being used by the Agaipaninadokado (fish lake eaters), Moadokado (wild onion eaters) of Summit Lake, and the Gidutidad (groundhog eaters) of Surprise Valley. The southern portion lies within the area traditionally used by the Kamodokado (jack rabbit eaters) of Gerlach, Nevada. The Kamodokado area reportedly included the territory that others did not claim. The area of the Sawadokado (sagebrush mountain dwellers) of Winnemucca also extends into the southwest portion of the area. Paiutes from other areas likely passed through on their way to fish at Summit Lake or to hunt.

The Northern Paiute were hunting-gathering bands that generally traveled seasonal rounds in small family groups subsisting on a variety of plant foods, insects, small game, and fish. Game animals available to Native Americans in the planning area included antelope, rabbits, bighorn sheep, mule deer, and a variety of small mammals, reptiles, and birds. Lahontan cutthroat trout was procured at nearby Summit Lake. Lahontan cutthroat trout, as well as cui ui (a large plankton-feeding fish (tui chub) that occurs only at Pyramid Lake), were also available at Pyramid Lake south of the Black Rock Desert. Antelope and rabbits were often hunted communally. Seeds and roots were the primary plant foods gathered. Plant and animal products were also used for clothing, shelter, and other functional and ceremonial articles. Medicinal plants were used for healing purposes.

Lithic sources provided materials for tool manufacture. Some minerals were also used medicinally and ceremonially. A more complete summary of the plants and animals used by the Northern Paiute that occur in and near the management area, as well as other ethnographic information, is provided in Lohse (1981).

The Surprise Field Office regularly consults with the Fort Bidwell Tribal Council, the Summit Lake Paiute Tribal Council and the Cedarville Rancheria Tribal Council about projects ongoing within the Surprise Field Office boundaries. To date there have been no concerns expressed about the proposed project.

B. Environmental Consequences

1. Impacts of Proposed Action

1. Poweline Pit: Archeological resource survey of the proposed pit was conducted 07/03/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
2. Massacre Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 and 6/28/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
3. Kyte Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.

4. Evans Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 and 06/28/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
5. Wall Canyon Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 and 06/28/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
6. Nellie Springs Pit: Archeological resource survey of the proposed pit was conducted 02/07/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
7. Big Point Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 and 07/03/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
8. Tuledad Pit: Archeological resource survey of the proposed pit was conducted 05/15/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
9. Reederville Pit: Archeological resource survey of the proposed pit was conducted 01/09/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
10. Fox Mountain North Pit: Archeological resource survey of the proposed pit was conducted 01/09/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
11. Summit Springs: Archeological resource survey of the proposed pit was conducted 08/02/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
12. Grass Valley Pit: Coleman Ranch Pit: Archeological resource survey was not conducted for the renewal of the existing pit.
13. Board Corral Pit: Archeological resource survey of the proposed pit was conducted 01/04/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
14. Old Dump Pit: Archeological resource survey of the proposed pit was conducted 01/09/2012 and 07/03/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
15. Bull Creek Pit: Archeological resource survey of the proposed pit was conducted 08/02/2012 by the Field Office Archeologist, Surprise BLM. No cultural resources were located in the project area.
16. **Long Ranch Pit:** Coleman Ranch Pit: Archeological resource survey was not conducted for the renewal of the existing pit.
17. Fox Mountain South Pit: Archeological resource survey was not conducted for the renewal of the existing pit.

Operation of the pits would not create a physical change or condition that could affect known unique ethnic cultural values or restrict existing religious or sacred uses within the existing and future impact area. There would be no impacts to cultural resources under the proposed action.

2. Impacts of Alternative 1

There would be no impacts to cultural resources under Alternative 1.

3. Impacts of Alternative 2 – No Action

There would be no impacts to cultural resources under Alternative 2.

3.3. Invasive, Non-native Species

A. Affected Environment

There are no known populations of noxious weed species within the proposed permit areas. If noxious weeds were detected by Washoe County, they would be reported to the BLM for immediate action to suppress and eradicate the infestation. BLM would also continue to survey for noxious weeds at gravel pits. Cheatgrass, a common invasive annual grass is present at all the pits, especially in areas where the soils have been disturbed. Hoary cress, an invasive weed, is present in many areas along roadsides within the Field Office. Hoary cress is not currently established in gravel pits however there is a high potential for Hoary cress invasion within gravel pits in the future.

B. Environmental Consequences

1. Impacts of Proposed Action

Direct operations of the Pits would have no direct impact on the spread of noxious, non-native species. Indirectly, the use of the material by Washoe County to maintain gravel roads and shoulders of paved roads in Northwest Nevada could contribute to the spread of noxious weeds through hauling of materials and grading of the spread materials in areas where these species currently exist. If new invasions were detected at the pit sites, the weed species would be treated immediately to eradicate the weed invasion. Cheatgrass would be expected to slightly increase as a result of the proposed action due to expansion of the pits. Overall, the proposed action is expected to slightly increase the potential for noxious weed invasion due to increased pit expansion.

2. Impacts of Alternative 1

Not allowing expansions on the pits would result in less indirect effects to invasive, non-native species compared to the proposed action.

3. Impacts of Alternative 2 – No Action

Under the No Action Alternative, Washoe County would not be authorized to remove material out of the pits and noxious weed establishment and spread through moving of materials would be slightly reduced compared to the Proposed Action. The sale of small quantities of materials to individuals and businesses would have no direct impact on the spread of noxious nonnative species. Indirectly, the use of the material could result in the spread of these materials on private lands through hauling of materials and grading of the spread materials in areas where these species currently exist.

3.4. Native American Religious Concerns

A. Affected Environment

Consultation was held with the Fort Bidwell and Summit Lake Paiute Tribes in May 2011. This consultation resulted in no concerns.

B. Environmental Consequences

1. Impacts of Proposed Action

There are no expressed concerns from the local tribes

2. Impacts of Alternative 1

Impacts of this alternative would involve the same effects as the proposed action.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to Native American Religious Concerns

3.5. Soils

A. Affected Environment

The pits are located in a wide range of soils series, primarily loams. Soils are generally less than one foot deep to allow WCRD to easily remove top soils and access the underlying gravel deposits. Previous gravel mining at the sites has resulted in top soils being removed from 100 acres. This material was moved to areas currently outside the mining area for future reclamation.

B. Environmental Consequences

1. Impacts of Proposed Action

Operation of the pits would include grading, excavation, and earth moving activities which would result in a maximum of 52.3 additional acres of soil disturbance as 13 of the 17 gravel pit grows outside the previously permitted footprints. WCRD would strip and stockpile top soil from the additional acres for future reclamation. The total soil disturbance would be a maximum of 178.8 acres, with an average of 10.5 acres per pit. Operation of the pits would not result in erosion and unstable soils. Reclamation would be phased and would occur in mined and abandoned portions of the pits. Reclamation would include slope stabilization, recontouring, drainage control, and revegetation. Potential erosion problems would be limited to the area of active mining and negligible due to low precipitation, high infiltration and capture of runoff water in the existing pits.

2. Impacts of Alternative 1

Not allowing expansions on the pits would result in a maximum disturbance to soils of 126.5 acres. WCRD has stripped and stockpiled soils from the presently mined areas and would salvage additional topsoil as they mine areas within the previously permitted areas that have not been mined. Operation of the pits would not result in erosion and unstable soils. Reclamation would be phased and would occur in mined and abandoned portions of the pits. Reclamation would include slope stabilization, recontouring, drainage control, and revegetation. Potential erosion

problems would be limited to the area of active mining and negligible due to low precipitation, high infiltration and capture of runoff water in the existing pits.

3. Impacts of Alternative 2 – No Action

Without permits for any of the 17 existing sites, WCRD would reclaim the pits with stockpiled top soil and reseed the reclaimed areas except as designated by BLM for use as community pits. Operation of the existing pits as community pits would result in no new disturbance to soils. It would be expected that the local community would remove low volumes of material that would not require the pit to expand into currently undisturbed areas.

3.6. Social and Economic Values

A. Affected Environment

The Washoe County Road Department is responsible for the maintenance of hundreds of miles of gravel roads used by the residents and travelers in the northern portion of the County. There are no paved roads in this region. Gravel is used for road base and shoulder material for all types of roads, for surfacing materials for gravel roads. To meet their needs for gravel materials the County has historically used 17 gravel pits scattered on public lands administered by the Surprise Field Office.

Operation of the 17 pits is based upon maintenance needs and budget priorities throughout the county. The result is that each pit is used infrequently and for a maximum of few weeks at a time.

Residents and visitors use these Washoe county maintained roads on a regular basis and depend on them to recreate, operate businesses and travel to and from residences. Pits are also used for destination areas for activities such as shooting and camping.

B. Environmental Consequences

1. Impacts of Proposed Action

Operation of Pits would provide the County with a source of needed gravel. This gravel would be used for the maintenance of County roads, which is a beneficial public service impact. Operation of the pits would not adversely affect fire or police protection services or any schools. With expanded and continued use on the pits would enable WCRD to continue to provide safe, steady, maintained roads to the area and the travelers who use the roads.

Mining activity would generate appreciable noise levels averaging approximately 88 dBA, 50 feet from a noise source. However, noise naturally attenuates at an average rate of 6 dBA per doubling of distance from the noise source (Barksdale, 1991). The nearest residence to one of the pits is over two miles away and would be exposed to less than 40 dBA noise. Therefore noise except within the permit area would be negligible and short-term.

2. Impacts of Alternative 1

Not allowing expansions on the pits would involve the same effects as the proposed action.

3. Impacts of Alternative 2 – No Action

Not issuing Washoe County a 10 year permit to mine gravel from the 17 pits would result in several options for the County relative to maintenance of roads within Washoe County. Either

they would need to apply for new gravel pits in the southern portion of the county on public or private lands or they would utilize the existing or new pits on private or non-federal public lands. Each option would result in increased costs to the County. Opening new pits would require obtaining necessary state reclamation permits and free use permit from BLM if the pits were on public land. If the new pits was on private land the county would be likely to have to pay for the material removed. Hauling materials from the existing pits would result in increased transportation costs associated with increased haul distances.

With a limited use of the pits the maintenance to the roads would decrease and residence and visitors to Washoe County could be negatively impacted due to unsafe and unstable road conditions.

3.7. Vegetation

A. Affected Environment

The potential vegetation community within the permit areas is dominated by Wyoming big sagebrush (*Artemisia tridentata* spp. *wyomingensis*), shadscale (*Atriplex canescens*), budsage (*Artemisia spinescens*), and perennial grasses including Canby's bluegrass, squirreltail, Indian ricegrass, and Thurber's needlegrass. Typically, vegetation covers about 10-15% of the ground surface. Many of the gravel pit locations are in low elevation sites and understory composition is limited with only a small amount of perennial grasses and very few perennial forbs. Disturbed sites are generally not vegetated by perennial plants and have a cheatgrass component that has reestablished in the disturbed area. The topsoil storage areas are mostly scattered cheatgrass.

B. Environmental Consequences

1. Impacts of Proposed Action

The proposed operation of the Pits by for County uses would occur primarily within the existing disturbance footprints and proposed expansion areas. Top soil storage piles would continue to be occupied by scattered cheatgrass. In expansion areas, small portions of sagebrush communities would be removed.

Reclamation would be phased and would occur in mined and abandoned portions of the pits. Reclamation would include slope stabilization, recontouring, drainage control, and revegetation with native species.

2. Impacts of Alternative 1

Maintaining the Pits for County use would result in slightly less effects to vegetation as described for the proposed action due to no expansions and subsequent loss of sagebrush communities.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to vegetation associated with not renewing free use permit authorizations.

3.8. Visual Resources

BLM's Visual Resource Management (VRM) system provides a way to identify and evaluate scenic values to determine the appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. The VRM system is categorized as follows:

Class I Objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

Class III Objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.

Class IV Objective: To provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.

A. Affected Environment

1. Poweline Pit: This Pit is within a Class IV objective area.
2. Massacre Pit: This Pit is within a Class II objective area.
3. Kyte Pit: This Pit is within a Class II objective area.
4. Evans Pit: This Pit is within a Class II objective area.
5. Wall Canyon Pit: This Pit is within a Class II objective area.
6. Nellie Springs Pit: This Pit is within a Class IV objective area.
7. Big Point Pit: This Pit is within a Class IV objective area.
8. Tuledad Pit: This Pit is within a Class II objective area.
9. Reederville Pit: This Pit is within a Class III objective area.
10. Fox Mountain North Pit: This Pit is within a Class III objective area.
11. Summit Springs: This Pit is within a Class III objective area.
12. Grass Valley Pit: This Pit is within a Class IV objective area.
13. Board Corral Pit: This Pit is within a Class IV objective area.
14. Old Dump Pit: This Pit is within a Class IV objective area.
15. Bull Creek Pit: This Pit is within a Class II objective area.
16. Long Ranch Pit: This Pit is within a Class III objective area.
17. Fox Mountain South Pit: This Pit is within a Class III objective area.

B. Environmental Consequences

1. Impacts of Proposed Action

1. Poweline Pit: This Pit is within a Class IV objective area. The level of change to the characteristic landscape can be high. The proposed expansion will modify the landscape moderately but is consistent with the VRM allowable class level.
2. Massacre Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to an already disturbed pit as well as the heavily used County road 8A, the proposed action will decrease visual quality on an estimated 2.1 acres within the vicinity of the pit.
3. Kyte Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used County road 34A, the proposed action would have minor effects on the VRM in the surrounding area. The proposed expansion would decrease visual quality on an estimated 1.2 acres within the vicinity of the pit.
4. Evans Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used County road 8A, the proposed action would have minor effects on the VRM in the surrounding area. The proposed expansion would decrease visual quality on an estimated 3.7 acres within the vicinity of the pit.
5. Wall Canyon Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used County road 8A, the proposed action would have minor effects on the VRM in the surrounding area. The proposed expansion would decrease visual quality on an estimated 4 acres within the vicinity of the pit.
6. Nellie Springs Pit: This Pit is within a Class IV objective area. . The level of change to the characteristic landscape can be high. The proposed expansion will modify the landscape moderately but is consistent with the VRM allowable class level.
7. Big Point Pit: This Pit is within a Class IV objective area. . The level of change to the characteristic landscape can be high. The proposed expansion will modify the landscape moderately but is consistent with the VRM allowable class level.
8. Tuledad Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Tuledad road, the proposed action would have minor effects on the VRM in the surrounding area. The proposed expansion would decrease visual quality on an estimated .5 acres within the vicinity of the pit.
9. Reederville Pit: This Pit is within a Class III objective area. The level of change to the characteristic landscape should be moderate. The proposed expansion will modify the

landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Highway 447; the proposed action would have minor effects on the VRM in the surrounding area.

10. Fox Mountain North Pit: This Pit is within a Class III objective area. The level of change to the characteristic landscape should be moderate. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Fox Mountain road; the proposed action would have minor effects on the VRM in the surrounding area.
11. Summit Springs: This Pit is within a Class III objective area. The level of change to the characteristic landscape should be moderate. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Lost Creek road; the proposed action would have minor effects on the VRM in the surrounding area.
12. Grass Valley Pit: This Pit is within a Class IV objective area. The level of change to the characteristic landscape can be high. The proposed renewal of the existing disturbance and acreage will modify the landscape moderately but is consistent with the VRM allowable class level.
13. Board Corral Pit: This Pit is within a Class IV objective area. The level of change to the characteristic landscape can be high. The proposed expansion will modify the landscape moderately but is consistent with the VRM allowable class level.
14. Old Dump Pit: This Pit is within a Class IV objective area. The level of change to the characteristic landscape can be high. The proposed expansion will modify the landscape moderately but is consistent with the VRM allowable class level.
15. Bull Creek Pit: This Pit is within a Class II objective area. The level of change to the characteristic landscape should be low. The proposed expansion will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Bull Creek road, the proposed action would have minor effects on the VRM in the surrounding area. The proposed expansion would decrease visual quality on an estimated 2.5 acres within the vicinity of the pit.
16. Long Ranch Pit: This Pit is within a Class III objective area. The level of change to the characteristic landscape should be moderate. The proposed renewal of the existing disturbance and acreage will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Bull Creek road; the proposed action would have minor effects on the VRM in the surrounding area.
17. Fox Mountain South Pit: This Pit is within a Class III objective area. The level of change to the characteristic landscape should be moderate. The proposed renewal of the existing disturbance and acreage will modify the landscape moderately however due to the proximity to the already disturbed existing pit as well as the heavily used Fox Mountain road; the proposed action would have minor effects on the VRM in the surrounding area.

2. Impacts of Alternative 1

Not allowing expansions on the pits would involve the similar effects as the proposed action. The pits would be renewed for the existing disturbance and would still be in operation.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to visual resources associated with operation of a community pits. The Community pits would continue to operate within the existing disturbance footprint and the remaining other pits would be closed.

3.9. Wildlife, including T&E Species and Migratory Birds

A. Affected Environment

No T&E species were observed during surveys of the gravel pits and expansion areas. Wildlife observed and typical in the study area includes low densities of jackrabbit, antelope ground squirrel, kangaroo rats, coyotes, badgers, and pronghorn antelope. Limiting factors for wildlife diversity and populations include the sparse, low growing salt desert shrub community, Wyoming big sagebrush communities that lack understory composition and lack of nearby water sources. No surface streams or wetlands are located on or adjacent to any past or proposed future mining areas at the Pits. The vegetative community at the pits site represents low quality habitat for the majority of wildlife species in the region. No migratory birds or there sign was noted at the pit sites or expansion areas. The native species composition of the pits site is well represented in the region, such that loss of this area would not significantly change the composition, abundance, or diversity of species in the region. The pits fall within Preliminary Priority Habitat for Greater sage-grouse however no sage-grouse use or signs was observed in or adjacent to any of the pits. Wyoming sagebrush sites are used for sage-grouse nesting habitats and winter habitats in this area.

B. Environmental Consequences

1. Impacts of Proposed Action

During the life of the permit, an additional 52.3 acres of wildlife habitat would be damaged due to expanding mining activities for a total loss of 126.5 acres at 17 locations. Given the low diversity of wildlife species and low population levels present around the pits, the impact to wildlife would be insignificant. Due to the existing disturbance on-site and the abundance of open space surrounding the site, additional mining activity is not expected to have measureable impact on wildlife migration corridors. A small loss of sage-grouse PPH habitat loss would occur under this alternative however the impacts are expected to be negligible due to no measureable or noticeable sage-grouse use occurring within the pit expansion area and the marginal habitat conditions within the pit expansion areas.

2. Impacts of Alternative 1

Maintaining the Pits for County and community use would result in slightly less effects to wildlife populations and habitat resources as described for the proposed action due to no expansion or loss of sagebrush communities.

3. Impacts of Alternative 2 – No Action

There would be no new impacts to wildlife associated with operation of community pits. 3 of the 17 pits would continue to operate within the existing disturbance footprint.

3.10. Global Climate Change

A. Affected Environment

The assessment of GHG emissions and climate change remains in its formative phase. The lack of scientific tools designed to predict climate change on regional or local scales limits the ability to quantify potential future impacts of climate change on resources within the Surprise Field Office. Climate change refers to any significant change in measures of climate lasting for an extended period of time. Climate change may result from: natural processes, such as changes in the sun's intensity; natural processes within the climate system; human activities that change the atmosphere's composition and the land surface.

The earth absorbs energy from the sun, and also radiates energy back into space. Much of this energy going back to space is absorbed by gases in the atmosphere. Because the atmosphere then radiates most of this energy back to the earth's surface, our planet is warmer than it would be if the atmosphere did not contain these gases. Without this natural "greenhouse effect," temperatures would be about 60 degrees Fahrenheit, lower than they are now, and life as we know it today would not be possible (USEPA 2009a). Thus, the "greenhouse gases" (GHGs), including carbon dioxide, methane, and nitrous oxide, serve to regulate the earth's surface temperature, keeping the earth's average temperature close to 60 degrees Fahrenheit. Greenhouse gases occur both naturally and as a result of manmade activities (anthropogenic sources).

In the United States, energy-related activities account for three-quarters of human-generated greenhouse gas emissions, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third comes from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, and waste management are also important sources of greenhouse gas emissions in the United States (USEPA 2009b). GHGs from anthropogenic sources which are of most concern include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs).

B. Environmental Consequences

1. Impacts of Proposed Action

The proposed action will involve some future contribution of GHGs; these contributions would not have a measurable effect due to the small amount of emission output from mining gravel for road maintenance in relation to a global climate scale that GHGs influence and act upon.

2. Impacts of Alternative 1

Alternative 2 will involve some future contribution of GHGs; these contributions would not have a measurable effect due to the small amount of emission output from mining gravel for road maintenance in relation to a global climate scale that GHGs influence and act upon. Emission output and GHGs under this alternative may be slightly higher due to WCRD having to expend additional fossil fuels in form of gasoline and diesel to obtain enough gravel in the current disturbance area due to no expansions being authorized.

3. Impacts of Alternative 2 – No Action

The no action alternative may reduce locally produced GHG emissions from vehicle emissions; however, this level of reduction is likely to be minute and practically un-measurable at both the local and global scales

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Chapter 4. OVERALL CUMMULATIVE IMPACTS :

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Cumulative impacts are the “incremental impacts of a proposal when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes them” (40 Code of Federal Regulations 1508.7)

Potential cumulative impacts are assessed at the resource level. The cumulative effects analysis area (CEAA) for past, present, and reasonably foreseeable future activities (RFFAs) that may generate cumulative impacts varies depending on the resource under consideration. For example, the CIAA for socioeconomics is regional in nature; therefore, the scope of activities considered is necessarily broad. In contrast, the CEAA for wildlife is the area specifically associated with the Proposed Action and alternatives; therefore, the scope of potential cumulative activities considered is much narrower. Past, present, and reasonably foreseeable future actions are analyzed to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the Proposed Action and Alternatives may have an additive and significant relationship to those effects.

The areas discussed in this EA have been and are being impacted to some degree by various actions, including but not limited to road construction, land clearing, sand and gravel mining, and recreational activities. The present condition of resources analyzed in this document indicates the level of past impacts from all land use activities.

Timeframe of Effects

Since the life of an EA is generally ten years, this time frame is considered to be most appropriate for considering the incremental effect of reasonably foreseeable future actions. Many of the past and present actions discussed above are expected to persist through this time frame, though the relative intensity of these actions could vary depending on a variety of economic factors.

Past Actions

The Washoe County gravel pit authorizations have been occurring since the 1980's. Prior to that the BLM lands were open to mineral entry and considered bare land. The pits boundaries and areas were all analyzed under an environmental analysis when the pits were established in the 1980's. Since the pits were authorized the areas have been used as sand and gravel mines for the extraction of materials for road maintenance. Dispersed recreation also occurs on these pits. General activities include: rock hounding, hunting, off-highway vehicle (OHV) use, and camping. The BLM permits non-commercial and commercial recreation events through its Special Recreation Permit program. These areas are “open and unlimited use” area for travel management. Although most vehicle use occurs on existing two-track trails and dirt roads, OHV use is permitted. Actual number of users per day or per year is not available, but the intensity of recreational use is generally concentrated within the pit boundaries. Most recreation use occurs during the summer, spring and fall, and associated with hunting activities.

Present Actions

Washoe County currently holds an expired Free-Use permit for the 17 pits. BLM holds Community pit authorizations on 3 of the 17 pits. These 3 pits are open to the public to purchase and extract sand and gravel from. The pits are currently a vital source to the road maintenance in Northern Washoe County.

Reasonably Foreseeable Actions

Washoe County would continue to utilize the 10 year free-use permit authorizations for gravel pit sites since majority of the roads in northern Washoe County are gravel. BLM would continue to keep the existing community pits open to the public. Pits would be expanded to the marked pit boundaries and if closed or relinquished the pits would be reclaimed in accordance to the existing reclamation plan.

As described in Past and Present Actions, dispersed recreation is likely to continue in the future, but it is anticipated to increase due to the construction of new recreation facilities.

4.1. Air Quality

The proposed action would not measurable impact air quality beyond localized areas immediately adjacent to the pits. There would be no negative cumulative effects to Air Quality as a result of the proposed action.

4.2. Cultural Resources

Since many Great Basin prehistoric sites are on the surface or near surface sites, any ground disturbing activities destroy site integrity, spatial patterning, and site function. Datable organic features are either destroyed or contaminated. Previous activities within the Surprise Field Office, including localized grazing, development of range improvements, road construction/maintenance, prescribed, natural, and human caused fire, and use of gravel pits have caused these types of impacts to cultural resources.

As there are no archaeological sites located within the proposed project area there will be no cumulative effects to Cultural Resources.

4.3. Invasive, Non-native Species

Due to the size of the proposed pits and expansions areas and no large noxious weed invasions in the areas surrounding the pits, there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.4. Soils

Removal of soils as a result of mining gravel in pits would have minor negative effects on soils however due to the amount of soils loss under the proposed action there are no significant individual or cumulative effects anticipated as a result of the proposed action. Soils would be stockpiled and replaced during reclamation. Some loss would occur but not at a significant measurable effect.

4.5. Social and Economic Values

The proposed action would improve the roads in the county. There would be no negative cumulative effects to Social and Economic Values. Impacts would be positive since the roads would continue to stay improved allowing for adequate transportation for visitors and residents.

4.6. Vegetation

Removal of vegetation as a result of mining gravel in pits would have minor negative effects on vegetation however due to the small amount of vegetation loss under the proposed action (approximately 52 acres) there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.7. Visual Resources

The proposed action would introduce contrasting elements of form, line, color, and texture. These elements may be very subordinate and un-noticeable to the casual observer. The pits have all been established for the last 15 years and continued use would have low impacts to the visual resource management objectives. Impacts from the proposed action would be negligible to VRM.

4.8. Wildlife

Removal of habitat would have a minor effect on wildlife and sage-grouse PPH habitat. Wildlife could be dispersed and displaced from the area however due to the small size of the proposed pits and expansion areas there are no significant individual or cumulative effects anticipated as a result of the proposed action.

4.9. Global Climate Change

The proposed action would introduce factors that could influence climate change. However these contributions would not have a noticeable or measurable effect, independently or cumulatively, on a phenomenon occurring at the global scale believed to be due to more than a century of human activities.

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Chapter 5. MITIGATION MEASURES

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Mitigation Measures: Air Quality

Washoe County shall reduce dust emissions at the gravel pits by incorporating the use of a water truck in the mining plan. A water truck and operator shall be kept on site during all dry-weather mining activity. Extraction areas and stockpiles of dust producing materials shall be kept damp via regular watering to reduce fugitive dust emissions. Wetting of dirt and gravel haul roads would reduce dust production during episodes of dry weather hauling operations.

Mitigation Measures: Cultural

Should any Cultural Resources be encountered during mining activities, work shall be suspended and the BLM cultural resources specialist shall be immediately notified. At that time, BLM would coordinate any necessary investigations to determine the significance of the discovery. The BLM shall then coordinate with the County to implement any mitigation measures deemed necessary for protection of Cultural Resources.

Mitigation Measures: Paleontological

Should any paleontological resources be encountered during mining activities, work shall be suspended and the BLM cultural resources specialist shall be immediately notified. At that time, BLM would coordinate any necessary investigations to determine the significance of the discovery. The BLM shall then coordinate with the County to implement any mitigation measures deemed necessary for protection of the paleontological resources.

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Chapter 6. CONSULTATION AND COORDINATION/PREPARERS:

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Table 6.1.

Name	Resource/Activities	Project Role
Dan Ryan	Realty & Minerals	EA Preparer Project Lead Interdisciplinary Team
Elias Flores	Wildlife/ Wildlife T&E	EA Preparer Interdisciplinary Team
Julie Rodman	Cultural and Paleontological Resources	EA Preparer Interdisciplinary Team
Alexandra Urza	Wilderness/Recreation	EA Preparer Interdisciplinary Team
Steve Surian	Range/Soils	EA Preparer Interdisciplinary Team
Scott Soletti	Noxious Weeds/Vegetation/Air Quality/Wildlife	EA Preparer Interdisciplinary Team
Roger Farschon	Soils/Air Quality	EA Preparer Interdisciplinary Team

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Chapter 7. Maps

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7.1. Big Point Pit

Washoe County Free-Use Permit Renewal

Big Point NVCA 58220



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Date Prepared: 4/30/2012
Project: Surprise FO Gravel Pits

- WC Pit
 - ▣ Expansion Area
 - ▣ Existing Pit Boundary
- Chapter 7 Maps
Big Point Pit

7.2. Board Corral Pit

Washoe County Free-Use Permit Renewal

Board Corral NVCA 58214



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- WC_New_Pits
- ▨ Expansion Area
- ⋯ Existing Gravel Pit Boundary

7.3. Bull Creek Pit

Washoe County Free-Use Permit Renewal

Bull Creek NVCA 58224



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● WC_New_Pits
Expansion Area
Existing Gravel Pit Boundary

Chapter 7 Maps
Bull Creek Pit

7.4. Evans Pit

Washoe County Free-Use Permit Renewal

Evans NVCA 58223



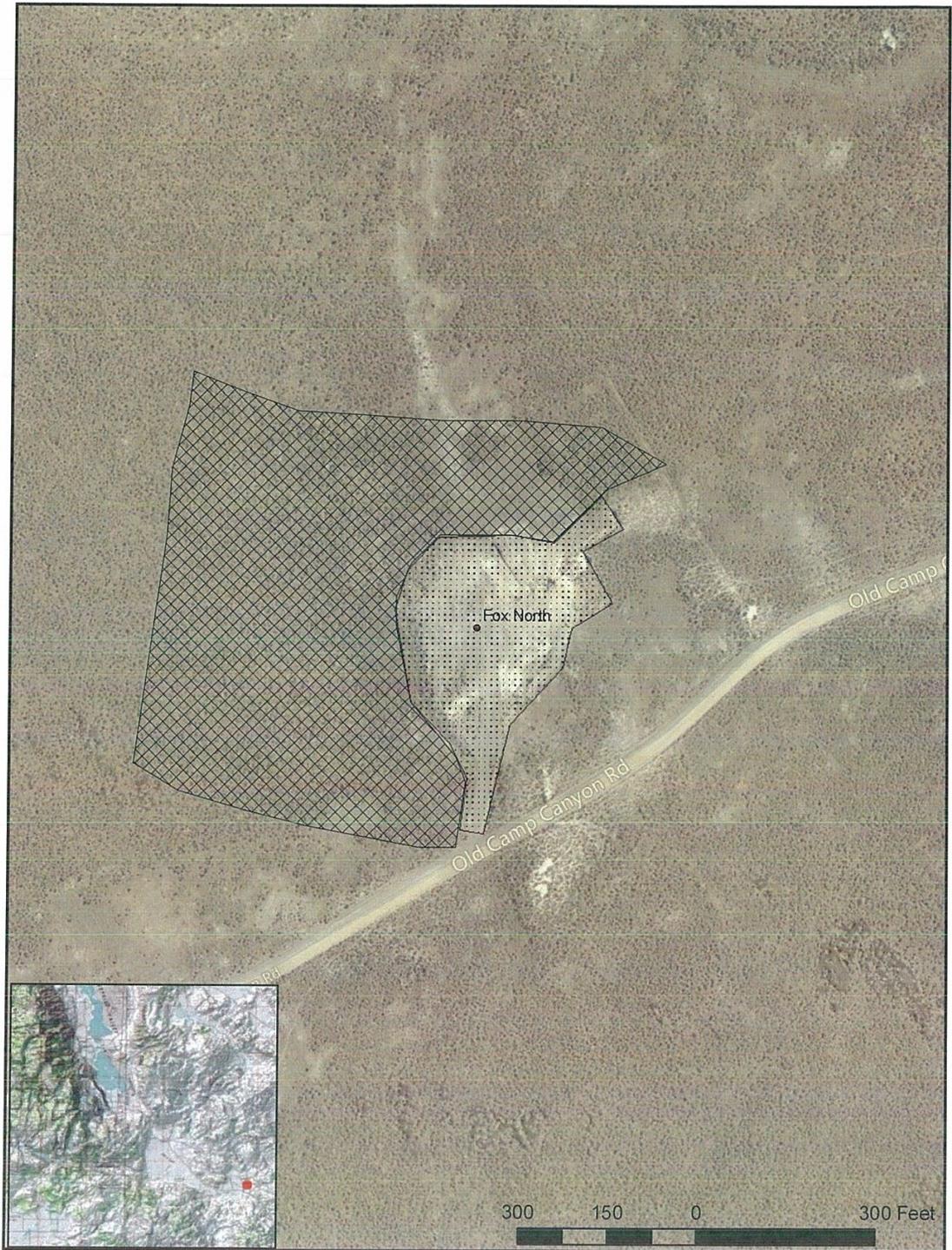
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- WC Pit
- ▨ Expansion Area
- ⋯ Existing Gravel Pit Boundary

7.5. Fox North Pit

Washoe County Free-Use Permit Renewal

Fox North NVCA 46219



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WC_New_Pits

Expansion Area

Existing Gravel Pit Boundary

Chapter 7 Maps
Fox North Pit

7.6. Fox South Pit

Washoe County Free-Use Permit Renewal

Fox South NVCA 87906



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- WC_New_Pits
- ▨ Expansion Area
- ⋯ Existing Gravel Pit Boundary

7.7. Grass Valley Pit

Washoe County Free-Use Permit Renewal

Grass Valley NVCA 58222



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● WC_New_Pits
Expansion Area
Exhibition Area

Chapter 7 Maps
Grass Valley Pit

7.8. Kyte Pit

Washoe County Free-Use Permit Renewal

Kyte NVCA 59988



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- WC_New_Pits
- ▨ Expansion Area
- ⋯ Existing Gravel Pit Boundary

7.9. Long Ranch

Washoe County Free-Use Permit Renewal

Long Ranch NVCA 60343



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- WC_New_Pits
 - ▨ Expansion Area
 - ▤ Existing Pits
- Chapter 7 Maps
Long Ranch

7.10. Massacre Pit

Washoe County Free-Use Permit Renewal

Massacre NVCA 58221



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- WC Pit
- ▨ Expansion Area
- ▤ Existing Gravel Pit Boundary

7.11. Nellie Springs Pit

Washoe County Free-Use Permit Renewal

Nellie Springs NVCA 58213



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Project: Surprise FO Gravel Pits

- WC_New_Pits
 - ▨ Expansion Area
 - ▤ Existing Pit
- Chapter 7 Maps
Nellie Springs Pit

7.12. Old Dump Pit

Washoe County Free-Use Permit Renewal

Old Dump NVCA 46221



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Project: Surprise FO Gravel Pits

- WC_New_Pits
- ▣ Expansion Area
- ▣ Existing Gravel Pit Boundary

7.13. Powerline Pit

Washoe County Free-Use Permit Renewal

Powerline NVCA 58217



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Project: Surprise FO Gravel Pits

● WC_New_Pits
▨ Expansion Area
⋯ Existing Gravel Pit Boundary

Chapter Maps
Powerline Pit

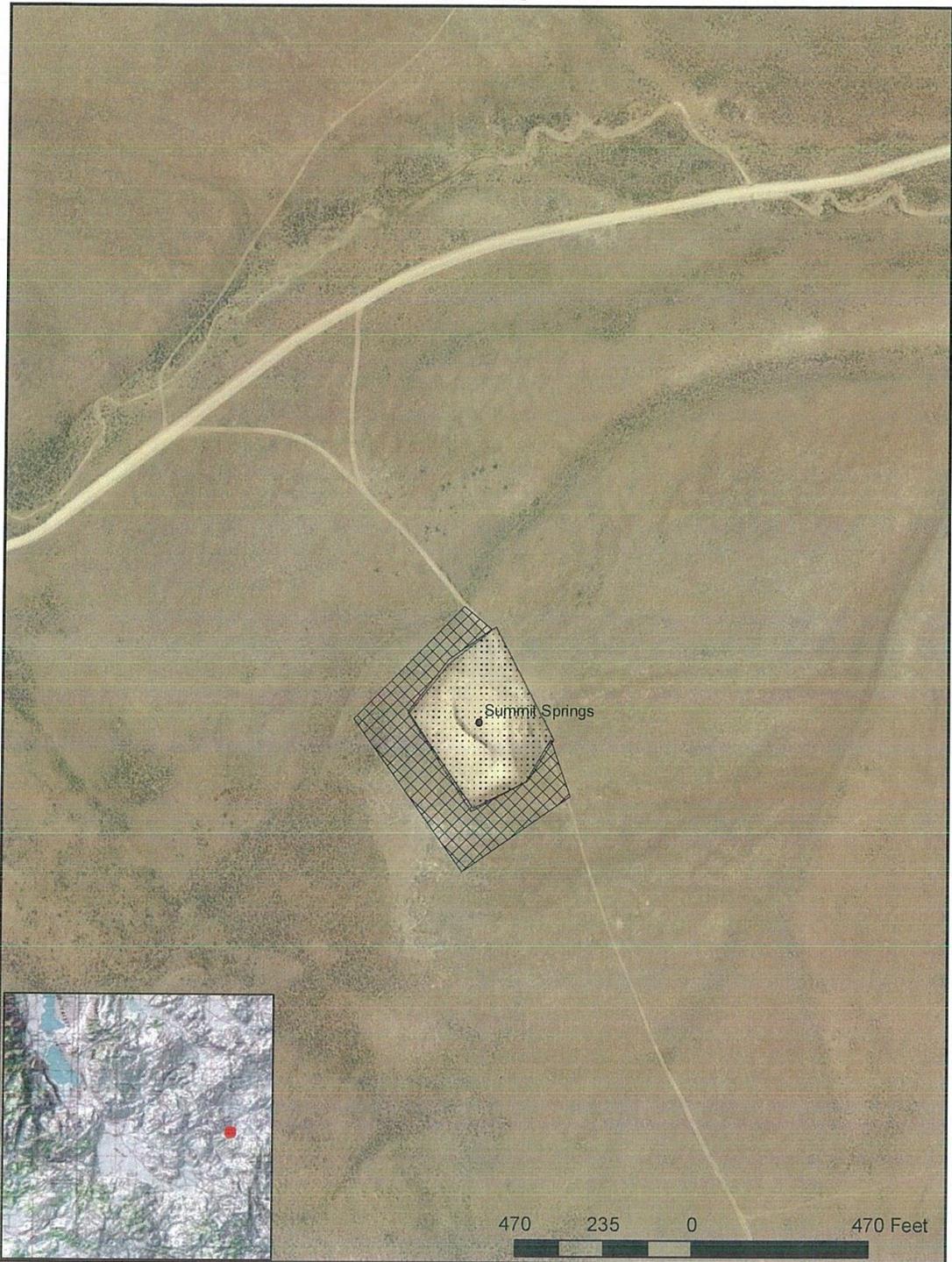
7.14. Reederville Pit



7.15. Summit Springs

Washoe County Free-Use Permit Renewal

Summit Springs NVCA 60346



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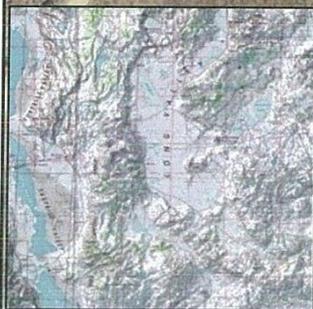
● WC_New_Pits
Expansion Area
Existing Pit Boundaries

*Chapter 7 Maps
Summit Springs*

7.16. Tuledad Road Pit

Washoe County Free-Use Permit Renewal

Tuledad Road NVCA 58225



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Project: Surprise FO Gravel Pits

- WC Pit
- ▣ Expansion Area
- ▣ Existing Gravel Pit Boundary

7.17. Wall Canyon Pit

Washoe County Free-Use Permit Renewal

Wall Canyon NVCA 59987



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Date Prepared: 4/30/2012
Project: Surprise FO Gravel Pits

● WC Pit
▣ Expansion Area
▣ Exclusion Area

Chapter 7 Maps
Wall Canyon Pit