CHAPTER 4

LAND USE
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Note: Bold number plates and appendices are included with this submittal.

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4.10 Regional Land Use

The majority of the land use in the Wasatch Plateau is administered by the United States Forest Service and is managed as a multiple use forest area.

4.10.1 Land Use In Mine Plan Area

Prior to 1939, the permit area was used for non-developed recreation, grazing by native big game species and habitat for small game and non-game animals. From 1939 until 1955, the area was mined by traditional room and pillar methods. Approximately 35,000 tons were removed from the Hiawatha Seam. When mining operations were terminated in 1955, the land reverted to its original uses. In 1983, mining activities were resumed. At present, cattle are moved through the canyon to grazing areas at higher elevations. Riparian areas are grazed during the movement through the canyon. A land use map has been prepared and is included as Plate 4-2.

Mining in the South Crandall lease and the U-68082 lease mod area will not affect the present land use of the area. The area is classified as rangeland. The existing landuse will continue during, as well as following, mining in this area. Refer to Plate 4-2.

After mining operations cease, the mine site surface area will be restored to its approximate original contours. The access road will be left in place, pursuant to the wishes of the U.S. Forest Service (USFS) the surface landowner.

4.11 Premining

The premining use of the land was for dispersed non-developed recreation, native wildlife habitats and dispersed cattle grazing. The wildlife habitats within the mine area are described in Appendix 3.2 and 3.3.

The area was used for a previous mining operation. The previous operation prepared level areas to allow access to the coal seam and for coal loading operations. This made the area more accessible to the general public and to the present mining operation.

The previous operation left lumber, deteriorating buildings, fuel and oil cans, and various other trash in the area. A portion of the existing vegetation was also disturbed with no evidence of revegetation.

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After reclamation, the area will be restored to support premining land uses. Vegetation will be restored to provide habitat and a food source for wildlife. It is expected that the cattle grazing will continue after reclamation. The access road will remain pursuant to the wishes of the USFS and to support underdeveloped recreation.

4.11.1 Historic Land Use

The Manti-La Sal Division of the United States Forest Service has this area shown on their land use map as suitable for dispersed, non-developed recreation, and limited grazing as the slopes are steep. There is not enough of the necessary vegetation for extensive grazing. It is also classified as unsuitable for logging operations as conifer is only a marginal component of the area.

Crandall Canyon is not actually being used as summer range for cattle, but cattle are moved through the canyon to grazing areas at higher elevations. Because the cattle are moved through the canyon, although undesirable, grazing does occur without noticeable depletion of vegetation in the riparian zone. It is expected that sporadic cattle grazing will continue after mine life.

By returning the disturbed area to its original contour, the canyon outside the riparian zone will be too steep for grazing by other than native wildlife. Wildlife grazing and habitat will be part of the postmining land use.

Plate 4-1 shows the grazing allotment boundaries of the existing permit area and the South Crandall lease area and the U-68082 lease mod area. Plate 4-3 presents the oil and gas analysis areas as well as the existing gas wells.

4.11.110 Surface Land Status/Mine Plan Area

Ownership of the surface rights within and contiguous to the mine plan and permit area is shown on Plates 1-1, 5-3 and 4-1. The surface within the lease areas and the contiguous lands are administered by the USFS. Also as shown on Plate 1-1 there are no structures within 1000' of the mine permit area.

4.11.112 Ownership

The United States Government under the supervision of the Manti-La Sal National Forest owns most of the surface rights in the immediate area of the permit and mine plan area as shown on Plates 1-1 and 4-4.

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4.11.113 Surface Managing Authorities

The United States Department of Agriculture, Forest Service, Intermountain Region is the surface managing authority.

4.11.114 Utility Corridors and Other Right-Of-Ways

No utility corridors or other rights-of-way exist on the surface within the existing permit area nor the U-68082 lease mod area. A utility corridor exists within the permit area in the South Crandall lease area. See Plate 4-2. There are no surface or subsurface mad-made features within or passing over the permit or Incidental Boundary Change areas.

There has been no change in the premining use of the land within the last five years.

4.11.115 Affect Of Operation On Land Use

GENWAL feels that greater portion of permit area will not be affected by mining operations and that premining land use will be applicable except for the disturbed area surrounding the portals and the access road.

The maximum area of possible subsidence is shown on Plate 5-2 as the area contained within the zero subsidence contours. As explained in Chapters 5 and 7 no adverse effects are expected to occur as a result of the subsidence mechanisms and no mitigation measures are proposed. In the event subsidence damages or alters streams, roads, etc. GENWAL will repair or replace such structures in conjunction with prudent and reasonable environmental designs and in compliance and agreement with USFS lease stipulations.

4.11.12 Land Capability

In the Manti-La Sal National Forest Land and Resource Management Plan (LRMP), 1986, the Forest Service has developed certain management objectives for the area. The permit area includes four separate management units.

The bottom of Crandall Canyon is included in the MMA (Leasable Minerals Area) Management Unit where management emphasis is on leasable minerals development. This unit includes the surface facilities for the mine.

The eastern portion of the permit area lies within the GWR (General Big Game Winter Range) Management Unit where management emphasis is on providing general big game winter range.

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The north and west areas of the permit area lies within the RNG (Range Forage Production) Management Unit. Management emphasis is on production of forage and cover for domestic livestock and wildlife. The Incidental Boundary Change area lies within the RNG use classification. Surface land uses and resources will not be affected by underground mining operations. The South Crandall lease area lies within the RNG and MWS use classifications (see Plate 4-2). The U-68082 lease mod area lies within the RNG use classification.

The riparian area along Crandall Creek is included in the RPN (Riparian) Management Unit. RPN areas include the aquatic (including fish) ecosystem, the riparian (characterized by distinct vegetation), and adjacent ecosystems that remain within approximately 100 feet measured horizontally from the edge of all perennial streams and springs, and the shores of lakes and other still water bodies, i.e., from seeps, bogs, and wet meadows. Emphasis is on preservation of the riparian areas and component ecosystem.

The historic use of the land has been for recreation, forestry, wildlife habitat, and mining as indicated by previous zoning, historic documentation and visual examination.

4.11.13 Land Use/Zoning

Emery County had previously zoned this area as a recreation forestry and mining area. However, as of November 12, 1979, this area has been rezoned to CE-1 which is a critical environment zone. A county zoning of CE-1 does not prohibit mining. Therefore, the area did not have to be rezoned.

4.11.14 Cultural and Historic Resource Information

A Cultural, Historic and Archeological inventory conducted on June 19 and 20, 1980 on all areas to be disturbed in the proposed permit area. No recorded or unrecorded archeological sites were found in the project area. A copy of the report on the archeological inventory is included as a supplement to this chapter as Appendix 4-1.

All of the areas potentially affected by surface disturbing activities in Genwal's Crandall Canyon Mine Plan were investigated for cultural resources. No prehistoric remains were located in the mine plan area. A single site, however, near a haul road from the mine was recorded in 1975, by the Forest Service. This site (42EM722), a rock shelter, is some 50 meters in length and contains at least one meter of cultural deposits. Remains include stone tools, pottery, lithic debris, abundant charcoal, bone and pictographs on the cliff face above. Extensive vandalism has taken place; however, undisturbed areas in the shelter still remain. The site is eligible for inclusion to the National Register of Historic Places. Therefore, it needs to be protected. The major threats to the site appear to be a direct impact from possible road improvement and present ensuing impacts caused by increased vandalism brought about by the improvement of the road. The site was fenced to be a solution to the vandalism problem.

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The archeological site at the mouth of Crandall Creek is not threatened by road improvements and the area is fenced as stated in the plan. The initial road development has progressed along Crandall Canyon past site (42EM722) and Genwal has fenced off the designated site accordingly. A detailed report on the Sherman Shelter was completed by the USFS and is included within this chapter as Appendix 4-4. An additional archaeological survey was conducted for LBA #9 in 1992. Data associated with this report are contained in Appendix 4-1A. Additional survey information for the surface facility expansion area is also contained in Attachment 3 in the Addendum to Appendix 3-2.

Since there will be nor surface disturbance within the South Crandall lease area nor the U-68082 lease mod area, no impact to cultural or historic resources will occur. In June, 2004 Senco-Phenix performed an intensive archeological survey of the U-68082 lease mod area and submitted its report to the Forest Service and SHPO. This report is included in Appendix 4-10.

4.11.141 Cultural and Historic Resource Maps

Cultural and Historic Resource maps are included in Appendix 4-5 and 4-6.

4.11.141.1 Boundaries of Listed Historic Resources

There are no public parks in the permit area. The only site of historical significance is a archeological site listed as "The Sherman Shelter 42EM722".

4.11.141.2 Location of Cemeteries

No cemeteries exist within the permit or IBC area or within any adjacent area subject to potential impacts.

4.11.141.3 National Trails/Scenic Rivers

No trails or the wild and scenic rivers or study area rivers exist within the permit area or areas of potential impact.

4.11.142 State Historic Preservation Officer

The State Historic Preservation Office in a letter dated August 8, 1980, (see Appendix 4-2) granted cultural resource clearance for the GENWAL Crandall Canyon Mine. Conditional clearance from OSM was provided by a letter dated April 17, 1981 (see Appendix 4-3). GENWAL has followed the recommendations contained in Appendix 4-1, the Archeological Reconnaissance Report, and fenced site 42EM722. With the acquisition of lease UTU-68082, an additional Paleo-Arch inventory was conducted in 1992. That report is attached as Appendix 4-1A. A subsidence monitoring plan is included as part of Chapter 5. According to the SHPO there are no significant cultural resources within the South Crandall lease area nor the U-68082 lease mod area. (See Appendix 4-9)

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4.11.142.1 - 4.11.142.2 Prevention of Adverse Archaeological Impacts

No adverse impacts are anticipated and GENWAL has taken all action outlined and recommended by OSM and the USFS to safeguard the Sherman Shelter.

4.11.143 Historical Resources Eligible for Listing

GENWAL intends to protect any known historical and cultural resources. Should additional information be required, GENWAL and the requesting regulatory agency will determine the appropriate action.

4.11.143.2 Field Investigations

Field investigations have been conducted in conjunction with the archeological survey. A map showing the survey area investigated for archeological importance is included as Appendix 4-5.

Although the archeological report mentions a scattering of historic mining remains, they are remains of habitation and human use rather than mining. The remains consist of a rusty automobile body, either a 1939-1940 Ford or Mercury, numerous tin cans and bottles, bedsprings, and piles of wood from old cabins which have been destroyed by vandals. These habitation remains (1939-1955) are of no historic value and no study will be undertaken to document the remains. Maps of the areas investigated are included in Appendix 4-1 and Appendix 4-1A.

4.11.200 Previous Mining

The mine plan area has been previously mined and the following information is provided.

4.11.210 Mining Method

Type of mining method used: room and pillar method of mining.

4.11.220 Coal Seam Mined

Coal seams mined: Hiawatha seam was the only seam mined.

4.11.230 Extent of Coal Removed

Extent of coal removed: Approximately 35,000 tons as per USGS calculations.

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4.11.240 Dates of Past Mining

Approximate dates of past mining: November, 1939, to September, 1955, as per USGS records.

4.11.250 Land Use Preceding Mining

The land was historically used for wildlife and domestic grazing.

4.12 Reclamation Plan

4.12.1 Postmining Land Use Plan

In areas where surface disturbances resulted from mining operations, soil reclamation and revegetation will restore the areas to their premining usefulness as range land, wildlife habitat and recreational use. The reclamation plans are presented in Chapters 2, 3, 5, and 7.

Land uses are solely at the discretion of the USFS. No alternative land uses have been proposed.

4.12.2 Landowner Or Surface Manager Comments

The citations from the Manti La Sal National Forest Land and Resource Management Plan can be considered as comments from the Forest Service for most of the disturbed area. The plan states that the road will be left in place pursuant to the wishes of the Forest Service and the surface landowner. Correspondence from the Forest Service indicating the above and outlining attendant reclamation requirements is included in Appendix 1-2.

4.13 Performance Standards

4.13.1 Postmining Land Use

All disturbed areas will be restored in a timely manner to conditions that are capable of supporting the uses they were capable of supporting prior to mining.

4.13.3 Criteria for Alternative Postmining Land Use

No alternative postmining land use is planned or proposed.

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4.20 Air Quality

4.21 Operation in Compliance with State/Federal Air Quality Laws

Coal mining and reclamation operations will be conducted in compliance with the requirements of the Clean Air Act and any other applicable Utah or Federal statutes and regulations pertaining to air quality standards.

4.22 Compliance with Utah Bureau of Air Quality

GENWAL has an approved air quality permit covering all planned facilities for the Crandall Canyon Mine with the Utah Bureau of Air Quality. A copy of the Air Quality Approval Order Modification is presented in Appendix 4-8.

The air quality permit was revised in August 1997 to incorporate the new surface facilitities and mine yard expansion area. The air quality permit was amended and approved prior to operation of the new facilities.

4.23 Fugitive Dust Control Plan

The Air Quality Approval Order contains the air pollution control plan which includes an air quality monitoring program. The monitoring program will provide sufficient data to evaluating the effectiveness of the fugitive dust control practices and compliance with federal and Utah air quality standards.

A description of the controls and design features associated with the yard expansion can be found in Chapter 5 under section 5.26.

4.24 Fugitive Dust Control Plan for Reclamation Activities

A fugitive dust control plan is included in Appendix 4-7.

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