

## Subsurface Resources

### Goals

**Opportunities for Mineral Exploration and Development.** Provide opportunities through state land management for the exploration and development of mineral resources.

**Economic Opportunities.** Provide economic opportunities and stability by managing state lands for the efficient and environmentally sound:

- disposal of tailings;
- development of state land and submerged land mining sites; and,
- siting of infrastructure to support development of mineral resources.

**Environmental Quality and Cultural Values.** When developing subsurface resources, protect the integrity of the environment and affected cultural features to the extent feasible and prudent.

### Management Guidelines

**A. Mineral Exploration.** By statute, exploration for locatable minerals is allowed on all state lands. A land use permit is required under most circumstances. Hand prospecting and exploration activities generally do not require a permit. DNR may determine that some forms of access will not be allowed in specific areas to avoid resource damage.

**B. Open to Mineral Location.** By statute, all state lands are open to mineral location unless specifically closed. Where an area is open to mineral location, a miner has the right to stake a mining location regardless of the surface use designation or classification. Any adverse effects of mining on surface resources or uses will be managed through compliance with state laws and regulations and the management guidelines in this plan. Except for areas designated Settlement, Public Facilities, or Water Resources, all other state land is considered appropriate for mineral exploration and development consistent with applicable state law, administrative regulation, and management intent and guidelines. Areas designated Settlement, Public Facilities, or Water Resources may be appropriate for mining activity but will likely require the use of stipulations to avoid or mitigate impacts to important public facilities, settlement areas, and large wetland complexes. Reclamation activities are directed by the Mining Reclamation Act (AS 27.19) and regulations (11 AAC 97). (Note: Mineral entry on Alaska Mental Health Trust Land is not authorized

without the prior approval of the Trust Land Office of DNR in accordance with 11 AAC 99. Mineral entry on land owned by the University of Alaska is not authorized without the prior approval of the University of Alaska, Land Management office.)

**C. Reclamation of Mined Land.** The reclamation of mining operations, including placer mining, must meet the reclamation standards given in AS 27.19. The reclamation law provides a standard that miners must meet during and after mining. The mining operation must be conducted in a manner that prevents unnecessary and undue degradation of land and water resources and requires that reclamation occur “contemporaneously” with the mining operation. Regulation 11 AAC 97 (Mining Reclamation) details the specific requirements that must be followed. In designated habitat areas, annual reclamation will be required concurrent with mining. Reclamation will be required to restore degraded fish and wildlife habitat and prevent hazards to navigation.

**D. Access for Mineral Development.** Existing roads should be used for access to mine sites wherever feasible. Access across tundra, wetlands, and other environmentally sensitive areas will be managed in a manner that minimizes damage and must be consistent with the requirements of applicable administrative regulations, including 11 AAC 96.010 and 11 AAC 96.025.

**E. Mining in Fish Habitat.** When DNR issues a permit for mining in or adjacent to designated fish habitat, conditions of the permit will require any necessary measures, such as levees, berms, seasonal restrictions, and settling ponds that will allow the operation to meet water quality standards and statutes and regulations governing the protection of fish<sup>19</sup>. Because less than 50% of all anadromous streams are listed within the ADF&G Anadromous Waters Catalog (AWC), and documentation of resident fish streams is not centralized, DNR should consult with ADF&G prior to the issuance of an authorization where stream channels are present and the likelihood of anadromous or high value resident fish is high, at least seasonally.

**F. Mineral Closures.**

- 1) **Background.** The decision to apply mineral location closures will be made by the Commissioner of DNR within the standards set by Alaska Statutes. AS 38.05.185(a) requires that the Commissioner determine that mining is incompatible with a significant surface use before an area can be closed to mining. The same section of the statute requires that the Commissioner determine that a potential use conflict exists before imposing leasing requirements for development of locatable minerals. The fact that an area is closed to new mineral location will not be cause for denying access across state land. Mineral closures do not affect valid existing mineral locations.

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<sup>19</sup> Note: Mining in fish habitat requires additional permits from ADEC and ADF&G.

- 2) **Land Closed to Mineral Entry.** State mining law stipulates that mining must be determined to be in conflict with significant surface uses before an area can be closed to mineral entry (AS 38.05.300). There is relatively little correspondence between the location of state upland parcels designated Settlement and historical or potential mining activity in the planning area and specifically in areas designated Minerals. Since little potential conflict is expected to exist, this plan does not create any new mineral closing orders, although the current mineral closing orders will be retained since these occur within streams and land disposal areas. A leasehold location order is recommended (Appendix C) within areas designated Settlement but not now closed to mineral entry, and all new settlement areas are so designated in this plan revision. The purpose of the leasehold location order is to prevent the creation of ‘nuisance claims’ in areas of land disposal. Appendix C lists these management units in Table C-1 and depicts the management units affected by the LLO on Map C-1. The management intent section of parcels designated Settlement should be consulted to determine if a management unit is affected by the leasehold location order recommendation. To determine the location of areas closed to mineral entry in the planning area consult the DNR Alaska Mapper, available on-line at: <http://dnr.alaska.gov/mapper>.

**G. Oil and Gas Resources.** It is probable that oil and gas resources are present within the planning area. The potential for petroleum reserves within the planning area are believed to be high in the Nenana River Basin and exploration is underway (2012) in that area and within the Lower Tanana and Kantishna regions, including lands within the Minto Flats State Game Refuge. The planning and decision making processes for oil and gas development occur under a separate section of Alaska Statutes (AS 38.05.180) and these processes are not included as part of area plans. For this reason, the area plan does not make any development decisions related to these resources, and defers all decisions regarding licensing or leasing of oil and gas to DNR’s existing licensing and leasing processes.

Oil and gas sales are not subject to the regional planning process; instead they follow the planning process identified under AS 38.05.180. The land use designations of the plan are multiple use in character and do not preclude oil and gas development.

**H. Geothermal Resources.** The presence of geothermal resources, to support renewable energy development, may be likely within the planning area. The vicinity of the community of Manley is an active geothermal area and it will be an appropriate area for the development of geothermal resources.

The exploration and development of geothermal resources follows the planning processes under AS 41.06, and 38.05.181. The land use designations of the plan are multiple use in character and do not preclude geothermal leasing and resources development.

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**I. Coal Resources.** The coal potential within the planning area is generally considered to be high, especially in the western part of the Parks Highway and West Alaska Range region where extensive coal resources exist and there has been coal production over the last 25 plus years. Coal exploration, development, and extraction are governed by a mix of statutory (AS 38.05.150 and AS 27.21.010-.260) and administrative (11 AAC 85) requirements, which must be followed for exploration and for subsequent extraction to be authorized. This plan does not impose additional requirements of coal exploration and extraction to those cited in statute and regulation. All areas, except within areas closed to such activity in legislatively designated areas, are open to coal exploration, development, and extraction.

**J. Coal Extraction and Mining in Areas Co-Designated Minerals/Coal and Habitat.** In a number of management units in the Parks Highway and West Alaska Range region, co-designations of Minerals and Habitat or Coal and Habitat apply. If this co-designation is used, it means that either high mineral (or coal) and habitat values exist within all or portions of the management unit. Mineral or coal development is considered an appropriate use within units affected by this co-designated, although there may be sites within a management unit that may not be appropriate for mineral or coal development. Determinations of this type are to be made as part of the regulatory/permitting processes related to the authorization of these uses. Although coal or mineral development within the aforementioned areas is considered appropriate or may be appropriate with stipulations, mining or coal authorizations granted by DNR shall carefully consider the effects of a proposed development on the area's fish and wildlife and their associated habitats within the management unit, and the short and long term effects on human access to those resources. Those habitats considered significant within a management unit are identified in the Resource Allocation Table in Chapter 3. Some of these habitat areas are used on a seasonal basis and activities that occur at other times of the year than these periods may be appropriate. Consult the Fish and Wildlife Habitat section of this chapter for the specific periods that these seasonal use periods occur. In all instances, consult ADF&G prior to issuing an authorization for mineral or coal exploration or development.

**K. Leaseable Mineral Development.** State land within the planning area may be leased or opened for mineral or coal exploration and development if the department determines it is in the best interest of the state to enter into a lease for such resources. Before authorization of a lease, the department will determine if the surface values are significant enough to warrant restricting surface entry. The surface impacts of proposed underground mining shall be fully considered as part of the permitting process.

**L. Other Guidelines Affecting Subsurface Resources.** Other guidelines will affect subsurface resources. See other sections of this chapter.