Vale District Bureau of Land Management
North Star Mountain Well(s) Construction
Environmental Assessment
EA No. OR-030-03-019

Findings of No Significant Impact

The Malheur Resource Area of the Bureau of Land Management, Vale District, has analyzed a proposal to authorize livestock operators to install two wells to improve livestock distribution during drought years in the North Star Mountain Allotment (00309) and pump water into the Boney Basin Allotment (00307). The analysis includes a no action alternative based on the following summary of consequences and as discussed in this Environmental Assessment. I have determined that implementation of the proposed action will continue to meet resource management objectives defined in the Southern Oregon Resource Management Plan and Record of Decision September 2002.

I. PURPOSE FOR AND NEED FOR ACTION

The purpose for the two wells is to allow livestock grazing to occur during drought conditions in the North Star Mountain Allotment and Boney Basin Allotment. Available water in these allotments is primarily small reservoirs and due to drought conditions the last several years, these reservoirs have not received enough water from winter snow pack and spring rains to fill the reservoirs to capacity. A request was received from the grazing permittees early in the spring. They requested that they be allowed to install two wells which would allow water to be pumped into existing troughs and reservoirs to allow livestock to utilize the range.

Management direction provided in the current land use plan, with South Eastern Oregon Resource Management Plan (SEORMP),-(ROD) is the current land use plan included management of riparian communities to attain proper functioning conditions as well as meeting additional upland rangeland, ACEC, RNA, wildlife, fisheries, aquatic, and water quality objectives.

Possible decisions to be made as a result of information provided in this environmental assessment include the type of actions which would be authorized dependable water for livestock use while protecting riparian and other resources.

Whether to authorize these wells and temporary pipelines. No other federal, state, or local government is involved in the NEPA analysis of the proposed actions, beyond issue identifications, review and comment on content of the draft document.

Internal scoping of issues relevant to the proposed action identifies the need to ensure livestock management actions do not impact important value, for which the ACEC/RNA has been designated, did not impair meeting riparian objectives, watersheds, special status species, and cultural resource management objectives

presented in the land use plan South Eastern Oregon Resource Management Plan. The level of controversy of livestock management actions implemented with North Star Mountain and the Boney Basin Allotments is moderate with one regional environmental organization requesting to be informed of the proposed action.

Additionally, the Oregon Department of Fish and Wildlife is typically informed of proposed livestock management actions as is the Malheur County Court. Memoranda of Understanding between BLM and a number of Tribes (the Burns Paiute Tribe and the Confederated Tribes of the Umatilla Reservation) are in place to define coordination.

The proposed action to provide adequate livestock water in these allotments would be implemented with the cooperative agreements for the maintenance of rangeland project form 4120-6.

II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

This section describes the proposed action and the no action alternative. Alternatives such as limiting grazing use in the Upper Pasture, Slaughter Gulch, and Monument Pasture to spring use only when somewhat more dependable flows of water are present were considered but not analyzed as described in section 2.3.

2.1 Proposed Action

The proposed action is to allow the grazing permittees in these allotments to drill these wells. The cost will be incurred by the grazing permittees. Once the projects are completed, a cooperative agreement will be issued and signed. Utilization levels will not be exceeded. Temporary black pipe will be placed on top of the ground to allow water to be pumped into existing troughs and existing reservoir . No new reservoirs will be constructed or new troughs placed in the areas where no troughs or reservoirs currently exist. In most cases, the black pipe will be removed from the site at the end of the grazing season. The proposed layout of well and pipeline system is identified in attached maps.

2.2 No Action Alternative

No wells will be drilled. Livestock water would be limited to a few small reservoirs. Grazing impacts might increase and livestock will be removed before the end of the grazing season.

Increased monitoring of these pastures will be necessary to not allow the utilization levels to be exceeded.

2.3 Alternative Considered, though not Analyzed

Limit grazing use to Upper Pasture, Monument, and Slaughter Gulch Pastures to spring only when somewhat more dependable flows of water are present

was considered but not analyzed. A grazing rotation was implemented in both allotments. Disruption if these schedules to improve water availability would complicate analysis including many more uncertain impacts. Thus available alternatives were limited to authorizing the request with appropriate mitigation actions or not authorizing the request.

III. AFFECTED ENVIRONEMNT

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

3.1 Vegetation, Soils and Watershed

Vegetation in Allotments consists of shrub steppe plant communities dominated by sagebrush species and bunchgrasses. The vegetation type which covers the majority of the allotments is dominated by Wyoming Big sagebrush (Artemisia tridentata ssp wyomingensis) or stiff sagebrush (Artemisia rigida), bitterbrush (purshia tridentala), rabbitbrush (Chrysothamus ssp) with an understory of perennial grass species, primarily bluebunch wheatgrass (Pseudorogneria spicata), Idaho fescue (Festuca idahoensis) Sandberg bluegrass (Poa secunda), Thurber's needlegrass (Stipa thurberiana), basin wildrye (Leymus cinereus) and cheatgrass (Bromus tectorum).

SOILS

The soils at both proposed well sites were surveyed and described in Oregon`s Long Range Requirements for Water 1969, Appendix I-10, Malheur Drainage Basin. These soils occur on slopes of 3 to 12 percent, although both well sites are fairly low slopes.

Both well sites on Unit 76 soils which are shallow, clayey, very stony, well drained soils over basalt, rhyolite, or welded tuff. These soils occur on gently undulating to rolling lava plateaus and some very steep faulted and dissected terrain. Native vegetation consist mostly of big sagebrush, low sagebrush, bluebunch wheatgrass, and Sandberg bluegrass. Stones limit the potential of this soil for rangeland seeding.

3.2 Noxious Weeds

Whitetop or hoary cross (Cardaria ssp), a perennial noxious weed, is present, especially adjacent to roads and other routes of seed distribution. Noxious weed distribution in the allotment is more significant at lower elevations adjacent to cultivates lands and areas of greater historical livestock impacts. Noxious weed present is sparse in areas dominated by healthy perennial species.

3.3 Livestock Grazing

North Star Mountain and Boney Basin Allotments both have Allotment Management Plans (AMP) which define terms & conditions of livestock management practices implemented to protect public land resources.

North Star Mountain Allotment consist of 91,702 BLM acres and seven pastures. Four livestock operators are authorized to graze cattle within this allotment. The period of use is between April 1 and October 31 annually. The authorized action grazing use for this allotment is currently 9,030 AUM's.

Boney Basin Allotment consists of 17,136 BLM acres and of four grazing pastures. One livestock operator is authorized to graze cattle in this allotment. The grazing season of use is April 1 through October 31 annually. The authorized action grazing use for this allotment is 2,662 AUM's.

The grazing sequence for the Monument Pasture in North Star Mountain is as follows:

One year early use (4/1 – 7/1) and two year after seed ripe (7/1 – 10/31).

The Upper Pasture for the Boney Basin Allotment is grazed in the following sequence:

One year 6/1 – 8/1, the two following years from 8/1 – 10/31.

Assessment of Rangeland Standards and Guidelines in accordance with 43 CFR 4180 is planned during FY 200X.

3.4 Wildlife

North Star Mountain and Boney Basin Allotment include year-long and summer only range for mule deer and pronghorn antelope. Elk also make limited seasonal use. Other wildlife species found in the area include neotropical migratory song birds, small mammals and reptiles.

No known wildlife species listed as threatened or endangered under the Endangered Species Act of 1973 are present within or adjacent to these allotments. Bureau sensitive, Assessment Tracking species include western toad, ferruginous hawk, loggerhead shrike, western burrowing owl, western sage grouse, pygmy rabbits, desert horned lizards, Mohave black-collared lizard, and northern sagebrush lizard. Little information is currently available on number and distribution of these species.

Habitats within these allotments supporting sage grouse include supporting leks, nesting and brood rearing. Sage grouse are seasonally present in the

Monument Pasture with two leks, approximately 3 miles from the proposed well location nesting and brood rearing.

3.5 Recreation and Visual Resources

Dispersed outdoor recreation in these allotments consist primarily of occasional off highway vehicle use within designated open area and the hunting of upland birds and big game animals. Some dispersed general sight seeing occurs. The public land portion of the allotments is within Visual Resource Management (VRM) Class IV. The objective for this class is as follows:

- Class IV is to provide for management activities that require major modification of the landscape. These management activities may dominate the view and become the focus of viewer attention. However, every effort should be made to minimize the impact of these projects by carefully locating activities, minimizing disturbance, and designing the projects to conform to the characteristic landscape.

3.6 Cultural Resources

Pre-European contact Native American peoples were extremely well adapted to their environment. 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.

Exploration into this area during the Historic period began with the expeditions of John Jacob Aster, after he heard the stories from the Lewis and Clark Expedition of 1804-1806. The first written observations of southeastern Oregon can be found in journals kept by men involved in the expansion of fur trapping territory. Trapping occurred along the major and minor tributaries in the area: Owyhee, Snake, Malheur, North Fork Malheur and South Fork Malheur Rivers. The era of the fur trade provided the basis for American families to travel west. For Native Americans, increased use of the Oregon Trail burdened grazing resources, killed off game, and displaced resident bands.

The Malheur Reservation located north of Juntura covered 1,778,560 acres and extended east almost to Westfall. The Reservation was established at Fort Harney in 1972, to contain "all the roving and straggling bands" in southeastern Oregon after the ending of hostilities in 1868. however, the area was only occupied between 1871 and 1878 when, through a series of circumstances, groups abandoned the locality to participate in the Bannock War of 1878. those who participated in the war and some who did not were interned for several years on the Yakima Reservation. On May 21, 1883, the president issued an order restoring to the public domain the Malheur Reservation except 320 acres on which the old military post of Camp Harney stands. The reservation went on the market and was sold to Euro-American livestock ranchers in 1883.

Cultural resource surveys conducted in adjacent areas have been limited to areas where surface disturbing projects have been proposed. Sites known to be present reflect the diverse prehistoric and historic use of this area.

3.7 Species Status Plants

No plant species are listed or proposed for listing under the Endangered Species Act of 1973 are known to be present in the vicinity of these new wells and pipeline locations.

3.8 Riparian Value

The primary management objective to improve riparian habitat adjacent to springs and streams, as identified in the Southeastern Oregon Resource Management Plan was to decrease livestock concentrations and fecal coliform bacteria. Water developments were expected to result in a more even distribution as livestock with fewer animals around perennial streams and water quality to improve.

3.9 Areas of Critical Environmental Concern

South Bull Canyon Area of Critical Environmental Concern/Research Natural Area (ACEC/RNA), within portions of Upper Pasture of Boney Basin Allotment, has been designated within the SEORMP based on it's representation of the Wyoming big sagebrush – bitterbrush/Idaho fescue (Artemisia tridenata ssp. wyomingensis – Purshia tridenata/Festuca Idahoensis) vegetation cell identified by the Oregon Natural Heritage Program. The south boundary of the South Bull Canyon ACEC/RNA is approximately two miles southwest of a proposed well location.

3.10 Wild Horse and Burro

Wildcat Cold Spring Herd Management Area (HMA) is located approximately 4 miles South of well located in the Monument pasture, located in North Star Mountain Allotment. Thus, actions implemented at this well location will have no impacts on the wild horses.

3.11 Climate/Topography

Both wells are located at high elevation basin which range in elevation from 4553, to 4960 ft. Semi desert shrub steppe vegetation communities result from cold winters and hot, dry summers. The proposed project lies within 10 to 14 inch precipitation zone.

Precipitation occurs primarily as snow fall during the winter with occasional mid-summer thunder storms. Climate and topography would not be affected by the proposed action or the no action alternative.

3.12 Other Mandatory Elements

The following mandatory elements are either not present or would not be affected by the proposed action or alternatives:

- Air Quality
- Water Quality
- Native American Religious Concerns
- Hazardous Wastes
- Wilderness or Wilderness Study Areas
- Prime or Unique Farmlands
- Wetlands/Flood Plains
- Environmental Justice
- Actions to Expedite Energy Related Projects (Executive Order No. 13212 of May 18, 2001)

1V *ENVIROMENTAL CONSEQUENCES*

This chapter is organized by alternatives to illustrate the differences between the proposed action and the no action alternatives.

4.1 Proposed Action Alternative

Consequences as implementing the proposed alternative, authorization to install wells and temporary pipeline, would result as summaries in the following sections.

4.1.1 Vegetation, soils, and watershed

Proposed installation of two new wells and temporary pipe distributed to existing water developments will result in direct impacts to vegetation communities were new wells are proposed. However, little impacts are anticipated where temporary pipe will be laid above ground to existing water facilities. It is anticipated that with dependable water available at existing watering sites, in these allotments less impact will occur where water is currently available in these allotments.

4.1.2 Noxious Weeds

Ground disturbance and dispersal of noxious weeds and undesirable species is anticipated to be little change with the installment of the two new wells.

Traffic and ground disturbance during construction and maintenance of the watering facilities would slightly increase risk for dispersal of weed seed and other undesirable plant materials along roads and routes of access as well as the area of project construction, providing sites for new weed establishment. The anticipated increase in noxious weed presence or dominance due to water system construction or maintenance is small with limited cumulative consequences when added to existing threats.

4.1.3 Livestock Grazing

Established levels of livestock grazing use within these allotments would be unchanged with implementation of the proposed actions. Season of livestock use and implementation of the grazing schedules defined in the allotment management plans would be unchanged. Livestock operations would be responsible for maintenance of these new range improvement projects. Additional dependable water would increase opportunities for flexibility of livestock management actions.

4.1.4 Wildlife

Negative impacts to wildlife would be minimal as a result of constructing the proposed changes to livestock watering facilities. Additional water will be pumped to troughs once cattle are removed and become available for wildlife.

4.1.5 Special Status Species

Sage grouse have complex life histories and often require home range to exist. Other than the location of leks and ODF&W observations of wintering use adjacent to well and location in the Monument Pasture, there is no information in BLM files concerning sage grouse habitat

use in this allotment. Proposed changes to water facilities at Monument Pasture are not anticipated to affect habitat quality negatively or positively.

4.1.6 Recreation and Visual Resources

Recreation values would be little changed by the proposed change in installation of two new wells and would be consistent with the management objectives for VRM Class IV. Visual impacts from disturbance of vegetation and soil resources would be minimally changed from existing conditions on public land as a result of installation of the two wells.

4.1.7 Cultural Resources

A Class III cultural resource survey of the area of the proposed development has been conducted prior to project initiation. No prehistoric or historic sites were located during the surveys of this project.

4.1.8 Special Status Plants

Special status plant species would not be affected by the proposed actions. Although the site of proposed well construction does not include habitat of known special status species. Surveys would be conducted to locate any unknown special status plant sites prior to construction. The facilities would be located to mitigate potential negative impacts.

4.1.9 Riparian Values

Proposed actions would not change the season or intensity of livestock grazing within these allotments, therefore, the proposed action is not anticipated to impact riparian vegetation in these allotments.

4.2 No Action Alternative

Consequences of implementing the no action alternative grazing would be limited to a few reservoirs and livestock may be removed before the end of the grazing season.

4.2.1 Vegetation, Soils and Watershed

The no action alternative would not affect vegetation resources in ways other than currently occurring. Plans identified in SEORMP would continue to be met, although located areas of livestock

concentration, primarily adjacent to dependable water sources would hold vegetation communities in less than desired conditions.

The no action alternative would affect soils or watershed values in ways similar to those currently occurring.

4.2.2 Noxious Weeds

The no action alternative would not change noxious weed distribution or dominance in ways other than are currently occurring. Localized soil disturbance and existing vectors of distribution of noxious weed plant material, including those associated with livestock grazing, would continue. The need for continued surveys and localized treatment would continue.

4.2.3 Livestock Grazing

Livestock management in these allotments would continue as defined in the allotment management plans, pending completion of assessment of standards and guidelines and evaluation scheduled within the next few years. No change in levels or seasons of livestock use would occur in the short-term. During drought years, the need for early removal of livestock may occur due to high utilization levels adjustments to available water sources

4.2.4 Wildlife

Wildlife habitat values would remain unchanged with no additional direct impacts to wildlife species.

4.2.5 Recreation and Visual Resources

The no action alternative would not change current recreation opportunities or visual resources.

4.2.6 Cultural Resources

The no action alternative would not affect cultural resources in ways other than are currently occurring.

4.2.7 Special Status Plants

No known or suspected impacts to special status plant species have occurred in these allotments since implementation of the allotment management plans.

4.2.8 Riparian Values

Mid-summer grazing of pastures containing potential riparian resources would continue to have localized impacts to those public land values in areas of livestock concentration. Potential impacts to riparian values from hot season livestock use are summarized in Appendix R of the SEORMP.

V *ADVERSE EFECTS*

Unavoidable adverse effects from implementation of the proposed or no action alternative are limited to those impacts to soils, vegetation and riparian function described in the text above.

VI *SHORT TERM AND LONG TERM IMPACTS*

Short-term impacts to vegetation resources during construction of proposed water facilities would be offset by long-term benefits resulting from potential reduction in livestock concentration adjacent to small reservoirs and riparian areas.

VII *IRREVERISBLE OR IRRETRIEVALE COMMITEMNT OF RESOURCES*

In the event that implementation of the proposed actions to implement installation of two well and temporary pipelines are found to not meet current land use plans objectives, objectives identified in the SEORMP or rangeland standards and guidelines, existing grazing schedules could be revised or modifications to the design of the well locations could be implemented with no irreversible or irretrievable loss of resources. Similarly, should the proposed wells and pipelines not function as expected to supply additional livestock water or should have unforeseen negative impacts, it could be removed or redesigned with no irreversible or irretrievable commitment of resources.

VIII *MITIGATING MEASURES*

Based on BLM staff input the following mitigating actions would be implemented to minimize under undesired negative impacts of implementing the proposed action:

- All equipment used to install wells and to lay temporary proposed pipelines would be power-washed prior to movement to the project site to avoid introduction of undesired and noxious weed species.

- If grazing utilization exceeds the 50% level in the South Bull Canyon ACEC/RNA water will not be allowed to be pumped into Bull Canyon Reservoir, and livestock will be removed from pasture.

- If temporary pipe and wells work well a C.E. will be completed and necessary clearance done to install pipe under ground in the future.

- A cooperative agreement will be signed by the grazing permittees and BLM as a completed range improvement project and added to project list for maintenance responsibility of the permittees.

- All work constructed by contractors will follow BLM guidelines indentified in the internet web page as follows;

- http:llwww.wrd.state.or.us/puplicational wellcon 99/index.shtml

- Additional water will be pumped to troughs once cattle are removed and become available for wildlife.

IX. *LIST OF PREPARES*

Ron Rembowski	Rangeland Management Specialist
Steve Christensen	Rangeland Management Specialist
Tom Hilken	Planning and Environmental Coordinator
Jim Johnson	Wild Horse Specialist
Bob Alward	Outdoor Recreation Planner, Wilderness
Jean Findley	Botanist
Diane Pritchard	Archaeologist
Shaney Rockefeller	Hydrologist/Soil Scientist
Al Bammann	Wildlife Biologist
Cynthia Tait	Fisheries Biologist
Lynne Silva	Range Technician, Weeds
Jon Freeman	Realty Specialist
Tom Dabbs	Field Manager, Malheur Resource Area

List of Agencies, Organizations, and Persons to whom Copies of the EA are Sent:

Livestock operators; in North Star Mtn. Allotment.
Northwest Environmental Defense Center, Interested Public
Walt Van Dyke, Oregon Department of Fish and Wildlife
Albert Teeman, Tribal Chairperson, Burns Paiute Tribe
Edward Potaws, Chairman, Confederated Tribes of the Umatilla Reservation

X *LITERATURE CITED*

USDI-BLM. 2000. Southeastern Oregon Resource Management Plan and Record of Decision (Sept 2002). U.S. Bureau of Land Management, Vale District, Oregon. 1 v.