



State of Utah
 DEPARTMENT OF NATURAL RESOURCES
 DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
 Governor

Ted Stewart
 Executive Director

James W. Carter
 Division Director

355 West North Temple
 3 Triad Center, Suite 350
 Salt Lake City, Utah 84180-1203
 801-538-5340
 801-359-3940 (Fax)
 801-538-5319 (TDD)

December 21, 1994

TO: FILE

FROM: Susan M. White, Senior Reclamation Biologist *SMW*

RE: Permit Review, Sunnyside Refuse and Slurry, Sunnyside
 Cogeneration Associates, ACT/007/035, File #2, Carbon
 County, Utah

Snyopsis

The SCA plan dated effective November 16, 1994 was reviewed for technical adaquacy. The Technical Analysis was updated to include the November 16, 1994 submittals. Presented below are the sections of the Technical Analysis which I reviewed and updated.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Analysis:

Chapter 4 of the permit provides a description of the archeological resource information. Two sites are described as being eligible for nomination to the National Register of Historic Places. These are the coke ovens located within the SCA permit area and a cemetery located approximately 300 feet away from the permit area boundary. Page 400-3 of the permit states that a cultural resource survey of the SCA Permit Area was completed by the Utah Historical Society Preservation Office Survey and Planning staff in the fall of 1993 and is found in Appendix 4-3. Appendix 4-3 contains a letter from SHPO (State Historic Preservation Officer) stating that the permit application had been reviewed and that only the coke ovens had the potential to be affected, no site visit was conducted.

No on-site or other survey was conducted by SHPO. The letter stated that there will be a "No Effect," if the ovens are avoided and requested plans for protection of the site. Appendix 4-1 contains what appears to be a historic and archeological survey with site descriptions of each identified cultural or historic site in a survey. No information is given as to the scope, author, or year of the survey. Reference to the source and author of this information must be provided in the plan.

Findings:

Information provided in the plan does not meet the requirements of this section.



In accordance with the requirements of R645-301-411.140 and R645-301-131, the permittee must provide the following prior to approval:

- 1) The plan must provide a complete reference to the information for the cultural resource survey in Appendix 4-1, including the scope of the survey, names of persons or organizations that collected the data, and the date in which the survey was conducted.

VEGETATION RESOURCE INFORMATION

Analysis:

Plate 3-1 is a vegetation map which adequately details the vegetation within the permit area. However, the map does not delineate the vegetation adjacent to the permit area. Adjacent area vegetation resource information is required to extrapolate the remaining vegetation for postmining success standards. The map also delineates pre and post law disturbance areas and those areas exempt from the Act and final reclamation. The map is in error in that two disturbed areas are not designated as requiring revegetation. Those areas are: 1) where the fire was grubbed out in the fall of 1994 during reclamation of the coarse refuse haul road and; 2) the southern most portion of the west slurry cell which embankment is comprised of refuse.

The plan states that three vegetation types have been disturbed by mining: Pinyon-Juniper/Grass; Atriplex/Grass; and, Sagebrush/Grass. This list is incomplete and must also list the Hydrophytic Vegetation type as being disturbed. A very brief description of the vegetative communities are given on page 300-3 and a detailed description of the Hydrophytic community is given in Appendix 3-1.

The communities proposed as a success standard, Pinyon-Juniper/Sagebrush and Atriplex/Grass are described in detail according to the Division's Vegetation Information Guidelines in Appendix 3-3.

The Pinyon-Juniper/Sagebrush community had 37 percent vegetative cover. The dominant vegetation consisted of Big sagebrush, Pinyon pine, and Indian ricegrass. The Atriplex/Grass community had 30 percent vegetative cover. Dominant species in this community are Shadscale and Salina wildrye.

Findings:

Information provided in the plan does not meet the requirements of this section.

The permittee must provide the following prior to approval:

- 1) The vegetation adjacent to the permit area must be mapped and provided in the plan as required by R645-301-323.400.
- 2) As required by R645-301-142, Map 3-1 must be corrected to include all areas which are subject to the Act and require reclamation. Those

areas are: 1) where the fire was grubbed out in the fall of 1994 during reclamation of the coarse refuse haul road and 2) the southern most portion of the west slurry cell which embankment is comprised of refuse.

FISH AND WILDLIFE RESOURCE INFORMATION

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

Analysis:

Fish and wildlife resource information is given on page 300-4 through 300-13, Figure 3-4, and Appendix 3-6. The plan contains a general discussion of wildlife and habitat located within the region.

An assessment associated with the Sunnyside Cogeneration Project and biological considerations for the bald eagle and other sensitive species was prepared by Pioneer Environmental Services, Inc. under contract with Eckhoff, Watson and Preator Engineering in January, 1993 and is provided in the plan as Figure 3-4. This assessment indicates that power lines associated with the site utilized raptor protection in their construction. No new poles, towers or lines are planned for construction which could possibly present an increased hazard for bald eagles. Other raptors within the permit area seasonally or as year-round residents include the golden eagle, ferruginous hawk, red-tailed hawk and American kestrel. A single inactive nest located northeast of the site is indicated on Plate 3-2 of the plan at an elevation of approximately 7600 feet and one mile from the permit boundary. Pioneer Environmental Consulting performed an on-site survey and analyzed existing information and interviewed local biologists concerning the Bald eagle, other raptors and the Canyon Sweet-vetch (Figure 3-4). Pioneer concluded that the SCA project would have no effect on migrant wintering bald eagles.

Canyon Sweet-vetch is also mentioned in the assessment by Pioneer. Canyon Sweet-vetch is a Category 2 species, which has no legal protection. The majority of plant population occurs in washes associated with B and C canyons as identified in the Sunnyside Mine permit area. There exists only a moderate potential for this plant to occur within the permit area. The operations are located upon the old Sunnyside refuse disposal site which has been in existence for a number of years and no impacts to the Canyon Sweet-vetch are expected.

To meet DOGM and the Division of Wildlife Resources requirements, a fish inventory of Icelander Creek was required. The purpose of the inventory was to gather general information on Icelander Creek and to determine the presence of two Category 2 candidates for federal listing, (Roundtail chub and Flannelmouth sucker) as well as any other sensitive fish listed by the State of Utah. A survey was conducted in the fall of 1993 and in the spring of 1994. Appendix 3-6 reports on a fish inventory conducted in September of 1993 in Icelander Creek. Speckled dace were found close to the permit area boundary. Further downstream the less common Flannelmouth sucker was included in the inventory. In May 1994, a second fish survey was conducted to assess potential breeding species. The final report is found in Appendix 3-4. The Roundtail chub was not found in the survey. The presence of

the young (0+) Flannelmouth suckers in both seasonal surveys confirm the consistency of the spawning activities.

The assessment provided in the plan presents technical information required for the Division to provide a Biological Assessment (BA) to be submitted by OSM to the USFWS for formal consultation. To date, the Division has not prepared the BA for OSM to be used in the formal consultation process. The USFWS can only enter into formal Section 7 consultation with another federal agency. State, county or any other governmental or private organizations can participate in the consultation process, but the formal process must be through OSM to the USFWS as part of the non-delegable responsibilities of OSM as described under 30 CFR PART 944.

The permittee has contacted the U.S. Fish and Wildlife Service and provided as Figure 3-2, a memo dated November 12, 1992 from the State Supervisor, Fish and Wildlife Enhancement of the USFWS. The memo lists the following endangered species which may occur in the area of influence of the project site: Bald eagle; Humpback chub; Bonytail chub; Colorado squawfish; and, Razorback sucker. Additionally, Canyon Sweet-vetch was noted as a candidate species for official listing on either the threatened or endangered species list. While this species has no legal protection under the Endangered Species Act, the USFWS has requested that care be taken to avoid them if they are found in the project area.

The memo determines that any depletion of water from the Colorado River system creates a "may affect" situation of the endangered fish and requires a formal consultation with the Service under the Endangered Species Act. If the project involves a net depletion of surface waters, OSM (through the Division) shall provide a copy of the Biological Assessment and any other relevant information used to evaluate project effects to the State Supervisor.

The permittee has indicated in section 322 Fish and Wildlife Information of the plan, that the four listed species of endangered fish would not be affected by permit activities. The only impact to the water resources within the permit area include the watering of roadways to control fugitive dust and evaporation from the sediment ponds. Discussion of the Probable Hydrologic Consequences is included in section R645-301-727 of the plan.

The Cumulative Hydrologic Impact Assessment (CHIA), written by the Division in February, 1993, indicates that the impact on water quality resultant from permit operations should improve, owing to the elimination of the refuse material which is presently being mined at the site. Impacts regarding water quantity resulting from mining and reclamation operations within the permit area have not been directly addressed in the CHIA. Contributions of subsurface water into the surface drainage by Sunnyside Coal Company will however be reduced or eliminated upon cessation of mining operations by that company. Cessation of mining operations at Sunnyside Coal will also eliminate the disposal of slurry materials within the permit area. The seep located at the base of the coarse refuse slurry pile will most likely be reduced in flow or eliminated when the slurry ponds are no longer active. This reduction in surface water flow is not considered to be

a direct result from mining and reclamation operations for the permittee.

Although not mentioned in the CHIA, the consumptive uses of surface water within the permit area are the use of water for dust control and the evaporation or infiltration of surface water by sediment ponds located within the permit area. Estimates provided in the plan indicate that a conservative estimate for water consumption to be 30 to 40 acre feet per year. Approximately 10 acre-feet per year of that estimate includes evaporation and loss from the slurry cells, whose water source is from the underground mining operations associated with the Sunnyside Coal Mine. No identification as to the source of the water that is to be used for dust control along the roads has been provided in the plan.

In the event that the source of the water used for dust control is provided by the permittee and that information in the plan could demonstrate that the consumption of that water provides no net surface water depletion in regard to the Colorado River system, the BA could reflect such findings. If the BA indicates that mining and reclamation activities within the permit area does involve a net surface water depletion, OSM should provide a copy of the BA and any other relevant information used to evaluate permit activities to the USFWS State Supervisor. A written consensus of the findings made in the BA should be provided by the State Supervisor for the USFWS and included as an exhibit to the permit.

Findings:

General information found in the text of the plan regarding wildlife resource information was found to meet the requirements of this section.

The permittee must provide the following prior to approval:

- 1) In accordance with R645-301-728, the permittee must provide sufficient information to determine the net surface water consumption for the mining and reclamation operations. Such information shall include, but not be limited to, the source and use of waters to be used for dust control within the permit area and if necessary, alternate water sources required to mitigate any net consumptive use of surface waters such that no net surface water depletion occurs in regard to the Colorado River system. Following submittal of this information, the Division will prepare a Biological Assessment to be provided to the U.S. Fish and Wildlife Services through OSM to study and report water loss in the Colorado River basin. Written findings made by the USFWS will be incorporated into the permit document.

LAND-USE RESOURCE INFORMATION

Analysis:

Land use resource information is given in Chapter 4 of the plan. Land was used primarily for wildlife habitat prior to mining

(page 400-2). Currently land use within the permit area is dominated by a refuse pile (page 400-3).

Statements are made that the area is generally too steep for livestock or farming use, although surrounding areas are used for those purposes. The SCS (Figure 3-5) made an assessment of the vegetation reference areas which should represent the site prior to disturbance. Vegetation productivity was 900 pounds per acre for the Pinyon/Juniper/Grass and 500 pounds per acre for the Atriplex/Grass site. The SCS stated that "the overall view of the area that has been disturbed is good." Range conditions are considered good or high.

Previous mining activity was confined to operations related to coal mine waste disposal. The plan refers to the current mining methods as re-mining. The use of the term re-mining is used loosely and does not meet the definition of re-mining as defined by the Division. Current use is surface mining of coal mine waste.

Appendix 4-4 provides the Interim Zoning Ordinance for Sunnyside City. The Permit Area is within the jurisdiction of East Carbon City, Sunnyside City and Carbon County. The general area of the SCA permit is classified as industrial and the county classifies the use as M&G-1, Mining and Grazing Zone. The legislative intent of establishing the Mining and Grazing Zone is to foster agriculture, mining and industry within the state.

Findings:

Information regarding land use classification meets the regulatory requirements of this section.

Vegetation Reference Area Maps

Plate 3-1 is a vegetation map which adequately details the vegetation within the permit area. However, the map does not delineate the vegetation adjacent to the permit area. Adjacent area vegetation resource information is required to extrapolate the pre-mining vegetation for post-mining success standards.

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

Analysis:

Site 42Cb325, the coke ovens, have potential to be nominated to the National Register of Historic Places. Approximately 26 coke ovens remain on site from the original 800 (page 400-4). The coke ovens are located on the east side of the refuse pile. Avoidance is the planned protection for these ovens. The site will be staked and flagged to avoid activity within the marked area. At this time no ground disturbance activities are planned that will impact this site (page 400-5).

Plate 4-2 is provided to show the location of the coke ovens. The permittee states that Plate 3-1 has been provided to show the location of the markers used for the coke ovens. The cemetery has been enclosed in a chain link fence primarily to protect the site from vandalism. Neither the coke ovens nor the cemetery site will be included in any of the planned construction or reclamation activities within the permit area.

No information on Plate 3-1 nor the accompanying detailed series of maps labeled Plates 3-1A through 3-1E provided the location or extent of the cemetery or coke ovens. This information must be incorporated into the disturbed area boundary maps to ensure that the sites are adequately located and marked in the plan as well and on site.

Findings:

The description of the historic sites and places within the plan meets the minimum regulatory requirements of this section. However, maps showing the location of these sites within the plan and the disturbed area boundary were found inadequate.

The following information must be provided in the plan prior to approval:

- 1) In accordance with the requirements of R645-301-411, the disturbed area maps as provided in the plan as Plates 3-1 through 3-1E must be revised to provide the location and the extent of the coke ovens and the cemetery to show that the areas have been marked and fenced as indicated in the text of the plan so as to prevent any future disturbance of these areas.

FISH AND WILDLIFE INFORMATION

Analysis:

The plan states that the project site and associated fish and wildlife species have been impacted for over 80 years since mining began in the Sunnyside area. And that once reclamation is achieved, the displaced wildlife will return. SCA has committed to interim revegetation and contemporaneous revegetation.

SCA stated that they will make significant efforts at a wildlife education program for all employees associated with the surface mining activities (page 300-15).

Endangered and threatened species.

Figure 3-4, Biological Assessment for the Bald Eagle Associated with the Sunnyside Cogeneration Project Environmental Impact Statement PA93-1 and Biological Consideration for Other Sensitive Species, discusses the potential impact of the mining project on threatened and endangered species. The plan commits to notification if threatened or

endangered species are sighted on the SCA permit area (page 300-14).

Bald and golden eagles.

Contained in Figure 3-4, the statement is made that "EWP has informed PIONEER that there may be existing power transmission lines traversing the project property which may not incorporate raptor protection measures". The plan must designate those power lines which are not raptor safe. The statement is made that SCA does not own or utilize these lines, however ownership should be noted. SCA has committed to power line construction that will be raptor safe (page 300-14).

Wetlands and habitats of unusually high value for fish and wildlife.

The seep area is considered a high value habitat. Appendix 3-2, Iron and TDS Report, discusses the high concentration of iron and TDS in the seep water which is potentially toxic to fish. The source water is assumed to be from the slurry ponds. Since the closure of the Sunnyside Mines and subsequent non use of the slurry ponds, the source of water given time should dry. SCA has committed to a water sampling program for the seep waters.

Findings:

Information regarding this section was found not to meet all of the minimum regulatory requirements.

Prior to approval, the permittee must comply with the following:

- 1) In accordance with the requirements of R645-301-358.510, all powerlines within the permit area are to be designed and constructed to minimize electrocution hazards to raptors. The plan states that unsafe powerlines may be in the permit area but are not under SCA ownership or use. Clarification is required in order to determine compliance. Unsafe lines must be identified and described as to ownership.

POSTMINING LAND USES

Analysis:

The stated post mining land use is wildlife habitat. Other inferred post mining land use is the historical value. The coke ovens will be offered to the City of Sunnyside or another suitable organization dedicated to the preservation of historic sites (page 400-11). The permit states that other uses of the area such as agriculture and livestock grazing are not practicable because of lack of water and steep slopes. Figure 4-3 contains a letter from the land owner, Sunnyside Cogeneration Associates, concerning the proposed postmining land use. The letter basically states that any use proposed in the plan is agreeable to them.

The plan fails to give any details as to the extent of the expected post mining land use, such as expected species of wildlife which may use the reclaimed areas. Specific habitat requirements of the identified wildlife species are required in order to determine if the reclamation plan will meet the post-mining land use.

The plan states that the coke ovens will be offered to the City of Sunnyside or other organization. The details of the disposition of the coke ovens must be resolved and incorporated into the permit. No details have been given as to the exact size of the area or condition of the land which will be involved in this proposed action.

Findings:

The requirement of this section have yet to be completely reviewed by the Division pending the submittal of a complete reclamation plan.

The permittee must however, address the following prior to approval:

- 1) In accordance with the requirements of R645-301-412.110, the plan must explain how the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use. The plan fails to provide details as to the proposed wildlife species use and their specific habitat requirements. The plan also fails to provide specific detail as to the disposition of the coke ovens and comments from the City of Sunnyside or other suitable organization and SHPO.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Analysis:

Comments are made in the plan (page 300-6) that no polluted waters enter Iceland Creek from the permit area. This statement is not supported by the water monitoring data from the seep area. The plan must describe measures taken to avoid disturbances, enhance where practicable, restore, or replace, wetlands and riparian areas.

The plan identifies the seed mixture to be used in revegetation of the reclaimed areas on map 10-1. The seed mixture provides for a variety of grass, forb and shrub species which have a high value as big game forage use. The seed mixture includes Rubber Rabbitbrush in both seed mixtures. Table 3-1, Value of Revegetation Species to Deer and Elk for the Sunnyside Mine, list Rubber Rabbitbrush in the low to moderate range as forage value. Given the tendency of Rabbitbrush to become weedy, the low forage value, and the abundance of seed on site, this species should be either greatly reduced in the seed mixture or eliminated. *Atriplex canescens*, which is proposed for the Atriplex/Grass seed mixture, has been successfully seeded at the Horse Canyon Mine and is known to be very palatable to a variety of wildlife. This species should also be included in the Pinyon/Juniper/Sagebrush seed mixture.

R645-301-342.100 clearly requires the plan to contain wildlife enhancement measures. The plan alludes to Pinyon pine and Juniper transplants and rock piles (page 900-18), however their value to wildlife is not described. Areas in which Pinyon and Juniper will be planted are not detailed and the rock piles intended users, size, shape and placement are not described.

Findings:

A partial review of this section has indicated that the following information must be provided:

- 1) In accordance with the requirements of R645-301-342.100, the plan must describe measures taken to avoid disturbances to, enhance where practicable, restore, or replace wetlands and riparian areas. The water monitoring data from the seep area shows that wetland and riparian areas are being polluted. However, the plan does not address this and instead states that no polluted waters enter Icelander Creek. The requirements of R645-301-342.100 must be addressed as they concern the seep area. The plan must also include a description of the terrestrial wildlife enhancement measures.
- 2) In accordance with the requirements of R645-301-342.200, plant species to be used on reclaimed areas must be selected for their ability to support wildlife.

cc: Daron Haddock
Randy Harden

H:SCATA.SUE