

**U.S. Department of the Interior
Bureau of Land Management**

**Decision Record
for
Twin Springs Recreation Site Water Development**

**Environmental Assessment
DOI-BLM-V040-2009-012-EA**

**Malheur Resource Area
Vale District Bureau of Land Management
100 Oregon Street
Vale, Oregon 97918**

July 2010



Decision:

As Field Manager of the Malheur Resource Area, it is my decision to implement Alternative #2 described in the Twin Springs Recreation Site Water Development Environmental Assessment (DOI-BLM-VO040-2009-012-EA).

Authority for this decision is found in the Federal Land Policy and Management Act of 1976 (Public Law 94-579 as amended). The decision is in conformance with management actions identified in the Southeastern Oregon Resource Management Plan and would meet management objectives for resource values and uses identified in that land use plan for Malheur Resource Area.

The decision is to provide potable water to the public at Twin Springs Recreation Site by drilling a well with a minimum diameter of 10 inches and an estimated depth of 100 feet. Flexibility will be maintained to extend the drilled well depth to 200 feet to find a water source capable of producing a minimum yield of 20 gallons per minute. Well drilling will occur no earlier in the year than August 1 to avoid disturbance of nesting raptors at the site. Additionally, the decision is to install an eight inch well casing, equip the well with a hand pump delivery system, and install a buried water treatment system as needed to meet safe drinking water standards. Well development will include drilling, pumping and monitoring to complete drilling logs, and equipping the well. The well head will be protected by a 12' X 12' concrete slab and/or gravel to protect the site from erosion. Mitigation actions will be implemented for disposal of drilling waste to avoid their flow into streams and wetlands.

The location of the well is centrally located in the recreation site and east of the Twin Springs Road (Map 1 within the EA). Flexibility will be maintained to move the drill site within the bounds of the recreation site enclosure, in the event that the initially selected site does not produce the desired quantity or quality of water within an acceptable depth. Water will be delivered only at the location of the well for use associated with recreation activities at Twin Springs Recreation Site. Development will not include piping the water to additional sites beyond the site of the well, although a subsequent decision for further recreation site development may include water delivery to additional sites.

Two spring developments currently within the boundary of the recreation site will be retained to provide a source of water for livestock outside the recreation site, as currently is developed and/or for future development for irrigation purposes within the recreation site. Maintenance of the spring boxes (water sources for the pipelines supplying livestock water and potential irrigation water) may include cleaning tall brush from in and around the water sources, safety fencing around the water sources, trenching and irrigation pipeline placement, and surface drip irrigation piping.

Rationale:

The need to provide potable water for recreation use at the Twin Springs Recreation Site was identified in the Southeastern Oregon Resource Management Plan, the land use planning document for Malheur Resource Area, Vale District Bureau of Land Management. The BLM Recreation Workplan (USDI 2003) describes BLM's priorities for recreation and visitor services, set as an objective; "to ensure public health and safety, and improve the condition

and accessibility of recreation sites and facilities.” One of the milestones indicating that this objective is being achieved is to “meet public health standards and complete needed improvements to critical public drinking water and sewer systems.” The relatively high visitation by the public for this dispersed (remote) recreational site, and the distance to the nearest potable water (about 30 miles) necessitates a safe source of water for human consumption at Twin Springs Recreation Site.

Implementation of alternative methods for providing potable water at Twin Springs Recreation Site was analyzed in an environmental assessment (EA) provided to the public for review on June 15, 2010. In addition to the alternative to drill and equip a well, the alternatives analyzed included reconstruction of a standpipe which was the delivery point of water to the recreating public until 2001. The source of water delivered to the standpipe was one of two spring boxes located within the bounds of the recreation site. Additionally, a no action alternative to continue not supplying potable water for public use at the recreation site was analyzed as a base-line to compare impacts resulting from action alternatives.

The alternative to reconstruct the standpipe was found to not be likely to supply safe drinking water throughout the year, as a result of the potential for seasonal contamination from surface water entering the water source collection box. An option to treat water at a point between the collection box and the stand pipe was also considered, but found to likely require higher maintenance costs as compared to the likelihood of needing to treat water from a well source. The no-action alternative would not have met the purpose and need of providing potable water for public use at the recreation site.

An additional alternative to haul potable water was considered but not analyzed when identified costs and labor necessary to provide and maintain a continued supply of potable water was not practical. Abandonment of the recreation site development was also considered but not analyzed when it was identified that the purpose to provide potable water at the recreation site would not be met.

While meeting the purpose of providing potable water at Twin Springs Recreation Site, impacts to other resource values and uses as a result of drilling and equipping a well at the recreation site were found to be within acceptable limits so as to meet resource management objectives identified in the land use plan. Implementation of mitigating actions to postpone well drilling until after August 1 to avoid disturbance to nesting raptors and to control and contain drilling wastes to protect streams and wetlands from siltation and contamination will be implemented to avoid unnecessary resource impacts. Drilling and equipping a well to provide potable water at the recreation site was found to be the most cost effective alternative considered when one includes the costs of project maintenance, monitoring for water quality to ensure standards are met through time, and the potential need for installation and maintenance of water treatment facilities.

The actions analyzed in the Twin Springs Recreation Site Water Development Environmental Assessment (DOI-BLM-V040-2009-012-EA), which this document incorporates by reference in its entirety, were found to not have a significant impact to the human environment. An unsigned finding of no significant impact (FONSI) was made available to the public with the EA on June 15, 2010. No comment on the EA or the FONSI was received during a 30-day comment period.

Appeals:

This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR, Part 4 and Form 1842-1. If an appeal is filed, your notice must be filed in the Vale District Office, 100 Oregon Street, Vale, Oregon 97918 within 30 days of receipt of this decision. The appellant has the burden of showing that the decision appealed is in error.

If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, pursuant to regulation 43 CFR §4.21, the petition for stay must accompany your notice of appeal. A petition for stay is required to show sufficient justification based on the standards listed below.

Copies of the notice of appeal and petition for a stay must also be submitted to each party named in this decision and to the Interior Board of Land Appeals and to the appropriate Office of the Solicitor (see 43 CFR 4.413) at the same time the original documents are filed with this office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay

Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

- 1) The relative harm to the parties if the stay is granted or denied.
- 2) The likelihood of the appellant's success on the merits.
- 3) The likelihood of immediate and irreparable harm if the stay is not granted.
- 4) Whether or not the public interest favors granting the stay.



Pat Ryan
Field Manager
Malheur Resource Area

7/20/2010
Date

**Twin Springs Recreation Site
Water Development**

**Environmental Assessment (EA)
DOI-BLM-OR-V040-2009-012-EA**



**Prepared by:
U.S. Department of the Interior
Bureau of Land Management
Malheur Resource Area
100 Oregon Street
Vale, Oregon 97918
July, 2010**



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1 Background Information

A long history of human use (see section 6.3) has occurred around the Twin Springs area due to the availability of water and the oasis provided by associated riparian plants including large cottonwood trees in an otherwise xeric sagebrush-steppe environment. The Vale District Bureau of Land Management (BLM) maintains a recreation site at Twin Springs (T.22S., R.43E., Section 35 W.M.) (Map 1). The recreation site currently has a sign, information kiosk, double vault toilet, and 6 picnic tables and fire rings. Although camping is allowed at the Twin Springs Recreation Site, no camp sites are developed. The recreation site area is excluded from livestock grazing by a 20 acre enclosure fence and cattleguards on the road. Recorded recreational use at the site was 2,161 visits and/or 11,886 visitor days in 2007. Until recently (2001), the BLM provided water at the Twin Springs Recreation Site for human consumption. Water was delivered from a developed spring and piped to a standpipe with a continual flow of water. In 2001, BLM decided to abandon the standpipe because the supply from the developed spring did not consistently meet health and safety regulation for potable water. Water quality test records generally met necessary standards for potable water through the spring, but water quality standards were often not met as the summer season progressed and water flow from the spring became less.

2 Proposed Action

The proposed action is to provide potable water at Twin Springs Recreation Site by drilling a well, installing an underground treatment system as needed, and installing a hand pump delivery system. Existing water sources at two springs would be retained for future site development opportunities.

3 Purpose of and Need for the Action

The purpose and need of the proposed action is to provide potable water for recreation use at the Twin Springs Recreation Site. The BLM Recreation Workplan (USDI 2003) describes BLM's priorities for recreation and visitor services, set as an objective; "to ensure public health and safety, and improve the condition and accessibility of recreation sites and facilities." One of the milestones indicating that this objective is being achieved is to "meet public health standards and complete needed improvements to critical public drinking water and sewer systems." The relatively high visitation by the public for a dispersed (remote) recreational site, and the distance to the nearest potable water (about 30 miles) necessitates a safe source of water for human consumption. Alternative actions to meet the purpose and need for providing potable water for recreation use at Twin Springs Recreation Site are considered.

4 Conformance with the Land Use Plan

All actions approved or authorized by the BLM must conform to the existing land use plan where one exists (43 CFR 1610.5-3, 516 DM 11.5). Although it is not a National Environmental Policy Act (NEPA) requirement, the BLM includes within all its NEPA documents a statement about the conformance of the proposed action and alternatives with the existing land use plan. The BLM's planning regulations state that the term "conformity" or "conformance" means that "... a resource management action shall be specifically provided for in the plan, or if not specifically mentioned, shall be clearly

consistent with the terms, conditions, and decisions of the approved plan or amendment” (43 CFR 1601.0-5(b)).

The Northern Malheur Resource Area Management Framework Plan (NMRAMFP, Sept.1979) provides some land use planning guidance for project development during litigation of decisions within a newer land use plan for Malheur Resource Area, the Southeastern Oregon Resource Management Plan and Record of Decision (SEORMP-ROD, Sept. 2002). The proposed action and alternatives have been reviewed and found to be in conformance with the multiple use recommendations and alternatives of the NMRAMFP. These recommendations are found within the NMRAMFP Step 1- Activity Recommendation 11 and state, “Wherever possible, all future spring water developments in NRA be constructed to provide potable drinking water for humans...” The rationale is to provide recreationists with water in arid areas. The proposed action is also in conformance with the management objectives of the SEORMP-ROD, *General Planning Criteria* cited on page 9 and *Program Planning Criteria for Recreation* cited on page 12. The proposed action conforms with site specific management actions in the SEORMP-ROD for Twin Springs Recreation Site, a site listed in the extensive recreation management areas, which states on page 64, “*Twin Springs: will be enlarged and enclosed with developed camping units, improved water system, and site interpretation;...*”

5 Alternatives Including the Proposed Action

The objective of alternative actions is to provide comparison of environmental effects and effects to the human environment of a range of management options which could meet the purpose and need.

Upon providing safe drinking water at the recreation site, further development may be possible. To that end, existing water sources at two springs would be retained for future site development opportunities. Although further development of Twin Springs Recreation Site is a reasonably foreseeable result once safe drinking water is provided, that further development is not an action necessary to develop safe drinking water. As a result, further development is not a closely related and connected action of the proposed action. Detailed description of further development is not ripe for decision until safe drinking water is provided at the site. Analysis of cumulative effects of the reasonably foreseeable additional development at the recreation site will be included in this NEPA document.

5.1 Alternative 1: No Action

A “No Action” alternative is required by the Council on Environmental Quality (CEQ) to provide a baseline for comparison of environmental effects and demonstrates the consequences of not meeting the purpose and need. Oftentimes, as is the case here, the “No Action” alternative is the only alternative that does not respond to the purpose and need for the action.

The no action alternative would maintain the facilities currently in place at the Twin Springs Recreation Site, including vault toilet, picnic tables, fire rings, and kiosk. Potable water would not be provided at the recreation site. Livestock water would continue to be supplied outside the recreation site enclosure from developed springs inside the recreation site. The once present standpipe in the pipeline from a developed

spring would not be reconstructed to provide drinking water for use by the recreating public.

5.2 Alternative 2: (Proposed Action) Drill a Well and Install a Hand-pump

The proposed action is to provide potable water to the public at Twin Springs Recreation Site by drilling a well with a minimum diameter of 10 inches and an estimated depth of 100 feet. Flexibility would be maintained to extend the drilled well depth to 200 feet to find a water source capable of producing a minimum yield of 20 gallons per minute¹. Well drilling would occur no earlier in the year than August 1. Additionally, the proposed action is to install an eight inch well casing, equip the well with a hand pump delivery system, and install a buried water treatment system as needed to meet safe drinking water standards. Well development would include drilling, pumping and monitoring to complete drilling logs, and equipping the well. The well head would be protected by a 12' X 12' concrete slab and/or gravel to protect the site from erosion. Mitigation actions would be implemented for disposal of drilling waste to avoid their flow into streams and wetlands.

The location of the proposed well is centrally located in the recreation site and east of the Twin Springs Road (Map 1). Flexibility would be maintained to move the drill site within the bounds of the recreation site enclosure, in the event that the initially selected site does not produce the desired quantity or quality of water within an acceptable depth. Water would be delivered only at the location of the well for use associated with recreation activities at Twin Springs Recreation Site. Initial development would not include piping the water to additional sites beyond the site of the well.

Two spring developments currently within the boundary of the recreation site would be retained to provide a source of water for livestock outside the recreation site, as currently is developed and/or for future development for irrigation purposes within the recreation site. Maintenance of the spring boxes (water sources for the pipelines supplying livestock water and proposed irrigation water) would include cleaning tall brush from in and around the water sources, safety fencing around the water sources, trenching and irrigation pipeline placement, and surface drip irrigation piping.

5.3 Alternative 3: Standpipe Reconstruction with Water Treatment

The existing developed spring and pipeline at Twin Springs Recreation Site would be maintained, with reconstruction of the standpipe to supply water within the recreation site, as was the design prior to 2001. A buried water treatment system to provide safe drinking water would be placed in the pipeline supplying the standpipe. Overflow water from the standpipe would be collected into a pipeline and would be used to supply water to the existing livestock watering trough outside the recreation site enclosure, as was the design prior to 2001. The other existing developed spring within the recreation site enclosure would be maintained and would remain available for possible future

¹ Review of Oregon Water Resources well log data indicate that a number of wells, including monitoring wells associated with mineral exploration, have been drilled in T.22S., R.43 and 44 E., WM. The depths of these wells are 350 feet or less, with most production wells for livestock watering less than 200 feet deep. The static water level in completed wells which located usable water is generally less than 150 feet deep.

development of an irrigation system for the recreation site or to supplement the supply to the standpipe or livestock watering system.

5.4 Alternatives Considered but not Analyzed

The agency could haul potable water to the recreation site to supply drinking water for use by the recreating public. Although it is possible to haul water on roads from safe wells in communities 30 miles northeast of the recreation site, it is impractical to maintain a constant supply of safe water consistent with ever-changing timing and intensity of public use at the site.

The agency could abandon the development at the recreation site by removing recreation site facilities including toilet, kiosk, picnic tables, and fire rings to alleviate the need for potable water for recreation use at the Twin Springs Recreation Site and to reduce maintenance costs to the Bureau. Essentially the recreation site would become a dispersed camping area with no recreation facilities. The Vale District has multiple dispersed sites (sites outside of Special Recreation Management Areas) which require time and expense to maintain. These sites provide a staging area to explore hundreds of thousands of acres of public lands. The Twin Springs Recreation Site is a gateway camping area for the public wanting to experience remote and wild lands on a large block of public land west side of Owyhee Reservoir. The concentration of human use of the site area and the need for a source of potable water would continue. Sanitation issues would not be solved and likely would be compounded by removing facilities from the current recreation site development.

6 Affected Environment

This section presents relevant resource components of the existing environment which constitute baseline information.

6.1 Recreation and Visual Resources

Outdoor recreation at Twin Springs Recreation Site consists primarily of overnight camping to pursue exploration activities of the surrounding vast areas (500,000+ acres) of public lands. Existing facilities include 6 picnic tables, 6 fire rings, double-vault restroom, one information kiosk, a loading ramp for horse trailers, and developed springs with head box and associated piping for livestock watering troughs outside the developed site. The site functions as a gateway to explore the west side of Owyhee Reservoir and surrounding rangelands. Exploration activities include pleasure driving of off highway vehicles, hunting of upland birds and big game animals, wildlife viewing, rock hounding, hiking, and horseback riding. Shade provided by trees and shrubs around the springs, in combination with the scenic vistas to the east and south, provides a desert oasis like setting. This area is primarily frequented by nearby residents of Harper, Vale, Nyssa and Ontario communities; whereas the east side of the reservoir is more accessible for residents of southwest Idaho, including Boise metro residents. Seasonal use primarily by hunters draws campers from more distant origins.

Visual resources management (VRM) classification of the recreation site and surrounding area is class III. The objectives of VRM Class III are as follows:

- Partially retain the existing character of the landscape. Moderate levels of change are acceptable. Management activities may attract attention but should not

dominate the view of a casual observer. Changes should conform to the basic elements of the predominant natural features of the characteristic landscape.

6.2 Wilderness Study Areas

Lands within Vale District were inventoried for wilderness values between 1978 and 1981, in accordance with the Federal Land Policy and Management Act of 1976. The inventory resulted in the designation of some lands as Wilderness Study Areas. Only subsequent legislation can designate these or other public lands as Wilderness Areas. Although no Wilderness Study Areas (WSA) or Wilderness Areas are within the boundary of the Twin Springs Recreation Site, the site borders Dry Creek WSA (OR-3-53) to the south. Dry Creek WSA is 23,500 acres with the Dry Creek Canyon as the dominant topographic feature. A second WSA, Dry Creek Buttes (OR-3-56), is 3 miles to the south of Twin Springs and is separated from Dry Creek WSA by a north-south oriented road. Dry Creek Buttes WSA is 51,800 acres in size and is a rugged area of varied terrain. Major physical features in Dry Creek Buttes WSA are Red Butte, Dry Creek Buttes, Sand Hills, North Table Mountain, South Table Mountain, and Nanny's Nipple. Dry Creek WSA and Dry Creek Buttes WSA are outside of the planning area of the Twin Springs Recreation Site and would not be affected by the proposed action alternative, or the "no action" alternative. No further analysis of potential impacts to Wilderness or WSAs from actions considered will be completed.

6.3 Wilderness Characteristics

Wilderness characteristics outside of existing WSAs were recently documented in the process of updating existing inventory information². As defined by the Wilderness Act of 1964, primary wilderness characteristics which must be present for an area to be characterized as meeting required wilderness criteria are sufficient size, naturalness, and outstanding opportunities for solitude and/or for primitive and unconfined recreation. Supplemental values are defined by the Wilderness Act as a secondary wilderness characteristic and are not required to be present for an area to meet minimum wilderness criteria. The updated inventory identified the original wilderness inventory units described and evaluated between 1978 and 1981, documented any changes in resource conditions in regard to the four wilderness characteristics since the original inventory, evaluated information provided within a citizen proposal, and produced summaries showing whether the four wilderness characteristics and supplemental values did or did not exist. This process was conducted by an interdisciplinary team of resource management professionals with the aid of spatial data, existing decision documents, input from experienced staff, field verification of information, and data included with the citizen proposal. While BLM has no legal, regulatory, or procedural mandate to manage for wilderness characteristics outside of existing WSAs, the agency has the discretion to manage for the maintenance of the characteristics where they are found to exist.

Wilderness characteristic inventory updates were completed for two parcels of public land which include portions of Twin Springs Recreation Site. The two parcels are divided by the Twin Springs Road. The parcel west of the Twin Springs Road did not meet size criteria for consideration of further wilderness characteristics. The inventory

² Files documenting the 2010 interdisciplinary wilderness characteristic inventory maintenance efforts for areas which include the Twin Springs Recreation Site are located at the Vale District Office and are available for public review upon request.

unit east of the Twin Springs Road is the Sand Hollow Unit (OR-034-023). A three acre portion of Sand Hollow Unit (OR-034-023), which encloses the Twin Springs Recreation Site and includes the location of the proposed drilling site for potable water development, was excluded from the wilderness character inventory unit due to the level of development of the recreation site.

Although the Sand Hollow Unit meets the criteria necessary to recognize wilderness characteristics, the developed recreation site at Twin Springs has a level of development which excluded it from the Sand Hollow Unit during inventory of wilderness characteristics and proposed actions within the recreation site would not impact those wilderness characteristics. Further analysis of possible impacts to wilderness characteristics in this developed recreation site will not be completed in this EA.

6.4 Cultural and Paleontological Resources

A cultural resource is generally defined by Federal agencies as any location of human activity that occurred at least 50 years ago. Cultural Resources are identified through field survey, historic documentation, or oral evidence. Prehistoric or pre-contact cultural resources in the Vale District include lithic scatters, rock shelters, pithouses, petroglyphs, pictographs, hearths and rock features (cairn, alignments). Historic cultural resources include buildings and building ruins, mine sites, wagon roads, railroad grades, irrigation ditches and associated structures, dams and archaeological deposits. American Indian traditional use areas are a special category of cultural resources. Some cultural resources may be less than 50 years old but have cultural and religious importance to American Indian tribes or paramount historic interest to the public.

6.4.1 Prehistoric Lifeways

Pre-European contact Native American peoples were extremely well adapted to their environment. Tribal band names for Pre-contact people reflected important or interesting dietary items. The Wadatōka (wada eaters; seed eaters) occupied the area around Malheur and Harney lakes; the Tagötōka (eaters of Lomatium; root eaters) occupied the area south along the Jordan River and the three forks of the Owyhee River; and the Koa'aga'itōka (trap salmon eaters) occupied the area to the east at the confluence of the Snake, Payette, Boise and Owyhee Rivers.

The subsistence economy was strongly oriented toward gathering and collecting because plant foods were more abundant and dependable than fowl, fish or mammals. Mammals provided skins, furs, tools and many other by-products of aesthetic and practical value. Insects were often eaten; beetles, grasshoppers, locusts, crickets, ants and caterpillars were consumed, as well as most eggs and larva. Historic documents indicate that several hundred plants were used by the Indians of the Great Basin for medicinal purposes, fiber sources, and food.

The Native people of the Great Basin, who practiced the ancestral lifeways into the 19th century were heirs to an extremely ancient cultural tradition with a technology both effective and efficient, with many multi-functional, light-weight and expendable tools. Seasonal round activities are well represented from the archaeological sites in the Great Basin. Gathering activities are attested by digging sticks, carrying baskets, and milling stones; hunting is represented by the atlatl and dart, the bow and arrow, stone projectile points and stone knives and scrapers. Travel and trade has been documented through

toolstone which originated along the Owyhee River and has been located at sites in Burns District, BLM.

From 1821-1846, contact between Native Americans and immigrants increased as the push westward continued. Exploration of new areas for furs, and overland migration routes, posed the first serious problems and formed the basis for more intensive settlement and development. After 1847, use of overland travel routes increased and white settlements appeared for the first time. Mining activities concentrated Euro-Americans in parts of the regions and the Mormons settled into the eastern Great Basin area.

By the early 1860s, the tensions between Euro-Americans and Native Americans erupted into several prolonged conflicts. Euro-American settlement encroached upon and destroyed many of the basic native resources such as wild seeds, roots and game that provided the subsistence base for Native Americans.

Overall, the prehistory of the northern Great Basin reflects a long continuity and adaptive change to distinctive ecosystems with a changing climate. The persistence of lithic and textile traditions and subsistence patterns during these chronological periods supports the theory of cultural continuity throughout the northern Great Basin. The subsistence pattern was based on a broad spectrum seasonal round that utilized over 50 floral species, big and small game hunting and fishing. The north-south two-track road may have been the main corridor of travel from the Malheur River to Dry Creek and the Owyhee River.

Cultural resources associated with the prehistoric use of this project area consists of rock art; rock shelters; rock structures (cairns, alignments, etc.); habitation sites around springs; small camps at stream-side meadows and on alluvial deposits at junctions of tributary streams; quarries of fine-grained basalt, obsidian, chalcedony and jasper; flaking stations on high points with good vantage; and sacred sites.

6.4.2 Historic Lifeways

Exploration into this area began with the expeditions of John Jacob Aster, after he heard the stories from the Lewis and Clark Expedition of 1804-1806 and continued throughout the early 19th century as the Malheur and Owyhee River basins were extensively exploited by both American and British Fur Companies.

The era of the fur trade provided the basis for American families to travel west. American trappers, familiar with the routes were hired as guides and in this part of the country, the Hudson's Bay Company trading posts at Fort Hall and Fort Boise served as supply and rest stops. The year of 1834 marks the first travels of missionaries through Malheur County on what was to become known as The Oregon Trail. For Native Americans, increased use of the Oregon Trail, burdened grazing resource, killed off game, and displaced resident bands.

Another great push for settlement of the west came in 1849 with the rush of gold seekers to California. It drained settlers from Oregon and diverted traffic from the Oregon Trail. Small groups of miners ventured east of the Cascades headed for Malheur County in search of the Blue Bucket mine. By 1864, gold was located in gold-bearing ground just west of Mormon Basin on the high ridge that separated the Burnt River from upper

Willow Creek. Gold and silver were also located in Idaho at Silver City, east of Jordan Valley.

Settlement and the development of an early transportation network in southeast Oregon had its beginnings in a gold and silver strike in the Owyhee Mountains of Idaho and communities sprang up to accommodate the miners. At its peak, Silver City supported a population of about 5000. In 1864, an expedition scouted a route from Fort Klamath to the Owyhee region, to link those areas with the California coast. The federal government encouraged road building by passing land grant acts, giving construction companies title to alternate sections along their newly constructed transportation routes. The Dallas Military Wagon Road and the Cascade to Willamette Valley Wagon Road linked eastern Oregon and Fort Boise to western and northern Oregon.

In the 1870s, cattle barons, with money and cattle from outside the state, flourished in southeastern Oregon. They acquired huge land holdings through the Oregon Swamp Lands Act, the Desert Land Act, by homesteading, and by the purchase of preemptions and state-owned school lands. Large horse herds were ranged in the Owyhee Breaks by big-scale operators, and were thought to outnumber cattle in the area by 1881. It was during the 1880s that settlers increasingly came to southeast Oregon, and small communities were established near reliable water sources. By 1884 domestic sheep entered into competition with cattle for grazing land and water. Sheep outfits tended to be small and numerous, while cattle operations were larger and fewer. The north-south two-track road passing Twin Springs was the main route to the Owyhee River along the west side of the Canyon. This road provided access to the town of Watson (1890-1936) and other ranches and farms within the river corridor.

A series of dry and harsh winters created many problems for the cattlemen. They had resisted intrusion and were slow to adapt to newer methods of husbandry, including feeding cattle during the winter. Eventually the competition for grass and the animosity between the landowners and nomadic livestock operators resulted in environmental degradation. In response, the Taylor Grazing Act of 1934 brought government control of the rangelands to southeastern Oregon. The Taylor Grazing Act along with the Great Depression led to an abrupt and permanent drop in the number of sheep, while fostering a long-term increase in the number of beef cattle, which has continued to the present.

Cultural resources associated with the historic use of this area are tied to landforms as transportation corridors (wagon roads), historic homesteads, early irrigation project features, early mining activity areas, and remains of stage and telegraph stations.

A desert land entry patent was issued in 1933 and surface title was reconveyed to agency administration in 1963. The ranching homestead at Twin Springs was located at the junction of Twin Springs Road and Dry Creek Road. The homestead consisted of a house, bunkhouse, blacksmith shop and forge, stable and corral. These structures were located on the east side of the existing road. A larger farm house was constructed later on the west side of the road in the grove of trees still standing today.

6.4.3 Paleontological Resources

Fossil floral and faunal resources are located in areas where sedimentary deposits are present. Silts and sandstones deposited under water in slow moving rivers or stagnant

lakes often contain fossil deposits. Shales derived from mud flows deposited by rivers may contain organic material as well as fossils. Limestone deposits may contain fossils ranging from microscopic flora and fauna to larger sea creatures. Across the Vale District a wide variety of fossil resources have been located.

Pioneering work in the field of paleontology was conducted by J.A Shotwell in the late 1950s and early 1960s. During several field seasons, a field crew from the Museum of Natural History, University of Oregon studied Miocene, Pliocene and Late Tertiary mammals. Fossil localities are noted for diversity and abundance bearing both small rodent specimens as well as large specimens such as camel, horse, turtle and sloth and later species such as mammoth, mastodon and bison. Diatomaceous sediments are present at several locations in quantity and quality sufficient to support active mining operations.

Fossil flora and fauna are located in areas where lakebed sediments are present. Surveys for fossil resources have located plant, animal and fish fossils as well as petrified wood. Fish fossils are located in lacustrine sediments dated to the Miocene and are associated with the Deer Butte and Grassy Mountain formations, and noted for diversity and abundance. Camel, horse, turtle and sloth are among the species that may be located in sediments within the burn area as well as later species such as mammoth, mastodon and bison. One fossil flora locality is located to the west of Twin Springs. The stratigraphic position lies near the contact between the Deer Butte and Grassy Mountain Formations

6.5 Soils and Watershed Resources

Soils

Soils in the project area including the campground fall in the category of grass-shrub covered lava plateau upland (basaltic, rhyolitic, and tuffaceous bedrock) ranging from Miocene to Recent in age. Specific soils are:

- 76/2-3 Soils are Clayey, very stony, shallow with a slope of 3 to 12 percent,
- 76/5-6 Soils are Clayey, very stony, shallow with slopes of 20 to 60 percent.

Reconnaissance Units 75 and 76 soils are fine loamy and clayey, respectively; they are light-colored, very stony and less than 20 inches deep to bedrock. A thin silica-cemented hardpan is often present immediately above the bedrock. These soils are placed in Hydrologic Soil Group D. Group D soils have the highest potential for runoff. The soils are shallow to impermeable bedrock or pans, or very clayey soils with very slow rates of water transmission, and poorly drained soils (OSWRB 1969).

Watershed Resources

Twin Springs Recreation site is located in the Twin Springs drainage which is a tributary of Dry Creek. Dry Creek is a tributary of the Lower Owyhee River. All are located in the Lower Owyhee Sub-basin (OSWRB 1969).

Human activity, historic and present has impacted the springs and vegetation associated with the springs. Some of the vegetation and impacts are the result of the ranching homestead previously located at the site. Soils, vegetation, and the watershed are all affected by the use of the campground, vehicular and human traffic to, from, within and around the enclosure. There are both native and non-native vegetation at the location. The highest concentration of use of the area appears to be during the various hunting

seasons. These include off highway vehicle use and the use of vehicles for hunting. Any time vehicles are used off of established roadways there is potential impact to the soil resources and increased sedimentation in stream courses.

Hydrology

Ground water often surfaces along geologic faults; Twin Springs are located at the convergence of three geologic formations, Olivine Basalt (Pliocene and Miocene), Lacustrine and Fluvial deposits (Miocene) and Basalt (Upper and Middle Miocene), and directly adjacent to a branching geologic fault.

There is no information on the main fault or the branching fault. The fault to the east of the Twin Springs fault is facing Northwest, Source: Oregon Geologic Data Compilation Oregon Department of Geology and Mineral Industries (ODGMI) <http://ogdc.geos.pdx.edu/>. It could be assumed that the faults associated with the springs are facing west and southwest. The presence of the springs appears to be directly related to the fault.

Water Rights

There are two water rights associated with the land in the recreation site and within Section 35; status of both is Non-Canceled (NC). Water rights are appurtenant to the land in Oregon. Water rights are secured and available for the lands associated with the recreation site under all alternatives

- BLM Application R 67867 Point of Diversion Unnamed stream Twin Springs Creek. Places of Use Wildlife Priority date 10/14/1983, Livestock Priority Date 10/14/1983.

-Helen M. McKnight certificate # 8308 Point of Diversion Twin Springs Creek>Dry Creek, Place of Use, Irrigation 16.0 acres; Priority date: 12/31/1904. The lands associated with this water right were reconveyed to the United States in 1966.

6.6 Vegetation

Upland vegetation resources within Twin Springs Recreation Site are dominated by greasewood and/or sagebrush-bunchgrass communities being the potential. Impacts from historic livestock grazing prior to their exclusion and from concentrated recreation activities at the site, have resulted in current vegetation communities dominated by greasewood or basin big sagebrush and annual herbaceous species. Remnants of native herbaceous species remain. Riparian vegetation communities include native herbaceous and shrub species, some native willows and other facultative riparian shrubs, as well as introduced tree species from the willow family and nonnative poplars and cottonwoods.

6.7 Noxious Weeds

Much of the lower elevations lands associated with travel routes to old homesteads and communities are degraded and infested with a conglomerate of mostly annual noxious weeds or weedy species. Cheatgrass (*Bromus tectorum*) is a strong component of the vegetation community surrounding Twin Springs as is common where livestock congregate near water sources and historical military and freight routes. Other common annual associated with the area include a variety of mustards, such as clasping pepperweed (*Lepidium perfoliatum*), tumble mustard (*Sysymbrium altissimum*), blue mustard (*Chorispora tenella*) and flixweed (*Descurainia sophia*), lambsquarter

(*Chenopodium sp.*), kochia (*Kochia scoparia*), Russian thistle (*Salsola iberica*), prickly lettuce (*Lactuca serriola*) and bur buttercup, (*Ranunculus testiculatus*).

Another troublesome annual grass, Medusahead rye (*Taeniatherum caput-medusae*), occurs in small to moderate sized plots, just north of Twin Springs. This species, due to its close proximity to the recreation site, has the potential to invade the site.

Three thistles are common to the site. Of the two biennials, Scotch thistle (*Onopordum acanthium*) and bull thistle (*Cirsium vulgare*), Scotch thistle is the most aggressive. Canada thistle (*Cirsium arvense*), a perennial, is present in the wetter drainage area. Perennial pepperweed (*Lepidium latifolium*), another aggressive perennial weed, is established at the site. Saltcedar (*Tamarix ramosissima*) has been treated inside and outside the boundary. Another tree of concern is Russian olive (*Elaeagnus angustifolia*). Incidental discoveries of diffuse (*Centaurea diffusa*) and spotted knapweed (*Centaurea maculosa*) have been reported along road sides a few miles to the north of Twin Springs.

Small sites of heart-podded and globe-podded whitetop species (*Lepidium sp.*) exist along Twin Springs Road in close proximity to the north and south. A larger infestation can be found on private land to the north.

Curly cup gumweed (*Grindelia squarrosa*), a perennial, has invaded roadsides and disturbed areas.

Casual recreational use and long-term camping use are common to the site. All of these activities can create heavy disturbances. Vehicles are perfect vectors for weed spread and many of the users come from outside of the area increasing the likelihood of new invasive species from other portions of Oregon and neighboring states. Priority treatments are intended to control or eradicate the county "A" listed and state "A" and "T" listed weeds (Table 1), mainly knapweeds, and isolated saltcedar plants. However, recreation areas are also treated to prevent or lessen spread of weeds by vehicles and human activities into uninfested areas. Treatments have been ongoing on the thistles and *Lepidium* species with available funding and chemicals allowed on federal lands in Oregon. Individual saltcedar trees have also been removed. Early detection and rapid response (EDRR) is practiced on new invaders with treatment occurring quickly following discovery, commensurate with proper biological windows. Vehicles, domestic livestock, wildlife and other dispersal mechanisms continue to move seed into disturbed soils in localized areas, thus aiding establishment and expansion of noxious weeds.

Table 1: Oregon Dept of Ag Noxious Weed Policy and Classification System can be found at: http://egov.oregon.gov/ODA/PLANT/weed_index.shtml

Weed Species: Scientific Name	Weed Species: Common Name	ODA Classification	County Classification	Not Classified
<i>Bromus tectorum</i>	Cheatgrass		C	
<i>Lepidium perfoliatum</i>	Clasping pepperweed			X
<i>Sysymbrium altissimum</i>	Tumble mustard			X
<i>Chorispora tenella</i>	Blue mustard			X
<i>Descurainia sophia</i>	Flixweed			X
<i>Chenopodium sp.</i>	Lambsquarter			X
<i>Kochia scoparia</i>	Kochia		C	
<i>Salsola iberica</i>	Russian thistle			X
<i>Lactuca serriola</i>	Prickly lettuce			X
<i>Cirsium arvense</i>	Canada thistle	B	B	
<i>Onopordum acanthium</i>	Scotch thistle	B	B	
<i>Cirsium vulgare</i>	Bull thistle	B	C	
<i>Lepidium latifolium</i>	Perennial pepperweed	B	B	
<i>Tamarix ramosissima</i>	Saltcedar	B	C	
<i>Centaurea maculosa</i>	Spotted knapweed	B	A	
<i>Centaurea diffusa</i>	Diffuse knapweed	B	A	
<i>Lepidium sp (Cardaria)</i>	Whitetop species	B	B	
<i>Ranunculus testiculatus</i>	Bur buttercup			X
<i>Grindelia squarrosa</i>	Curlycup gumweed			X
<i>Elaeagnus angustifolia</i>	Russian olive			X

6.8 Special Status Plants

There are no known vascular plants listed as threatened, endangered, a candidate species, or a species of concern by U.S. Fish and Wildlife Service (USFWS) or The Oregon Natural Heritage Program (ONHP) that occur within the Twin Springs Recreation Site. However, there are plant species that are considered by ONHP to be plant taxa of concern which occur within close proximity to the project area. The species that are known to occur within one mile of the Twin Springs Recreation Site are: Cusick's chaenactis (*Chaenactis cusickii*) and the Snowball cactus (*Pediocactus nigrispinus*).

6.9 Wildlife

Migratory Birds

Sagebrush obligate migratory bird species expected to occur in the area include Brewer's sparrow, sage sparrow and sage thrasher. Migratory species such as burrowing owls, northern harriers, golden eagles and bald eagles may occur in or near the proposed project area. Numerous neotropical migratory birds and several raptor species common to southeast Oregon live throughout the area.

The proposed project is adjacent to a riparian area contained within sagebrush steppe habitat. Golden eagles, ferruginous hawks, swainson's hawks and loggerhead shrikes are special status migratory birds that may occur and nest within the project area. Eagles are protected by the Bald and Golden Eagle Protection Act and are especially sensitive to disturbance during the nesting season. Oregon Department of Fish and Wildlife classify swainson's hawks and loggerheaded shrikes as vulnerable. Both species nest in riparian trees and shrubs within the sagebrush steppe environment.

Wildlife

Wildlife in the proposed project area is typical of Wyoming big sagebrush/bluebunch wheatgrass and sagebrush/cheatgrass disturbed habitat types in the northern Great Basin and Owyhee Uplands communities. The project area is utilized by a variety of upland big game species. Big horn sheep have potential to forage within the region, but are unlikely to occur within the project area as they to avoid lower elevation disturbed sites in close proximity to humans and roads.

Greater sage-grouse, a BLM special status species, may occur in the project area on a yearlong basis. Nesting sage grouse prefer large areas with continuous sagebrush canopy cover. Within the past ten years, four fires occurred on the surrounding landscape, degrading the sagebrush habitat. Greater sage grouse nesting habitat exists south of the proposed project area. The closest sage grouse leks are approximately 2 and 2.5 miles northwest of the project area. Seeps, springs and stream found adjacent to the proposed project area may provide important late brood rearing habitat for sage-grouse.

Columbia spotted frogs are considered a federal Candidate species, BLM special status species and listed as sensitive by the state of Oregon. U.S. Fish and Wildlife Service and BLM cooperatively monitor the Dry Creek frog population annually. The frog monitoring

sites are located about 2 miles westward of the proposed project site. Columbia spotted frogs are known to occur within Frog Pond Spring Enclosure approximately 240 yards north of the project site and within the riparian habitat approximately 60 yards west from the proposed project location.

Based on a review of a list of federal, state and BLM special status species, it was determined that no other threatened, endangered, proposed, candidate or other sensitive species are known to occur in the project area and thus would not be impacted by the proposed project.

6.10 Wild Horses

No wild horse herd management areas are within the vicinity of Twin Springs Recreation Site. As a result, no further analysis of potential impacts to wild horses from actions considered will be completed.

6.11 Livestock Grazing

Grazing by cattle is authorized annually from mid-summer to fall (July through October) on public lands to the east of Twin Springs Recreation Site in Grassy Mountain Pasture of Nyssa Allotment. Similarly, grazing by cattle is authorized annually during early winter (November through December) on public lands to the west of Twin Springs Recreation Site in South Freezeout Pasture of Dry Creek Allotment. Sheep grazing is authorized annually in both pastures during spring and early summer (April through June). Twin Springs Recreation Site is excluded from livestock grazing.

Livestock which graze in pastures surrounding Twin Spring Recreation Site utilize water piped from a developed spring source within the recreation site enclosure to a trough in an enclosure adjacent to the south fence of the recreation site. Access to the enclosure with a water trough is provided through gates, with no overlap in scheduled dates of cattle grazing in Grassy Mountain Pasture and South Freezeout Pasture. The spring development, until recently (2001), delivered water to a standpipe available for public use within the recreation site. Overflow from the standpipe collected into a pipeline and was delivered to the livestock watering trough south of the recreation site. Currently, the livestock watering system is functioning in the absence of the standpipe for delivery of water for recreation use. In addition to the livestock water provided in the enclosure south of Twin Springs Recreation Site, livestock water available while grazing in Grassy Mountain Pasture is available from a trough supplied by a developed spring north of and outside the recreation site enclosure. Livestock water is also available from live water in surrounding streams.

6.12 Climate/Topography

Twin Springs Recreation Site and surrounding area known as Sourdough Basin are composed of rolling shrub-steppe hills and gulches where the elevation above sea level is approximately 3,400 feet. Semi desert shrub-steppe vegetation communities result from cold winters and hot dry summers. The long term average annual precipitation is between ten and fourteen inches. Precipitation occurs primarily as snow fall during the winter and spring rains, with occasional mid-summer thunder storms.

A growing number of scientific analyses indicate, but cannot prove, that rising levels of greenhouse gases in the atmosphere are contributing to climate change. In the coming decades, scientists anticipate that as atmospheric concentrations of greenhouse gases continue to rise, average global temperatures and sea levels will continue to rise as a result and precipitation patterns will change (Intergovernmental Panel on Climate Change, 2007). A conclusion can be reached that changes in resource impacts as a result of climate change would be highly sensitive to specific changes in the amount and timing of precipitation, but specific changes in the amount and timing of precipitation are too uncertain to predict at this time. Because of this uncertainty about changes in precipitation, it is not possible to predict changes in vegetation types and condition, wildfire frequency and intensity, streamflow, and wildlife habitat.

The additional contribution of greenhouse gasses to the atmosphere as a result of implementing the proposed action to drill and equip one well to provide potable water at Twin Springs Recreation Site, when compared to the no action alternative, is limited to that contribution from fossil fuel consumption by the drill rig accessing the site and a few days of drilling activity. When compared to greenhouse gas emissions from motor vehicle and heavy equipment use on a world-wide, national, regional, or local scale, and when compared to the contributions from other sources of greenhouse gasses, the potential impacts from the proposed actions are inconsequential.

As a result, no further analysis of climate, climate change, or topography will be completed.

6.13 Mandatory Elements

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EA's and EIS's:

Element	Relevant Authority	BLM Manual	
Air Quality	The Clean Air Act as amended (42 USC 7401 et seq.)	MS 7300	Not affected
Areas of Critical Environmental Concern	Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.)	MS 1617	Not present
Cultural Resources	National Historic Preservation Act as amended (16 USC 470)	MS 8100	Analyzed in this document
Farm Lands (prime or unique)	Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.)		Not present
Floodplains	E.O. 11988, as amended, Floodplain Management, 5/24/77	MS 7260	Not present

Native American Religious Concerns	American Indian Religious Freedom Act of 1978 (42 USC 1996)	MS 8100	None known
Threatened or Endangered Species	Endangered Species Act of 1973 as amended (16 USC 1531)	MS 6840	Not present; impacts to special status species analyzed in this document.
Wastes, Hazardous or Solid	Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended (42 USC 9615)	MS 9180 MS 9183	Not present nor would any be generated by the proposed action or alternatives. Stipulations of any contract awarded to complete actions considered would include actions to preclude hazardous wastes.
Water Quality Drinking/Ground	Safe Drinking Water Act as amended (42 USC 300f et seq.) Clean Water Act of 1977 (33 USC 1251 et seq.)	MS 7240 MS 9184	The proposed action would provide safe drinking water for Twin Spring Recreation Site. Stipulations of any contract let to complete actions considered would include actions to protect water quality.
Wetlands/Riparian Zones	E.O. 11990, Protection of Wetlands, of May 24, 1977	MS 6740	Not affected beyond that identified in the riparian narratives of this document.
Wild and Scenic Rivers	Wild and Scenic Rivers Act as amended (16 USC 1271)	MS 8014	Not present
Wilderness and Wilderness Study Areas	Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.) Wilderness Act of 1964 (16 USC 1131 et seq.)	MS 8500	Not present; Note discussion of adjacent WSAs in the affected environment section of this document. Note also discussion of areas outside WSA with wilderness characteristics.
Environmental Justice	E.O. 12898 of February 11, 1994		Minority populations and low income populations would not be affected by actions considered.
Actions to Expedite Energy Related Projects	E.O. 13212 of May 18, 2001		The actions considered are not energy related nor would they affect production, transmission, or conservation of energy.

Elements not present or not affected will not be further analyzed within this environmental assessment.

7 Environmental Consequences

This chapter is organized by alternatives to illustrate the differences between the “no action” alternative and the action alternatives.

7.1 Alternative 1: (No Action Alternative)

7.1.1 Recreation and Visual Resources

The no action alternative would maintain the facilities currently in place at the Twin Springs Recreation Site, including vault toilet, picnic tables, fire rings, and kiosk. The recreation site would remain open for camping and other recreation activities associated with semi-primitive motorized, semi-primitive non-motorized and other recreation opportunities accessed from roadways. Potable water would continue to not be available for use by those recreating at the site or in the area. Wildlife and livestock water would continue to be supplied from developed springs inside the recreation area to a water trough south of the site. The no action alternative would not change the current visual setting of the Twin Springs Recreation Site and vicinity.

7.1.2 Cultural and Paleontological Resources

A Class III cultural resources survey for prehistoric and historic sites and paleontological resources was conducted on October 24, 2008. Twin Springs is both a prehistoric camp site and historic homestead location. The No Action alternative would have no effect on prehistoric or historic cultural resources.

Paleontological Resources

The project area is located in old lakebed sediments remaining from the late Miocene when the area was under the lack waters of Lake Idaho which covered the Western Snake River Plain from Baker City, Oregon to Twin Falls, Idaho. Under the No Action alternative, there would be no effect to fossil flora and fauna at Twin Springs Recreation Site.

7.1.3 Soils and Watershed Resources

Under the No Action Alternative, impacts to the Soil and Watershed Resources are those that currently exist. Riparian areas naturally draw people to them. The impacts of individuals using the springs and flow from the springs to gather water for washing and cleaning in the campground is increased without a potable water source. These impacts can contaminate water sources, affect vegetation, increase erosion, and sediment in the drainage associated with the springs.

7.1.4 Vegetation

The no action alternative would continue current activities within the recreation site and result in no anticipated change in vegetation communities beyond the typical naturally caused fluctuations in species dominance through time. Continued diversion of water through the

location where a stand-pipe provided water for recreation use and with final delivery of that water to a trough placed in an enclosure outside the recreation site would not change water availability for vegetation growth, thus not changing individual species presence or dominance directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.1.5 Noxious Weeds

The No Action alternative would provide the least opportunity for new ground disturbance that often provide opportunities for weed invasion. Survey and treatment action on weed species present would continue at the present rate.

7.1.6 Special Status Plants

Under the No-Action alternative, no construction would take place therefore there would be no effects to plants from construction activities. Current conditions and trends would continue.

7.1.7 Wildlife and Fish

Under the No-Action alternative, no construction would take place therefore there would be no effects to wildlife from construction activities. Current conditions and trends would continue.

7.1.8 Livestock Grazing

The no action alternative would continue the current situation for authorization of livestock grazing in both Nyssa and Dry Creek Allotments. Water for livestock use would continue to be provided from a spring within the recreation site and delivered to a trough within an enclosure adjacent to the south boundary of the recreation site. The exclusion of livestock from the recreation site would continue, resulting in no change to forage production or availability. Livestock management practices would be unchanged directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.2 Alternative 2: (Proposed Action) Drill a Well and Install a Hand-pump

7.2.1 Recreation and Visual Resources

This alternative would maintain the facilities currently in place at the Twin Springs Recreation Site as described in Alternative 1. The season of use at the site is generally April through November. The temporary nature of the drilling and site improvements and maintenance activities would not affect the public use of the current facilities. There may be a temporary disruption of recreation activities, limited to the period of the project work. This impact would be temporary, a few days to a couple of weeks and minor in scope. In addition, opportunity for dispersed recreation activities around the site would remain available.

The proposed action would not change the overall setting at the site. In addition, the well would have a positive impact on the ability of the public to have a consistent supply of potable water. The well would be a recreation benefit for visitors to the site as well as those coming to explore the dispersed recreation opportunities in the area and the two nearby WSA's. The proposed action would alleviate the problem of the recreating public using untreated surface/spring water for human consumption. Installation of the concrete slab and gravel around the well and hand-pump would help maintain and minimize the impacts of visitors using the hand-pump and any water overflow that may occur. If the water treatment system is necessary, it would be buried near the well, and the 6' x 8' disturbed area would be re-contoured and re-vegetated to minimize the effects of the site disturbance and reduce any visual impacts.

Reducing the amount of vegetation around the spring and spring box and installing a rock or wooden fence barrier around the spring box would ensure public safety and minimize any accidental damage to the spring. This proposed action may allow the spring to have additional irrigation piping connected to the system that may be used to water vegetation/trees to improve/maintain the site as an oasis for the recreating public and wildlife. Burying irrigation piping, except drip irrigation piping, would minimize any potential safety hazards and visual effects of installing the irrigation pipe.

The proposed action alternative would retain and may improve the current visual resources quality. Using the spring water, to water current and additional vegetation and trees would have a positive impact at the site and may provide increased screening for site facilities.

7.2.2 Cultural and Paleontological Resources

A Class III cultural resources survey for prehistoric and historic sites and paleontological resources was conducted on October 24, 2008. Twin Springs is both a prehistoric camp site and historic homestead location. No prehistoric or historic resources were located on the surface of the area to be disturbed by the Proposed Action. However, because of the likelihood of a subsurface component an archaeologist would be on-site to monitor any trenching or backhoe work.

Paleontological Resources

The project area is located in old lakebed sediments remaining from the late Miocene when the area was under the lack waters of Lake Idaho which covered the Western Snake River Plain from Baker City, Oregon to Twin Falls, Idaho. The project area was surveyed for sediments which may contain fossil flora and fauna resources in conjunction with the survey for cultural resources. No fossil resources were located during that survey, although there is one recorded fossil locality west of Twin Springs.

7.2.3 Soils and Watershed Resources

Soils and Watershed Resources

The effects of drilling a well, installing a hand pump, and developing an irrigation system for the campground on Soil and Watershed resources would have the following impacts:

Watershed

For the period of development there would be movement of the personnel and equipment to and from the location. This would increase vehicular traffic to the area. The vehicular traffic would increase the potential for erosion and measures are included in the plan for mitigating these impacts, dust abatement contingencies and rehabilitation of the roads and campground during and after the project completion. Once the location of the well is determined, appropriate measures would be taken to control and remove of any fluids and material which would result from the drilling that are not native to the site. A potable water source at the campground could reduce the number of trips by campers to retrieve potable water, therefore reducing the road traffic and erosion. Conversely if it becomes known there is a potable water source at the campground, it may increase the frequency and duration of use at the recreation site. Monitoring would be needed to determine the actual impact.

Riparian Vegetation

Installation of the hand pump would likely reduce the human pressure on the vegetation in the drainage associated with the springs by providing a water source for potable water and water for washing on the upland area of the campsite.

The development of the irrigation system would divert the flow of water at the springs and may cause reduction of the hydrophilic vegetation associated with the spring boxes. The irrigation system would provide water to the vegetation in the campground improving the visitor experience and providing shade outside of the riparian area associated with the springs.

Hydrology

The purpose of installation of a well and hand pump is to provide a potable water source for visitors to the recreation site. Water usage by visitors can vary greatly depending on the type of visitor. Primitive campers in tents may use as little as one gallon of water a day per person depending on the air temperature and weather, whereas travel trailers may use as much as 12 gallons of water per day per person. The greatest use of the campground appears to be during the months of August to November during the hunting seasons when travel trailers are used as base camps for hunting. With an estimated number of persons per trailer of 6 and the number of trailers using the campground at 5 this leads to 30 people per day using the developed water source. Thirty people using 12 gallons per day produces a need of 360 gallons per day. The estimated production of the well is 20 gallons per minute. If the well and hand pump are able to

produce half the estimated production, 10 gallons per minute would produce 600 gallons per hour and should be sufficient for the visiting public. With the information available, the 360 gallon usage should not affect the ground water of the area. The hand pump is an on demand system. This means the water is pumped when needed and would only be used when visitors are present. Actual usage would vary.

The development of an extensive irrigation system from the existing two springs has potential to dewater the spring. Care would be taken in the design and development of the irrigation system to not change the existing collection boxes and limit the extent of the irrigation system, pending further analysis associated with additional development of the recreation site. The existing water collection systems each have an outflow pipe from the box within six inches of the soil surface. This design feature would limit draw-down of the water source at the spring to the upper six inches of the soil profile. The limited irrigation system proposed would improve the vegetation associated with the campground within the enclosure and provide a more enjoyable experience for the campers.

7.2.4 Vegetation

The proposed action would continue many of the current activities within the recreation site and include the development of a well and hand operated pumping system to provide potable water, but result in no anticipated change in vegetation communities beyond the typical naturally caused fluctuations in species dominance through time. Short-term soil surface disturbance during drilling of the well and development of the pumping system would temporarily remove primarily annual species which would reestablish from seed following one growing season. Impacts to down-slope vegetation communities from slurry evacuated from the drilled hole would be controlled through mitigation actions in the contract which limit their discharge. Limited overflow of water from the developed pumping system would change the vegetation species toward presence and/or dominance by more mesic species little, because the proposed well location is adjacent to existing overflow from the structures associated with the location of the stand-pipe recently removed. Continued diversion of water through the location where a stand-pipe provided water for recreation use and with final delivery of that water to a trough placed in an enclosure outside the recreation site would not change water availability for vegetation growth, thus not changing individual species presence or dominance directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.2.5 Noxious Weeds

The soil disturbing activity under the proposed action to construct the proposed well and develop a pumping system to provide potable water for recreation use would likely create new niches for possible weed invasion. Because of the small size of the recreation site and smaller size of

proposed disturbance, increase of survey, monitoring and treatment of noxious weeds, on the whole, would be minimal.

7.2.6 **Special Status Plants**

The project would occur on already disturbed ground where no known federally listed threatened, endangered, or strategic plant species populations occur. The nearest plant taxa of concern, Cusick's chaeactis and Snowball cactus, occur approximately one mile from the project area. Returning potable water to Twin Springs Recreation Site may result in a negligible increase in recreation activity, and thus, a negligible impact, if any, to known plant taxa of concern in the area. The contribution of the proposed well drilling and supply of potable water to cumulative impacts to these species from past activities and reasonably foreseeable activities would also be negligible.

7.2.7 **Wildlife**

Migratory Birds

Construction activities may temporarily displace migratory bird species but nesting and breeding habitat would remain unchanged. Potential impacts to songbird population would be minimal due to their ability to re-nest and raise multiple broods within a single breeding season.

Raptors and eagles raise a single brood each year and are vulnerable to breeding season disturbance. To avoid potential breeding season impacts and comply with the Bald and Golden Eagle Protection Act, the proposed project construction would commence after August 1st.

Wildlife

Implementation of the proposed action would result in a short term disturbance to wildlife in the area, and no net loss of habitat. Greater sage grouse nesting habitat exists south of the proposed project area however nesting grouse would not be affected as the proposed project would be implemented outside of the nesting season. Although summer brood rearing habitat is present, sage grouse occupying the proposed project area may be temporarily displaced but would likely take refuge within nearby sagebrush cover. As the proposed project would not enter the riparian zone, neither Colombia spotted frog populations nor their habitat would be impacted by the proposed project.

Foreseeable future activities include designating additional campsites, installing pit toilets and to extend an existing pipeline in order to lessen the impacts of livestock on the riparian areas within the proposed project area. Improvement construction would temporarily displace migratory birds and wildlife but would not negatively impact wildlife populations. As water sources and riparian habitats are limited within the sagebrush-steppe environment, maintenance and improvements at this site would protect the integrity of this riparian system, ensuring habitat for migratory

birds and wildlife. Visitor usage may increase as a result of these improvements, however due to the remoteness of the site, impacts to migratory birds and wildlife inhabiting the area would be minimal. Therefore, no significant cumulative impacts to migratory birds, wildlife or their habitat have been identified.

7.2.8 Livestock Grazing

The proposed action alternative would continue the current situation for authorization of livestock grazing in both Nyssa and Dry Creek Allotments. Water for livestock use would continue to be provided from a spring within the recreation site and delivered to a trough within an enclosure adjacent to the south boundary of the recreation site. Construction of the proposed well and development of a pumping system to provide potable water for recreation use would likely not affect the availability of water for livestock use, since the livestock water and recreation water systems would remain separated. The ground-water source intercepted by the proposed well would likely not dewater the developed spring source utilized for livestock watering due to the depth of water which would likely to be used from the well for recreation purposes and due to the limited quantity of water which would likely be drawn from the well. The exclusion of livestock from the recreation site would continue, resulting in no change to forage production or availability. Livestock management practices would be unchanged directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.3 *Alternative 3: Standpipe Reconstruction with Water Treatment*

7.3.1 Recreation and Visual Resources

This alternative would maintain the facilities currently in place at the Twin Springs Recreation Site as described in Alternative 1 and also include limited construction to restore the water delivery standpipe and develop the treatment system in the pipeline. The temporary nature of the site improvements and maintenance activities would not affect the public use of the current facilities. There may be a temporary disruption of recreation activities, limited to the period of the project work. This impact would be temporary, a few days to a couple of weeks and minor in scope. In addition, opportunity for dispersed recreation activities around the site would remain available.

Consequences of implementing this alternative include, higher maintenance cost associated with the treatment of the spring and surface water system; and a limited water supply for recreation, wildlife and livestock use. Using spring water requires more testing and maintenance visits, as the water temperature of the spring raises the quality of the water for human use is reduced. The ability to add additional piping for drip irrigation to improve on-site vegetation or trees would be very limited and potentially infeasible. This alternative would not provide an opportunity to

enhance the vegetation, it would not substantially enhance or improve the current visual resources quality, and no additional screening of site facilities would occur.

Impacts to the visual setting would be the same as under the proposed action.

7.3.2 Cultural and Paleontological Resources

A Class III cultural resources survey for prehistoric and historic sites and paleontological resources was conducted on October 24, 2008. Twin Springs is both a prehistoric camp site and historic homestead location. No prehistoric or historic resources were located on the surface of the area to be disturbed by the alternative action. However, because of the likelihood of a subsurface component, an archaeologist would be on-site to monitor any trenching or backhoe work.

Paleontological Resources

The project area is located in old lakebed sediments remaining from the late Miocene when the area was under the lack waters of Lake Idaho which covered the Western Snake River Plain from Baker City, Oregon to Twin Falls, Idaho. The project area was surveyed for sediments which may contain fossil flora and fauna resources in conjunction with the survey for cultural resources. No fossil resources were located during that survey, although there is one recorded fossil locality west of Twin Springs.

7.3.3 Soils and Watershed Resources

Soils and Watershed Resources

Under alternative three actions, ground water resources would not be affected. The effects to surface water would be no more than what is currently occurring. The current system uses spring boxes to gather water and deliver the water through pipelines to troughs outside of the site enclosure. Depending on the construction, the standpipe could be either constant flow or restricted by a valve to be used on demand. The impacts on riparian vegetation of using a standpipe would be similar to those of developing the well and hand pump within the campground as described in Alternative 2. The standpipe would provide a source of water away from the riparian area associated with the springs and drainage.

The irrigation system would not be developed and the potential for dewatering the spring designated for use in irrigation system would not occur.

7.3.4 Vegetation

The reconstruction of the standpipe and placement of a water treatment unit below ground to provide potable water for recreation use would continue many of the current activities within the recreation site, but result in no anticipated change in vegetation communities beyond the typical

naturally caused fluctuations in species dominance through time. Short-term soil surface disturbance during reconstruction of the standpipe and placement of the treatment unit would temporarily remove primarily annual species which would reestablish from seed following one growing season. Limited overflow of water from the reconstructed stand-pipe would change the vegetation species toward presence and/or dominance by more mesic species little, as compared to existing overflow from the structures associated with the existing facility supplying livestock water outside the recreation site. Initial use of treated water for recreation use and subsequent collection of unused water for final delivery of that water to a trough placed in an enclosure outside the recreation site would not change water availability for vegetation growth, thus not changing individual species presence or dominance directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.3.5 Noxious Weeds

The soil disturbing activity under this alternative would be very similar to the proposed action alternative and would likely create new niches for possible weed invasion. Like Alternative 2, because of the small size of the recreation site and smaller size of proposed disturbance, increase of survey, monitoring and treatment of noxious weeds, on the whole, would be minimal.

7.3.6 Special Status Plants

The project would occur on already disturbed ground where no known federally listed threatened, endangered, or strategic plant species populations occur. The nearest plant taxa of concern, Cusick's chaenactis and Snowball cactus, occur approximately one mile from the project area. Returning potable water to Twin Springs would have a negligible increase in recreation activity, and thus, a negligible impact, if any, on known plant taxa of concern in the area. The contribution of the proposed well drilling and supply of potable water to cumulative impacts to these species from past activities and reasonably foreseeable activities would also be negligible.

7.3.7 Wildlife

Under this alternative, impacts to wildlife would be similar to but less than impacts evaluate under the preferred alternative.

Migratory Birds

Construction activities may temporarily displace migratory bird species but nesting and breeding habitat would remain unchanged. Potential impacts to songbird population would be minimal due to their ability to re-nest and raise multiple broods within a single breeding season.

Raptors and eagles raise a single brood each year and are vulnerable to breeding season disturbance. To avoid potential breeding season impacts and comply with the Bald and Golden Eagle Protection Act, the proposed project construction would commence after August 1st.

Wildlife

Implementation of the proposed action would result in a short term disturbance to wildlife in the area, and no net loss of habitat. Greater sage grouse nesting habitat exists south of the proposed project area however nesting grouse would not be affected as the proposed project would be implemented outside of the nesting season. Although summer brood rearing habitat is present, sage grouse occupying the proposed project area may be temporarily displaced but would likely take refuge within nearby sagebrush cover. As the proposed project would not enter the riparian zone, neither Colombia spotted frog populations nor their habitat would be impacted by the proposed project.

Foreseeable future activities include designating additional campsites, installing pit toilets and to extend an existing pipeline in order to lessen the impacts of livestock on the riparian areas within the proposed project area. Improvement construction would temporarily displace migratory birds and wildlife but would not negatively impact wildlife populations. As water sources and riparian habitats are limited within the sagebrush-steppe environment, maintenance and improvements at this site would protect the integrity of this riparian system, ensuring habitat for migratory birds and wildlife. Visitor usage may increase as a result of these improvements, however due to the remoteness of the site, impacts to migratory birds and wildlife inhabiting the area would be minimal. Therefore, no significant cumulative impacts to migratory birds, wildlife or their habitat have been identified.

7.3.8 Livestock Grazing

The alternative to reconstruct the standpipe to supply water for recreation use and installation of a buried water treatment system would continue the current situation for authorization of livestock grazing in both Nyssa and Dry Creek Allotments. Water for livestock use would continue to be provided from a spring within the recreation site and delivered to a trough within an enclosure adjacent to the south boundary of the recreation site. Livestock water would first pass through the treatment system and the standpipe before being collected into the supply pipeline for delivery to the trough. Delivery of treated water would not interfere with livestock production. The exclusion of livestock from the recreation site would continue, resulting in no change to forage production or availability. Livestock management practices would be unchanged directly or cumulatively, when combined with past activities and reasonably foreseeable activities.

7.4 Best Management Practices (BMP's)

Best management practices (BMP's, Appendix O, SEORMP/ROD) are those land and resource management techniques designed to maximize beneficial results and minimize negative impacts of management actions.

7.4.1 Developed Recreation

- 1) Construct recreation sites and provide appropriate sanitation facilities to minimize impacts to resource values, public health and safety, and minimize user conflicts of approved activities and access within an area as appropriate.
- 2) Minimize impacts to resource values or to enhance a recreational setting. Harden site and locations subject to prolonged/repetitive concentrated recreational uses with selective placement of gravel or other porous materials and allow for dust abatement, paving and engineered road construction
- 3) Use public education and/or physical barriers (such as rocks, posts, vegetation) to direct or preclude uses and to minimize impacts to resource values.
- 4) As appropriate, employ limitations of specific activities to avoid or correct adverse impacts to resource values.
- 5) Employ land use ethics programs and techniques such as "Leave No Trace" and "Tread Lightly." Use outreach efforts of such programs to lessen needs to implement more stringent regulatory measures to obtain resource protection.

7.5 Cumulative Effects

The Council on Environmental Quality (CEQ) defines cumulative effects as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7). A June 2005 CEQ memorandum states:

The environmental analysis required under NEPA is forward-looking, in that it focuses on the potential impacts of the proposed action that an agency is considering. Thus, review of past actions is required to the extent that this review informs agency decision making regarding the proposed action. This can occur in two ways:

First, the effects of past actions may warrant consideration in the analysis of the cumulative effects of a proposal for agency action. CEQ interprets NEPA and CEQ's NEPA regulations on cumulative effects as requiring analysis and a concise description of the identifiable present effects of past actions to the extent that they are relevant and useful in analyzing whether the reasonably foreseeable effects of the agency proposal for action and its alternatives may have a continuing, additive and significant relationship to those effects. In determining what information is necessary for a cumulative effects analysis, agencies should

use scoping to focus on the extent to which information is "relevant to reasonably foreseeable significant adverse impacts," is "essential to a reasoned choice among alternatives," and can be obtained without exorbitant cost (40 CFR 1502.22). Based on scoping, agencies have discretion to determine whether, and to what extent, information about the specific nature, design, or present effects of a past action is useful for the agency's analysis of the effects of a proposal for agency action and its reasonable alternatives. Agencies are not required to list or analyze the effects of individual past actions unless such information is necessary to describe the cumulative effect of all past actions combined. Agencies retain substantial discretion as to the extent of such inquiry and the appropriate level of explanation (Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 376-77 [1989]). Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.

Second, experience with and information about past direct and indirect effects of individual past actions may also be useful in illuminating or predicting the direct and indirect effects of a proposed action. However, these effects of past actions may have no cumulative relationship to the effects of the proposed action. Therefore, agencies should clearly distinguish analysis of direct and indirect effects based on information about past actions from a cumulative effects analysis of past actions.

The geographic scope of this analysis considers that this proposed action is a site-specific action where potential impacts to resources are confined to the areas immediately within the Twin Springs Recreation Site. All ground disturbing activities would occur within the recreation site area. Additional traffic by well drilling equipment and associated vehicles on roads accessing the recreation site would increase impacts to access roads little, when added to typical traffic accessing public lands in the vicinity.

There are no known past, present, or reasonably foreseeable future actions in the proposed project area that have been, are being, or will be taken by agencies or persons other than the BLM.

7.5.1 Past Actions

The identifiable present effects of past actions include presence of perennial pepperweed and Scotch thistle (invasive weeds), lack of protection from impacts associated with vehicle access to riparian resources (vehicle trampling), limited spring development maintenance, and the proximity of the Twin Springs Road constraining riparian area expression and function. When added to anticipated consequences of the proposed actions, impacts to riparian resources would be reduced as publics no longer require access to riparian resources to obtain water for various needs. In other words, as stated in the environmental consequences section of this EA, the effects of the proposed action, when added to the effects of past actions, would result in a sum of effects less than those observed currently.

7.5.2 Present Actions

Within the geographic scope of this analysis, no known present actions—by the BLM or other parties were in progress at the time this EA was written. No known actions would be occurring during the period of this proposed action. For this reason, there are no effects from present actions that have a cumulative relationship with the effects of this proposed action.

7.5.3 Reasonably Foreseeable Future Actions

The Southeastern Oregon Resource Management Plan (2002) identified future development at Twin Springs including enlarging the site, developed camp units, site interpretation, and possible relocation of the road which currently goes through the site. This additional recreation site development may be considered once safe drinking water becomes available at the recreation site.

At the time this EA was written, the BLM has considered projects related to the geographic scope of this analysis, namely associated with livestock management activity planning within the Dry Creek Geographic Management Area (GMA). Dry Creek GMA was assessed for compliance with standards of rangeland health and an evaluation/assessment was completed in 2006. The evaluation/assessment will be followed by a NEPA document that will evaluate all of the direct and indirect effects of a number of alternative actions that may be proposed at that time. A complete list of possible future activities within the GMA is not known at this time, although consideration has been proposed to extend the existing livestock pipeline to two additional troughs placed south of Twin Springs. NEPA documentation associated with alternative actions for Dry Creek GMA will again analyze current effects resulting from past, current, and reasonable foreseeable future actions, including those effects from water development at Twin Springs.

The consequences of actions considered in alternatives to provide potable water when added to these reasonable foreseeable actions, are not anticipated to result in significant impacts to the human environment.

8 List of Preparers

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9 List of Agencies, Organizations, and Persons to Whom Copies of the EA are Made Available

Dianne Teeman, Tribal Chairperson, Burns Paiute Tribe
Aaron Hines, Tribal Chairperson, Confederated Tribes of the Umatilla
Dan Joyce, Malheur County Court
Tom McElroy, Malheur County Natural Resource Committee
John Dadoley, Oregon Department of Environmental Quality
Philip Milburn, Oregon Department of Fish and Wildlife
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11 Finding of No Significant Impact (FONSI)

The FONSI is a document that explains the reasons why an action will not have a significant effect on the human environment and why, therefore, an environmental impact statement will not be required (40 CFR 1508.13). This FONSI is a stand-alone document but is attached to EA and incorporates the EA by reference. The FONSI does not constitute the authorizing document: the decision record is the authorizing document.

“Significance” as used in NEPA requires considerations of both context and intensity (40 CFR 1508.27). For context, significance varies with the setting of the proposed action. For a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. For this proposed action and alternatives, the effects are confined to the immediate area within the Twin Springs Recreation Site. For this reason, the analysis of effects is in the context of this site. These effects are described and analyzed in the EA.

Intensity refers to the severity of effect. The BLM would conduct the actions described using the BMPs referenced in the EA and limiting effects to the immediate vicinity of the water development.

The action being proposed is to drill a well, and install a hand pump and underground purification system as needed. BLM’s NEPA Handbook states that if the BLM is required by law to take an action, the NEPA may not be triggered (Rel. 1-1710, 20080130, CHAPTER 2 – ACTIONS EXEMPT FROM THE NEPA AND EMERGENCY ACTIONS, Page 9). The alternative actions are not required by law. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences and take actions that protect, restore, and/or enhance the environment (43 CFR 1500.1(c)). The EA prepared for this action analyzes the environmental consequences of providing safe water to the public at a popular recreation site.

The Twin Springs Recreation Site does not lie within areas identified in a citizen’s proposal as possessing wilderness characteristics, and the BLM has determined that no wilderness characteristics are present within the boundaries of the Twin Springs Recreation Site.

Any land management action involving ground disturbance invariably, and by definition, entails environmental effects. BLM has determined, based upon the analysis of environmental impacts contained in the referenced EA (DOI-BLM-OR-VO40-2009-012-EA), that the potential impacts resulting from the proposed action would not be significant and that, therefore, preparation of an environmental impact statement is not required.

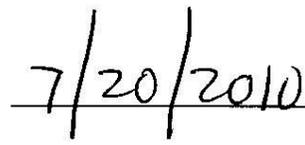
BLM finds that the project’s affected region is localized and the effects of implementation are relevant to compliance with existing land use plans. There would be no adverse societal or regional impacts and no significant adverse impacts to the environment. BLM has evaluated the environmental effects, together with the proposed mitigating measures, against the tests of significance found at 40 CFR 1508.27. BLM has determined that if the decision were made to implement the proposed action and implement identified BMPs:

1. The proposed action would cause no significant impacts, either beneficial or adverse; all impacts would be insignificant; most would be of short duration (1-2 months) and the proposed activity would not have a direct and adverse effect on water quality.
2. The proposed action would have no adverse effect on public health or safety.
3. The proposed action would not affect unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, or ecologically critical areas.
4. The proposed action would have no highly controversial effects.
5. The proposed action would have no uncertain effects and would not involve unique or unknown risks.
6. The proposed action would not establish a precedent for future actions and is only related to further development or other actions considered by BLM at the recreation site in that a supply of potable water is a prerequisite for further development. Cumulative impacts of the proposed action and foreseeable further development are not significant.
7. The proposed action would have no adverse effect to scientific, cultural, or historical resources, including any property listed on or potentially eligible for listing on the National Register of Historic Places.
9. The proposed action would not significantly adversely affect any endangered or threatened species or any habitat critical to an endangered or threatened species as a result of distance from known locations of special status plant species and limitations to the seasonality of construction activity outside critical periods for raptor nesting.
10. The proposed action does not violate any Federal, State, or local law or requirement imposed for the protection of the environment.

The proposed action to provide potable water at Twin Springs Recreation Site by drilling a well, installing an underground treatment system as needed, and installing a hand pump delivery system is consistent with the Northern Resource Area Management Framework Plan (1979) and the Southeastern Oregon Resource Management Plan and Record of Decision (2002).



Pat Ryan
Malheur Field Manager
Vale District BLM



Date

12 Map 1: Twin Springs Recreation Site location map, recreation site plat, and proposed well location.

LOCATION MAP

