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cc: Steve
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United States Department of the Interior
OFFICE OF SURFACE MINING
Reclamation and Enforcement
BROOKS TOWERS
1020 15TH STREET
DENVER, COLORADO 80202

MEMORANDUM

JUN 19 1984

JIM

JUN 21 1984

TO: Field Supervisor, Endangered Species Office, U. S. Fish and Wildlife Service, Salt Lake City, Utah

FROM: Utah Task Force Leader, Office of Surface Mining, Denver, Colorado

SUBJECT: Biological Assessment of Canyon Sweet-Vetch (Hedysarum occidentale Var. canone)

Enclosed is a copy of a Biological Assessment of impacts to canyon sweet-vetch (Hedysarum occidentale var. canone) for Kaiser Steel Corporation's Sunnyside Mine, Trail Mountain Coal Company's Trail Mountain Mine, and Beaver Creek Coal Company's Huntington Canyon No. 4 and Gordon Creek No. 2 mines. Although canyon sweet-vetch is only a proposed threatened species under review by your office, the U. S. Forest Service has requested an assessment of impacts to this species as a result of mining activities.

Trail Mountain and Huntington Canyon No. 4 permits will have conditions that require the operators to survey the mine sites prior to final reclamation in an effort to identify populations of canyon sweet-vetch within the permit areas. If canyon sweet-vetch is found onsite, mitigation plans will be developed and implimented based on the status of the plant in consultation with the regulatory authorities.

If you or your staff have any comments or questions feel free to contact Mark Humphrey at FTS 564-3806.

Attachment

RECEIVED
JUN 21 1984
DIVISION OF OIL GAS & MINING

cc.

Bill Boley, Forest Service
Robert Thompsom, Forest Service
James Smith, UDOGM
Lynn Kunzler, UDOGM
Mary Boucek, UDOGM
Susan Linner, UDOGM

Biological Assessment For:

Kaiser Steel Corporation's Sunnyside Mine,
Trail Mountain Coal Company's Trail Mountain Mine,
and
Beaver Creek Coal Company's Huntington Canyon No. 4
and Gordon Creek No. 2 Mines

Prepared by

Offfice of Surface Mining
Western Technical Center
Denver, Colorado

June 11, 1984

Background Information

Sunnyside, Trail Mountain, Huntington Canyon No. 4, and Gordon Creek No. 2 mines are all underground coal mines located within Emery County, Utah. Sunnyside mine, operated by Kaiser Steel Corporation is located on Bureau of Land Management lands approximately 20 miles east of Price, Utah. The mine began operations in 1890 and is expected to continue through 2008. Current production is 1 million tons of coal per year. Sunnyside permit area encompasses 14,300 acres, of which 440 acres are disturbed by existing surface facilities and no additional disturbance is expected.

Trail Mountain mine, operated by Trail Mountain Coal Company is located on the Manti La Sal National Forest approximately 11 miles northwest of Orangeville, Utah. The mine began operations in 1946 and is expected to continue through 1986. Current production is 400,000 tons of coal per year. Trail Mountain permit area encompasses 773 acres, of which 8.8 acres are disturbed by existing surface facilities. No additional disturbance is proposed.

Huntington Canyon No. 4, operated by Beaver Creek Coal Company (subsidirary of Atlantic Richfield) is located on the Manti-La Sal National Forest approximately 12 miles northwest of Huntington, Utah. The mine began operations in 1977 on land previously disturbed by mining that occurred in the 1940's. The mine was temporarily inactive from October 1978 until March 1980. Mining operations are expected to continue through 1994. Current production is 365,000 tons of coal per year. The permit area encompasses 1,320 acres of which 12.5 acres are disturbed by existing surface facilities. No additional disturbance is proposed.

Gordon Creek No. 2, also operated by Beaver Creek Coal Company (subsidirary of Atlantic Richfield) is located on private land approximately 20 miles northwest of Price, Utah. The mine began operations in 1969 on land previously disturbed by mining that ceased in the 1940's. Mining operations are expected to continue through 1998. Current production is 865,000 tons of coal per year. The permit area encompasses 2,290 acres of which 20.81 acres are disturbed by existing surface facilities. Limited additional disturbance is anticipated in conjunction with the development of a new portal facility.

Postmining land uses for all the mines include livestock forage, wildlife habitat, watershed, and recreation.

On September 23, 1983, OSM requested a list of threatened and endangered species potentially inhabitating the vicinity of the Sunnyside mine, Trail Mountain mine, Huntington Canyon No.4 mine and Gordon Creek No. 2 mine sites from the U.S. Fish And Wildlife Service (FWS), Salt Lake City, Utah. The FWS responded on October 21, 1983 with one plant species under review for possible future listing, canyon (western) sweet-vetch (Hedysarum occidentale var. canone), recommended as a threatened species by Dr. Stanley Welch of Brigham Young University (BYU). No threatened or endangered species were listed by the FWS as potentially inhabiting any of the mine sites for which a list was requested. The assessment of potential impacts on canyon sweet-vetch is presented below.

Impact Assessment

Canyon sweet-vetch (Hedysarum occidentale var. canone) which inhabitats canyons and valleys in the Wasatch Plateau, is morphologically similar to northern sweet-vetch (Hedysarum occidentale var. occidentale) which inhabitats the flat desert to the subalpine communities. These two varieties potentially overlap in habitat since northern sweet-vetch extends to 11,500 feet in elevation and occurs in valleys along streambanks (Harrington, 1964., Dorn, 1977. and Rydberg, 1969). Canyon sweet-vetch and northern sweet-vetch are differentiated by leaflet features. Canyon sweet-vetch has leaflets 7 to 17 in number, 9 to 29 mm long, and ovate (Thompsom, 1984), while northern sweet-vetch leaflets are 11 to 19 in number, 10 to 25 mm long, and ovate (Harrington 1964). There is very little additional information available to differentiate between the two varieties.

Canyon sweet-vetch has been observed and collected by Dr. Stanley Welch and Mr. Mathew Chatterley of BYU at elevations ranging from 6,700 feet in Spring Canyon (Carbon County,Utah) to 8,300 on the Manti-La Sal National Forest (Emery and Carbon Counties, Utah).

Canyon sweet-vetch has been observed by Dr. Welch and Mr. Chatterley to inhabit the sagebrush-grass, streambottom (cottonwood), pinion-juniper and mountain brush communities (Chatterley, 1984.) Dr. Welch has located communities of canyon sweet-vetch northeast of Helper, Soldier Creek, Horse Canyon (Book Cliffs), and around Castle Valley to Straight Canyon (Thompsom,1984).

Canyon sweet-vetch has been observed and collected by Manti-La Sal National Forest (U.S. Forest Service) personnel at the Trail Mountain mine and Huntington Canyon No. 4 mine sites. The forest service identified canyon sweet-vetch as inhabiting areas adjacent to Emery County road no. 506 within the Trail Mountain permit area. At Huntington Canyon No. 4 mine, canyon sweet-vetch was identied by the Forest Service scattered throughout the permit area. Canyon sweet-vetch appears to prolifically invade disturbed areas such as road cuts (Kunzler, 1984; and Coonrod, 1984). The FWS response of October 21, 1983 indicated that canyon sweet-vetch potentially occurs at Sunnyside and Gordon Creek No. 2 mines, however, no sitings have been recorded at these two sites.

Trail Mountain Mine and Huntington Canyon No. 4 mines are not proposing any additional surface disturbance for the life-of-mine. However, reclamation of the mine sites could potentially destroy plants that have become established on disturbed areas such as cut and fill banks, stockpiles, interim revegetated areas, etc. These areas frequently require additional earthwork to blend the mine site into the natural landscape as required by UMC 817.101 and 817.103. As mitigation for potential impacts to populations of canyon sweet-vetch, a survey of the areas to be redisturbed must be conducted to identify and record locations of individuals and populations. If canyon sweet-vetch is found in portions of the permit area to be redisturbed, the mine operators must contact the regulatory authority and mitigation measures (based upon the current status of the species) will be developed in consultation with the FWS and land management agency (or land owner).

Canyon sweet-vetch is not presently listed as a Federal (or State of Utah) threatened or endangered plant species. A Section 7 Consultation with the FWS therefore is not appropriate. However, the Forest Service has indentified canyon sweet-vetch as Sensitive Plant Species in Region 4. Therefore, reasonable effort must be made to mitigate impacts on canyon sweet-vetch on the Manti La-Sal National Forest lands.

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Hitchcock, C. L. and A. Cronquist. 1973. Flora of the Pacific Northwest. Second Edition. University of Washington Press, Seattle, Wa.

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