



State of Utah

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DIVISION OF OIL, GAS AND MINING

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November 19, 2001

TO: Internal Files

THRU: Peter H. Hess, Sr. Reclamation Specialist, Project Team Lead *PHH*

FROM: Joseph C. Helfrich, Sr. Reclamation Specialist, Biologist *JCH*

RE: Reclamation Plan Revision, Plateau Mining Corporation, Willow Creek Mine, C/007/038-01B-1

SUMMARY:

On February 12, 2001, the Division received an amendment to revise the Willow Creek Reclamation Plan (MRP). On August 29, 2001, the Division sent PMC the technical analysis of the Willow Creek Reclamation Plan. On October 12, 2001, the Division received a response to the technical analysis. This Technical Memo is a review of the October 12, 2001, submittal.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Vegetation resource information is provided for in this application as it pertains mainly to reclamation of the Willow Creek Mine site. The vegetation resource information is provided for in volume 5 exhibit 6. The data was collected in 1981, 1994, and 1995. However, the table of contents in volume 1 refers the reader to volume 5, volume 5 refers the reader to volume 9, and volume 9 refers the reviewer back to volume 5. These references need to be corrected. Some information in the application and MRP is referred to as "exhibits". This term is used interchangeably to include volumes, chapters, sections, and maps.

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Findings:

Information in the application is adequate to meet this section of the regulations. However, the applicant should make the necessary corrections. A clear and concise nomenclature that differentiates the different types of "exhibits" should be incorporated into the MRP.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The Fish and Wildlife Resource information is provided for in volume 1, and volume 5, exhibit 6 of the operation and reclamation plan.

Wildlife maps include, what appears to be, a 1994 raptor survey in exhibit 6. There is no legend that depicts the location, the mine, the status, or the type of nest. There is also a Regional Wildlife map that includes a 1999 raptor survey and a Biological Survey map. These maps are located in volume 2. In addition, there is a 2000 raptor survey provided for in the 2000 annual report. All maps pertaining to wildlife in the MRP should be located in the same section of the MRP.

Findings:

Information in the application is adequate to meet the requirements of this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Vegetation reference area maps

Exhibit 9-1 provides for the vegetation types and reference areas for this reclamation project. Exhibit 9-2 is a vegetation map for the Castle Gate mine. There is also an additional area revegetation map that is identified by an illegible Exhibit number. This map should be clarified. Figure 3.2-1 includes a list of vegetative types for the approved Barn Canyon facility.

Volume 2 contains two additional vegetation maps. All maps pertaining to vegetation should be located in the same section of the MRP.

Wildlife Maps

Wildlife maps include what appears to be a 1994 raptor survey in exhibit 6. There is no legend that depicts the location, mine, status, or type of nest. There is also a Regional Wildlife map that includes a 1999 raptor survey and a Biological Survey map. These maps are located in Volume 2. In addition, there is a 2000 raptor survey provided for in the 2000 annual report. Maps pertaining to wildlife in the MRP should be located in the same section of the MRP.

Findings:

Information in the application is adequate to meet this section of the regulations.

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

The Protection and Enhancement plan for the Willow Creek mine includes protection measures to be employed during active mining operations. There are enhancement plans in Volume 1, sections 4.3 and 5.3 that basically describe enhancement measures for the reclamation phase of mining. The mine is currently inactive as a result of previous mine fires and may initiate reclamation in the near future.

Endangered and Threatened Species

Sections 3.2.3, 4.3.4.1 and 5.3.3.3 of the MRP describe the provisions for protection and reporting of any threatened, endangered, or sensitive species. The information according to the MRP "is based on available baseline and other resource information." The plan also states that "In the event that TES occurrences are identified in the future or if new designations result in classification of existing species occurrences, appropriate provisions for protection and minimization of impacts to TES species will be developed and implemented". In consultation with Dianna Whittington From the U. S. Fish and Wildlife Service, she suggested that since the

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TES species lists are updated every six months an up-to-date evaluation using current TES information should be provided.

Bald and Golden Eagles

The Bald Eagle is not known for nesting in the area but may be seen during the winter months. According to the permittee's contacts with UDWR, the permit area provides minimal potential for wintering Bald Eagle roosts. The 2000 raptor survey indicates that the Golden Eagle nests surveyed were inactive. PMC has included in their MRP a Mitigation plan that could be implemented during the reclamation of the Willow Creek mine in the event the reclamation activities continue during nesting periods and birds are known to be using existing or new nests in the area.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

Critical Elk winter range is common to the majority of the Willow Creek Mine area. There are also two perennial streams adjacent to the mine facilities. The current MRP includes a protection plan for the areas associated with the elk winter range and the two perennial streams. The information is located in section 4.3.3 of the MRP. A current list of threatened and endangered species has been provided to the operator for inclusion in the MRP.

Findings:

Information in the application is adequate to meet this section of the regulations.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The vegetation information is provided for in volume 1 section 3.2 and volume 5 exhibit 6. The data was collected in 1981, 1994, and 1995. The various vegetative communities are identified along with appropriate reference areas. They include Grass-Sage, Mixed Brush, Conifer, Pinion-Juniper, Riparian Bottom, and Disturbed. Vegetative mapping is also provided.

Findings:

Information in the application is adequate to meet this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Monitoring and sample location maps

The maps provided for in the MRP identify the various components of vegetation and wildlife. In some instances, they are located in various sections of the MRP as noted in the Environmental Resource section of this review.

Findings:

Information in the application is adequate to meet this section of the regulations.

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Analysis:

The post-mining land use is Wildlife Habitat as referred to in section 5.3 of the MRP. The text in this section indicates that, "*PMC will reclaim the surface disturbance areas to a post mining land use of wildlife habitat*".

Information in the application is adequate to meet this section of the regulations.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

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Analysis:

The Protection and Enhancement plan for the Willow Creek mine includes protection measures to be employed during active mining operations. There are enhancement plans in Volume 1, sections 4.3 and 5.3 that basically describe enhancement measures for the reclamation phase of mining. The mine is currently inactive as a result of previous mine fires and may initiate reclamation in the near future.

Findings:

Information in the application is adequate to meet this section of the regulations.

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

This proposal does not affect any contemporaneous reclamation activities for the Willow Creek Mine.

General

According to section 5.3 of the approved MRP reclamation is scheduled during the first favorable planting season, (Fall), following the cessation of mining activities.

Findings:

Information in the approved MRP is adequate to meet this section of the regulations.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Section 5.3 of the approved MRP addresses both general vegetative reestablishment and specific habitat enhancement measures for the reclamation at the Willow Creek mine. Revegetation practices will include seedbed preparation, seeding, woody species transplanting, mulching, and surface stabilization.

General requirements

The general requirements that apply to revegetation and this proposal are found in section 5.3 of the MRP. There are no proposed changes to this section of the MRP in this proposal.

Timing

Page 5.5-3 indicates, "Soil replacement and reseeding will be scheduled to minimize the period of time during which soil materials will be exposed without a protective vegetative cover." This commitment is satisfactory.

Mulching and other soil stabilizing practices

The applicant has proposed to incorporate weed-free mulch at a rate of 2 tons per acre. The mulch will be incorporated after the placement of growth media and prior to seeding. Additionally, roughening techniques will be employed to a depth of 12 to 18 inches to reduce compaction and enhance water infiltration. After seeding, an additional 1.5 tons of weed-free straw will be broadcast by mechanical or hand blowers.

Standards for success

The proposal suggests one minor change to the vegetation sampling. The sampling will occur during years four and eight instead of three and seven.

Findings:

Information in the application is adequate to meet this section of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

Reclamation monitoring and sampling location maps

The current MRP contains a surface water-monitoring map that can also be used as a reference during reclamation.

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Reclamation treatments maps

The post mining reclamation treatment and watershed map is provided for in map #21F.

Findings:

Information in the application is adequate to meet this section of the regulations.

RECOMMENDATIONS:

The application is recommended for approval.

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