



United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Colorado River Valley Field Office
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ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-040-2014-0091 EA

CASEFILE NUMBERS:

PROJECT NAME: Construct 2 ponds on the Government Creek Common allotment.

LOCATION: Garfield County, North of Rifle, CO

LEGAL DESCRIPTIONS: T5S R93W Sections 10, 14 (see attached map).

APPLICANT: Grazing Permittee

PURPOSE AND NEED FOR ACTION. The mission of the BLM is “to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations”. Land Health Standards and Guidelines for Livestock Grazing Management were developed between the BLM and the Colorado Resource Advisory Council to ensure that the mission of the BLM will be achieved.

The purpose of the action is to improve distribution across the Government Creek Common allotment providing relief to areas that are currently heavily utilized.

This action is needed to determine whether or not to construct 2 new ponds/reservoirs on the Government Creek Common allotment and if so under what terms and conditions to ensure that Public Land Health Standards and objectives for resource management are or will continue to be achieved.

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES: This action was scoped internally with the NEPA Interdisciplinary Team on June 10, 2014. Issues raised during the internal scoping are itemized in table 1 and analyzed in the Affected Environment and Environmental Consequences section of each resource or resource use.

The Colorado River Valley Field Office Internet NEPA Register also lists NEPA documents that have been initiated. They are generally posted approximately one month prior to the estimated completion date.

PROPOSED ACTION. The Proposed Action is to construct 2 ponds/reservoirs on the Government Creek Common allotment and continue to maintain existing ponds in good and functioning condition. Each new pond would hold approximately 0.2 acre feet of water and would retain water from either a spring fed source or spring run-off from snow melt and summer storms. Construction of ponds will require the permittee to improve existing roads in places where they have been deeply rutted or washed out. Total new surface disturbance would be approximately 2 acres. Roads to be maintained are not accessible to the public.

Maintenance activities will be limited to the existing footprint of the existing project. Maintenance of ponds would occur once or twice in a ten year period. Maintenance includes heavy equipment (ie. backhoe or bull dozer) being used to clean out sediment deposited into the pond, rebuilding the dam, or improving water bars in roads to direct water off the road and into the ponds.

NO ACTION ALTERNATIVE. Do not construct the ponds described in the Proposed Action.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL. Other opportunities were explored for improving livestock distribution on the allotment were considered but not brought forward for further analysis.

PLAN CONFORMANCE REVIEW. The proposed action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Glenwood Springs Resource Management Plan

Date Approved: Jan. 1984, revised 1988, amended in November 1991 - Oil and Gas Leasing and Development - Final Supplemental Environmental Impact Statement; amended Nov. 1996 - Colorado Standards and Guidelines; amended in August 1997 - Castle Peak Travel Management Plan; amended in March 1999 - Oil and Gas Leasing & Development Final Supplemental Environmental Impact Statement; amended in November 1999 - Red Hill Plan Amendment; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance; amended in September 2009; and amended in October 2012 - Approved Resource Management Plan Amendments/ Record of Decision (ROD) for Solar Energy Development in Six Southwestern States.

Decision Number/Page: The action is in conformance with Livestock Grazing Management (pg. 18).

Decision Language: “Construct facilities such as springs, reservoirs, fences, corrals, and livestock trails where necessary to control and distribute livestock.”

RELATIONSHIP TO STATUTES, REGULATIONS, OTHER PLANS.

- Taylor Grazing Act of 1934 as amended;
- Federal Land Policy and Management Act of 1976;
- Public Rangelands Improvement Act of 1978;

- Title 43 of the Code of Federal Regulations Subpart 4100 – Grazing Administration;
- Noxious Weed Act of 1974;
- Endangered Species Act of 1973;
- National Environmental Policy Act of 1969;
- Migratory Bird Treaty Act of 1918;
- National Historic Preservation Act (16 USC 470f);
- Archeological Resources Protection Act;
- Native American Graves Protection and Repatriation Act;
- Indian Sacred Sites – EO 13007; and
- Consultation and Coordination with Indian Tribal Governments – EO 13175
- Colorado Public Health Standards and Livestock Grazing Management Guidelines - March 1997

STANDARDS FOR PUBLIC LAND HEALTH. In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. The five standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands.

The Rifle Creek Land Health Assessment was completed for these allotments in 2001. The 2002 Determination Document showed that Government Creek Common allotment was not meeting Standard 1 for upland soils or Standard 3 for plant communities and habitat for wildlife. Of the five upland sites assessed, three showed moderate departure from the conditions expected for the ecological site. The pinyon-juniper woodland site had less grass/forbs and shrubs than expected. At the two sagebrush sites, shrubs were mature to decadent and heavily browsed. Grasses were healthy, but forbs were lacking. Microbiotic crusts were found only in protected areas. Active pedestalling and water flow patterns indicated soil movement was occurring. Bulldozer treatments located within the allotment were meeting the standards with excellent vegetative cover and productivity. Fire suppression and winter big game use were contributing factors in the failure to meet Standards 1 and 3. Current livestock grazing was not considered a significant factor.

The impact analysis addresses whether the proposed action or any alternatives being analyzed would result in impacts that would maintain, improve, or deteriorate land health conditions for each of the five standards. These analyses are located in the program-specific analysis in this document.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES. This section provides a description of the human and natural environmental resources that could be affected by the proposed action and alternatives. In addition, the section presents comparative analyses of the direct and indirect consequences on the affected environment stemming from the implementation of the various actions.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain environmental elements. Not all programs, resources or uses are present in the area, or if they are present, may not be affected by the

proposed action and alternatives (Table 1). Only those elements that are present and potentially affected are described and brought forth for detailed analysis

Table 1. Programs, Resources, and Uses (Including Supplemental Authorities)	Potentially Affected?	
	Yes	No
Access and Transportation		X
Air Quality		X
Areas of Critical Environmental Concern		X
Cadastral Survey		X
Cultural Resources	X	
Native American Religious Concerns	X	
Environmental Justice		X
Farmlands, Prime or Unique		X
Fire/Fuels Management		X
Floodplains		X
Forests		X
Geology and Minerals		X
Law Enforcement		X
Livestock Grazing Management	X	
Noise		X
Paleontology		X
Plants: Invasive, Non-native Species (Noxious Weeds)	X	
Plants: Sensitive, Threatened, or Endangered	X	
Plants: Vegetation	X	
Realty Authorizations		X
Recreation		X
Social and/or Economics		X
Soils	X	
Visual Resources		X
Wastes, Hazardous or Solid		X
Water Quality, Surface and Ground	X	
Water Rights		X
Wetlands and Riparian Zones	X	
Wild and Scenic Rivers		X
Wilderness/WSAs/Wilderness Characteristics		X
Wildlife: Aquatic / Fisheries	X	
Wildlife: Migratory Birds	X	
Wildlife: Sensitive, Threatened, and Endangered Species	X	
Wildlife: Terrestrial	X	

CULTURAL RESOURCES

AFFECTED ENVIRONMENT.

A records search of the general project area, and a Class III inventory of the Area of Potential Effect (APE), as defined in the National Historic Preservation Act (NHPA), was completed by certified contractors and the CRVFO BLM archaeologist and crew (CRVFO CRIR# 1051 and 1014-25). Two cultural resources were documented during inventory but both are isolated finds which are not eligible for the National Register of Historic Places (NRHP). Within one of the proposed stock pond areas, the vegetation was treated with a chaining method and piles of pinyon/juiper are still visible. It is likely this type of treatment in the past may have disturbed prehistoric open architectural sites, such as wickiups, but these sites would no longer be visible. The project inventory and evaluation is in compliance with the NHPA, the Colorado State Protocol Agreement, and other federal law, regulation, policy, and guidelines regarding cultural resources.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Two cultural resources were documented during inventory but both are isolated finds which are not eligible for the National Register of Historic Places (NRHP). Therefore, no cultural resources will be affected by project implementation. The proposed action has a determination of *no historic properties affected*.

Additional areas or changes in the project implementation may require additional archaeological inspection by a qualified archaeologist. These changes include but are not limited to extension of the pipeline, additional water features, or rerouting the pipeline outside of the surveyed area.

No Action. If no action occurs, potential adverse impacts to unknown cultural resources through project implementation, such as soil disturbance from machinery or soil erosion from vegetation removal, would not occur.

Cultural Resource Stipulation. If subsurface cultural values are uncovered during operations, all work in the vicinity of the resource will cease and the authorized officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the State Historic Preservation Officer (SHPO) and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.

Native American Human Remains Stipulation. Pursuant to 43 CFR 10.4(g), the holder must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder must stop activities in the vicinity of the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains, funerary items, sacred objects, or objects of

cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

Paleontological Stipulation. Any paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on their behalf, on public or Federal land shall be immediately reported to the authorized officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant scientific values.

NATIVE AMERICAN RELIGIOUS CONCERNS

AFFECTED ENVIRONMENT.

American Indian religious concerns are legislatively considered under several acts and Executive Orders, namely the American Indian Religious Freedom Act of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). In summary, these require, in concert with other provisions such as those found in the NHPA and ARPA, that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life and ensure, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In some cases elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. The Ute have a generalized concept of spiritual significance that is not easily transferred to Euro-American models or definitions. As such the BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. No traditional cultural properties, unique natural resources, or properties of a type previously identified as being of interest to local tribes, were identified during the cultural resources inventory of the project area. No additional Native American Indian consultation was conducted for the proposed project.

No Action Alternative. Under this alternative, the stock ponds would not be constructed. Therefore, there would be no potential to impact areas of concern to Native Americans.

LIVESTOCK GRAZING MANAGEMENT

AFFECTED ENVIRONMENT.

The Government Creek Common allotment currently consists of 7,567 acres along the south and west side of the Grand Hogback along Highway 13 north of Rifle Colorado. The allotment is currently permitted for both sheep and cattle use in the spring as outlined in the table below.

Table 2.

Livestock Type & Number	Period of Use	AUMs
218 Cattle	5/16 – 6/15	222
1500 Sheep	3/18 – 3/31	138

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Livestock grazing distribution would be improved under the proposed action. Currently livestock use is limited to the eastern portion of the allotment where water is available from existing livestock ponds and spring sources. Constructing the two new ponds would help better distribute use across the western portion of the allotment. Maintaining the road into the western portion of the allotment would allow for the opportunity to haul water to temporary water troughs if needed.

No Action Alternative. Livestock grazing distribution would not be improved. Livestock would continue to concentrate use on areas where water is currently available. Water hauling to temporary water troughs would continue in areas where roads are in sufficient condition to haul water on. Not maintaining the road into the western portion of the allotment would not allow for the potential to haul water to this area.

PLANTS: INVASIVE NON-NATIVE SPECIES (NOXIOUS WEEDS)

AFFECTED ENVIRONMENT.

A landscape-wide weed inventory has not been completed on the Government Creek Common allotment. However, monitoring and other inventories have shown that several species of noxious weeds and invasive non-native species occur within the area of the proposed action. Table 3 lists noxious weed species known to occur in the allotment. Cheatgrass, an invasive, introduced annual grass, is relatively common at many upland sites.

Table 3. Noxious Weeds Infestation Known to Occur in Area of the Proposed Action.

Scientific Name	Common Name	Statewide List Type
<i>Acroptilon repens</i>	Russian knapweed	B List
<i>Cirsium arvense</i>	Canada thistle	B List
<i>Cynoglossum officinale L.</i>	Houndstongue	B List
<i>Saltcedar</i>	Tamarix spp.	B List
<i>Russian- olive</i>	Elaeagnus angustifolia	B List
<i>Verbascum Thapsus L.</i>	Common mullein	C List

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Weeds generally germinate and become established in areas of surface disturbing activities. Constructing two new ponds would temporarily provide a niche for weed establishment. Livestock grazing can contribute to the establishment and expansion of noxious weeds through various mechanisms. In addition, noxious weed seed can be transported and introduced to new areas by fecal deposition or by seed that clings to the animal’s coat. The following mitigation would help alleviate weed establishment and transportation on the allotment.

Mitigation: To reduce the opportunities for weeds to become established and to reduce the opportunities for offsite sediment transport, the disturbed areas will be reseeded with a certified weed-seed free mixture of native grasses adapted to the site. The permittee will monitor the disturbance to detect the presence of any noxious weeds and will be responsible for promptly controlling any noxious weeds on the Colorado State List A or B (except redstem filaree) within the area disturbed from construction. If the permittee chooses to use herbicides as the control method on public lands, a Pesticide Use Proposal shall be submitted to the BLM and approved prior to initiating any herbicide spraying. The operator is to ensure equipment involved in land disturbing actions be clean of noxious weed seeds or propagative parts prior to entry on site. When working in areas with noxious weeds, equipment should be cleaned prior to moving off site.

No Action Alternative. Not constructing the new ponds and maintaining roads would not change the existing condition on the ground and would have no additional impacts to weeds.

PLANTS: SENSITIVE, THREATENED AND ENDANGERED

AFFECTED ENVIRONMENT.

Federally-listed, proposed or candidate plants that the U. S. Fish and Wildlife Service indicates may be present in the action area (USFWS 2014) and BLM Sensitive plants with occupied or potential habitat in the action area (BLM 2009) are shown in Table 4.

Table 4. Potential for Occurrence of Threatened, Endangered, and Sensitive Plant Species in the project area.

Federally Listed, Proposed or Candidate Plant Species		
Species	Habitat	Potential For Occurrence
DeBeque phacelia (<i>Phacelia submutica</i>)	Sparsely vegetated, steep slopes in shrink-swell clays of the Atwell Gulch and Shire Members, Wasatch Formation; 4,700 to 6,200 feet	No: There are no exposures of the Wasatch Formation at the proposed pond sites
Ute ladies’-tresses orchid (<i>Spiranthes diluvialis</i>)	Potential habitat for this threatened species is found below 7,200 feet in subirrigated alluvial soils along streams, lakes and in open meadows in floodplains.	No: The project area is outside the most recent model for potential habitat for this orchid.

Colorado hookless cactus (<i>Sclerocactus glaucus</i>)	Rocky hills, mesa slopes, and alluvial benches in salt desert shrub communities; often with well-formed microbiotic crusts; can occur in dense cheatgrass 4,500 to 6000 feet	Yes: The project area falls within USFWS' identified Section 7 range maps and marginally suitable habitat is present in the project area
BLM Sensitive Plant Species		
Species	Habitat	Potential Habitat Present/Absent
DeBeque milkvetch (<i>Astragalus debequaeus</i>)	Varicolored, fine-textured, seleniferous or saline soils of Wasatch Formation; 5,100 to 6,400 feet	No: No exposures of the Wasatch Formation are present within the project area
Naturita milkvetch (<i>Astragalus naturitensis</i>)	Sandstone mesas, ledges, crevices and slopes in pinyon/juniper woodlands; 5,000 to 7,000 feet	No: No sandstone ledges or shallow soils overlaying bedrock were found in the project area.
Harrington's penstemon (<i>Penstemon harringtonii</i>)	Open sagebrush communities on rocky loam or rocky clay loam soils derived from calcareous parent materials or basalt: 6,200 to 10,000 feet.	No: No suitable soils found in the project area

Following the latest guidance from USFWS for identifying suitable DeBeque phacelia habitat (USFWS 2014), no suitable habitat for DeBeque phacelia is present within or near the project area. Marginally suitable habitat is present for Colorado hookless cactus within the project area, but no plants were found during surveys. Sparse riparian vegetation is found at the Estes Gulch pond site, but the project area is outside of the mapped potential habitat for Ute ladies'-tresses (CNHP 2014) and trampling and soil disturbance at the site would likely preclude occupancy by the orchid.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

Because no suitable habitat for DeBeque phacelia or Ute ladies'-tresses is present within or adjacent to the project area, and because no Colorado hookless cactus occurrences were found during surveys of the project area, the proposed action would have “**No Effect**” on any listed plant species.

No occupied or suitable habitat for any BLM sensitive plants occurs within or adjacent to the project area, thus the proposed action would have no impact on any BLM sensitive plant species.

No Action Alternative.

Because there are no known occurrences of any federally listed or BLM sensitive plants within or near the project area, there would be no effects from the No Action Alternative on any Federally listed or BLM sensitive plant species.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 4 FOR THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES.

Due to the lack of any suitable habitat or known occurrences of federally listed or BLM sensitive plants within the vicinity of the project area, Standard 4 for threatened, endangered, and BLM sensitive plants would not apply.

PLANTS: VEGETATION

AFFECTED ENVIRONMENT.

The proposed action would take place within the Government Creek Common allotment. The allotment is located several miles north of Rifle, Colorado along the southern and western slopes of the Grand Hogback. Elevations range from approximately 5,800 feet near Highway 13 to over 8,600 feet along the spine of the Hogback. Lower elevations and south-facing slopes within the allotment are dominated by pinyon-juniper woodlands. Several Wyoming big sagebrush parks are found on benches and alluvial basins and stringers of aspen and Douglas-fir occur at the higher elevations and on steep, north-facing slopes. In the early 1990's, several vegetation treatment projects were implemented within the allotment to mitigate for the loss of big game habitat (sagebrush) associated with the Uranium Mill Tailings Remediation Action (UMTRA). The treatments involved bulldozing of pinyon-juniper trees and mowing of decadent sagebrush and seeding the treatment areas with a mixture of grasses, forbs, and shrubs. These areas are now largely dominated by sagebrush and sheep fescue, an aggressive, nonnative grass which was included in the seed mix.

The Estes Gulch proposed pond would be constructed just below a spring source in the drainage. The spring supports a small riparian area which includes coyote willow (*Salix exigua*), salt cedar (*Tamarix* spp), a few young cottonwoods (*Populus deltoides*), and some cattails (*Typha latifolia*). In addition, there are several upland species such as rubber rabbitbrush (*Chrysothamnus nauseosus*) and Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) along the drainage.

The upper pond would be constructed in a shallow ephemeral drainage which is vegetated with sheep fescue (*Festuca ovina*), Wyoming big sagebrush and a few scattered Utah junipers (*Juniperus osteosperma*).

The proposed action would also involve improving an existing road which is currently in poor condition. Vegetation along the road is mostly pinyon pine (*Pinus edulis*) and juniper with a sparse understory.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

Implementation of the proposed action would involve the removal of less than 0.1 acre of riparian vegetation and 0.2 acres of non-native upland grasses and sagebrush during pond construction and less than 2 acres of vegetation for road maintenance actions. Some riparian vegetation may recolonize at the Estes Gulch pond site; however, vegetation in the vicinity of small ponds often remains sparse due to heavy use by livestock.

Currently, livestock use is limited to the eastern portion of the allotment where water is available from existing livestock ponds and spring sources. Vegetation adjacent to existing water sources receives heavy utilization and trampling, and as a result, the cover and diversity of vegetation in these areas are declining. Constructing the two new ponds would help better distribute use across the western portion of the allotment and alleviate some of the grazing pressure in the eastern

portion. As the eastern portion receives less use and more grazing rest, over time, vegetative cover and species diversity in these areas would be expected to increase.

No Action Alternative.

Under this alternative, no new ponds would be constructed and no road maintenance would occur. There would be no direct impacts to vegetation. Livestock grazing would continue to be focused around existing water sources, and cover and diversity of species would continue to decline and the risk of noxious weed invasion would increase.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 3 FOR HEALTHY PLANT COMMUNITIES.

The proposed action falls within the Government Creek Common allotment which was assessed as part of the Rifle Creek Land Health Assessment Unit in 2001 (BLM 2002). The 2002 Determination Document showed that Government Creek Common allotment was not meeting Standard 3 for plant communities and habitat for wildlife. Reasons for failing to meet the standard pertained to insufficient grass and forb cover and mature to decadent shrubs that were heavily browsed. Microbiotic crusts were found only in protected areas. Bulldozer treatments located within the allotment were meeting the standard at the time of the assessment with excellent vegetative cover and productivity.

Implementation of the proposed action would result in the permanent loss of less than 2 acres of vegetation. The additional water sources should improve livestock distribution throughout the allotment which would create more even livestock grazing and lessen the areas of concentrated use. Implementation of the proposed action should maintain or improve vegetative conditions throughout the allotment and gradually move towards achieving Standard 3 for healthy plant communities.

SOILS

AFFECTED ENVIRONMENT.

A review of the soil survey by the NRCS for the *Rifle Area, Colorado, Parts of Garfield and Mesa Counties* indicate two soil map units occur within the proposed allotments (NRCS 1985). The NRCS soil map unit descriptions are provided below (NRCS 2014):

Cushman-Lazear stony loam (21) – This soil map unit is found on mountainsides and mesa breaks at elevations ranging from 5,000 to 7,000 feet and on slopes of 15 to 65 percent. They are derived from sandstone and shale rocks. The Cushman soil is moderately deep, well drained and has medium surface runoff with severe erosion hazard. The Lazear soil is shallow, well drained and has moderately rapid surface runoff with severe erosion hazard.

Ildefonso stony loam (34) - This deep, well drained, hilly soil is found on mesas, sides of valleys, and alluvial fans at elevations from 5,000 to 6,500 feet and on slopes of 25 to 45 percent. This soil is derived primarily from basalt and may contain a small amount of eolian material at the top of the unit. Surface runoff for this soil is medium and erosion hazard is severe.

Soil health was evaluated in 2001 during the Rifle Creek Land Health Assessment. BLM staff concluded that soils were generally meeting land health standards throughout the Government Creek Common allotment, with slight departures from expected conditions (BLM 2002).

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

Excavation of two new stock ponds will result in soil compaction in and adjacent to the pond construction sites, but will be very limited in the total extent of new ground disturbance (approximately 2 acres). Maintenance of existing ponds and roads may also directly and indirectly impact soils via compaction, but should be short-term and limited in the size of disturbance. Ultimately, proper road maintenance will result in less erosion and soil loss in the long term. Additionally, providing new stock watering sources may improve livestock dispersal and benefit soils throughout the allotment by reducing livestock concentration around the currently limited watering sources.

No Action Alternative.

Under this alternative, no new ponds would be constructed and no road maintenance would occur. Thus, there would be no direct impacts to soils, although indirect soil erosion may continue to occur due to lack of road maintenance.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 1 FOR SOILS.

Based on the Rifle Creek Land Health Assessment, BLM staff concluded that soils are meeting Standard 1 (BLM 2002). Implementation of the proposed action is not anticipated to degrade soil health from current conditions.

WATER QUALITY, SURFACE AND GROUND

AFFECTED ENVIRONMENT.

The proposed pond construction and road maintenance will occur in the Upper Government Creek watershed (6th HUC). Several unnamed ephemeral drainages occur across the project area, but typically only flow in response to snowmelt or thunderstorm events and may or may not actually reach the confluence with Government Creek before flow goes subsurface. Due to the naturally dry condition of these drainages, the State of Colorado has not established water quality standards based on existing or potential water uses. No water quality data was collected during the 2001 Rifle Creek Land Health assessment due lack of water.

The Rifle UMTRA (uranium mill tailings) disposal site has influenced the natural runoff pattern of the proposed eastern pond by creating an impervious “cap” to protect the buried uranium tailings. Precipitation would normally be absorbed by the soils and vegetation, but instead tend to sheet flow off the 76 acre rock cap to a topographically low point in the rehabilitated area and mimics a “spring” emergence. A BLM and DOE field survey on Sept.4, 2014 verified this runoff pattern and it was determined that no ground water resources are present in the proposed action area and only surface water runoff would be captured in the ponds.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

The newly constructed ponds will only capture surface runoff and store approximately 0.2 acre feet of water. The scope and scale of the ponds will have minimal impacts to water quality, though stored water typically has higher water temperatures and other changes to water chemistry. Road maintenance should occur during dry site conditions and minimize any sediment transport and erosion. Improving the road system should alleviate some of the active erosion along the road and reduce the potential for sediment transport to nearby drainages.

No Action Alternative.

Under this alternative, no new ponds would be constructed and no road maintenance would occur. Thus, there would be no direct impacts to water quality, although without proper road maintenance, erosion will continue to take place and could impact water quality, if sediment is transported to nearby drainages.

ANALYSIS OF PUBLIC LAND HEALTH STANDARD 5 FOR WATER QUALITY.

The proposed project area lacks perennial water; therefore a determination of water quality was not included during the 2001 Rifle Creek Land Health assessment. Implementation of the proposed action is not anticipated to degrade water quality from current conditions.

WETLANDS AND RIPARIAN ZONES

AFFECTED ENVIRONMENT.

Riparian zones occur along streams, rivers, seeps, springs and other water features where the vegetation or physical attributes of the area are reflective of the influence of water. The Government Creek Common allotment lies on the dry southern slopes of the Grand Hogback and there are very few water sources and riparian areas on the allotment.

The Estes Gulch proposed pond would be constructed just below a spring source in the Estes Gulch drainage. The spring supports a small riparian area approximately 500 feet in length which includes coyote willow (*Salix exigua*), salt cedar (*Tamarix* spp), a few young cottonwoods (*Populus deltoides*), and some cattails (*Typha latifolia*). There is a small amount of riparian vegetation (mostly coyote willows) at the Arch spring and at a stock pond to the east of Estes Gulch, No other riparian areas are known to occur within the project area.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

Construction of the Estes Gulch proposed pond would involve the removal of less than 0.1 acre of riparian vegetation at the pond site. Some riparian vegetation may recolonize at this site; however, vegetation in the vicinity of small ponds often remains sparse due to heavy use by livestock. Riparian vegetation in the steep drainage below the proposed pond site may improve as livestock would be drawn to the more readily accessible pond and less inclined to trail down the steep drainage. Impacts at the pond east of Estes Gulch are expected to be negligible. This

pond may receive slightly less use with development of additional water sources and the size and diversity of the riparian area may increase marginally. The proposed action should not impact the riparian area at the Arch Spring site since it is relatively inaccessible to livestock and use at the site is not expected to change with additional water sources provided elsewhere on the allotment.

No Action Alternative.

Under this alternative, no new ponds would be constructed and no road maintenance would occur. There would be no direct impacts to riparian vegetation. Livestock grazing would continue to be focused around existing water sources, and cover and diversity of species in these areas would continue to decline and the risk of noxious weed invasion would increase.

ANALYSIS OF THE PUBLIC LAND HEALTH STANDARD 2 FOR RIPARIAN SYSTEMS.

The Rifle Creek Watershed Land Health Assessment (BLM 2002) did not assess the riparian functioning condition of small springs and ponds, therefore, no riparian areas within the Government Creek Common allotment were assessed and Standard 2 was considered not applicable. The proposed action should have minimal net effect on riparian systems within the project area and if assessed, these areas would likely meet the Standard.

AQUATIC WILDLIFE: INCLUDING SPECIAL STATUS AQUATIC WILDLIFE

AFFECTED ENVIRONMENT.

The action area is located in Garfield County, Colorado. According to the latest species list from the USFWS, five Federally listed fish species may be impacted by actions occurring in Garfield County. In addition, there are five BLM sensitive fish species with occupied or potential habitat in Garfield County (BLM 2009). The following table lists these species and summarizes information on their habitat descriptions and potential for occurrence in the proposed action area based on known geographic range and habitats present.

Table 5. Special Status Aquatic Wildlife Species Summary.

Federally Listed, Proposed or Candidate Aquatic Wildlife Species		
Species/Status	Habitat/Range	Occurrence/ Potentially Impacted
Green Lineage cutthroat trout (<i>Oncorhynchus clarkii stomias</i>) Threatened	Federally listed as threatened. The greenback cutthroat trout is the subspecies of cutthroat trout native to the Platte River drainage on the Eastern Slope of Colorado. Currently, FWS is advising federal agencies to consider Green Lineage cutthroat trout on the west slope of CO as threatened until such time as review and interpretation of recent genetics and meristic research has been completed. A Green Lineage cutthroat trout population is located in Beaver Creek within the Porcupine Common Allotment, south of Rifle, CO inside the proposed action area.	Absent/No

Federally Listed, Proposed or Candidate Aquatic Wildlife Species		
Bonytail (<i>Gila elegans</i>) Endangered	Federally listed as endangered. This large chub is a member of the minnow family found in large, fast-flowing waterways of the Colorado River system. Their current distribution and habitat status are largely unknown due to its rapid decline prior to research into its natural history. The bonytail is extremely rare in Colorado and no self-sustaining population exists. Only one has been captured in the state since 1980.	Absent /Yes
Colorado pikeminnow (<i>Ptychocheilus lucius</i>) Endangered	Federally listed as endangered. Primarily exists in the Green River below the confluence with the Yampa River, the lower Duchesne River in Utah, the Yampa River below Craig, Colo., the White River from Taylor Draw Dam near Rangely downstream to the confluence with the Green River, the Gunnison River in Colorado, and the Colorado River from Palisade, Colo., downstream to Lake Powell. Colorado pikeminnow populations in the upper Colorado River basin are now relatively stable or growing. Designated Critical Habitat includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /Yes
Humpback chub (<i>Gila cypha</i>) Endangered	Federally listed as endangered. Found in deep, clear to turbid waters of large rivers and reservoirs over mud, sand or gravel. The nearest known population of humpback chub is in the Colorado River at Black Rocks west of Grand Junction.	Absent /Yes
Razorback sucker (<i>Xyrauchen texanus</i>) Endangered	Federally listed as endangered. The razorback sucker was once widespread throughout most of the Colorado River Basin from Wyoming to Mexico. In the upper Colorado River Basin, they are now found only in the upper Green River in Utah, the lower Yampa River in Colorado and occasionally in the Colorado River near Grand Junction. Because so few of these fish remain in the wild, biologists have been actively raising them in hatcheries in Utah and Colorado and stocking them in the Colorado River. Designated Critical Habitat for the razorback sucker includes the Colorado River and its 100-year floodplain west (downstream) from the town of Rifle.	Absent /Yes
BLM Sensitive Aquatic Wildlife Species		
Species	Habitat/Range	Occurrence/ Potentially Impacted
Northern leopard frog (<i>Rana pipiens</i>)	Generally found between 3,500 to 11,000 feet, in wet meadows and in shallow lentic habitats. They require year-round water sources, deep enough to provide ice free refugia in the winter. Within the CRVFO, this species has been documented in locales where quality riparian vegetation exists in conjunction with perennial water sources. Larger populations of this species have been documented northwest of King Mountain within the small drainage that feeds King Mountain (Ligon) Reservoir, June Creek and East Divide Creek south of Silt, Colorado, and in portions of the Rifle Creek watershed north of Rifle, Colorado.	Absent /No
Great Basin spadefoot toad (<i>Spea intermontana</i>)	This toad is known to occupy a wide variety of habitat including lowlands, foothills, and shortgrass plain. This species generally inhabits and breeds in seasonal pools and ponds in pinyon-juniper woodland, sagebrush, and semi-desert shrubland habitats, mostly below 6,000 feet in elevation.	Potential /Yes

Federally Listed, Proposed or Candidate Aquatic Wildlife Species		
Bluehead sucker (<i>Catostomus discobolus</i>), Flannelmouth sucker (<i>Catostomus latipinnis</i>), and Roundtail chub (<i>Gila robusta</i>)	Primarily found in larger rivers but may also be found in smaller tributaries with good connectivity to larger river systems. These fish are endemic to the Colorado River basin and reside within the mainstem Colorado River and its major tributary streams. Given their biology, feeding habits, habitat needs, and niche in the ecosystem, these species can persist in the face of actions that increase sediments to streams and rivers containing these species.	Absent /No
Mountain sucker (<i>Catostomus platyrhynchus</i>)	The mountain sucker is found primarily in small, low- mid elevation streams in northwestern Colorado with gravel, sand or mud bottoms. They inhabit undercut banks, eddies, small pools, and areas of moderate current. Young fish prefer backwaters and eddies. Within the CRVFO, the only known occurrence is in Piceance Creek.	Absent /No
Colorado River cutthroat trout (CRCT) (<i>Oncorhynchus clarkii pleuriticus</i>)	Select streams within the action area contain Colorado River cutthroat trout - Blue Lineage. CRCT prefer clear, cool headwaters streams with coarse substrates, well-distributed pools, stable streambanks, and abundant stream cover. CRCT occur in Trapper Creek, Northwater, Creek, East Fork Parachute Creek, and JQS Gulch within the action area.	Absent/No

The upper pond would be constructed in a shallow ephemeral drainage, and the other pond would be constructed below the spring in Estes Gulch. Neither location supports fish, but both locations are expected to contain commonly occurring aquatic invertebrates when water is available. Aquatic invertebrates are aquatic animals without backbones that live on the bottom of freshwater habitats during all or part of their life cycle and that are large enough to be seen with the naked eye. Major groups of macroinvertebrates include arthropods (i.e., crustaceans and insects), mollusks, sponges and nematode worms. The most abundant are typically immature life states (larvae) of aquatic insects such as mayflies, stoneflies, and caddis flies.

Amphibians. The proposed pond locations are not identified as breeding sites for special status amphibians. Great Basin spadefoot toads (*Spea intermontana*) have been observed a few miles south of the allotment near the Colorado River, but are not known to occur in the project area. Few records exist for this species, and extensive surveys have not been conducted. This species is on the BLM sensitive species list due to its limited occurrence and small range. Northern leopard frogs (*Rana pipiens*) occur throughout Colorado. Northern leopard frogs are not expected to be in the project area due to the lack of year-round water deep enough to provide ice free refugia during winter.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action.

Endangered Colorado River Fishes. In May 1994, the BLM prepared a Programmatic Biological Assessment (PBA) that addressed water depleting activities in the Colorado River Basin that would impact the endangered Colorado River fish. In response to BLM's PBA the U. S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (#ES/GJ-6-CO-94-F-017) on June 13, 1994, which determined that water depletions from the Colorado River Basin are likely

to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker, and result in the destruction or adverse modification of their critical habitat.

The Biological Opinion included reasonable and prudent alternatives developed by the USFWS, which allow the BLM to authorize projects that result in minor water depletions (less than 100 acre-feet), while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. The BO addressed impacts associated with a total depletion of approximately 3,000 acre-feet/year in the upper Colorado River basin. Since the BLM has not yet reached its depletion threshold, the BLM continues to abide by the reasonable and prudent alternative identified in the BO, whereby the USFWS authorized the BLM to make a one-time contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in the amount equal to the average annual acre-foot depleted by each project. Payments are made to the National Fish and Wildlife Foundation to cover all BLM authorized actions that result in water depletions each year.

Amphibians. If Great Basin spadefoot toads are present, they could be impacted by pond construction activities. Toads burrowed in the soil could be crushed if pond construction occurs during inactive periods, approximately October-March. Soil compaction resulting from heavy equipment could impede their ability to burrow into the soil. Reproduction could be impacted if pond construction occurs between the time eggs are deposited and metamorphosis is complete, approximately April-July. If toads occur along the riparian area below the pond site, they would temporarily be impacted by an inflow of sediments that would decrease water quality during pond construction. Potential impacts would be similar for any amphibians burrowed in soil or metamorphosing in breeding water in the project area. With time, amphibians could potentially use the new ponds and associated riparian area in Estes Gulch, and potentially benefit from greater water availability in both ponds.

No Action Alternative. No pond construction would occur, so there would be no water depletions or potentially negative impacts to amphibians. Amphibians would not potentially benefit from greater water availability in both ponds.

ANALYSIS OF LAND HEALTH STANDARDS 3 FOR AQUATIC WILDLIFE SPECIES AND 4 FOR SPECIAL STATUS AQUATIC WILDLIFE SPECIES

A Land Health Assessment was completed for the Government Creek Common Allotment as part of the Rifle Creek Land Health Assessment in 2001 (BLM 2002). Due to the lack of fish bearing streams in the allotment, Standard 3 for aquatic wildlife species and Standard 4 for special status aquatic wildlife species and their habitats would not apply to fish. Although site specific areas were not achieving Standard 3, the landscape as a whole provided enough quality habitat to sustain the limited number of Great Basin spadefoot toads potentially occurring in the area. Therefore, Standard 4 was being achieved for this species within the Rifle Creek Landscape area. In the short term, the proposed action could negatively impact individual amphibians, including Great Basin spadefoot toads, if they occur in the project area. But on a landscape scale, the proposed action would not impact species abundance or distribution. With time, the proposed

ponds could improve conditions for Great Basin spadefoot toads. Standard 4 would continue to be met.

WILDLIFE: MIGRATORY BIRDS

AFFECTED ENVIRONMENT.

The Migratory Bird Treaty Act (MBTA) provides protections to native birds, with the exception of certain upland fowl managed by state wildlife agencies for hunting. Within the context of the MBTA, migratory birds include non-migratory resident species as well as true migrants. For most migrant and resident species, nesting habitat is critical for supporting reproduction in terms of both nest sites and food. Also, because birds are generally territorial during the nesting season, their ability to access and utilize sufficient food is limited by the quality of the occupied territory. During non-breeding seasons, birds are generally non-territorial and able to feed across a larger area and wider range of habitats.

The allotment provides cover, forage, breeding, and/or nesting habitat for a variety of migratory birds that summer, winter, or migrate through the area. Migratory bird species that are federally listed and classified by the BLM as sensitive species are addressed in the Wildlife: Sensitive, Threatened, and Endangered Species section of this EA.

BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the BLM's responsibilities under the MBTA and the Executive Order 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality and to avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities.

The MBTA prohibits the "take" of a protected species. Under the Act, the term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The USFWS interprets "harm" and "kill" to include loss of eggs or nestlings due to abandonment or reduced attentiveness by one or both adults as a result of disturbance by human activity, as well as physical destruction of an occupied nest.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates the USFWS to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973." The *Birds of Conservation Concern 2008* (USFWS 2008) is the most recent effort to carry out this mandate. The CRVFO is within the Southern Rockies/Colorado Plateau Bird Conservation Region 16.

The project area includes pinyon-juniper woodlands, sagebrush parks, and a small riparian area where the Estes Gulch pond would be constructed

Pinyon-juniper woodlands – Pinyon and juniper trees provide food, cover, and nest sites for numerous migratory birds. Species on the Birds of Conservation Concern (BCC) list that occur

in the CRVFO and are associated with pinyon-juniper woodlands include the pinyon jay (*Gymnorhinus cyanocephalus*), juniper titmouse (*Baeolophus ridgwayi*), and Ferruginous Hawk (*Buteo regalis*). Other migratory species associated with this plant community within the CRVFO include the broad-tailed hummingbird (*Selasphorus platycercus*), black-chinned hummingbird (*Archilochus alexandri*), Say's phoebe (*Sayornis saya*), ash-throated flycatcher (*Myiarchus cinerascens*), gray flycatcher (*Empidonax wrightii*), Townsend's solitaire (*Myadestes townsendi*), American robin (*Turdus migratorius*), Western bluebird (*Sialia mexicana*), mountain bluebird (*S. currucoides*), bushtit (*Psaltriparus minimus*), blue-gray gnatcatcher (*Poliophtila caerulea*), plumbeous vireo (*Vireo plumbeus*), Western scrub-jay (*Aphelocoma californica*), Clark's nutcracker (*Nucifraga columbiana*), black-throated gray warbler (*Dendroica nigrescens*), Virginia's warbler (*Oreothlypis virginiae*), chipping sparrow (*Spizella passerina*), lesser goldfinch (*Spinus psaltria*), and house finch (*Haemorhous mexicanus*). Winter visitors to pinyon-juniper habitats include the Cassin's finch (*Carpodacus cassinii*), a BCC species, which typically nests in montane and subalpine forests, though occasionally nests in pinyon-juniper woodlands.

Sagebrush shrublands – Sagebrush and the associated native perennial grasses and forbs provide food, cover, and nest sites for migratory birds. Sagebrush obligates that potentially occur in the CRVFO include the sagebrush sparrow (*Artemisiospiza nevadensis*), sage thrasher (*Oreoscoptes montanus*), and Brewer's sparrow (*Spizella breweri*), a BCC species. Other migratory species associated with sagebrush shrublands within the CRVFO include the western kingbird (*Tyrannus verticalis*), western meadowlark (*Sturnella neglecta*), green-tailed towhee (*Pipilo chlorurus*), vesper sparrow (*Pooecetes gramineus*), and lark sparrow (*Chondestes grammacus*). Some species are associated with both pinyon-juniper woodlands and sagebrush shrublands, including the Say's phoebe and gray flycatcher.

Riparian – Riparian woodlands provide cover, feeding, and nesting habitats for a much greater number of species and individuals than adjacent vegetation communities due to the vertical and horizontal diversity of the community, the proximity to water, and typically the proximity to other vegetation communities. Forbs and insects can be more abundant in moist areas. The spring associated with the Estes Gulch proposed pond supports a small riparian area, but the associated cottonwoods are young, and the extent of the area is limited. Although used by migratory birds, this area does not provide the same cover and nesting opportunities as a larger riparian woodland with mature trees and more expansive footprint.

Raptors – Many raptors forage over wide areas, so even if they aren't known to nest in a specific area, they may still fly over searching for food. Raptors on the BCC list that occur in portions of the CRVO include the golden eagle (*Aquila chrysaetos*), Bald Eagle (*Haliaeetus leucocephalus*), Ferruginous Hawk (*Buteo regalis*), prairie falcon (*Falco mexicanus*), peregrine falcon (*F. peregrinus*), and flammulated owl (*Psilosops flammeolus*). Prairie falcons nest on rocky ledges and cliffs and hunt in grasslands and semi-desert shrublands. Peregrine falcons nest on the Roan Cliffs and hunt along rivers and lakes, but can be found in nearly any open vegetation community during migration and winter. Flammulated owls typically nest in ponderosa pine and aspen forests, but have been found nesting in mixed forests, and reportedly use old-growth pinyon-juniper woodlands.

A variety of raptors not on the BCC list are known to occur in the CRVO including the American kestrel (*Falco sparverius*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), red-tailed hawk (*Buteo jamaicensis*), long-eared owl (*Asio otus*), great horned owl (*Bubo virginianus*), northern pygmy owl (*Glaucidium gnoma*), and northern saw-whet owl (*Aegolius acadicus*). The northern goshawk (*Accipiter gentilis*), a BLM sensitive species, is an occasional winter visitor to pinyon-juniper woodlands from its nesting habitat in montane and subalpine forests

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Ponds would be constructed and maintained to improve livestock distribution across the allotment, thereby reducing grazing impacts in the eastern portion of the allotment where water is more readily available. This should subsequently result in increased perennial grass and forb cover in the eastern portion of the allotment, which would improve conditions for many migratory birds by providing food and concealment. Maintaining a mixture of understory species across the landscape benefits birds in sagebrush shrublands and pinyon-juniper woodlands. These conditions could lead to increased small mammal abundance and diversity, potentially improving the prey base for raptors. However, livestock grazing would increase in the western portion of the allotment, an area that has not had much utilization.

Livestock water developments can benefit migratory birds by providing water, abundant insects and forbs for food, and grasses and forbs for cover. The upper pond would provide a water source in a currently dry area with sheep fescue, big sagebrush, and a few juniper trees. Pond construction below the spring in Estes Gulch would remove a relatively small amount of riparian vegetation. Although riparian vegetation could recolonize around the pond, this could be limited if livestock use the area heavily. Livestock have been traveling along the steep drainage below the proposed pond to access water. When the more accessible pond is complete, impacts below the pond may be reduced, and the riparian vegetation could recover, possibly compensating for some of the vegetation lost to pond construction.

Pinyon and juniper trees would be removed for road improvements. The approximately two acres of new surface disturbance for the entire proposed action could remove a small amount of migratory bird nesting habitat. Machinery, noise, and human presence could temporarily displace birds to adjacent areas until the work is complete. Potential incidental destruction of nests, eggs, and/or nestlings would be avoided by scheduling the work outside of the nesting season.

Although the vegetation removal and disturbance associated with the proposed action could temporarily decrease the number of some bird species in the project vicinity, migratory bird populations would not suffer significant declines, and the overall viability of species would not be affected. Long-term improvements to vegetation that is currently heavily utilized could improve conditions for a variety of migratory birds.

Mitigation: Pond construction and maintenance and road improvement work would be conducted outside of the nesting season, May 1 to July 15, to reduce potential impacts to nesting birds.

No Action Alternative. Livestock distribution would not change, and areas in the eastern portion of the allotment near existing water sources would continue to be heavily utilized, negatively impacting migratory birds. No new water sources would be available. No vegetation would be removed for pond construction and road improvements. Therefore no potential migratory bird nesting habitat would be removed, and birds would not be temporarily displaced due to machinery, noise, and human presence associated with the project. Livestock would continue to trample riparian vegetation in the steep drainage below the Estes Gulch spring. Livestock utilization would not increase in the western portion of the allotment.

WILDLIFE: SENSITIVE, THREATENED, AND ENDANGERED

AFFECTED ENVIRONMENT.

Table 6 summarizes Federally listed, proposed, and candidate terrestrial wildlife species (USFWS 2014) and species on the Colorado BLM State Director’s Sensitive Species List (BLM 2009) that may occur in the project area.

Table 6.

Federally Listed, Proposed, or Candidate Terrestrial Wildlife Species		
Species and Status	Habitat/Distribution Summaries	Occurrence
Black-footed Ferret (<i>Mustela nigripes</i>) Endangered	Black-footed ferrets have ranged statewide but never have been abundant in Colorado. Their habitat included the eastern plains, the mountain parks and the western valleys – grasslands or shrub lands that supported some species of prairie dog, the ferret’s primary prey. State and federal biologists have established two major black-footed ferret colonies: one at Coyote Basin (Colorado-Utah border west of Rangely) and another at the BLM’s Wolf Creek Management Area southeast of Dinosaur National Monument.	Absent
Canada lynx (<i>Lynx Canadensis</i>) Threatened	Canada lynx occupy high-latitude or high-elevation coniferous forests characterized by cold, snowy winters and an adequate prey base. In the western US, lynx are associated with mesic forests of lodgepole pine, subalpine fir, Engelmann spruce, and quaking aspen in the upper montane and subalpine zones, generally between 8,000 and 12,000 feet in elevation. Although snowshoe hares (<i>Lepus americanus</i>) are the preferred prey, lynx also feed on mountain cottontails (<i>Sylvilagus nuttallii</i>), pine squirrels (<i>Tamiasciurus hudsonicus</i>), and blue grouse (<i>Dendragapus obscurus</i>). The Forest Service has mapped suitable denning, winter, and other habitat for lynx within the White River and Routt National Forests. The mapped suitable habitat comprises areas known as Lynx Analysis Units (LAUs) that are the approximate the size of a female’s home range. Several LAUs include small parcels of BLM lands.	Absent
Mexican spotted owl (<i>Strix occidentalis lucida</i>) Threatened	This owl nests, roosts, and hunts in mature coniferous forests in canyons and foothills. The key habitat components are old-growth forests with uneven-age stands, high canopy closure, high tree density, fallen logs and snags. The only extant populations in Colorado are in the Pikes Peak and Wet Mountain areas of south-central Colorado and the Mesa Verde area of southwestern Colorado.	Absent

Greater Sage-grouse (<i>Centrocercus urophasianus</i>) Candidate	Sage-grouse are found only in areas where sagebrush is abundant, providing both food and cover. Sage-grouse prefer relatively open sagebrush flats or rolling sagebrush hills. In winter, sagebrush accounts for 100% of the diet for these birds. It also provides important escape cover and protection from the elements. In late winter, males begin to concentrate on traditional strutting grounds or leks. Females arrive at the leks 1-2 weeks later. Leks can occur on a variety of land types or formations (windswept ridges, knolls, areas of flat sagebrush, flat bare openings in the sagebrush. Breeding occurs on the leks and in the adjacent sagebrush, typically from March through May. Females and their chicks remain largely dependent on forbs and insects for food well into early fall. Within the CRVFO, sage-grouse are present in the northeast part of the Field Office in the Northern Eagle/Southern Routt population. While small (<500 birds), this population probably has, or had, a relationship with the larger population in Moffat, Rio Blanco and western Routt counties, and probably with the Middle Park population to the east.	Possible
Yellow-billed cuckoo (<i>Coccyzus americanus</i>) Proposed Threatened	This secretive species occurs in mature riparian forests of cottonwoods and other large deciduous trees with a well-developed understory of tall riparian shrubs. Western cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods (<i>Populus fremontii</i>) and willows (<i>Salix</i> sp.). A few sightings of yellow-billed cuckoo have occurred in western Colorado along the Colorado River near Grand Junction.	Absent
Uncompahgre fritillary butterfly (<i>Boloria acrocnema</i>) Endangered	The butterfly has been verified at only two areas in the San Juan Mountains in Colorado. There is anecdotal evidence of other colonies in the San Juans and southern Sawatch ranges in Colorado. The butterfly exists above treeline on north and east facing slopes in patches of its larval host plant, snow willow. The greatest threat is butterfly collecting. Climatological patterns, disease, parasitism, predation, and trampling of larvae by humans and livestock pose additional threats.	Absent
Colorado BLM Sensitive Terrestrial Wildlife Species Present or Potentially Present in the Project Area		
Species	Habitat/Range Summaries	Occurrence
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>) Fringed myotis (<i>Myotis thysanodes</i>)	Occurs as scattered populations at moderate elevations on the western slope of Colorado. Habitat associations are not well defined. Both bats will for aerial insects over pinyon-juniper, montane conifer, and semi-desert shrubland communities. Roosts in caves, rock crevices, mines, buildings and tree cavities. Both species are widely distributed and usually occur in small groups. Townsend's big-eared bats are not abundant anywhere in its range due to patchy distribution and limited availability of suitable roosting.	Possible
Northern goshawk (<i>Accipiter gentilis</i>)	Montane and subalpine coniferous forests and aspen forests; may move to lower elevation pinyon-juniper woodlands in search of prey during winter. Preys on small-medium sized birds and mammals. Breeds in coniferous deciduous and mixed forests. Nests are typically located on a northerly aspect in a drainage or canyon and are often near a stream. Nest areas contain one or more stands of large, old trees with a dense canopy cover. A goshawk pair occupies its nest area from March until late September. The nest area is the center of all movements and behaviors associated with breeding from courtship through fledging.	Possible – winter only
Ferruginous hawk	Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. Fall/ winter resident, non-breeding. See Migratory Bird section.	Possible

Bald eagle (<i>Haliaeetus leucocephalus</i>)	Nesting/Roosting: mature cottonwood forests along rivers. Foraging: fish and waterfowl along rivers and lakes; may feed on carrion, rabbits, and other foods in winter.	Possible
American Peregrine Falcon (<i>Falco peregrines anatum</i>)	Rare spring and fall migrant in western valleys. Peregrine falcons inhabit open spaces associated with high cliffs and bluffs overlooking rivers. The falcon nests on high cliffs and forages over nearby woodlands.	Possible
Greater Sage-grouse (<i>Centrocercus urophasianus</i>)	See Federally Listed, Proposed or Candidate Terrestrial Wildlife Species portion of table.	Possible
Brewer's sparrow (<i>Spizella berweri</i>)	Prefers extensive stands of sagebrush, primarily big sagebrush, on level or undulating terrain. See Migratory Birds section.	Possible
Midget faded rattlesnake (<i>Crotalus viridis concolor</i>)	Found in northwestern Colorado, including western Garfield County. Sagebrush communities with an abundance of south-facing rock outcroppings and exposed canyon walls. Rocky outcrops are essential for cover, variable thermal conditions, and hibernation.	Possible
Utah milk snake (<i>Lampropeltis triangulum taylori</i>)	In Colorado, milk snakes occur in shortgrass prairie, sandhills, shrubby hillsides, canyons and open stands of ponderosa pine in the foothills, pinyon-juniper woodlands, and arid river valleys. <i>L. triangulum taylori</i> occurs in west-central Colorado.	Possible

Greater sage-grouse. The greater sage-grouse (*Centrocercus urophasianus*), a species restricted to sagebrush rangelands in western North America, is declining across much of its range (NESRGSWG 2004). In 2010, the USFWS added the greater sage-grouse to the ESA candidate list. The reason for the listing is tied to reduced habitat quality and quantity throughout its range.

The bulk of the local greater sage-grouse population resides or seasonally occupies sagebrush shrublands from the King Mountain/Sunnyside area (north of Burns, Colorado), across Castle Peak (including the Windy Point, State Bridge and Horse Mountain areas) to Wolcott, Colorado. The project area is not currently mapped as priority or general greater sage-grouse habitat, but is in historic habitat. No greater-sage grouse, pellets, or cecal casts have been reported in the project area. The area is not managed for sage grouse, and there are no plans to reintroduce them into the area.

Bald eagles. Bald eagles (*Haliaeetus leucocephalus*) were removed from the federal threatened and endangered species list in 2007 but are still protected under the MBTA and Bald and Golden Eagle Protection Act and are currently listed as a BLM sensitive species. The project area is not mapped as bald eagle habitat, but bald eagles winter and forage near the allotment along portions of West, Middle, and Main Rifle Creeks and the Colorado River. Any use of the project area would likely be by an individual hunting across large expanses of open upland areas.

Special status bats. Fringed myotis (*Myotis thysanodes*) and Townsend's big-eared bats (*Corynorhinus townsendii*) could occur in the project area, but this would likely be limited to occasional migrating individuals or bats foraging or passing through from adjacent areas. Both bats will forage for aerial insects over water and above pinyon-juniper woodlands and semi-desert shrublands.

Reptiles. Potential habitat could exist for the midget faded rattlesnake (*Crotalus viridis concolor*) and Utah milk snake (*Lampropeltis triangulum taylori*). Few records exist for these species, and extensive surveys have not been conducted. A midget faded rattlesnake was observed a few miles southwest of the project area, west of Highway 13. The main threats to these snakes are development, outright killing, and illegal collection for the pet trade.

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Pond construction and maintenance to improve livestock distribution would reduce grazing impacts to the eastern portion of the allotment where water is more readily available. The subsequent increase in perennial grass, forb, and shrub cover in areas currently experiencing heavy utilization could improve conditions for Brewer's sparrows, greater-sage grouse, and other BLM sensitive species potentially using the area by providing food and concealment. Maintaining a mixture of understory species across the landscape benefits birds and other wildlife in sagebrush shrublands and pinyon-juniper woodlands. It could also increase small mammal abundance and diversity, which could increase the prey base for BLM sensitive raptors. However, livestock grazing would increase in the western portion of the allotment, an area that has not had much utilization.

Livestock water developments can benefit special status species by providing water, abundant insects and forbs for food, and grasses and forbs for cover. The upper pond would provide a water source in a currently dry area with sheep fescue, big sagebrush, and a few juniper trees. Special status bats passing through the area could potentially forage for aerial insects over the new ponds.

Pond construction would remove a relatively small amount of riparian vegetation below the spring in Estes Gulch. Although riparian vegetation could recolonize around the pond, this could be limited if livestock use the area heavily. Livestock have been traveling along the steep drainage below the proposed pond to access water. When the more accessible pond is complete, impacts below the pond may be reduced, and the riparian vegetation could recover, possibly compensating for some of the vegetation lost to pond construction.

Pinyon and juniper trees would be removed for road improvements, and non-native grass, sagebrush, and a few scattered junipers would be removed for the upper pond. A small amount of historic greater-sage grouse habitat would be removed, but there is no evidence that grouse have been using the area. Machinery, noise, and human presence could temporarily displace candidate and BLM sensitive species until the work is complete.

For special status species listed in Table 6, the minor amount of suitable habitat loss, the transient nature of their potential use of the area, and the brief period of construction-related activities in any given area would result in negligible potential for adverse impacts.

No Action Alternative. Livestock would continue to heavily utilize the eastern portion of the allotment, so special status species would not potentially benefit from improved livestock distribution resulting from the proposed action. New water sources would not be available. Special status species would not be temporarily displaced from construction activities.

Vegetation potentially used by special status species would not be removed for pond construction and road improvements. Livestock would continue to trample riparian vegetation in the steep drainage below the Estes Gulch spring. Livestock utilization would not increase in the western portion of the allotment.

ANALYSIS OF LAND HEALTH STANDARD 4 FOR SPECIAL STATUS TERRESTRIAL WILDLIFE

Although site-specific areas are not achieving Standard 3, the Rifle Creek landscape as a whole appears to be meeting Standard 4 for bald eagles, raptors, midget faded rattlesnakes, and Utah milk snakes. Standard 4 is not being met for greater sage-grouse, but the species has long been absent from the area, and current conditions are not entirely related to current management (BLM 2002). Through improved livestock distribution, the proposed action should maintain or improve plant and animal communities, eventually moving toward achieving Standard 3. This would contribute to maintaining or improving conditions for special status species.

WILDLIFE: TERRESTRIAL

AFFECTED ENVIRONMENT.

Mule deer and elk. Mule deer (*Odocoileus hemionus*) and Rocky Mountain elk (*Cervus elaphus nelsonii*) are recreationally important species that are common throughout suitable habitat in the region. Both species typically occupy higher elevation, forested areas during summer and migrate to lower elevation sagebrush-dominated ridges and south-facing slopes during winter. The project area overlaps with CPW mapped mule deer and elk overall range and winter range, and mule deer severe winter range and winter concentration areas.

Other mammals. Numerous small mammals could reside within the planning area, including mice (*Peromyscus* spp.), woodrats (*Neotoma* spp.), ground squirrels (*Spermophilus* spp.), chipmunks (*Neotamias* spp.), rabbits (*Sylvilagus* spp.), skunks (*Mephitis mephitis*), raccoons (*Procyon lotor*), and porcupines (*Erethizon dorsatum*). Many of these mammals are prey for raptors and larger carnivores. Larger carnivores expected to occur include bobcats (*Lynx rufus*) and coyotes (*Canis latrans*). CPW has mapped the area as mountain lion (*Felis concolor*) and black bear (*Ursus americanus*) habitat. Mountain lions are most likely to be in the area when mule deer are present. There have been historic wolverine (*Gulo gulo*) observations near the project area, but suitable habitat is not available, and the area is outside what is typically mapped as the historic distribution of the species (Armstrong et al. 2011).

Passerines. Passerine or perching birds commonly found in the area and not listed in other sections of this document include the black-billed magpie (*Pica pica*), common raven (*Corvus corax*), and crow (*Corvus brachyrhynchos*).

Wild Turkey. CPW has mapped the project area as wild turkey (*Meleagris gallopavo*) overall range.

Reptiles. Reptile species most likely to occur in the project area include sagebrush lizards (*Sceloporus graciosus*), prairie and plateau lizards (*S. undulatus*), tree lizards (*Urosaurus ornatus*), gopher snakes or bullsnakes (*Pituophis catenifer*), and western terrestrial garter snakes (*Thamnophis elegans*). Gopher snakes can be found throughout Colorado in most plant communities, including riparian areas, semidesert and mountain shrublands, pinyon-juniper woodlands, and ponderosa pine and other montane woodlands. Western terrestrial garter snakes occur throughout most of western Colorado, usually below 11,000 feet. Smooth green snakes (*Opheodrys vernalis*) can be present in riparian areas, but in western Colorado, may also be common in mountain shrublands far from water (Hammerson 1999).

ENVIRONMENTAL CONSEQUENCES.

Proposed Action. Terrestrial wildlife would benefit from improved livestock distribution. With time, more forage would be available to mule deer, elk, and smaller herbivores in the eastern portion of the allotment, although there could be less forage available in the western portion as livestock use increases in the area. The subsequent increase in perennial grass, forb, and shrub cover in areas currently experiencing heavy utilization could improve conditions for small mammals, passerines, wild turkeys, reptiles, and amphibians. An increase in small mammal abundance and diversity could increase the prey base for terrestrial predators.

New ponds would benefit terrestrial wildlife by holding more water for longer periods of time than what is currently available in the western portion of the allotment. Construction and maintenance activities would remove a relatively small amount of riparian and upland vegetation, and machinery, noise, and human presence could temporarily displace terrestrial wildlife while the work is being implemented.

The minor amount of vegetation loss, the temporary use of the area by some terrestrial wildlife, and the brief period of construction and maintenance-related activities in any given area would result in negligible potential for adverse impacts to terrestrial wildlife.

No Action Alternative. Without the new ponds, heavy livestock utilization of the eastern portion of the allotment would continue, so terrestrial wildlife would not potentially benefit from likely increases in perennial grasses and forbs. New water sources would not be available. Terrestrial wildlife would not be temporarily displaced from construction and maintenance activities. Vegetation would not be removed for pond construction and road improvements. Livestock utilization of the western portion of the allotment would not increase.

ANALYSIS OF LAND HEALTH STANDARD 3 FOR TERRESTRIAL WILDLIFE

The allotment was not meeting Standard 3 for healthy plant and animal communities, due in part to insufficient grass and forb cover when assessed in 2001 (BLM 2002). The proposed action should improve livestock distribution throughout the allotment, which should improve vegetative conditions in the eastern portion of the allotment. This would eventually improve conditions for

terrestrial wildlife and move towards achieving Standard 3 for healthy plant and animal communities.

CUMULATIVE EFFECTS.

Wildlife, including special status species. The area covered by the proposed action only comprises a small portion of the watershed. Many other land use activities (e.g. recreation, housing, road maintenance) occur within the watershed. All of these activities have altered the amount of suitable and potentially suitable habitats for terrestrial wildlife species. Cumulatively, many of the future actions planned on private and other lands may have some undetermined effect on wildlife including special status species habitat. The proposed action would create negligible landscape-level cumulative impacts to wildlife when viewed in comparison with those activities currently occurring and reasonably certain to occur on adjacent private/other lands.

Soil and Water. Cumulative impacts to soil and water resources can occur from existing roads and trails throughout the allotment. Roads and trails can contribute to increased surface runoff and accelerated erosion, especially where proper drainage is lacking. Other impacts such as vegetation treatments or weed treatments may also change water infiltration or runoff rates and affect soil and water resources. Based on limited land management activities occurring across the allotment, it is assumed that cumulative effects to soil and water are minor and unmeasurable if proper best management practices are implemented.

CONSULTATION. The following stakeholders were contacted:

- Southern Ute Indian Tribe
- Ute Mountain Ute Tribe
- Uinta and Ouray Agency Ute Indian Tribe
- Grazing permittees

LIST OF PREPARERS. Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action and alternatives, development of appropriate mitigation measures, and preparation of this EA are listed in Table 7, along with their areas of responsibility.

Table 7. BLM Interdisciplinary Team Authors and Reviewers		
Name	Title	Areas of Participation
Isaac Pittman	Rangeland Management Specialist	NEPA lead, Range
Carla DeYoung	Ecologist	Areas of Critical Environmental Concern; Vegetation; T/E/S Plants; Wetlands & Riparian Zones, Land Health Standards
Greg Wolfgang	Outdoor Recreation Planner	VRM, Recreation, Travel Management
Kimberly Miller	Outdoor Recreation Planner	Wild and Scenic Rivers, Wilderness, Recreation
Erin Leifeld	Archaeologist	Cultural Resources and Native American

Table 7. BLM Interdisciplinary Team Authors and Reviewers		
Name	Title	Areas of Participation
		Concerns
Hilary Boyd	Wildlife Biologist	Aquatic Wildlife and T/E/S, Migratory Birds, Terrestrial Wildlife and T/E/S
Pauline Adams	Hydrologist	Air Quality, Water Quality, Soils, Geology
Kristy Wallner	Rangeland Management Specialist	Invasive, Non-Native Species (Noxious Weeds)

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U.S. Fish and Wildlife Service (USFWS) 2008. Birds of Conservation Concern 2008. United States Department of Interior, Fish and Wildlife Service, Division of Migratory Bird Management, Arlington, Virginia, 85 pp. [Online version available at <<http://www.fws.gov/migratorybirds/>>]

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Appendix 1



02291
WORK DATA SHEET

for

SECTION 02291 - MINOR EARTH DAMS AND PITS

1. Pit depth in ft 4 to 6 ft
2. Pit length in ft (L): 10 to 15 ft
3. Pit width in ft (W): 10 to 15 ft
4. End slope: 2:1
5. Side slope: 3:1
6. Embankment shape: U
7. Distance between pit and berm (A): None
8. Dam height in ft: 5 to 8 ft
9. Crest width: 12 ft
10. Crest length: 70 to 150 ft
11. Downstream slope (D.S.): 2:1
12. Upstream slope (U.S.): 2.5:1
13. Cut spillway width: 6 to 8 ft
14. Cut spillway side slope: 1:1
15. Cut spillway depth: 2 to 3 ft
16. Natural spillway depth: 2 to 3 ft
17. Depth of cut off trench (core): 2 to 4 ft
18. Borrow area side slope: 1:1
19. Borrow area end slope: 3:

PART 1: GENERAL

1.01 SUMMARY:

- A. Section Includes: Clearing, grubbing, excavation, embankment development, and core trenching for construction of minor earth dams and water-retention pits.
- B. Related Sections: N/A

1.02 DEFINITIONS:

- A. Common Excavation: Materials to be removed from excavation, except igneous, metamorphic and sedimentary rock which cannot be excavated without blasting, will be considered common excavation. When ripping is required, the material will also be considered common excavation. Material which cannot be ripped with a rear-mounted, heavy duty, single-tooth, ripping attachment mounted on a crawler tractor having a power rating of at least 195 net flywheel hp shall be considered rock.

PART 2: PRODUCTS

2.01 MATERIALS:

- A. General: See definitions.
- B. Embankment: Excavated materials shall be placed in the embankment. Pervious materials, such as sand and gravel, shall be placed above the high water level.

PART 3: EXECUTION

3.01 PREPARATION:

- A. Clearing and Grubbing: The surface area to be covered by embankments, surface of borrow areas and cut spillways shall be thoroughly cleared and stripped of vegetative matter, brush, trees, stumps, roots, loose rocks, and other objectionable materials, including sand, gravel, silt, and debris in channels within the foundation areas.
- B. Conservation of Topsoil: Suitable material removed in conjunction with clearing, grubbing, bank sloping, and borrow area preparation shall be conserved in neat stockpiles at locations designated by the Contracting Officer.
- C. Depth of Stripping: Normal stripping depth is not expected to exceed 6 inches, although variations may be encountered. The Contractor shall conserve available topsoil.

3.02 INSTALLATION:

- A. Placement of Topsoil: After construction of the embankment and excavation areas is completed, the stockpiled topsoil shall be uniformly placed over cut and fill areas above high water line with priority to the top and upstream slopes of reservoirs, spillways, and borrow pits. Spreading of topsoil shall not be done when the ground or topsoil is frozen, or excessively wet. Topsoil shall be spread to depths as shown on the plans or designated by the Contracting Officer.
- B. Excavation: Additional excavation for the convenience of the Contractor, or due to careless operations, including the cost of backfilling, shall be at the expense of the Contractor. The Contractor shall use care not to disturb sod or vegetation in natural spillways or sodded watercourse areas below excavated spillways. Further requirements are:
1. End and side slopes of the borrow excavation shall be as shown on the Work Data Sheet. The dimensions of excavation shall be as shown on the drawings and the Work Data Sheet.
 2. Suitable materials from excavations for specified permanent construction shall be used in the embankment and shall either be placed in the embankment directly from excavation or shall be placed in temporary stockpiles and later placed in the embankment as approved by the Contracting Officer.
 3. Excavated materials which are unsuitable for, or are in excess of the requirements, for the embankment or other earthwork, as determined by the Contracting Officer, shall be deposited as waste. The material shall be placed immediately below the downstream toe of the embankment in a manner that shall not leave windrows. Compaction of such waste materials shall not be required. Costs of placing material in temporary stockpiles shall be included in the unit price for common excavation.
 4. Core trenches, where required, shall be excavated and suitable materials, as determined by the Contracting Officer, shall be placed in the embankment. Material determined not suitable shall be wasted at the downstream toe of the embankment in a manner that will not leave windrows.
- E. Embankment: The embankment shall be constructed downstream from the borrow excavation, as shown on the drawings. Embankment materials shall be free of sod, roots, brush, snow, other waste matter and rocks of a shape or size that will interfere with uniform placement of materials in layers of specified thickness. Fill materials shall not be placed when either materials, or surface on which they will be placed, are frozen or too wet for satisfactory compaction as determined by the Contracting Officer. The scarified surface shall be compacted with the first layer of earthfill. Further requirements are:
1. Materials shall be placed parallel to the axis of the embankment in even, continuous, horizontal layers not more

than 8 inches in thickness as deposited by scrapers. The full cross section of the fill shall be maintained as each successive layer is placed.

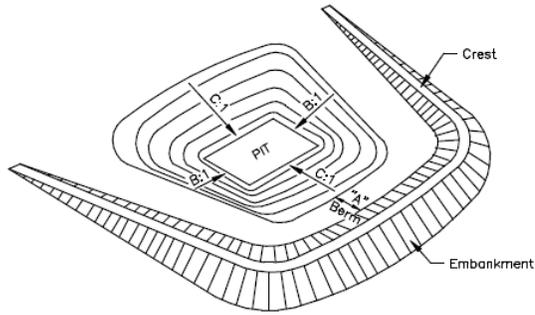
2. Successive loads of material shall be dumped on earthfill so as to produce an optimum distribution of material, subject to approval of the Contracting Officer. Distribution and gradation of materials throughout earthfill shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from surrounding material. Combined excavation and placement operations shall be such that materials, when compacted in the embankment, shall be blended sufficiently to secure the optimum compaction and stability.
3. Slopes of embankments shall be finished to conform to lines and grades shown on the Work Data Sheet. The top of the embankment shall be constructed level.
4. Core trenches, where required, shall be backfilled with material excavated from the pit, spillway, or borrow area, with its suitability determined by the Contracting Officer.

3.03 FIELD QUALITY CONTROL:

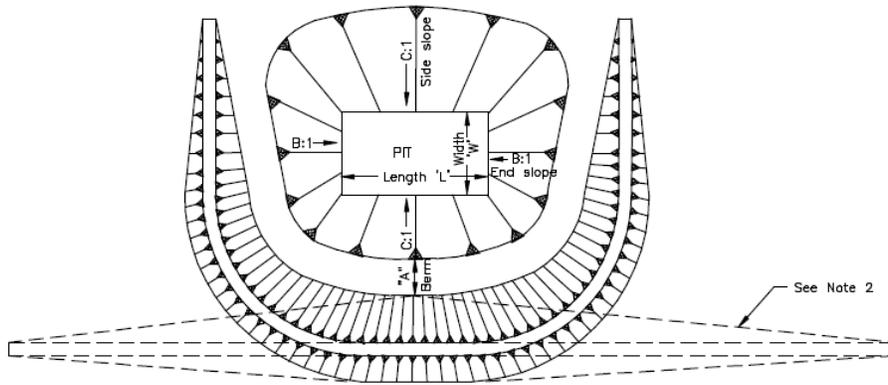
- A. Core Trenches: During backfill operations, the Contractor shall operate hauling equipment evenly over the full width of the excavated core trench to obtain maximum compaction.

B. Embankment: The Contractor shall route hauling equipment over the layers of embankment material already in place, and shall distribute travel evenly over the entire width of the embankment to obtain maximum compaction while placing material. Overcompaction shall be avoided along hauling route.

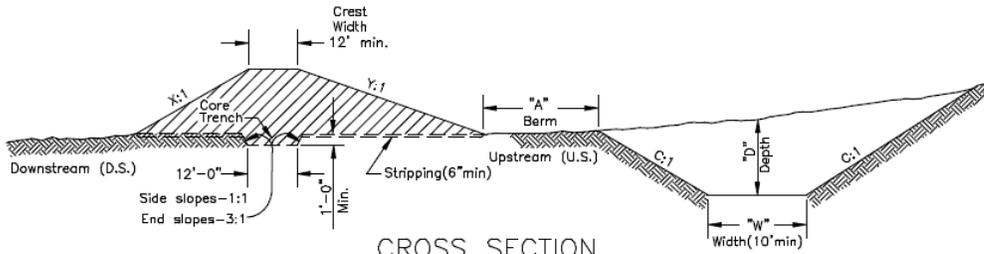
END OF SECTION



PERSPECTIVE VIEW



PLAN



CROSS SECTION

NOTES:

1. Pit and embankment slopes and dimensions shall be as shown on the Work Data Sheet or as staked.
2. Embankment may be "U", "L", "I", or straight line shape. Construct as indicated in specifications or as staked.

ALWAYS THINK SAFETY

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT DIVISION OF TECHNICAL SERVICES SERVICE CENTER	
TYPICAL WATER RETENTION PIT	
DESIGNED _____	by others _____
REVIEWED _____	_____
APPROVED _____	_____
DRAWN _____	SCALE NONE
DATE AUGUST 5, 1990	SHEET OF
DRAWING NO. 02291-1	

FONSI

DOI-BLM-CO-N040-2014-0091-EA

The environmental assessment, analyzing the environmental effects of the proposed action, has been reviewed. The proposed action with mitigation measures result in a finding of no significant impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION RECORD

DECISION:

It is my decision to approve the proposal submitted and implemented by the grazing permittee on the Government Creek Common allotment. This decision will facilitate a rotational grazing system that will help in achieving land health standards by giving proper rest and recovery time during the grazing season and improve livestock distribution.

RATIONALE:

1. The construction of the two additional ponds will allow for better control and distribution of cattle. The development of these additional ponds will aid in a rotational grazing system that will allow for periodic rest from grazing pressure and help to achieve land health standards and guidelines.
2. The environmental impacts have been mitigated with measures included in the Cooperative Range Improvement Permit.

MITIGATION MEASURES/STIPULATIONS:

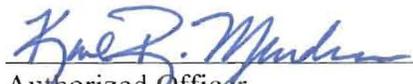
1. Cultural Resource Stipulation. If subsurface cultural values are uncovered during operations, all work in the vicinity of the resource will cease and the authorized officer with the BLM notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by the permitted archaeologist. Within 48 hours of the discovery, the State Historic Preservation Officer (SHPO) and consulting parties will be notified of the discovery and consultation will begin to determine an appropriate mitigation measure. BLM in cooperation with the operator will ensure that the discovery is protected from further disturbance until mitigation is completed. Operations may resume at the discovery site upon receipt of written instructions and authorization by the authorized officer.
2. Native American Human Remains Stipulation. Pursuant to 43 CFR 10.4(g), the holder must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony on federal land. Further, pursuant to 43 CFR 10.4 (c) and (d), the holder must stop activities in the vicinity of the discovery that could adversely affect the discovery. The holder shall make a reasonable effort to protect the human remains,

funerary items, sacred objects, or objects of cultural patrimony for a period of thirty days after written notice is provided to the authorized officer, or until the authorized officer has issued a written notice to proceed, whichever occurs first.

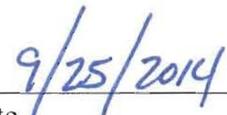
3. Paleontological Stipulation. Any paleontological resource (historic or prehistoric site or object) discovered by the operator, or any person working on their behalf, on public or Federal land shall be immediately reported to the authorized officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant scientific values.
4. To reduce the opportunities for weeds to become established and to reduce the opportunities for offsite sediment transport, the disturbed areas will be reseeded with a certified weed-seed free mixture of native grasses adapted to the site. The permittee will monitor the disturbance to detect the presence of any noxious weeds and will be responsible for promptly controlling any noxious weeds on the Colorado State List A or B (except redstem filaree) within the area disturbed from construction. If the permittee chooses to use herbicides as the control method on public lands, a Pesticide Use Proposal shall be submitted to the BLM and approved prior to initiating any herbicide spraying. The operator is to ensure equipment involved in land disturbing actions be clean of noxious weed seeds or propagative parts prior to entry on site. When working in areas with noxious weeds, equipment should be cleaned prior to moving off site.
5. Pond construction and maintenance and road improvement work would be conducted outside of the nesting season, May 1 to July 15, to reduce potential impacts to nesting birds.

NAME OF PREPARER: Isaac Pittman, Rangeland Management Specialist

SIGNATURE OF AUTHORIZED OFFICIAL:



Authorized Officer
Colorado River Valley Field Office



Date