

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

**Decision Record  
for the  
Malheur Queen Placer Project**

**Environmental Assessment OR-030-08-006**

**Malheur Resource Area  
100 Oregon Street  
Vale, Oregon 97918  
October, 2009**



## DECISION RECORD

As Field Manager of the Malheur Resource Area, my preferred choice is to provide the opportunity for Eldorado Resources, L.L.C. (Eldorado) to explore for and produce gold resources on the public mineral estate by authorizing the Plan of Operations (POO) as proposed by Eldorado and analyzed as the Proposed Action of EA OR-030-08-006 (EA). The EA was submitted for public comment for a period of 30 days. Comments were received in a timely manner from one interested group and are summarized as follows:

- ✓ There would be too little water supply for the needs of the Plan of Operations;
- ✓ There would be more water than the mining operations would be able to manage;
- ✓ Are permits and rights required for the diversion, storage, and use of ground water and surface water;
- ✓ Are there springs that support fish and wildlife within or downstream from the mine site that will be impacted from the diversion and use of the ground water;
- ✓ Avoid the spread of noxious weeds and non-native species;
- ✓ Require a comprehensive reclamation plan;
- ✓ A 3-year post-reclamation monitoring plan is inadequate, a 15-year monitoring plan should be required;
- ✓ The pond liners should not be buried in place, but removed and recycled.

After considering public comments and all other information before me, the federal actions I have chosen to authorize are as follows:

- The mining, processing and removal of gold ore from the Malheur Queen Placer Project as proposed (mitigated) in the Plan of Operations. No chemicals will be used for the gold extraction process.
- The duration of the project is planned to be twelve years. This duration will allow seven to nine years of mining operations with concurrent reclamation and three years after the conclusion of mining to monitor reclamation success.
- The Malheur Queen Placer Project will be completed incorporating the protection and mitigation measures described in the Plan of Operations and within the EA. These measures detailed in Sections 2 and 3 of the Plan of Operations and the mitigation measures detailed in Section C-5 of the EA will remain in effect for the duration of the mining operation and reclamation operation.
- Use and occupancy of the public land, as proposed in the Plan of Operations, will be reasonably incident to the planned mining operation.

The stipulations and mitigation measures below would be in effect for the duration of the proposed action to minimize negative impacts to public land resource values:

- A) The Operator and Claimant shall comply with all Federal, State, and County laws, regulations, and ordinances during the life of the project.

B) The Operator shall obtain all required Federal, State, and County approvals and operating permits prior to beginning operations. The required permits shall be maintained current for the life of the Project.

C) A financial guarantee, as defined in 43 C.F.R. §3809.500 and §3809.552, must be submitted and adjudicated by the BLM before starting operations. As defined in the Plan of Operations, the financial guarantee shall be in the amount of US \$362,000. The financial guarantee will include the cost for reclamation and re-vegetation of 58 acres of placer mining disturbance, bench mine disturbance, lined water ponds, the facilities area including all project fencing, water well abandonment, and miscellaneous clean-up, and post-closure monitoring. Although a financial guarantee is required by regulation prior to commencing operations, this stipulation insures that sufficient funds are available for site reclamation should the property be abandoned.

D) The operator(s) shall bring to the attention of the BLM authorized officer any historic artifacts, cultural, and/or paleontological resources that might be altered or destroyed on Federal lands by their operations. The authorized officer shall evaluate the discoveries brought to their attention, take action to protect or remove the resource, and allow operations to proceed after notification to the authorized officer of such discovery. The authorized cultural officer can be contacted at 541-473-3144. The Vale BLM Archaeologist has agreed that should the mining operation encounter a historic trash dump of 15 or more artifacts then the BLM shall be contacted. Individual items found during mining or retrieved from the placer equipment screens will be set aside for later evaluation. Should mining operations encounter human remains, the mining operation will immediately cease in the particular area and BLM will be notified immediately.

E) Occupancy by a caretaker on public land is authorized for the duration of the mining operation. Seasonal and temporary interruptions of the mining operations would warrant occupancy by a caretaker to maintain site security. The facilities proposed in the proposed action are authorized for the duration of the project but will be removed and reclaimed upon project completion or when the project no longer meets the standards of 43 CFR §3715. This occupancy will be reasonably incident to the proposed project and in concurrence with the regulations in 43 CFR §3715 Use and Occupancy under the Mining Laws. Reasonably incident means the statutory standard “prospecting, mining, or processing operations and uses reasonably incident thereto” (30 U.S.C. 612). It is a shortened version of the statutory standard. It includes those actions or expenditures of labor and resources by a person of ordinary prudence to prospect, explore, define, develop, mine, or beneficiate a valuable mineral deposit, using methods, structures, and equipment appropriate to the geological terrain, mineral deposit, and stage of development and reasonably related activities.

F) Only the equipment needed for on-site mining operations, as identified in the Plan of Operations, is authorized to be on-site for longer than 14 days. Any equipment changes must be authorized in writing by BLM. All equipment not included in the POO must be removed during seasonal shut-downs unless the posted bond includes removal costs. As per § 3809.431, “You must modify your plan of operations when any of the following apply: (a) Before making any changes to the operations described in your approved plan of operations...” The intent of this stipulation to insure that equipment changes that could fundamentally expand or alter the scope or volumes of the operation are approved by the BLM. Also, this stipulation is to insure that

equipment mobilized on to Public lands are included in the POO and removal costs are included in the approved financial guarantee as per 43 C.F.R. § 3809.552.

G) All equipment shall be inspected to make sure there are no oil leaks or fire hazards and to assure that all equipment is in good condition. It is recommended that all stationary pumps, motors and/or engines be placed inside a dry berm or other protective device to prevent the spreading of oil or fuel and to diminish fire hazards. Hand tools suitable for fighting fire shall be required at the work site, and the Operator must be prepared to suppress any wildfires resulting from operations. The Operator is responsible for remaining informed and in compliance with fire safety requirements such as any Emergency Fire Prevention Orders and the Industrial Fire Precaution Level (IFPL). To obtain the information during fire season, telephone (541) 473-6295.

H) All motorized equipment and vehicles shall be equipped with operational mufflers and spark arresters that meet noise abatement and fire codes. Provisions for fire prevention and control must be made to prevent ignition of dry vegetation from exhaust systems while traveling in this area.

I) During all operations, including periods of non-operation, the Operator shall maintain equipment and other facilities in a safe and orderly manner. No noxious weed seed shall be carried on-site by the machines. Earth-disturbing/construction equipment will be washed prior to traveling off paved roads onto Public lands in Oregon using a regular-sized hose fitted with a nozzle to focus the water stream and provide enough water pressure to remove mud, weeds, plants and foreign matter from the equipment. The earth-disturbing equipment will likely be mobilized to the mine site only once; therefore, the equipment would only need to be washed once prior to mobilization to the mine site. Light vehicles that have mobilized from another area, another part of Oregon, or a different State would be required to be washed in a similar fashion to reduce the chance of bringing exotic weeds to the mine area. The light vehicles traveling daily to and from the mine site would require no special cleaning treatment beyond what is anticipated from a routine maintenance program. No special equipment is stipulated nor anticipated for this stipulation. The proponent shall ensure that all construction equipment and vehicles are cleaned of all vegetation (stems, leaves, seeds and all other vegetative parts) prior to final mobilization from public lands.

J) All fueling, fuel storage, and routine equipment maintenance shall take place away from drainages, riparian areas, and wet areas. The BLM understands that fueling of the operating placer equipment must take place in-situ and that mining operations may dictate that excavators and other large, mining support equipment may require fueling without mobilizing from the work site. The intent of this standard stipulation is to eliminate or minimize petroleum spills to surface and ground water. It is reasonable to expect that ancillary equipment such as excavators, dozers, and light vehicles can be mobilized from the immediate stream area for fueling or fueled at the beginning or end of the operating shift when access for the fuel truck is not feasible. Common practice in some mining operations is to have a centralized fueling area and equipment that is fitted with "Wiggins"-type or secured and sealed refueling connections to minimize spills. The spill plan shall be in effect during the operation of equipment.

K) At the end of each work season (generally, prior to November 30), all mining disturbance shall be stabilized to prevent erosion. All equipment shall be securely stored in a designated

storage area or shall be removed from the site. Exceptions to this practice must be authorized by the BLM.

L) Topsoil and/or growth medium shall be saved for final application after reshaping of the disturbed areas has been completed. For final reclamation, accumulated silt shall be removed from the settling ponds and used onsite as a growth medium where topsoil is not available. The settling pond liners will be perforated to allow precipitation to percolate to the ground.

M) Any damage to the existing roads or widening and improvement of the access roads caused by the operators shall be reclaimed at the conclusion of operations. If erosion becomes a potential hazard, the BLM may require the construction of water bars on the roads. For final reclamation, areas of significant cross-country travel must be scarified to reduce soil compaction and seeded with the BLM approved mixture.

N) At the time of final reclamation, all excavations, pits, and decantation ponds shall be back filled, re-contoured to the surrounding topography, and covered with topsoil and re-vegetated. Concurrent reclamation of the mining areas will be re-vegetated using the approved native seed mixture.

O) The operator/mining claimant shall seed all disturbed areas with the species listed below, using an agreed upon method suitable for the location. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS) per acre. Seed shall be tested and the viability testing of seed shall be done in accordance with Oregon State law and within 9 months prior to purchase. Commercial seed shall be certified Oregon weed-seed free. The seed container shall be tagged in accordance with State law and available for inspection by the authorized officer. The seed tag(s) shall be delivered to the local BLM office within 30 days of the completion of seeding.

Malheur Queen Placer Project / Malheur City Area Seed Mixture

Species	Common Name	Pure Live Seed (lbs / acre)
<i>Pseudoroegneria spicata ssp. Spicata</i>	Bluebunch wheatgrass	4.0
<i>Leymus cinereus</i>	Great Basin wildrye	2.5
<i>Pascopyron smithii</i>	Western wheatgrass	4.0
<i>Linum lewisii</i>	Lewis blue flax	1.0
<i>Artemisia tridentata ssp. wyomingensis</i>	Wyoming big sagebrush	0.5
<i>Purhsia tridentata</i>	Antelope bitterbrush	1.0
	<b>Total</b>	<b>13.0</b>

Pure Live Seed (PLS) formula: % of purity of seed mixture X % of germination of seed mixture = portion of seed mixture that is PLS.

Reseeding must take place between September 15 and December 15 to take advantage of winter moisture.

If mulch is used to minimize erosion on seeded areas, it shall be certified weed-free straw or hay.



P) Prior to approval of final reclamation, BLM shall evaluate the site for evidence of well-established vigorous plants of the deep-rooted native species capable of providing competition to noxious weeds and providing organic material over the long-term. The authorized officer shall use evidence of these late seral species on-site after two growing seasons to determine that seedling establishment is adequate to achieve longer-term reclamation objectives through normal management. No seeding of any other, non-native species is authorized. Please contact BLM if any of the species required are unavailable or excessively expensive due to variable availability. After two years of growth, if re-vegetation is unsuccessful, BLM may assist the operator(s) to assure successful vegetative growth.

Q) The operator(s) is responsible for weed control on disturbed land within the limits of the notice-level operations area. However, the Department of Interior and BLM regulations do not allow for the application of general or restricted pesticides (includes herbicides) by anyone other than federally certified or state licensed applicators on public lands. Therefore, prior to the application of any herbicides, the operator shall obtain written approval of a brief plan provided by the operator. Minimum information needed in the plan includes the name(s) of the noxious weeds to be treated, estimated size of the area to treat, the name and application rate of herbicide to be used, method of application, proposed timing of treatment, the applicator's name and Oregon applicator's license number and expiration date, location of chemical storage and planned disposal of empty containers. The Malheur/Jordan Resource Area weed specialist can be contacted by telephone at (541) 473-3144.

The operator shall contact the Malheur/Jordan Resource Area Weed Specialist to see if there is an ongoing BLM noxious weed treatment project within the general claim area. If the weed site within the operations area needing to be treated is relatively small in size, it may be possible to coordinate treatment. However, it may be necessary for the operator to contract with one of several commercial spray applicators available to do this treatment if it shall require more than a few minutes worth of spray time. Regular weed control is more cost effective in the long run and shall help insure that reclamation efforts implemented after operations cease have a chance to succeed.

Should the operator possess a current Oregon pesticide applicator's license, he/she shall need to be aware of restrictions on the chemicals approved for use on public lands in Oregon due to court injunction, pesticide use reporting requirements by both the Oregon Department of Agriculture and BLM, as well as other requirements that the Vale District Office can provide at the time of coordination, prior to approval of the proposed treatment.

R) As per 43 CFR § 3832.11 (2) and (3), the operator and/or claimant shall mark or maintain the claim corner markings in accordance with Federal and Oregon State regulations. Claim boundaries must be marked with naturally occurring materials as per Oregon Revised Statute 517.010.

S) All garbage and refuse shall be removed from the site to an approved sanitary landfill.

T) All existing developments, including fences, cattle guards, roads, public land survey monuments, etc., shall be maintained in serviceable condition at all times. Damaged or destroyed developments shall be replaced, restored or appropriately compensated for as determined by the Authorized Officer.

U) Boundaries of the project area shall be posted to notify public land users to operate motorized vehicles only on existing routes. Within the project area, safety signs shall be appropriately placed to warn public land users of dangers and/or restrictions of access.

V) Motorized vehicle access shall be provided for the public via the Willow Creek and Shasta Gulch Roads which traverse the project area. Should mining operations require an alternate motorized vehicle access route or road realignment to meet the public need, that route shall be constructed only after review and approval by Malheur County Road Department and BLM. Any new such road alignment and construction must have prior BLM approval, and must be constructed so as to meet BLM's best management practices for road construction and maintenance. Upon completion of mining activities, motorized vehicle use routes determined by the BLM as not needed for access purposes and/or to minimize environmental impacts shall be reclaimed so as to blend with the surrounding landscape setting.

The following mitigation measures shall be implemented to minimize negative impacts to public land resource values:

1) Mining operations would leave intact the riparian area within Quartz Gulch in T. 13 S., R. 41 E., Sections 29 and 32, W $\frac{1}{2}$ . This riparian area is potential habitat for the Columbia spotted frog. Periodic evaluation of hydrologic environment and riparian species would be accomplished to document any effects by mining operations. The riparian area is spring fed from both Public and private land and downstream flow migrates to private land (See Figure 1). Discussions, to date, by BLM and the Operator, have led to agreement that the riparian area shall be avoided during the mining operation. The water pond(s), established trees and shrubs shall remain intact within the mining limit boundary shown in Figure 16. To insure reasonably stable water flow is maintained to the riparian area, a planned hydrologic barrier structure or underground (subsurface) dam shall be designed to approximate the current inflow and outflow from the spring area prior to mining<sup>a</sup>. A suggested method to maintain consistent flow of water to the riparian area is to construct a trench(s) perpendicular to the drainage direction in Quartz Gulch (perpendicular to the ground water flow direction). The trench depth would be variable depending on the depth of the ground water intercept and the depth of mining activity. The wall or walls of the trench would be lined with geotextile, geofabric, or plastic liner and then the trench would be backfilled with rock or gravel material (Hanson, et al, 1986). The liner material would then perform as an artificial barrier to ground water flow. Subsurface dam or barrier technology has been effectively used in many areas of the world to inhibit subsurface water flow for specific local needs. Typically the dams are used to impound water below surface to maintain a reservoir for extraction for consumptive use. Similarly, a dam constructed down-gradient of the Quartz Gulch pond would provide a stable water level during the mining operation. Evaluation of the spring, pond and riparian area will be completed on a quarterly basis by both the Operator and BLM. Evaluation will typically be a visual evaluation of plant vigor, supplemented by photographs, and the water level in the pond. It is anticipated the Operator will complete more regular visual monitoring of the area as operations personnel are on site daily.

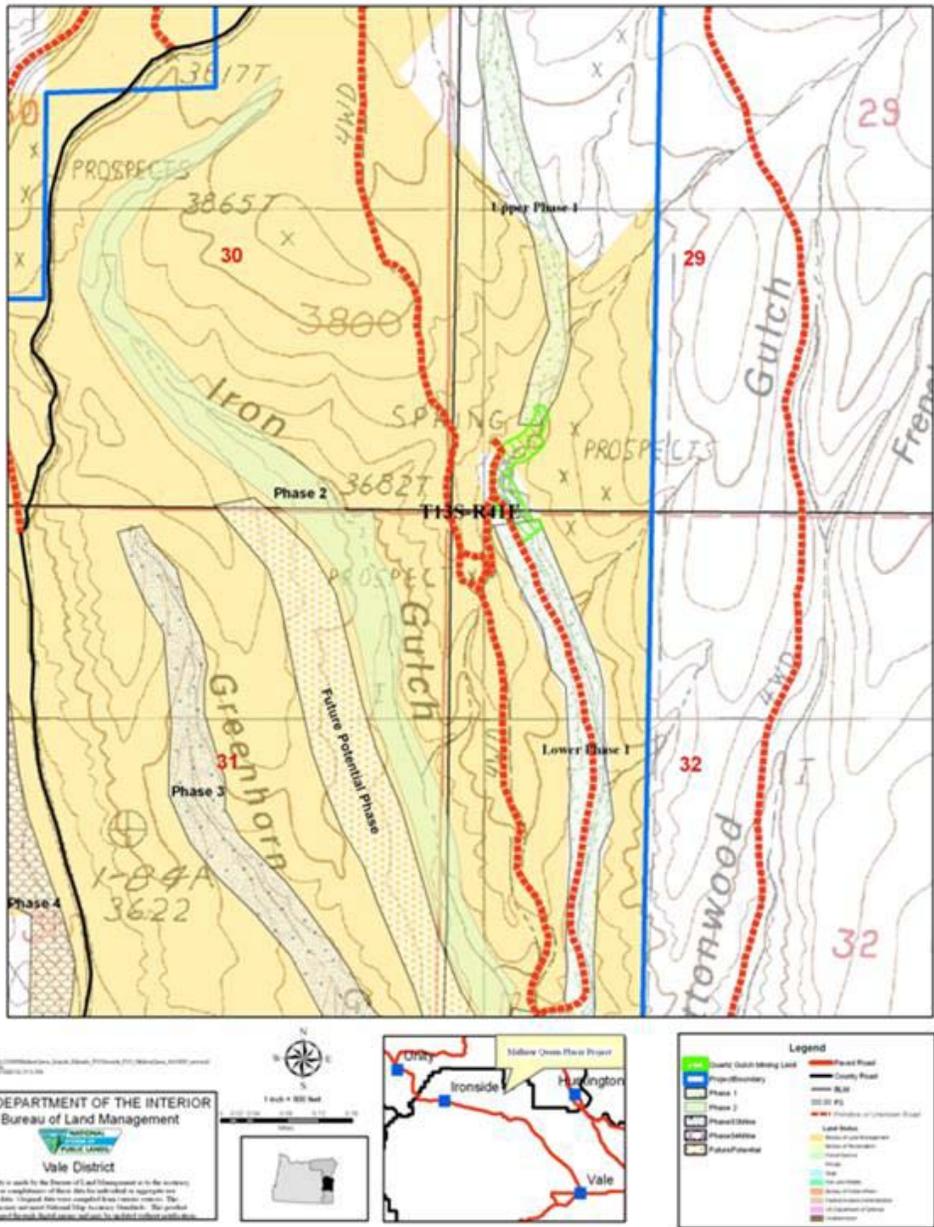
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<sup>a</sup> Established technology as in the example of Galaup, U.S. Patent 3,245,222, Construction of Underground Dams, 1966, or Paverman, U.S. Patent 3,973,408, 1976, Construction of Underground Dams and Equipment Therefor.

- 2) The pond and riparian habitat shall be monitored for increased livestock watering use and intensity. Should an increase in livestock activity occur, then an alternative water source within the immediate area of the existing pond shall be required for livestock water purposes. Bureau Manual Section 6840 states that “the BLM shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed.”
- 3) The Proponent will determine the validity of the existing water rights in the Project area and coordinate that effort with the Oregon Water Resources Department. The existing water rights in Project area shall be mitigated prior to any impairment of those rights by mining activity. Should the resolution to the water rights impairment require the need for additional disturbance of Public land not specifically included in the Plan of Operations, then the disturbance must be approved by BLM prior to commencing construction.
- 4) The land on which the water well was constructed within T. 13 S., R. 41 E., Section 31, SE¼ is owned by the United States of America and managed by BLM. This water well was constructed without specific written authorization from the BLM in 1980. Eldorado’s application for a water right, permit G-13389, was submitted to the Oregon Water Resources Department (OWRD) on January 27, 1997, without specific written authorization from the BLM and was not approved or sanctioned by BLM. As per Oregon Revised Statutes 537.705, all ground water used in this state for any purpose shall remain appurtenant to the premises upon which it is used and no change in use or place of use of any ground water for any purpose may be made without compliance with a procedure as nearly as possible like that set forth in ORS 540.520 and 540.530. The water right associated with this well (point of diversion) will be transferred to BLM at, or prior to, the time of completion of the mining operation, or upon abandonment or termination of the project. The water right for the well (point of diversion) must not be transferred to another location without written authorization from BLM. Additionally, upon project completion BLM will determine if there is a continuing need for the well or whether well abandonment procedures, according to State regulations, should take place.
- 5) Sediment-laden or otherwise degraded surface or ground water exceeding Oregon State water quality standards shall not be allowed to discharge to Willow Creek. The decantation or clarification settling ponds will be used to clarify all mining water prior to return to the alluvial aquifer.
- 6) The extent of shiny, light-reflective structural materials shall be kept to a minimum. All structural facilities shall be painted in accordance with BLM specifications. Structural facilities and cleared areas shall be designed, constructed and placed so as to preclude and/or minimize their visual presence as viewed from the Willow Creek and Shasta Gulch Roads as much as possible.
- 7) Safety/security lighting would be focused and limited to minimize night glare to the surrounding area.
- 8) The Operator shall coordinate with Malheur County Road Department to insure that public road access to the site is maintained in a condition similar to that which existed prior to commencement of operations.

9) Dust abatement/suppression measures shall be taken during periods of extreme dust generation and as otherwise determined by the authorized officer<sup>b</sup>. Surfactants used for dust abatement must be of such a nature as not to prevent or interfere with vegetation re-growth and must not adversely affect water quality. Their use must be approved by the authorized officer.

**Figure 1: Malheur Queen Placer Project, Mining Limit within Quartz Gulch**



<sup>b</sup> Operator must determine any requirement for Air Contaminant Discharge Permits from the Oregon Department of Environmental Quality.

The actions within the Plan of Operations will meet the EA purpose and need allowing Eldorado to further define gold mineralization and complete placer mining operations to extract gold resources from public land. My rationale found in policy and statute is as follows:

The requirements of 43 C.F.R. §3809, Surface Management Regulations, the Mining Law of 1872 (30 U.S.C. §§ 22-24, 26-28, 29-30, 33-35, 37, 39-42 and 47, May 10, 1872, as amended 1875, 1880, 1921, 1925, 1958, 1960, and 1993.), the Federal Land Policy and Management Act of 1976 (Section 302), and the Mining and Minerals Policy Act of 1970 mandate that BLM will review and respond to a PoO within 30 days of receipt (43 CFR 3809.411). As per §3809.411, BLM will review the received PoO, determine if it is complete, respond to the proponent, and complete the environmental review required under National Environmental Policy Act (NEPA). The Secretary of the Interior is responsible for carrying out this policy in administering programs under the Secretary's authority. 30 U.S.C. § 21a. As per § 3809.1, the primary purpose of the subpart is to prevent unnecessary or undue degradation of public lands by operations authorized by the mining laws. Anyone intending to develop mineral resources on the public lands must prevent unnecessary or undue degradation of the land and reclaim disturbed areas. This subpart establishes procedures and standards to ensure that operators and mining claimants meet this responsibility. The BLM is also required to comply with the National Environmental Policy Act (NEPA) and the Council of Environmental Quality (CEQ) regulations.

In addition, the relevant SEORMPFEIS (USDI-BLM 2001, pg. 190) management objective will be met because the actions will provide opportunities for exploration and development of locatable mineral resources while protecting other sensitive resources. By adhering strictly to the BMPs listed in Appendix O of the SEORMPFEIS (pgs.337-345), the Malheur Queen Placer Project combined with the operating stipulations would have limited potential for undue and unnecessary degradation of public land.

I reserve the authority and flexibility to review the project as operations proceeds to ensure that all resource values are provided reasonable protection. As of this decision date, I intend to allow Eldorado Resources, L.L.C. to fully complete the proposed action as described and to implement the proposed action with impacts equal to or less than what has been analyzed in the EA.

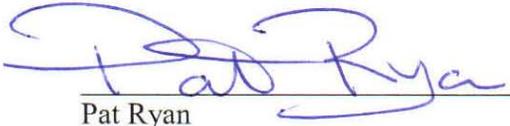
### **Appeal Rights**

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. The appellant has the burden of showing that the decision appealed is in error.

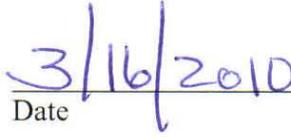
If you wish to file a petition, pursuant to regulation 43 CFR §4.21, for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for stay must accompany your notice of appeal. A petition for stay is required to show sufficient justification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



Date