

MINERALS AND MATERIALS RESOURCE MANAGEMENT STRATEGY

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MANAGEMENT STRATEGY

Introduction 1

Authorities and Responsibilities 1

 11 AAC 99.100. Mining rights. 1

Disposal of Trust Mineral Resources 2

Inventory and Mineral Potential Evaluation of
Mineral and Material Assets 3

Minerals and Materials Management Strategy 3

 Minerals and Materials Management 4

Development Issues 5

 Addressing Resource Conflicts 5

 Political and Regulatory Environment Effects 5

 Risk Management 5

 Capital Risk. 6

 Diversification 6

Goals and Objectives 7

Introduction

Resource development decisions made today will impact the Trust and its beneficiaries for generations to come. Accordingly, a profound mineral and materials resource management strategy and a sound resource policy are required to enable economic growth on Trust lands. Establishing these policies requires an understanding of the quantity and quality of the Trust's mineral endowment, the commercial viability of that endowment, and expectations for future mineral production and its economic benefits.

Trust lands have significant potential for mineral and materials resources (including base and precious metals and industrial metals). Some production has already been realized, primarily from the Fort Knox gold mine and various small placer mining operations in the Fairbanks mining district.

New discoveries are essential for the continuing growth in Trust land mine production. Such growth is critical to retain the Trust's capacity to generate revenue to fund Trust beneficiary programs. While extensions to existing resources will continue to support production volumes, exploration for new discoveries are urgently required to ensure that an ongoing pipeline of mineral resource projects are available to meet future demands.

Authorities and Responsibilities

The Alaska Mental Health Enabling Act of 1956 provided the Trust with a land endowment of one million acres. Specific to that grant is the statement that "all grants made or confirmed under this section shall include mineral deposits"¹ subject to prior existing rights. It is inherent in the Act that the minerals were to be conveyed with the land in order to be utilized by the Trust. Today, the Trust finds itself with a mixture of lands, some of which are owned fee simple (meaning the Trust owns both surface and subsurface rights), while other holdings are mineral rights only, hydrocarbon rights only, or surface rights only.

Management of Trust lands is guided by Title 11, Chapter 99 of the Alaska Administrative Code (11 AAC 99). These regulations outline mining rights on Trust land as follows:

11 AAC 99.100. Mining rights

(a) Rights to locatable minerals on trust land are available only as provided in this section. To the extent that a statute or regulation applicable to other state land, including AS 38.05.185, 38.05.195, 38.05.205, and 38.05.245, contains a requirement that provides for or permits the acquisition of mineral rights, rights to prospect, or rights that open land to claim staking, mineral location, or leasehold location, that provision of law is considered inconsistent with 11 AAC 99.020, and does not apply to trust land.

(b) The executive director, in consultation with the trust authority, shall open areas of Trust land under one or more of the following methods, or under (c) of this section, which the executive director determines to be consistent with 11 AAC 99.020: (1) competitive lease; (2) exploration license; (3) negotiated agreement; (4) prospecting permit; (5) mineral entry; or (6) by other methods that the executive director considered appropriate.

(c) If an area is not opened for the disposal of rights to locatable minerals under (b) of this section, a person may apply under 11 AAC 99.030 for an authorization to explore and prospect for or lease locatable minerals in that area.

(d) Terms and conditions of an authorization under (b) of this section, applicable to mining rights on trust land, shall be developed in consultation with the trust authority.

(e) The rent, royalty, and assessment work credit provisions of law applicable to other state land, including AS 38.05.211 and 38.05.212, do not apply to trust land unless determined by the executive director, on a case-by-case basis, to be consistent with 11 AAC 99.020. The determination shall be stated in a written finding.

(f) Nothing in this chapter affects valid mineral rights on trust land that existed at the time the land was designated as trust land.

Under this code, the normal methods of acquiring mining rights on state land do not apply to Trust land. Instead, the TLO executive director will open land for mineral development as dictated under (b) above.

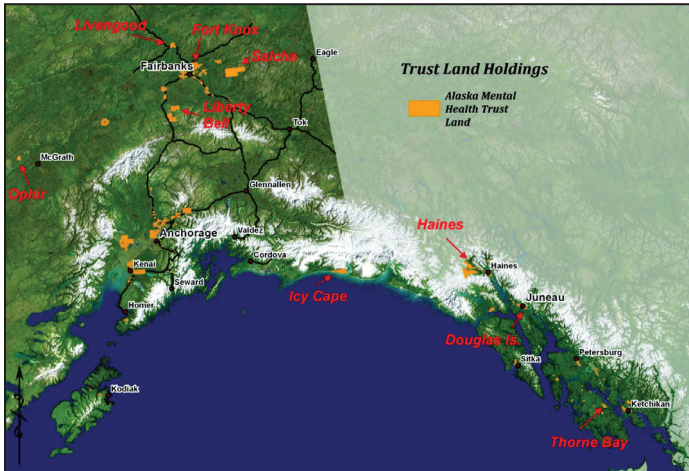
The development of minerals must be consistent with the overall general management of Trust lands as outlined in 11 AAC 99.020, which states that

¹ Sec. 2.2 (c)

MINERALS AND MATERIALS RESOURCE MANAGEMENT STRATEGY

2016 RESOURCE MANAGEMENT STRATEGY

"management shall be conducted solely in the best interest of the Alaska mental health trust and its beneficiaries," that land be managed for "maximization of long-term revenue" and that a "best interest" decision consider only the interests of the Trust and the beneficiaries. Such a best interest decision, made on a case-by-case basis, is in fact required to be written and made public before a disposal of interest is finalized.



Trust Land Holdings Showing Select Areas with Metals Resource

Disposal of Trust Mineral Resources

Trust lands generate revenue through disposal of mineral and material resources. ("Disposal" here means the issuance of a lease or sales contract that grants the lessee the right to explore for, develop, remove, and market a particular resource on Trust land.)

Note that land use licenses are not considered a disposal of interest in Trust land because they do not allow for the acquisition of an interest in Trust land or resources. A license is issued to authorize a particular use of Trust land.

Regulation 11 AAC 99.020 describes the management responsibilities that are consistent with Trust principles accepted by the Territory and State of Alaska under the Alaska Mental Health Enabling Act. When taking land management actions, including disposal of resources, the executive director must make a number of considerations to be consistent with these principles. These considerations are:

1. *Maximization of long-term revenue from trust land;*

2. *Protection of the corpus of the Trust;*

3. *Protection and enhancement of the long-term productivity of the land;*

4. *Encouragement of a diversity of revenue-producing uses of trust land; and*

5. *Management of trust land prudently, efficiently and with accountability to the trust and its beneficiaries.*

11 AAC 99.020(d) reads:

The disposal of trust land shall be on a competitive basis unless (1) the executive director, in consultation with the trust authority, determined in a written decision required by 11 AAC 99.040 that a non-competitive disposal is in the best interest of the trust and its beneficiaries; or (2) an existing law that is applicable to other state land and that is consistent with (a)-(c) of this section allows for a negotiated transaction.

This is the key regulation that determines how an interest in Trust land can be disposed. Disposal of resources on Trust land can be initiated in several ways, such as the expression of interest from a prospective purchaser, the acceptance of an application, or the opening of an area by the executive director for leasing, but the actual disposal is conducted based on 11 AAC 99.020(d).

Regulation 11 AAC 99.100 gives the executive director great latitude in determining the best method of making Trust land available for mineral development. The preferred method of encouraging mineral development on Trust land is issuance of a lease, either on a competitive basis or, if consistent with 11 AAC 99.020, on a negotiated basis.

For certain deposit types such as precious metal and base metal deposits where there is healthy competition for leasing Trust lands, especially in times of high commodity prices, a competitive land lease offering would be the preferred method. However, in times of low commodity prices and therefore a downsizing industry a direct negotiated lease is the best way to guarantee success in attracting a competent partner for mineral development. Specialized materials such as heavy mineral sands are a different category. The heavy mineral sands industry is relatively small compared to the hardrock mining industry with only a handful of major mining companies operating

worldwide. The flexibility of entering directly into an exploration license or a negotiated lease significantly increases the chance of attracting key industry partners for mineral development.

The disposal of industrial minerals such as sand, gravel and rock is governed by the principles outlined in 11 AAC.99.020 and 11 AAC 99.030, with one important exception: the sale of up to 100,000 cubic yards of material is not considered to be a disposal.²

Inventory and Mineral Potential Evaluation of Mineral and Material Assets

The TLO maintains a portfolio of multiple mineral projects and seeks to create partnerships with mining companies that fund major exploration work and mineral development on Trust land.

Proper inventory and mineral potential evaluation of Trust lands is critical. The TLO is using Geographic Information System (GIS) technology to develop a Minerals and Material Information System and to evaluate the mineral potential of its mineral properties. This task has already been completed for the large Ophir, Salcha, Liberty Bell, Icy Cape, Thorne Bay, Haines and Douglas Island land blocks. The developed comprehensive GIS databases are comprised of geological, structural geological, geochemical and geophysical exploration datasets accommodating spatial and nonspatial information and allow for quick access and easy comparison of complex datasets, and aid the stimulation of mineral exploration concepts.

Mineral potential evaluation for various mineral deposit types on Trust land is conducted by either using “classic” evaluation methods or more modern approaches such as data, or knowledge-driven GIS-based mineral potential modeling. Mineral potential evaluation leads to the delineation of highly prospective areas within individual land blocks and allows for ranking of individual mineral exploration targets.

As of the printing of this plan, the only metal deposits on Trust land with calculated reserves/resources are at the Fort Knox gold mine and Livengood gold project.

Deposit	Fort Knox	Livengood
Potential Trust Value	\$24 million	\$436 million
Proven/ Measured	115,116,000 tons 0.013 opt 1,510,000 oz.	817,684,000 tons 0.016 opt 12,893,000 oz.
Probable/ Indicated	122,629,000 tons 0.017 opt 2,099,000 oz.	354,844,000 tons 0.013 opt 4,870,000 oz.
Possible/ Inferred	99,824,000 tons 0.014 opt 1,375,000 oz.	492,594,000 tons 0.012 opt 6,041,000 oz.

Minerals and Materials Management Strategy

Strategic initiatives are required to maintain the Trust land’s competitiveness, address the exploration challenges, ensure a long-term resources pipeline is filled to prepare for the next cycle of investment in mineral resource projects, and secure the longevity of the resource industry operating on Trust land.

The major objective of the Minerals and Materials Resource Strategy is to attract industry partners to develop the mineral potential of Trust lands with the sole purpose of generating revenue for the Trust for generations to come. Industry partners need to possess both significant financial capacity and the necessary technical and managerial skills to explore and develop the Trust’s mineral resources. Attracting such partners while still securing full value for the Trust’s resources requires carefully designed leasing policies and contractual terms. The TLO follows well established and transparent procedures for leasing and seeks to establish financial terms that are competitive with the private marketplace (while recognizing that each property has its own set of merits dependent upon location, access, geology, available information and commodities).

Commodity markets and industry conditions are subject to change, and therefore, the TLO faces the challenge of quickly adopting to new situations and business opportunities. For instance, if the TLO believes that a particular commodity’s demand will be rising, but Trust lands don’t have the potential for this particular commodity, the TLO might acquire mineral properties outside Trust lands that have the particular potential and market these properties to the industry

² 11 AAC 99.990(8)(b)

MINERALS AND MATERIALS RESOURCE MANAGEMENT STRATEGY

2016 RESOURCE MANAGEMENT STRATEGY

for mineral development for the sole purpose of generating revenue for the Trust.

The TLO operates as a project generator by maintaining a portfolio of multiple projects that get explored and developed by creating partnerships with competent mining companies, generally mid-tier or major mining companies. By maintaining multiple projects partnered with multiple partners at any given time increases the chances of exploration success and possible mine development.

The TLO's mineral resources management strategy is very dynamic and aggressive in nature. It describes the conceptual approach to estimating the quality and quantity of the Trust land's underlying mineral resources, the economic potential of these resources in consideration of alternative economic development planning, the aggressive marketing strategy, and the land leasing strategy for mineral development to generate revenue. This approach is comprehensive in nature and requires the ability to quickly adapt to changing industry market conditions.

Minerals and Materials Management

The Trust's Mineral and Materials Resource Management Strategy consist of the following integral components:

1. Mineral Property Evaluation Plan

The evaluation of the mineral potential on Trust lands is based on interpretation of available geological information, geophysical and geochemical exploration data using GIS technology. This leads to the delineation of highly prospective areas for mineral exploration and mine development.

For Trusts lands where the amount of technical information and data available is too limited to allow for a comprehensive mineral potential analysis, the TLO conducts field reconnaissance surveys to collect the relevant information for the purpose of increasing the land parcel or block's marketability to the mineral industries.

This undertaking requires some investment from the TLO's own financial resources, however, in order to offset some of the costs the TLO has endeavored a new unconventional path to help finance its own first pass exploration campaigns by partnering with key players in the mining industry that financially

contribute to the TLO's programs for the benefit of having a first glance at the exploration data. This new way of leveraging has been very successful at evaluating the valuable heavy mineral sands potential at Icy Cape where a major heavy mineral sands mining company made significant financial investment to the mineral potential evaluation project.

2. Product Development and Marketing Plan

Product development for marketing is a major component of the Mineral and Materials Resource Management Strategy. Developing state of the art marketing products to attract strategic partners for the exploration and development of minerals resources on Trust lands is critical. The TLO is in constant dialog with the industry and promotes and markets the mineral potential of Trust land directly to the key players in the international mining industry through participating in national and international mining conventions. The TLO listens to the industry to design and tailor its marketing and technical products specifically to the industry needs. A flexible and proactive approach is key; therefore the TLO constantly explores new and unconventional ways to generate revenue for the Trust.

3. Land Lease Offering Plan

The TLO's ongoing aggressive marketing campaigns, as well as ongoing exploration and mining activities by industry partners on Trust lands, have resulted in increasing interest in Trust land by the mining industry, whether it is for precious metal or base metal exploration, placer mining, heavy mineral sands exploration or material sales. Trust lands were selected in some cases for their significant mineral potential. There is growing acknowledgement by industry of the Trust land mineral potential and the benefit of working with the Trust to create strategic partnerships. The ultimate goal for the mineral program is to encourage mineral exploration and development on its lands to generate maximum revenue for the Trust.

4. Revenue Generation Plan

There are a number of options regarding financial return to the Trust in resource extraction. These are usually in the form of royalties, but also annual rental lease fees, and cash bonus payments from competitive lease offerings. Royalties are typically agreed upon as a percentage of either a net proceeds-type royalty or a gross revenue-type royalty. Gross revenue is typically

assessed as a percentage of the value of the mineral extracted and does not allow for deductions of mining costs. A net proceeds royalty on the other hand is assessed as a percentage of the net proceeds (or net profit) of the sale of the mineral with deductions for a broad set of mining costs. For leases of Trust land that originate from the TLO, a gross-type royalty is preferred so a steady revenue stream is available from the outset of production and continues whether the operator's profits are high or non-existent. In addition, this form of agreement is easier to administer, eliminating consideration of the grantees operations. This minimizes risk to the Trust's income stream. For example, Trust leases for placer gold vary between 10 and 20 percent of the adjusted gross value; and hard rock mineral royalties commonly vary somewhat but generally is competitive at a 3 to 3.5 percent gross royalty for base metals. The Trust has a sliding scale net royalty ranging from 1 percent to 4.5 percent depending on the price of gold. Heavy mineral sands contain several product streams, predominantly ilmenite, rutile, zircon and garnet. The weighting of each of these minerals (referred to as the assemblage of the deposit) varies significantly by deposit. Therefore, a gross-type royalty with a percentage determined based on the assemblage of the deposit is preferred for valuable heavy mineral sands.

Royalty terms are subject to change based on commodity market conditions and industry practices.

Development Issues

Addressing Resource Conflicts

Resource conflicts on fee simple Trust lands are rare, largely because the marketplace usually resolves the relative value of resources on a merit basis. For instance, most parcels in an urban or suburban setting have high real estate values and little chance of being developed for mineable resources due to their location in densely populated areas — and thus the mineral resources are not pursued. For those areas where resource conflicts do occur, such as timber and mineral resources at Icy Bay, active management is required by the TLO to ensure both resources' value can be realized without sacrificing either.

More common are conflicts on lands with a split estate — where the Trust owns the subsurface mineral estate and another entity, like the State of Alaska, owns the surface estate. In such cases, the public has become

habituated to using the land as if it were typical state-owned land and is not aware that the Trust has a need and a right to eventually develop the subsurface resources. In addition, in some instances the state has contributed to conflicts by selling the surface estate for residential use and thus has severely compromised the Trust's ability to develop its resources. In these instances, the Trust should aggressively seek to return these lands to the state and receive replacement lands that have a reasonable chance to be developed, thus meeting the original intent of Congress in granting minerals to the Trust.

Political and Regulatory Environment Effects

Alaska's economy is almost totally dependent upon the extractive resource industries, petroleum and mining. As revenue from the oil industry continues to decline due to decreasing production on Alaska's North Slope, the state will become more dependent upon other sources — especially mining — to help offset the loss of oil revenue.

Mining activity in Alaska as a whole will likely increase, and mining development of Trust land may become an even more important source of funding for the Trust. The TLO and the Trust have a role to play in these developments, particularly in supporting business partners and investors in their efforts of responsible development of resources on Trust land and defending the Trust's responsibility to develop its resources. The TLO and the Trust also need to monitor proposed legislative or regulatory changes that could add impediments to resource development.

Mine development proposals usually spark significant opposition efforts. These are driven by a combination of local groups, citizens, Alaskan conservation organizations, and national involvement. Concerns primarily focus on local environmental degradation, effects on subsistence harvesting, health effects, property values and the negative economic result of these impacts.

Risk Management

Natural resource projects are subject to many risks: future commodity prices; uncertainties about the quality and quantity of the resource base; developing technology; input prices; and external or domestic political developments.

Such risks must be assessed and classified. Typically,

MINERALS AND MATERIALS RESOURCE MANAGEMENT STRATEGY

2016 RESOURCE MANAGEMENT STRATEGY

investors bear operational or market risk since they can better manage or control it. The Trust shares in bearing certain political risks since natural resource development projects often have some measure of controversy.

Capital Risk

The Trust has the potential to make much more profit on a large-scale mining operation if it were to successfully explore its land, discover a deposit, prove the deposit capable of being profitably extracted, successfully permit the facility, construct the facility, operate it until exhaustion of the resource, and conduct reclamation. However, each step is fraught with risk and requires expertise and personnel that would have to be acquired on a large scale.

While first pass reconnaissance exploration work is funded by the Trust, a full commitment to explore Trust lands would reasonably require millions of dollars per year with no assurance of successful development.

Thus, risk is reduced by not investing substantial Trust capital in resource exploration and development, but rather by marketing the properties to attract others to invest in this high-risk segment of the minerals business.

Diversification

Another method for reducing risk is to diversify the commodity portfolio as much as possible. Most commodities have price cycles that are difficult to predict but nonetheless are cyclical with established trading ranges. Commodity prices seldom rise and fall together, so it is advantageous to be involved with a wide selection of resources. Since some commodity prices fall as others rise, the TLO seeks to be involved with as many commodities as are available on Trust land — precious metals, base metals, materials, industrial rocks and minerals, etc.

Goals and Objectives

Trust lands have a significant but undetermined amount of valuable mineral resources, predominantly in the form of gold, base metals and mineral sands. The current program of aggressively leasing land for mineral development is already returning substantial revenue. The TLO's goal is to manage these resources to provide a relatively steady and increasing stream of revenue until such time as they are exhausted. Annual minerals and materials revenues have risen over the past two decades.

General Goal: Develop a diversified portfolio of mineral projects that can contribute significant revenue to the Trust.

Objective 1: Attract industry partners to develop the Trust lands' mineral potential to generate revenue.

Objective 2: Conduct leasing programs utilizing the plan guidelines for resource development on lands permissive of minerals and materials.

Mineral Resource Evaluation Goal: Develop and maintain a systematic Minerals and Materials Information System for mineral potential evaluation and land block inventory.

Objective 1: Using GIS technology, conduct mineral potential evaluation of Trust.

Objective 2: To delineate prospective areas for marketing purposes.

Product Development and Marketing Goal: Develop marketing products to attract strategic partners and expand marketing campaigns of Trust lands beyond the typical U.S./Canadian marketplace.

Objective 1: Develop state of the art marketing products specifically designed to the industry needs to attract strategic partners for the exploration and development of mineral resources on Trust land.

Objective 2: Attend substantive and applicable events to market Trust assets.

Replacement Land Goal: Seek replacement land for those mineral-estate-only lands where development cannot take place due to surface conflicts.

Objective 1: Identify and compile a list of these impaired lands.

Objective 2: Identify potential replacement lands; seek a remedy through administrative, legislative or legal proceedings so that the intent of Congress can be met.

