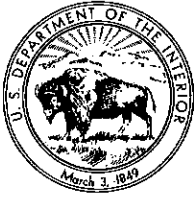


CASO Atlas



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
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IN REPLY REFER TO:

1703
CA-932.8

OCT 27 1989

Memorandum

To: Regional Environmental Officer, OEPR
From: State Director
Subject: Preliminary Natural Resources Survey, Atlas Asbestos Mine Site

Attached as per your request of August 31, 1989, is the BLM's Preliminary Natural Resources Survey (PNRS) for the Atlas Asbestos Mine Site. ~~The Coalinga Asbestos Mine Site has not been~~ addressed because no BLM managed public lands are in proximity to the Coalinga Mine Site. On the other hand, the Atlas Mine Site is only a small part of a large block of public lands which occur in the asbestos containing New Idria Serpentine Uplift as discussed in the attached PNRS. Any questions concerning the PNRS should be referred to Mark Blakeslee at FTS 460-4725.

Attachment:
As Stated

cc: WO (707), Room 3529, MIB
CA 010
CA 019



Preliminary Natural Resource Survey for Atlas Mine

A preliminary natural resources survey (PNRS) was conducted by this office which consisted of both field visits and literature searches. At the present time the EPA and other PRP's are preparing RI/FS reports and a final draft of these documents is anticipated for public comment by November 1989.

The Atlas Mine Site is located in the New Idria Serpentine Uplift in the Central Diablo Range about 35 miles northwest of the town of Coalinga, California. This area is situated approximately 200 miles south of San Francisco and 200 miles north of Los Angeles. The Atlas Mine covers approximately 200 acres within a 30,000 acres of public land managed by the Bureau of Land Management (BLM). The BLM designates this area as the Clear Creek Management Area, which corresponds with the geologic boundary of the New Idria Serpentine Uplift.

The New Idria Uplift contains unique geologic and environmental watersheds based upon serpentine minerals, soil and vegetation. The following is a description of resources (flora, fauna and physical attributes) which is inclusive of the larger (30,000) acre New Idria Serpentine Uplift. The Atlas Mine site occupies less than 1 percent of this total area.

RESOURCE DESCRIPTION

-VEGETATION

The majority of the flora of the area is either specially adapted or endemic to serpentine areas and can be categorized in these classes; barrens, grasslands, chaparral, scrub and woodlands.

The barrens are generally bald slopes that are devoid of both soil and vegetation. The origin of these areas is not precisely known, but are presumed to be in part natural, with modification and enlargement due to logging, mining and offroad vehicle traffic. Pre-1900 evidence of barren areas is limited to field observations of various workers in the area. Post-1900 development of the area for mining, timber harvesting and road construction is better documented and probably have accelerated the growth of these bald slopes.

Continued expansion of these barrens will impact existing vegetation and may impact unmapped rare, threatened or endangered species populations.

BLM sampled soil types at the Atlas Mine site and found that the high concentrations of heavy metals such as nickel combined with a low calcium and high magnesium has inhibited the potential for most vegetation.

The grasslands in this area are composed of introduced species such as wild oats (*Avena fatua*), soft chess (*Bromus mollis*) and annual poa (*Vulpia megalura*).

The chapparral is a mixture of chamise (*Adenostoma fasciculatum*), manazanita (*Arctostaphylos glauca*), buckbrush (*Ceanothus cuneatus*), mountain mahogany (*Cercocarpus betuloides*) and leather oak (*Quercus durata*).

The scrub is composed of sage (*Artemisia californica*), salvia (*Salvia mellifera*), rabbitbrush (*Chrysothamnus nauseosus mohavensis*), and snakeweed (*Eriogonum fasciculatum*). The woodland is composed of coulter pine (*Pinus coulteri*), jeffery pine (*Pinus jefferyi*), and incense cedar (*Calocedrus decurrens*).

There are known populations of rare, threatened and endangered species that exist within the New Idria Serpentine Uplift. San Benito evening primrose (*Camissonia benitensis*) is listed and additionally the Rayless layia (*Layia discoidea*) and talus fritillary (*Fritillaria falcata*) are candidate species nominated for Federal listing.

~~-WILDLIFE~~

Wildlife in the area consists of typical Central inland valley game types such as California black-tailed mule deer (*Odocoileus hemionus californicus*) and Columbian black-tailed deer (*O. hemionus columbianus*). Generally the deer populations are more numerous outside of the New Idria Serpentine Uplift. Valley quail and mountain quail (*Lophortyx californicus* and *Oreortyx pictus*) along with chukar partridge (*Alectoris graeca*) have been sighted in the vicinity of the serpentine uplift. ~~Wild pigs (includes both wild boar and feral hogs)~~ also occur throughout much of the area although they prefer the non-serpentine areas.

Non-game animals such as common reptiles and amphibians exist along with the more stately Mountain lion (*Felis concolor*), Golden eagle (*Aquila chrysaetos*) and Prairie falcon (*Falco mexicanus*). These species have been sighted within the larger New Idria serpentine uplift, but their population size is unknown.

-HUMAN ACTIVITIES

Human activities in this area are predominately recreational such as hunting and offroad vehicle use (OHV) and mineral exploration and development by both weekend hobbyists and large scale commercial interests. However, the Atlas mine site

itself is restricted from either pedestrian or vehicle access.

The recreation use of the larger serpentine uplift is generally during the winter (wet months) by ORV visitors. The area most heavily used by OHV visitors is the Clear Creek Canyon about 30 miles from the Atlas Mine. Seasonal deer and yearround pig hunting does attract visitor use to this area.

OHV use does contribute to sediment production by both air and water emissions. BLM employees are required to follow a stringent health and safety plan to meet all Occupational Health and Safety Administration (OSHA) regulations.

-WATERSHED

The natural and/or accelerated (man induced) erosion has resulted in high sediment loads in the majority of the drainages within the New Idria Serpentine Uplift. This is due to the extremely weathered, fragmented, sheared and friable serpentine (containing chrysotile asbestos) and the anthropic uses in the area.

Several intermittent streams drain the Atlas Mine, these join the White Creek and then Los Gatos Creek which flows into the Arroyo Pasajero. ~~The watershed ranges in elevation from nearly 5000 feet at the mine site to less than 300 feet on the lower Arroyo Pasajero reaches.~~ Runoff through this area is largely uncontrolled and sediment production has been evaluated by the U.S. Bureau of Reclamation (BOR). The BOR findings indicate that the upper watershed is responsible for 40 percent of the lower alluvial fan sediments.

The majority of erosion and sediment production is due to channel and bank downcutting, mass wasting, and sheet and rill erosion.

As the asbestos bearing sediment migrates from the upper to the lower watershed boundaries the asbestos fibers can be reentrained into the atmosphere. Levels of asbestos in these drainages exceed the EPA drinking water standard and the sediment samples are at the lower threshold (greater than 1 percent) for classification by the State of California as hazardous waste.

-AIRSHED

Certain classes of air pollutants such as asbestos are defined as hazardous and require special management under the National Emission Standards for Hazardous Air Pollutants (NESHAPS) as part of the Clean Air Act.

The release of hazardous substances in the atmosphere may occur by: (1) accidental and unplanned releases, or (2) routine releases associated with authorized permitted activities such as mining or (3) unauthorized and unpermitted activities such as agricultural development or OHV activities.

At the Atlas Mine immediately adjacent to the lower tailings pile windborn and/or waterborn asbestos fibers have been deposited.

The NESHAPS is violated by the release of "visible" asbestos emissions. In addition, the OSHA regulations set limits for worker exposure of asbestos levels that are 0.2 fibers/cc in a eight hour (time weighted average) and 1 fiber/cc in any one 30 minute sampling period.

To date the BLM, State of California, EPA and private industry have all conducted air monitoring programs within the New Idria Serpentine Uplift. Results of these studies have shown that in general OSHA and NESHAP limits for both anthropic and non-anthropic activities are frequently exceeded in this area.

~~SUMMARY AND CONCLUSIONS~~

Asbestos contamination within the New Idria Serpentine Uplift is both natural and extensive. Most human activities in the area have exacerbated the problem such as the miles of unimproved roads and trails now being used by OHV and numerous abandoned mining sites left unreclaimed. The vegetation within the area is specially adapted to the area. The wildlife within the area has adapted to the serpentine/asbestos environment.

Geologically, the asbestos has been eroding for approximately 140 million years so that the fauna and flora should be in natural balance or approximate equilibrium with the serpentine environment.

However, the anthropic uses such as OHV, mining and agricultural activities within asbestos bearing sediments are at risk for both disturbance of the tenuous balance of the flora and fauna as well as increasing the public exposure to asbestos-related health diseases.