Protecting and enhancing the value of Alaska Mental Health Trust Lands while maximizing revenues from those lands over time.
Meeting Agenda

Meeting: Resource Management Committee
Date: January 7, 2021
Time: 12:45 PM to 3:45 PM
Location: Online via webinar and teleconference
Teleconference: (844) 740-1264 or toll call (415) 655-0003 / Meeting Number: 177 591 8585 # / Attendee Number: #
https://thetrust.webex.com/thetrust/j.php?MTID=mcbc89b9e62a4c7fcc295197058cd26cb
Trustees: John Sturgeon (Chair), Rhonda Boyles, Verné Boerner, Chris Cooke, Annette Gwalthney-Jones, Anita Halterman, Ken McCarty

Wednesday January 7th, 2021

1. Call to Order (John Sturgeon, Chair)
   - Announcements
   - Approval of Agenda
   - Ethics Disclosure
   - Approval of Minutes
     o 2020-10-21

2. Executive Director Report

3. Approval(s):
   a. Item 1 – FY21 Icy Cape Gold & Industrial Heavy Minerals Project – Wyn Menefee & Dr. Karsten Eden

4. BREAK – 15 Minutes

5. Consultation(s):

6. Trustee Comments

7. Adjourn
ALASKA MENTAL HEALTH TRUST AUTHORITY

RESOURCE MANAGEMENT COMMITTEE MEETING
October 21, 2020
12:30 p.m.
WebEx Videoconference/Teleconference

Originating at:
3745 Community Park Loop, Suite 120
Anchorage, Alaska

Trustees Present:
John Sturgeon, Chair
Rhonda Boyles
Chris Cooke
Ken McCarty
Verne’ Boerner
Annette Gwalthney-Jones
Anita Halterman

Trust Staff Present:
Mike Abbott
Steve Williams
Carol Howarth
Miri Smith-Coolidge
Kelda Barstad
Luke Lind
Michael Baldwin
Katie Baldwin-Johnson
Jimael Johnson
Valette Keller
Allison Biastock
Kat Roch
Katie Vachris

Trust Land Office:
Wyn Menefee
Sarah Morrison
Jusdi Doucet
David MacDonald
Karsten Eden
Hollie Chalup
Jeff Green
D. W. Griffin
Paul Slenkamp

Also participating:

Alaska Mental Health Trust Authority
CALL TO ORDER
CHAIR STURGEON called the meeting to order and began with a roll call. With all trustees present, he asked for any announcements.

MS. HALTERMAN stated that she may drop off the call abruptly and then may drop off altogether about the time for the executive session.

CHAIR STURGEON asked for any other announcements. There being none, he moved to the approval of the agenda.

MR. MENEFEE noted that there would be a brief update on Icy Cape in the general session before going into executive session. He asked that Item 6 be changed to Icy Cape project update and executive session.

CHAIR STURGEON asked for a motion to approve the agenda with that modification.

APPROVAL OF AGENDA
MOTION: A motion to approve the amended agenda was made by TRUSTEE HALTERMAN; seconded by TRUSTEE COOKE.

ETHICS DISCLOSURES
CHAIR STURGEON asked for any ethics disclosures. Hearing none, he moved to the approval of the minutes and asked for a motion for the July 30, 2020 meeting.

APPROVAL OF MINUTES
MOTION: A motion to approve the July 30, 2020 minutes was made by TRUSTEE COOKE; seconded by TRUSTEE HALTERMAN.

After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)

EXECUTIVE DIRECTOR’S REPORT
MR. MENEFEE began with the timber in Shelter Cove. He stated that the public notice period closed with one comment. Forthcoming will be a best-interest decision affirmed to deal with that one comment. He continued that the IFP from the last meeting is being worked on for how to capture the high end of the market. A Harvest market agreement structure was developed. All the documents to put this together are still being worked on, and the Trust Land Office is working with DOT on the road portion of it. On Icy Bay, the timber sale closed out and there was a penalty payment because of some uncut timber. The Forest Practices Act was followed and all the reports on that indicated that it was done well. He moved to Prince of Wales Island where Viking has been near Klawock harvesting Sitka spruce, hemlock, and cedar. About $2.7 million was received so far, and that is an attribute to the land received through the land exchange. He explained that was Phase 1, and part of Phase 2 is starting. There was a timber sale in Yakutat, the Yak Timber Sale, which is progressing well, but is not complete. He added that the reports from the inspections have been very good and the harvest is going well.
community is accepting it because the local tribe has Yak Timber that is doing the harvest, which is a good thing. A lot of folks are very excited about the resulting subdivisions sales that will come after the roads are put in. He moved to Hollis where a small timber sale will also provide some lots for subdivision. He continued with land sales and stated that there will be a consultation and noted that the fall land sale is open, out to the public and will close November 16. It is a statewide action and bids have been coming in. A good, successful auction is expected. On the land side, a memorandum of agreement with DNR, Mining, Land and Water, DOT, and the Trust Land Office is being worked on regarding dealing with section-line easements. The final draft is at DOT for final approval. He moved to the land exchange and stated that a lot of last-minute things are being taken care of. He explained the work on removing the lis pendens on No Name Bay. The work is being done with SEACC, who sued the State over No Name Bay and how it was managed. A ruling was received from the Supreme Court. The TLO is trying to get the lis pendens removed so that the land exchange with the Forest Service can continue. This is in the interest of SEACC and the TLO to get that exchange completed. He moved on to the Hollis Boatworks where the Forest Service has a trespass issue that we told them they need to vacate as part of the land exchange. Hollis Boatworks has filed a lawsuit against the US Forest Service stating they should not have been denied the permit. He added that the Trust is not named in that lawsuit. On the timber cruise, the land was completed and sent to the appraiser. The appraisers are working on the final appraisals for Phase 2(b), the last part of the land exchange. He stated that letters for the big-game guide program were sent to all the air taxi and transporters in the state to tell them about the need to get authorizations to use Trust land, and we have been getting calls and receiving interest in how to comply. He continued that the public notices on the two big material sales in Haines and Meadow Lakes closed at the end of the month, and we hope to get best-interest decision affirms done quickly and get those processes under contract. He added that, with the gold prices being up around $1,900 an ounce, there is a lot of interest in gold, which means more gold exploration. On a sidenote, he recognized Karsten Eden who received his certificate from the governor for five years of service. He also recognized Hollie Chalup, who received a ten-year certificate for working with the State, but not all that time was with the Trust.

CHAIR STURGEON thanked Mr. Menefee for the presentation and asked for questions. After a brief question-and-answer, he moved to the consultations. He asked that the proposed motion be read into the record.

MOTION: The Resource Management Committee recommends that the Alaska Mental Health Trust Authority Board of Trustees concur with creating a pool of approximately 194 subdivision lots and small- to medium-sized parcels that may be disposed of through the Trust’s TLO’s Statewide Land Sale Programs was made by TRUSTEE HALTERMAN; seconded by TRUSTEE McCARTY.

MR. MENEFEE introduced Jeff Green to walk through the consultation.

MR. GREEN stated that he is the Southcentral land manager at the TLO and one of his responsibilities is managing the statewide land sales programs which include the statewide competitive land sale program and the over-the-counter land sale program. He explained that this consultation is to create a parcel bank of 194 parcels from all three regions across the state, to authorize the disposal of them in a specific method over the next three years. He added that this year’s land sale program is currently underway. If a parcel does not sell it may be rolled into the over-the-counter land sale program; then if it still has not sold and has an appropriate market.
exposure, has been on the OTC land sale program for a few years, it may be sold through a negotiated sale at or above the fair-market value. He clarified the discrepancy in the years in which lease sales might take place and moved to revenue. He stated the hope is to generate $1 million each year from the competitive land sale with about $3 million total in principal over three years. He then briefly talked about the background of the land sale programs and the processes that are gone through in subdividing to prepare for future land sales. He explained in detail that the parcels are selected based on a number of factors and using several different sources of information. He reminded the trustees that all of this is subject to the best-interest decision and the public-notice process. That is completed as required by regulation, and the communities and the public will be noticed and have an opportunity to comment on the potential sale parcels, if they choose to participate in the process.

CHAIR STURGEON went through questions and then asked for a vote on the consultation.

After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)

CHAIR STURGEON thanked Mr. Green for an excellent presentation and called a short break.

(Break.)

CHAIR STURGEON called the meeting back to order and continued to Item B. He asked for the motion for the record.

MOTION: The Resource Management Committee recommends that the Alaska Mental Health Trust Authority Board of Trustees concur with the decision to issue a negotiated surface lease facilitating the development of a lode gold deposit adjacent to the Fort Knox Mine was made by TRUSTEE COOKE; seconded by TRUSTEE BOYLES.

MR. MENEFEE stated that this consultation will be talking about what is going on in the Fort Knox area and the Gil project. Then another portion will discuss the Fort Knox mining. He asked Hollie Chalup to continue.

MS. CHALUP began her presentation by looking at the regional map to get an orientation of the two projects that will be discussed. She began with the Gil project, which is important for the Fort Knox Mine and the royalties that the Trust receives from Fort Knox. She explained that, in the normal mining process, extraction and development is being done, but there is also exploration being done. The exploration of the Gil project goes back to the 1990s with several other different exploration entities. The prospect is very well delineated with a good understanding of the potential resource. She stated that the Fort Knox Mine is going through Phase 9 and Phase 10 of their development plan. While that is occurring, to access new ore material in the pit, there is the need to supplement which will hopefully be by developing the Gil prospect. She continued that a negotiation of a surface lease of the Gil prospect area on Trust land is anticipated. The land is encumbered by preexisting state mining claims. The subsurface mineral rights are managed through the DNR mining section under statutes and regulations that preexisted on this land. The anticipation that, under current gold prices, the royalty production supplementing the mill at Fort Knox will be about $4.5 million. This would supplement the royalty income streams through the Fort Knox Mine considerably. She continued that the
appraiser is currently working on the appraisals for both the Gil prospect and for Victoria Creek. She added that the lease would be about ten years and will include three to four years of development, and then a buffer for reclamation. Post-approval of reclamation, the Trust could terminate the lease. She went through the details of the area and the project in greater detail. The successful funding of the project is a contingency of this proposal. She also explained the royalty rate, which is 3 percent.

CHAIR STURGEON asked for any further questions or comments. There being none, he called the vote.

After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)

CHAIR STURGEON moved to Item C and asked for the motion.

MOTION: The Resource Management Committee recommends that the Alaska Mental Health Trust Authority Board of Trustees concur with the decision to issue a negotiated surface lease to facilitate the expansion of the Fort Knox Mine pit and Gilmore project was made by TRUSTEE COOKE; seconded by TRUSTEE BOYLES.

MR. MENEFEE stated that there are two major things that large mines have to deal with: water management and rock management. He continued that this consultation is the rock management portion. He asked Hollie Chalup to continue.

MS. CHALUP stated that this project is very important to the royalty revenue streams. The Pushback project at the Fort Knox pit is moving a 770-foot tall wall of rock out of the pit in order to expose additional ore resources to mill. She continued that it needs to be put someplace and there is a substantial amount of Trust land that surrounds the existing Yellow Pup Waste Dam, which is usually used for the deposit of waste rock. She added that this a simple and straightforward proposal. It would be a surface land lease where 12 percent appraised land value annually for the term would be received. It is anticipated that the term of the lease would be ten years and accommodates through the end of mine life for the Fort Knox Mine. By facilitating the Victoria Creek waste dump, the Gilmore Pushback is being supported. The Gilmore Pushback extends the mine life of the Fort Knox Mine out to 2027, with additional material to the Barnes Creek Heap Leach which pushes total mine life out to Year 2030. In order to continue receiving royalties off the Fort Knox operation, there is a need to facilitate for them to be able to extract additional millable ore. The lease area would be about 235 acres total, and the deposit of waste rock would occur in three different phases over a three- to four-year period. She continued that, as the plan of operations is developed and the development plan is fleshed out, staff will be looking to ensure that any potential revenue streams for the Trust are protected.

CHAIR STURGEON asked for any questions or comments. There being none, he called the vote.

After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)
CHAIR STURGEON moved to the Item D consultation and asked for the motion to be read into the record.

**MOTION:** The Resource Management Committee recommends that the Alaska Mental Health Board of Trustees concur with the issuance of a negotiated lease for the exploration and development of natural gas resources on Trust lands was made by TRUSTEE COOKE; seconded by TRUSTEE McCARTY.

MR. MENEFEE recognized Hollie Chalup to brief this consultation.

MS. CHALUP stated that this is from Gardes Holdings and they are requesting to lease approximately 4200 acres of Trust subsurface and surface estate in the Mat-Su, specifically the Big Lake and Houston areas. She continued that this would be a relatively short-term proposal for gas exploration. It would be a five-year lease with an option to extend, which would depend on the results from exploration. This would be a negotiated lease of the oil and gas resources. She explained that there is really no market in this area to facilitate doing a competitive lease at this time, but we can do a negotiated lease by accepting a one-time bonus bid fee. That would cushion and ensure that the Trust is receiving an adequate revenue resource for the negotiated lease, as opposed to doing it by a competitive lease. She continued that the applicants have offered a $25-per-acre annual rent, which is a great rate for this area. If the exploration is successful, there will be a 12.5 percent production royalty, per industry standard. She added that these parcels have been offered in the past through the competitive lease program in the early 2000s. She stated that the intention of the applicant is to re-evaluate that well in the area by conducting additional resource evaluation and exploration methodologies specifically developed by Gardes. She continued that they are in the business of developing new technologies and exploring their patented technologies in specifically coalbed methane. They also work in traditional gas resources, as well. The intention is to re-enter the Northern Dancer No. 1 well, re-evaluate, compare the new data to the old, and make a determination by doing tests on each formation layer to see whether that could be turned into production using the new technology. The anticipated revenue is primarily income through annual rent and work commitments. If the exploration proves successful, then this well, or any additional wells on-line, would get a principal royalty of 12.5 percent production. She added that this is a new proposal and is relatively straightforward; an exciting opportunity.

CHAIR STURGEON asked for any questions or comments. After discussion, he called the roll-call vote.

*After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)*

MR. MENEFEE gave an update of the Icy Cape project. He continued that Karsten Eden will do the update up to the point when there is the need to go into executive session.

DR. EDEN stated that he is a geologist with 25 years of experience in mineral exploration, mining development. He continued that the majority of his career was spent on placer deposits, and Icy Cape is right up his alley. He added that he is the exploration manager for the project. He stated that Icy Cape is located near Icy Bay and he went through the history of the project, the background research and how the concept of defining this property and the project developed.
He continued that, so far, a total of 13,000 feet was drilled; 190 bore holes, and a total of over 12,000 samples. It was a huge task, and the results are extremely encouraging, so far. He added that the total budget was $5.2 million; $4.9 million has been spent, with a balance of $300,000 that will be spent on assaying. He shared and explained the pictures of the site and the progress of the facility and the drill rig, and how the drilling was done and worked. He stated that two distinct sedimentary units were defined; the garnet and epidote minerals were high quality. Icy Cape sediments are a viable source of income. He then talked about the resources and reserves. The pre-feasibility study and indicated resource status will help the Trust secure the higher ultimate returns for the Icy Cape mineral resources. He asked for any questions.

CHAIR STURGEON stated that since there were no questions, a motion was needed for executive session.

**MOTION:** Per Alaska Statute 44.62.310(b) and Alaska Statute 44.62.310(c), TRUSTEE BOYLES proposed that the Resource Management Committee move into an executive session to discuss confidential financial matters pertaining to the Icy Cape Mineral Exploration Project. No decisions will be made in the executive session; seconded by TRUSTEE COOKE.

MR. ABBOTT recommended that he, Wyn Menefee, Jusdi Doucet, Hollie Chalup, Karsten Eden, Steve Williams, Carol Howarth, and Miri Smith-Coolidge join the executive session.

*After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, not present; Trustee Cooke, yes.)*

(Executive Session from 2:56 p.m. until 3:42 p.m.)

CHAIR STURGEON stated, for the record, that he, his fellow trustees, and members of the Trust Authority and Land Office returned to the Resource Management Committee from the executive session. No decisions were made during the executive session. He asked if anyone had anything to talk about as far as the Resource Committee.

TRUSTEE BOERNER congratulated Dr. Eden and Ms. Chalup on their presentations.

CHAIR STURGEON stated that went for the whole board on an excellent job. He asked for a motion to adjourn.

**MOTION:** A motion to adjourn the meeting was made by TRUSTEE McCARTY; seconded by TRUSTEE GWALTHNEY-JONES.

*After a roll-call vote, the MOTION was approved. (Trustee Boerner, yes; Trustee Boyles, yes; Trustee Gwalthney-Jones, yes; Trustee McCarty, yes; Trustee Sturgeon, yes; Trustee Halterman, yes; Trustee Cooke, yes.)*

(Resource Management Committee adjourned at 3:54 p.m.)
To: John Sturgeon, Chair  
Resource Management Committee

From: Dr. Karsten Eden, CPG, EurGeol

Date: 1/7/2021

Re: FY21 Icy Cape Gold and Industrial Heavy Minerals Project

Fiscal Year: 2021

Proposed RMC Motion:

Recommended Motion 1: “The Resource Management Committee recommends that the Alaska Mental Health Trust Authority board of trustees approve the proposed action Option 1 to fund the Icy Cape Gold and Industrial Heavy Minerals Project from the Trust Land Office Development Account (TLODA) with $10M. These funds do not lapse. This approval includes the associated development and cost recovery plans for Option 1 included in these presented materials.”

Alternative Motion 1: “The Resource Management Committee recommends that the Alaska Mental Health Trust Authority board of trustees approve the proposed action Option 2 Phase 1 to fund the Icy Cape Gold and Industrial Heavy Minerals Project from the Trust Land Office Development Account (TLODA) with $7M. These funds do not lapse. This approval includes the associated development and cost recovery plans for Option 2 Phase 1 included in these presented materials.”

Background:

Transaction/Resource: Three options are presented for consideration on advancing the Icy Cape Gold and Industrial Heavy Minerals Project (Project) with the primary objective to maximize the return for the Trust. A secondary objective is to create the maximized return as soon as reasonable. A third objective is to find a company that has the experience and financing to succeed in creating and operating a successful mining operation that fully utilizes the resource.

Hatch, a leading international consulting firm specializing in the mining, mineral and metals industries was contracted to provide an independent review for development options of the Project. Based on very encouraging exploration results thus far, assessment and ranking performed, Hatch recommends that the TLO further develop the Project through in-house financing in the near to midterm until the Project’s economic parameters and resources are more fully defined and returns to the TLO can be maximized. The review also recommends further development and exploration work to advance the mineral resource estimates to an indicated resources level followed by a pre-feasibility study. In Hatch’s professional opinion, to achieve maximum return on investment, the Trust’s best option is to advance
the Project to a pre-feasibility stage using compliant indicated resource estimates and to continue dialogue with the mining industry to engage suitable partners for the Project.

Following Hatch’s expert advice, TLO proposes two options to advance the Project to its recommended stage. Both options require further funding from the Trust to perform resource definition drilling to delineate a compliant indicated resource, conduct test mining and commission a pre-feasibility study. The TLO recommends Option 1 because it is more cost effective, provides the greatest potential to realize returns more quickly, and has the possibility of providing the greatest return on investment. However, recognizing the magnitude of the investment and the potential risk in granting this approval, Option 2 provides the possibility of a similar outcome with more decision input from the board and a greater exit strategy at the end of Option 2 Phase 2. This is why both motions are presented.

**Option 1** - is the most economic and expedient solution to achieve the Project’s goal. TLO estimates $10 million are required over five years to bring the Project to the pre-feasibility stage.

**Option 2, Phases 1 and 2** - which combined will yield the same results as Option 1 over 7.5 years at a cost of $12.5 million, but incrementally and with significant differences in cost and timeline.

a. Phase 1 is the first step in a 7.5-year staged and incremental plan to advance the Project by defining an indicated mineral resource. The estimated cost of Phase 1 is $7 million to be spent over four years.

b. The estimated cost of Phase 2 is $5.5 million to be spent over 3.5 years and includes test mining, engineering studies and commissioning a pre-feasibility study.

The reason this option, divided in two phases, takes longer and costs more than Option 1 is that under Option 2, several efforts are divided to run consecutively rather than concurrently, which increases the logistical and operations costs, but gives the board an additional point of decision whether to advance to Phase 2 after seeing the results of Phase 1. This provides a clean exit strategy after Option 2 Phase 1 if the results obtained during Phase 1 are not satisfactory. Option 1 could be discontinued if poor results were realized from further drilling but it does not provide as clean as an exit strategy since most of the work for both the indicated resource effort and pre-feasibility study would be underway. Stopping Option 1-part way through completion might mean that the potential cost recovery and revenues would be very similar to those expressed for Option 3.

Both Option 1 and Option 2 have different work schedules, timeline, budgets and expected returns which are outlined in detail in Exhibit B - Advancing the Icy Cape Gold and Industrial Heavy Minerals Project towards a Pre-Feasibility Study. The intent of both options is that at the conclusion of either option, the TLO would offer the Project for lease or partnership from a major mining company. There would be no additional project specific Trust funds requested because the TLO would conduct the offerings and subsequent management out of normal administrative operating funds.

**Property Description/Acreage/MH Parcel(s):** All MHT parcels no. CRM-0001, CRM-0002, CRM-0003, CRM-0004, CRM-0005, CRM-0006, CRM-0007A, CRM-0008 and CRM-0009 of the Icy Cape Block, located in CO22S019E, CO22S020E, CO22S021E and CO22S022E and subtends about 48,000 acres.
**General Background:** TLO’s Icy Cape property is located in the Gulf of Alaska near Icy Bay about 75 miles (120 km) northwest of Yakutat (Exhibit A). Placer gold in garnet-rich sands ("ruby sands") have been described in this region and explored for/exploited since the early 1900s. Between 1996, when land and minerals ownership of the Icy Cape Property (henceforth Property) was transferred from the State of Alaska to the Alaska Mental Health Trust Authority, and 2015, no mineral-resource related activity was conducted on the Property.

The Minerals & Energy (M&E) Section of the TLO identified the Icy Cape Property as prospective for placer gold (Au) and associated industrial heavy minerals (HM) deposits and initiated the Icy Cape Gold and Industrial Heavy Minerals Project in 2015. The Project is a staged and incremental effort with a focus on mineral resources and their subsequent commercial development. The Trust funded $5.2 million for preliminary exploration of these assets.

The Icy Cape Project was conceived, designed and implemented by Dr. Karsten Eden in his capacity as Minerals & Energy Section Chief of the TLO. Dr. Eden has worked extensively in Africa, Australia, Europe, and Alaska for both junior and major mining companies and governments. He has conducted exploration targeting, field-campaign planning, data analysis, field operations, resource modeling, and mineral economics projects. His many connections with experts in research, development, and mining have been instrumental in assisting him with the Project.

Dr. Eden is a Professional Geologist in the US certified through the American Institute of Professional Geologists, a Professional Geologist certified through the European Federation of Geologists, a Qualified Person as defined in National Instrument 43-101, and a Competent Person as defined by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves Joint Ore Reserves Committee (JORC) code. He is also a member of the International Institute of Mineral Appraisers.

Dr. Eden has over 25 years of experience in the exploration and development of industrial heavy mineral and placer gold projects. His peer-reviewed publications on mineral projects and research demonstrate his professional standing in the exploration and mining industry as well as in academia. He has been recognized as an Expert Witness in placer resources in the Superior Court for the State of Alaska.

Dr. Eden identified and selected Global Mineral Sands Inc (GMS) to assist the development of the Project. GMS is led by Andrew E. Grosz, a recognized domestic and international expert with over 40 years of professional research and exploration innovation in industrial heavy- mineral resources.

Between 2015 and 2020 the TLO reviewed, synthesized, and interpreted published and proprietary TLO documents. In 2015 the TLO collected heavy mineral (HM) concentrates in the field. In addition to those samples, there were over 100 samples collected at the Geological Materials Center in Anchorage, AK that were collected during pre-TLO ownership reconnaissance operations. These samples were analyzed by GMS for their mineralogical compositions. Results confirmed potential for gold, and
identify and quantify, garnet, epidote, magnetite and other HM as prospective co-products. These minerals comprise the majority of the HM group.

Samples totaling more than 4,000 pounds for laboratory studies were collected by use of a backhoe, hand dug pits, channel samples of road cuts, and hand-held augers. On-site reconnaissance panning showed all samples have gold and HM. In the laboratory, Icy Cape HM sands underwent comprehensive testing for mineral separation procedures. Individual mineral concentrates have been analyzed for various critical economic components for resource assessment (HM grade, mineralogical assemblage, quality, and particle size distribution). Garnet and epidote group concentrates were also sent to an independent industrial laboratory for testing as abrasive media. A low-altitude high-resolution aeromagnetic survey of the Project area was conducted. Data show patterns consistent with nearshore marine HM deposit models and were used to generate targets for drill testing in 2017 and 2018.

Stratigraphic framework and resource assessment drilling were conducted with an initial focus on the area between the eastern property boundary and the Little River to the west along the main road and old logging roads that were cleared in the spring for access to drill sites. Drill targets beyond the Little River were not accessible during the 2017 drilling program. Drilling was carried out by the Boart Longyear Company by use of an 8-inch diameter sonic drill. Samples were collected in 5-foot increments and are larger than specified to satisfy the requirements of JORC and NI43-101. 72 holes were drilled totaling approximately 7,000 feet.

Aeromagnetic models were directly correlated to the subsurface geology and guided subsequent drilling that confirmed projected stratigraphic sequences (beach complexes). Drilling confirmed beach sediments from the current shoreline to almost 3 miles inland. Field and laboratory analyses confirmed gold, garnet, epidote group minerals, and magnetites in the sediments. Stratigraphic framework drilling penetrated below the geophysically-defined target areas and led to the discovery of gold and HM-containing well-sorted sands below overlying confirmed gold and HM containing sedimentary sequences (stacked shorelines).

The geological team consisted of HM placer experts, gold placer and platinum experts, and geology students. TLO contracted GMS, a specialized consulting firm and laboratory for HMs, expert advice, consulting services, sample processing and analyses. At the end of the first field season selected samples were shipped to GMS and were analyzed for their economic geologic components HM and gold grade, mineralogical assemblage, quality of mineral species, geochemical aspects, particle size distributions, and abrasive qualities, along other physical aspects.

Stratigraphic framework and resource drilling continued in 2018. Targets west of the Little River in areas prospected by Paraclete Resources for gold were included. Gold and HM containing stratigraphic sequences discovered in 2017 were subjected to further drilling. Boart Longyear was awarded the drilling contract for the 2018 season and again used its powerful LS600 sonic drill rig that allowed waterless high-rate drilling by use of an 8” core barrel and 9” over-ride casing for continuous samples. To achieve the exploration goals for 2018 large segments of the main road were cleared or brushed along with selected abandoned old logging trails to access drill sites. New trails to access drill sites and temporary bridges, where river crossings were impossible, were constructed. Drill targets west of
Munday Creek could only be accessed by track-mounted vehicles. In support of targeted drilling a sample processing facility was built on site including a drill core archive.

In 2018, 46 holes were cored, totaling approximately 6,000 feet. At the end of the field season, all samples from the two drilling campaigns, were shipped to GMS for analysis. Samples are in analytical cue at GMS and TLO anticipates assay results of samples by the end of 2021.

The 2018 field season was challenging in terms of accessing and preparing drill sites. Based on the high performance of crews, all priority holes were successfully drilled ahead of schedule and drill cores were logged, processed, and sampled. This allowed drilling of additional holes for stratigraphic framework that continued to define extensive gold and HM-bearing sediments below projected geophysical targets. The underlying sands are finer grained well sorted sands and contain gold and HM in larger quantities than overlying sediments. They occur as massive sediment bodies with large horizontal and vertical extents.

The 2017 and 2018 drilling operations mainly focused on aeromagnetic highs that are interpreted to be former shoreline sequences with higher gold and HM content. Some aeromagnetically low areas drilled for geophysical model verification show high grade gold within the lower unit and indicate that aeromagnetic lows should not be ignored for further drilling for economic gold grade. This is likely a function of the resolution of the aeromagnetic survey’s parameters. Results show the Property contains areas of high gold and HM, areas with higher gold and lower HM, and areas with lower gold and higher HM grades. In total 119 bore holes averaging 113 feet in a range of 17.5 to 300 feet were sampled.

In 2019 bulk grab sediment samples were collected along new logging roads in the eastern Property from fresh road-cut exposures and borrow-pit walls excavated for logging road construction materials. Samples were processed on-site and shipped to GMS where the samples were analyzed for gold and HM. The “60m sands”, a fine-grained gold- and HM-rich sand unit that spans miles along the foothills of the mountains, were subsequently delineated for future exploratory drilling. Stream sediment samples were also collected by use of a helicopter and results of analyses suggest additional resource potential in inaccessible areas exhibiting aeromagnetic anomalies.

About two metric tons of the lower unit (fine-grained well-sorted sand (“marine sand”)) were processed on site for HM (garnet, epidote) concentrate that was tested for abrasive qualities by a third-party lab. Results show high quality abrasive resource potential.

In 2020, through a competitive bidding process, the TLO selected an independent review of the Project by Hatch, INC. for development option scenarios. Hatch is a leading international consulting, engineering, environmental and project management services company. It is the largest consulting services firm in the world that specializes in the mining, mineral and metals industries. One of Hatch’s key strengths is the ability to combine their financial and business experience with the technical excellence and knowledge of their wide array of industry experts.

Based on the very encouraging exploration results thus far, assessment and ranking performed, Hatch recommends that the TLO further develops the Project through in-house financing in the near-to mid-
terms until the Project’s economic parameters and resources are more fully defined and returns to the TLO can be maximized. The review also recommends further development and exploration work to advance the mineral resource estimates to an indicated resources level followed by a pre-feasibility study.

The Trust has funded the project with $5.2M through FY2021.

It is important to differentiate the Project from other hardrock mining ventures. This is a placer deposit. That means that particles from an ore body have been eroded, moved or transported to an area of deposit. What this means is that extraction techniques in this type of placer deposit do not require chemicals for extraction and onsite processing. That also means that there is no need for tailings dams and other advanced storage facilities for toxic chemicals or waste. The potential extraction of this type of resource can be seen similar to a large material site excavation. There are no tunnels or underground structures. This means that permitting for a placer operation is far less complex than permitting large hard rock mines like Fort Knox, Red Dog, Pogo, or Kennsington.

**Anticipated Revenues/Benefits:** The Property contains unique mineral prospects. It has the potential to become the Trust’s flagship property and to outperform any other mineral property the Trust owns in revenue generation over decades to come.

As with virtually all resource development projects, there is some risk involved with investing more funds in this project. The full extent of the potential resource is not known and further refinement of the potential resource comes with a cost. There is an adage in the resource extraction industry, “you have to spend money to make money”. Exploration does not guarantee expected results. By appropriate exploration planning and good fortune, the TLO has been able to see increasingly positive results at each stage of exploration including the new discovery and identification of the underlying mineral rich sands. Expected returns on investment are based upon conservative projections from the data the TLO has developed. Obtaining those results is dependent on obtaining sufficient data from infill drilling to support or exceed current projections to be able to identify compliant indicated resources. Further when royalties from a producing mine are discussed, it is an assumption that the TLO will be able to lease or obtain a joint venture partner that is willing and capable of taking the Project to a producing mine. There may be other external constraints that can affect that effort, such as mineral market prices, global economy, permitting problems, or pandemic. Exhibit D discusses de-risking the project. Even with the potential downside risks, the TLO still feels that it is appropriate to progress to indicated resources and pre-feasibility study by further exploration with a goal of maximizing the potential revenue from this mineral rich property.

Two Options for development are envisioned:

*Option 1* is the best option to achieve Project objectives efficiently. TLO estimates $10 million are required over five years to bring the Project to the pre-feasibility stage with compliant indicated resources. The optimized work plan and budget share resources and workflow among drilling, test mining and pre-feasibility studies.
It is plausible that TLO can generate revenue through royalties in a range of $100M to $150M (based on 10% royalty for placer resources) for the Grinder Prospect during its mine life. The details of that revenue projection were shared in executive session on 10/21/2020. However, this can likely only be achieved if the Project is developed to a pre-feasibility status with compliant indicated resources. At this status it will attract interest from suitable partners, likely major mining companies, that can provide support of resources (capital and experience) for exploitation adding a degree of de-risking to the Project. The Project could be offered to mineral industry as early as in 2025. The royalty revenues would be produced over the life of the mine.

If Option 1 is approved, TLO will offer at its completion this opportunity to the mineral industry with a requirement of an up-front bonus bid payment requirement prior to any future mine development and production (see Exhibit E Cost Recovery Plan). This would be structured to recover the Trust’s full investment to bring the Project to this pre-feasibility status.

No further project specific funding is anticipated after reaching pre-feasibility status. The offering of the opportunity will be conducted with regular TLO operational funding.

**Option 2 Phase 1** is the first step in a 7.5-year staged and incremental plan to advance the Project by defining an indicated mineral resource. A resource estimation by an independent firm specializing in gold and heavy mineral placers will then be commissioned. On completion of Phase 1, the TLO will present the results to the Board and if the results confirm indicated mineral resource in viable quantities, the TLO will recommend the following steps to complete Option 2 Phase 2 to reach pre-feasibility status. The estimated cost of Phase 1 is $7 million to be spent over four years.

A status of compliant indicated resource will attract mining interests. However, because Option 2 Phase 1 excludes a pre-feasibility study, returns to the TLO will most likely not be maximized to the same extent as having a pre-feasibility study. Defined economic parameters, as part of the pre-feasibility study, are critical parameters that will make or break the Project. Without those, a potential mining company interested in the Project will most likely negotiate a buy-in on the Project at a discounted rate, since the company would have to significantly de-risk the Project by conducting their own pre-feasibility study with all the associated studies and efforts. TLO believes it could re-coup some of its investment by a bonus bid as described in Exhibit E Cost Recovery Plan, but most likely not the full value. The balance will come from royalty payments over time when the Project reaches the production stage.

TLO could likely generate revenue through royalties in a range of $50M to $75M from the selected prospect during its mine life (based on a 5% discounted royalty rate). Under Option 2 Phase 1 our earliest offering of the Project to industry will be Fall of 2024.

**Option 2 Phase 2** is the second part of an incremental approach. It is not a stand-alone package, but rather the continuation of Option 2 Phase 1 aimed at advancing the Project...
towards a prefeasibility study which includes test mining, and operating a pilot plant to test commercial production, mineral separation, and recovery.

When the Project is developed to the point where a pre-feasibility study can be completed with a mine plan and discounted cashflow evaluation, the intrinsic value of the asset will be more accurately established, and a better return will be achieved by the TLO. Test mining and a pilot plant are necessary scope items that will provide the process design basis for recovery of both precious metals and industrial heavy minerals for a full-scale plant. Importantly, the pilot plant will also provide grade confirmation from drill samples from select mining areas.

TLO estimates $5.5M to be spent over 3.5 years to complete Option 2 Phase 2. Work under Phase 2 would begin as early as January 2025 and end with offering the Project to the industry in mid-2028. According to Hatch, expected returns to the TLO for reaching the pre-feasibility stage are highest of the alternatives they evaluated. It is plausible that TLO can generate revenue through royalties in a range of $100M to $150M (based on 10% royalty for placer) for one prospect during its mine life. However, this can only be achieved if the Project achieves a positive prefeasibility study. This will also de-risk the project significantly by making it more attractive for potential mining companies to invest in and develop this Project. TLO believes it could re-coup its entire investment by a bonus bid as described in the Cost Recovery Plan (Exhibit E).

Each of Option 1 and Option 2 have different work schedules, timeline, budgets and expected returns which are outlined in detail in Exhibit B - Advancing the Icy Cape Gold and Industrial Heavy Minerals Project towards a Pre-Feasibility Study.

**Anticipated Risks/Concerns:** Expenditures for mineral resource exploration and development activities at Icy Cape are investments for the Trust. These resources are indicated to be rewarding for the Trust and for the mining company that develops the prospects on the Property. While mineral resource development can involve risk, return on investment on successful exploration and development can be very large. Potential investors and/or mining companies look for high returns on investments, and in order to attract and retain risk-averse investors, TLO’s plan is to focus on de-risking the Project’s potential external parties. This obviously means that the Trust will carry the risk of not getting a return on the investment if the offering does not produce developers willing to invest. Evaluating other projects with similar grade per ton, the TLO believes that it is highly likely to attract a mine developer if the Project is advanced to a successful pre-feasibility study. The discussion of risk will be explained for both external parties as well as for the Trust.

The TLO’s risk reduction for the Project’s potential external parties and for the Trust will take place on two fronts, 1) on a technical basis and 2) based on a cost recovery plan.

1) **Risk Reduction on a Technical Basis:** TLO’s detailed risk reduction plan for the Project on a technical basis is outlined in Exhibit D – De-risking the Icy Cape Gold and Industrial Heavy Minerals Project. The Project can achieve this through exploration and development work with in-house financing in the short- to medium-terms and by producing a certified pre-feasibility study for the prospective
localities within property and adjacent areas. As the Project is developed to the point where an economic assessment can be completed with a mine plan and discounted cashflow evaluation, the intrinsic value of the asset can be accurately established, and a better return can be achieved. Thus, the Project will be incrementally de-risked as it progresses through stages. Fortunately, the TLO has found increasingly positive results at each stage of exploration which bodes well for continued refinement of the resource. To reach both the indicated resource and pre-feasibility study, careful exploration modeling will be used to focus on areas with the greatest potential for success. Appropriate demonstrable test mining will be established that expands on the data and processes that have already been explored by the TLO. Appropriate evaluation of potential environmental concerns will be conducted. Community engagement will continue.

2) Risk Reduction based on Cost Recovery: To acquire the Project, the lessee or partner will be required to make a one-time cash payment in excess of the Trust’s investment costs to the TLO, due on the day the lease agreement or Joint Venture (JV) contract gets signed. This practice can be seen in the mining industry and allows exploration companies to re-coup investment costs. This can range from straight cash payments to future investment guarantees, depending on the nature of the deal. Straight buy out is more common as a purchase of a project from a junior mining company, whereas joint ventures may spend toward advancing the project. The advantage of using a “bonus bid” mechanism is that it allows the Trust to recover its investment prior to any development and/or production. The Trust’s accounting mechanism classifies a “bonus bid” as income that may go into the Trust Settlement Income Fund. Exhibit E Cost Recovery Plan outlines the various cost recovery scenarios for the two Options.

The primary risk to the Trust is whether it will recover the amount it invested in the Project as well as whether the Trust will receive the maximum returns possible from developing the resource. TLO seeks to de-risk the Project for the Trust on both fronts.

Investment Recovery: The TLO is unlikely to be able to maximize the return on the resources at this point of exploration. The resource is not well enough defined to be able to obtain high value return that will outperform the investment to date (see Option 3 in Exhibit B). However, positive results from exploration indicate high probability of success to bring the resource definition to indicated resources with additional exploration. As discussed in Exhibit E Cost Recovery Plan, with further successful resource delineation and pre-feasibility study, the TLO believes it can fully recover the Trust investments though a bonus bid process. This is contingent on the TLO seeing positive results while moving to indicated resources and positive affirmation of a developable mine though a pre-feasibility study. As the TLO has shared in detail in executive session, the exploration results to date continue to show high probability of success in meeting both of those desired outcomes.

Maximizing Returns: The Trust approved Asset Management Policy Statement (AMPS) states the objectives for specific non-liquid land and natural resource management are to 1) protect and enhance the non-cash asset value and productivity of Trust property; and 2) maximize revenues from Trust non-liquid assets over time. This Project is designed to accomplish these objectives. AMPS further says that the board recognizes that some risk must be assumed to achieve the TLO’s land management objectives. The Project is designed to maximize revenues over time while working to de-risk the project for external parties and the Trust to reach the objectives of gaining a well-funded and experienced
partner to develop a producing mine which fully utilizes the substantial mineral resources of this property.

A risk in not continuing this Project as proposed is the Trust not receiving maximum returns for the resources. When leasing a project, the TLO loses operational control over the course of development or where funds are expended by the private company. Once leased, the TLO loses the ability to control how fully the resources are extracted. Not advancing to a producing mine prevents the Trust from receiving royalty from the Project. Further advancing the exploration reduces both of these concerns. By effectively delineating the resource and showing how it can be fully developed with all mineral resources considered, the Trust has a much better chance to both see the Project developed into a mine and the resources fully developed. If the Trust can ensure that the resource development utilizes both the gold and heavy minerals, the Trust will receive a much greater long-term revenue from royalties. This is one reason why Hatch recommends using internal investment to advance the project to pre-feasibility status.

**Project Costs:** All aspects of Option 1 are estimated at $10M. All aspects of Option 2 are estimated at $12.5M with Phase 1 estimated at $7M and Phase 2 at $5.5M.

**Other Considerations:** The Icy Cape Block is within the Yakutat gold province. In this province, active placer gold mining on State-owned beaches adjacent to the Block demonstrates and underscores the resource-fertile characteristics of this Property.

**Due Diligence:** The TLO Mineral & Energy Section Chief and other staff are familiar with the resource potential of the Block. They have researched, inspected, and sampled the property repeatedly, and conducted stratigraphic framework and resource assessment drilling programs that included participation in laboratory analyses. The importance of following Hatch’s expert advice and recommendations to advance the Project to the pre-feasibility status were determined by lengthy internal analysis and review of published and internally produced exploration data and reports. Market analyses, consultation with industry-expert exploration and resource assessment parties were also conducted.

**Alternatives:** As long as there is exploration success, it is important to move forward with the Project. One alternative, although unwise, is Option 3 to discontinue with exploration of the Project and conduct a competitive lease offering (see Exhibit B – *Advancing the Icy Cape Gold and Industrial Heavy Minerals Project*). The Project will have depleted its funding by the end of FY 2021. Currently the Project is in an early stage of development where the perceived level of risk for interested mining companies appears to be high. The TLO believes that there are no junior mining companies with significant enough experience with both gold and heavy mineral placers and sufficient financial backing to advance to an operating mine that fully exploits the resource and maximizes returns to the Trust. Though one might form under the right circumstances, that places overconfidence in TLOs ability to market the Project sufficiently to achieve that result. The probability of this Project never becoming a mine that fully exploits the resource is significantly increased by leasing the area at this stage of exploration.

The reality is that TLO has offered the Property through a competitive leasing process for mineral exploration in the past but received no interest. We have additional information about the potential
resource now which could increase interest. It is perceivable that interest might come from small-scale placer miners interested in the gold, however, the estimated $20K annual revenue, if that, is insignificant of what TLO could get if the Project advanced to the pre-feasibility stage and with a large-scale mining company as partner to develop the Project. It is unlikely that any interest from companies at this point will focus on the full suite of resources, potentially leaving the heavy minerals undeveloped and the Trust foregoing those revenues.

The best option for the Project is to continue exploration and communication with the industry to find suitable partners for the project. The HM and abrasive industry have already expressed interest in the Project and as long as the Project keeps moving forward with positive results industry interest will increase which will likely ultimately lead to development.

**Consistency with the Resource Management Strategy:** This proposal is consistent with the “Resource Management Strategy for Trust Land” (RMS), which was adopted March 2016 in consultation with the Trust and provides for the TLO to focus first on land or resources at the high end of their market values (“best markets”). Gold is very much at the high end of the markets at this point. It is an organizational mandate for the TLO to maximize its income base by developing its natural resources. Further, the RMS clearly states that the TLO needs to adapt to new commodity market and industry situations, and therefore, develop business opportunities.

**Trust Land Office Recommendation:** As long as there is exploration success, it is important to move forward with the Project exploration for the Trust to eventually receive the highest returns. In agreement with the recommendations from Hatch the TLO recommends the best option is to advance the Project to the pre-feasibility stage with compliant indicated resource estimates and to continue communication with the industry to find suitable partners for the Project.

Option 1 is the best economic and timely Option to achieve the Project’s goal, however, Option 2 will reach the same goal, except it will cost significantly more and it will take longer to reach the desired goal. The reason this Option divided in two phases takes longer and costs more than Option 1 is that under Option 2 several efforts are divided to run consecutively rather than concurrently, which increases the logistical and operations costs, but gives the board an additional point of decision whether to advance to Phase 2 after seeing the results of Phase 1. This lowers initial investment risk during Phase 1 but requires a higher investment capital to reach completion of Phase 2 if the board seeks the highest returns.

TLO recommends the allocation of funds from the TLODA to advance the Project through Option 1 at Icy Cape.

The alternative Option 2 is also acceptable for advancing the project but was selected as an alternative motion because it costs more and takes more time to begin to see returns. However, it does provide another key board decision point after reaching indicated resources and a cleaner exit strategy if the board chooses to not to advance to pre-feasibility after evaluating the results of Option 2 Phase 1.

TLO does not recommend Option 3 as it is most likely to fail to return to the Trust sufficient revenues warranted by such a mineral-rich land base.
Applicable Authority: Alaska Statutes 36.30.850(b)15(B), 37.14.009(a), 38.05.801, and regulations 11 AAC 99, 20 AAC 40.700 (key statutes and regulations applicable to Trust land management and disposal.

Trust Authority Approval: The motion presented in this briefing document fulfills the approval requirements that are applicable to the transaction.

Exhibit(s):  
Exhibit A – Icy Cape Property map  
Exhibit B – Advancing the Icy Cape Gold and Industrial Heavy Minerals Project  
Exhibit C – Timeline for Options 1, 2 and 3  
Exhibit D – De-risking the Icy Cape Gold and Industrial Heavy Minerals Project  
Exhibit E – Cost Recovery Plan  
Icy Cape Memo from CEO to Trustees
Exhibit A

Map of Icy Cape Property
Exhibit B
Advancing the Icy Cape Gold and Industrial Heavy Minerals Project towards a Pre-Feasibility Study

Summary

The Trust has funded the TLO with $5.2M to conduct exploration of the Icy Cape lands over the course of 4 years. The TLO has taken this project from some basic historical information of some prospecting to identifying potential resources, flying aeromagnetic surveys, conducting a drilling program, making new discoveries that increase potential returns from the resources, and having tests conducted on drill samples. The initial efforts of the Project were to increase technical information about the resources to make it more marketable and leasable to increase the returns. Continued very positive results from the drilling and testing program have been encouraging. The TLO hired an independent 3rd party consultant to help recommend the appropriate path forward with the information available to date. With that advice, the TLO prepares this plan and budget request with the goal of increasing the returns to the Trust and to maximize those returns. This potential of increasing returns by investing additional funds in exploration becomes an investment decision for the board.

TLO presents three options for proceeding with the Icy Cape Project. To achieve maximum return on investment, the TLO believes the Trust’s best option is to advance the Project to a pre-feasibility stage using compliant indicated resource estimates and to continue dialogue with the mining industry to engage suitable partners for the Project. This is in alignment with the 3rd party recommendations by a recognized mining consultant firm.

Option 1 is the most economic and expedient solution to achieve the Project’s goal. This option offers significant cost and time savings accelerating the Project to its desired goal. Option 2, Phases 1 and 2 and combined will yield the same results as Option 1, but incrementally and with significant differences in cost and timeline. This combination option allows for some agility in potential course corrections and may mitigate potential disruptions by external factors (i.e. climate, epidemic restrictions, etc.) Both Option 1 and Option 2 are acceptable scenarios to advance to pre-feasibility status, which both increases the potential for maximizing the returns and to get to a producing mine. Option 3, although likely to produce the least returns, is to discontinue exploration of the Project and conduct a competitive lease offering.

Under Option 1 the timeline is approximately 5 years with a budget of $10M. The timeline for combined Phase 1 and 2 of Option 2 is 7.5 years with a budget of $12.5M. Under Option 3, an offering could be attempted by January 2022 without additional budget required. This is seen as a visual representation in Exhibit C. Each of these options have different timeframes, budgets and expected returns which are explained below, both immediately in the table and in the following narrative.
### Options at a Glance

<table>
<thead>
<tr>
<th>Option</th>
<th>Cost</th>
<th>Timeline to earliest return</th>
<th>Income Recovery Potential</th>
<th>Potential Revenue</th>
<th>Decision point</th>
<th>Future Funding</th>
</tr>
</thead>
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<tr>
<td>Option 1</td>
<td>$10M</td>
<td>5 years</td>
<td>$15.2M</td>
<td>$100M - $150M</td>
<td>Now or with cancellation</td>
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<tr>
<td>Option 2 Phase 1</td>
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<td>4 years</td>
<td>$7M</td>
<td>$50M - $75M</td>
<td>Now and at indicated resource</td>
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<tr>
<td>Option 2 Phase 2</td>
<td>$5.5M</td>
<td>3.5 years</td>
<td>$12.5M - $17.7M</td>
<td>$100M - $150M</td>
<td>Now and at indicated resource</td>
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</tr>
<tr>
<td>Option 3</td>
<td>$0</td>
<td>2 years</td>
<td>$0</td>
<td>Less than $1M</td>
<td>Now</td>
<td>No</td>
</tr>
</tbody>
</table>

### Introduction

The Icy Cape Gold and Industrial Heavy Minerals Project (Project) was started in 2015 after the Property had been identified as prospective for gold and associated industrial heavy minerals. In 2017 and 2018, following exploration target generation based on high resolution aeromagnetic survey data, stratigraphic framework drilling was conducted. Significant mineral resource prospects are defined on the Property.

Through a competitive bidding process, the TLO selected an independent review of the Project by Hatch for development options. Hatch is a leading international consulting, engineering, environmental and project management services company. It is the largest consulting services firm in the world that specializes in the mining, mineral and metals industries. Hatch has proven experience in similar studies for the mining industry, investment groups, and proven in-depth knowledge of large-scale beach mining industry. Hatch Advisory consultants are broadly experienced industry professionals who generally have a combination of engineering/technical and business analysis/finance qualifications. One of Hatch Advisory’s key strengths is the ability to combine their financial and business experience with the technical excellence and knowledge of their wide array of industry experts. Hatch has deep sector expertise in the Gold and Industrial Heavy Mineral Sands industries. Their analysis, expert advice, technical expertise, and reports are widely regarded as the most credible in the mining industry.

Based on the very encouraging exploration results thus far, assessment and ranking performed, Hatch recommends that the TLO further develops the Project through in-house financing in the near to midterm until the Project’s economic parameters and resources are more fully defined and returns to the TLO can be maximized. Hatch considered leasing, joint ventures, financing, and other scenarios. The review also recommends further development and exploration work to advance the mineral resource estimates to an indicated resources level followed by a pre-feasibility study. Hatch further recommends a that a full time Chief Geologist lead the Project.

It is common practice in the mining industry to discount and de-rate projects with resources not at compliant status and/or compliant inferred resources. This would be projects in early exploration with no more than inferred resources, where we currently stand with this Project. As a reminder, a project needs to reach indicated resources through additional infill drilling to reach the pre-feasibility reporting
compliant status. This means at this stage of the exploration, developers would negotiate a buy-in on the Project at highly discounted rates. In early-stage development, the value of the gold is often deeply discounted because the economic parameters of the project have not been defined yet. Current gold prices are about $1,900/toz but a potential investor/developer could discount this as low as $5/toz.

A pre-feasibility study with a mine plan and discounted cashflow accurately establishes the value of the asset and yields better returns to the Trust. This work requires test mining and operating a pilot recovery plant. A pilot plant will provide empirical data for recovery, process design, full-scale plant and confirm grade/recovery from ore-definition drill samples.

The advancement of an exploration project towards a mine is shown schematically in Figure 1. It is a ‘progress triangle’ for global copper mine projects that shows how many projects are at each stage. This triangle also applies to other global mine projects. Although other statistical sources might vary some, the general concept that few projects advance from early exploration to producing mines but the further the exploration progresses, the higher the likelihood of getting to a producing mine. The Figure shows that there are far more projects at early stages of development as development and de-risking processes eliminate uneconomic projects. The conclusion is that three of one hundred exploration projects make it from the prospect to the pre-feasibility stage. At pre-feasibility status a given project has a 75% probability of advancing to development. Figure 1 also shows the four development options for the TLO Project.

![Figure 1: 'Progress triangle' for global copper mine projects, demonstrating how many projects are at each stage and advancement options for the Icy Cape Project. Modified from Sykes, J.P., 2013. Why is developing a mine so difficult? In Proceedings Curtin Business School Higher Degree by Research Students’ Colloquium, pp 35–49 (Curtin University: Perth)](image)

1. Options for capitalization
Three options are presented for consideration on advancing the Project with the primary objective to maximize the return for the Trust. A secondary objective is to create the maximized return as soon as reasonable. A third objective is to find a company that has the experience and financing to succeed in creating and operating a successful mining operation that fully utilizes the resource.

### 1.1 Option 1, demonstrate pre-feasibility status

**Indicated resource estimates and pre-feasibility study**

Option 1 is the best option to achieve Project objectives efficiently. TLO estimates US$10 million are required over five years to bring the Project to the pre-feasibility stage.

According to Hatch, expected returns to the Trust for this option are highest. It is plausible that TLO can generate revenue through royalties in a range of $100M to $150M (based on 10% royalty for placer) for one prospect during its 8 year mine life. The details of that revenue projection were shared in executive session on 10/21/2020. However, this can likely only be achieved if the Project is developed to a positive pre-feasibility status with compliant indicated resources. At this status it will likely attract interest from suitable partners, likely major mining companies, that can provide support of resources (capital and experience) for exploitation adding a degree of de-risking to the Project. Figure 1 demonstrates the increased likelihood of a project in pre-feasibility status reaching production stage; the Project could be offered to industry as early as in 2025. The royalty revenues would be produced over the life of the mine.

It must be recognized that early exploration results support positive outlook on reaching indicated resources as predicted. However, in any mining operation there can be disappointing results from a drilling program that do not meet expectations which in turn influences a potential negative evaluation of the economics during pre-feasibility study. The board must consider the potential for negative or less than expected results. The board’s committal to Option 1 only provides one exit strategy if there are negative results from the drilling program. The board could discontinue funding the Project and after contractual obligations would leave the Project in a status similar that described under Option 3.

If Option 1 is approved, TLO will likely offer this opportunity to the industry with a requirement of an up-front bonus bid payment requirement prior to any future mine development and production. This would be structured to recover the Trust’s full investment to bring the Project to this pre-feasibility status. The optimized work plan and budget share resources and workflow between drilling, test mining and pre-feasibility studies.

The work plan and budget allow for a seamless and continuous workflow between drilling, updated indicated resource estimates, test mining and pre-feasibility study. This will entail definition drilling at one prospect, testing, and sampling and a pilot plant to test commercial production, mineral separation, and product recovery. This approach will advance the Project to a pre-feasibility status for a selected prospect. At this status, with defined and internationally accepted and compliant mineral resource estimates, the resources are defined, marketable and convertible.

#### 1.1.1 Work schedule
**Year 1: February 2021 – January 2022**

**Work Outline:**
- inspect camp and vehicles, inventory facilities, camp, and infrastructure improvements
- survey land to be cleared, build drill access trails and drill pads for 2022 drilling
- construct sample preparation facility and field laboratory
- process back-log drill samples (Au, PGM, HM)
- permitting
- marketing
- approximately 3 months of field work

**Procurement:**
- barge, fuel, heavy equipment, transportation, camp upgrades
- contractor for drill access trail building and drill pads
- consulting, laboratory services, field lab support
- 40x60ft metal structure (sample processing facility)
- contractor to set-up sample processing facility
- caterer, camp maintenance etc. for 2022-24 exploration seasons.
- drilling contractor for the 2022-23 exploration seasons
- airborne magnetic survey over selected prospects
- environmental base line studies
- container housing
- laboratory and sample processing equipment, including hydro-gravimetric
- concentrators and magnetic separators
- engineering firm to assist in pilot plant design and test mining

**Estimated Cost: $1.5M**

**Year 2: February 2022 – January 2023**

**Work Outline:**
- definition drilling (approximately 12,000ft)
- on-site sample processing
- sample analyses
- build drill access trails and drill pads for 2023 drilling
- test and prepare ground for small test mining operation in 2023
- start environmental baseline studies
- design and prepare for small test mining and pilot plant operation in 2023
- permitting
- marketing
- approximately 6 months of field work

**Procurement:**
- barge, fuel, heavy equipment, transportation, camp upgrades
- contractor for drill access trail building and drill pads
- test mining equipment
- mining contractor
- pilot plant

**Estimated Cost: $2.5M**
Year 3: February 2023 – January 2024

Work Outline:
- definition drilling (approximately 12,000ft
- on-site sample processing
- sample analyses
- test mining to verify gold, PGM and HM grades for resource
- pilot plant to test commercial production, mineral separation, and recovery
- mining and metallurgical engineering studies
- ship concentrates in super-sacks to potential buyers for industrial testing
- continue environmental baseline studies
- investigation of energy resources for future mining operations at Icy Cape
- approximately 6 months of field work

Procurement:
- barge, fuel, heavy equipment, transportation, camp upgrades

Estimated Cost: $3.5M

Year 4: February 2024– January 2025

Work Outline:
- produce in-house technical project report and compliant resource indicated by estimates according to SK-1300 regulations and guidelines
- continue test mining to verify gold, PGM and HM grades for resource
- operate pilot plant to test commercial production, mineral separation, and recovery
- sample processing and analyses
- ship concentrates in super-sacks to potential buyers for industrial testing
- continue environmental baseline studies
- mining and metallurgical engineering studies
- product development such as database and GIS-based packages for marketing
- marketing
- meetings with large scale placer mining companies and HM industry
- approximately 3 months of field work

Procurement:
- barge, fuel, heavy equipment, transportation, camp upgrades
- independent consulting firm to conduct a Technical NI-43-101 Report or JORC Report
- including compliant indicated resource estimates
- independent consulting company to provide an economic pre-feasibility study for the Project

Estimated Cost: $1.5M

Year 5: February 2025– January 2026

Work Outline:
- sample processing and analyses
- independent consulting firm to conduct a Technical NI-43-101 Report or JORC Report
- including compliant indicated resource estimates
- independent consulting company to provide an economic pre-feasibility study for the Project
- ship concentrates in super-sacks to potential buyers for industrial testing
- marketing
- meetings with large scale placer mining companies and HM industry
- competitive lease offering, negotiated lease or JV

**Procurement:**
- independent consulting firm to provide strategy study for the development of the project for highest ROI

**Estimated Cost: $1M**

![Table 1: Outline of work schedule for Option 1](image)

**1.2 Option 2, a phased approach to reach pre-feasibility status**

Option 2 Phase 1 is the first step in a 7.5-year staged and incremental plan to advance the Project by defining an indicated mineral resource. A resource estimation by an independent firm specializing in gold and heavy mineral placers will then be commissioned. On completion of Phase 1, TLO will present the results to the board and if the results confirm indicated mineral resource in viable quantities, recommend following steps to complete Option 2 Phase 2 to reach pre-feasibility status. The estimated cost of Phase 1 is $7M to be spent over four years. The estimated cost of Phase 2 is $5.5M to be spent over 3.5 years. The reason this option divided in two phases takes longer and costs more than Option 1 is that under
Option 2, several efforts are divided to run consecutively rather than concurrently, which increases the logistical and operations costs, but gives the board an additional point of decision whether to advance to Phase 2 after seeing the results of Phase 1.

Both Option 1 and Option 2 with both phases appear to provide the option to maximize revenues for the Trust over the life of a producing mine. They both increase the probability of reaching a producing mine. Option 2 with both phases costs more to reach those same projected revenues while exercising only one phase may prevent some cost recovery of development costs as income and reduce overall returns.

The discussion below will identify the work and the effect on potential financial returns by phase.

1.2.1 Option 2 Phase 1, Indicated resource estimates

A status of compliant indicated resource will attract mining interests. However, because Option 2 Phase 1 excludes a pre-feasibility study, returns to the TLO will most likely not be maximized to the same extent as having a pre-feasibility study. Defined economic parameters, as part of the pre-feasibility study, are critical parameters that will make or break the Project. Without those, a potential mining company interested in the Project will most likely negotiate a buy-in on the Project at a discounted rate, since the company would have to significantly de-risk the project by conducting their own pre-feasibility study with all the associated studies and efforts. TLO believes it could re-coup some of its investment by a bonus bid as described in the Cost Recovery Plan, but most likely not the full value. The balance will come from royalty payments over time if the Project reaches the production stage.

TLO could likely generate revenue through royalties in a range of $50M to $75M from one prospect during its mine life (based on a 5% discounted royalty rate). Under Option 2 Phase 1 our earliest offering of the Project to industry will be Fall of 2024.

1.2.1.1 Work schedule for Option 2 Phase 1

Year 1: February 2021 – January 2022

Work Outline:
- inspect camp and vehicles, inventory facilities, camp, and infrastructure improvements
- survey land to be cleared, build drill access trails and drill pads for 2022 drilling
- construct sample preparation facility and field laboratory
- process back-log drill samples (Au, PGM, HM)
- permitting
- marketing
- approximately 3 months of field work

Procurement:
- barge, fuel, heavy equipment, transportation, camp upgrades
- contractor for drill access trail building and drill pads
- consulting, laboratory services, field lab support
- 40x60ft metal structure (sample processing facility)
- contractor to set-up sample processing facility
- caterer, camp maintenance etc. for 2022-24 exploration seasons.
- drilling contractor for the 2022-23 exploration seasons
- airborne magnetic survey over selected prospects
- environmental base line studies
- container housing
- laboratory and sample processing equipment, including hydro-gravimetric
- concentrators and magnetic separators
- engineering firm to assist in pilot plant design and test mining

**Estimated Cost: $1.5M**

**Year 2: February 2022 – January 2023**

**Work Outline:**
- definition drilling (approximately 12,000ft)
- on-site sample processing
- sample analyses
- build drill access trails and drill pads for 2023 drilling
- start environmental baseline studies
- permitting
- marketing
- approximately 6 months of field work

**Procurement:**
- barge, fuel, heavy equipment, transportation, camp upgrades
- contractor for drill access trail building and drill pads

**Estimated Cost: $2.25M**

**Year 3: February 2023 – January 2024**

**Work Outline:**
- definition drilling (approximately 12,000ft)
- on-site sample processing
- sample analyses
- continue environmental baseline studies
- approximately 6 months of field work

**Procurement:**
- barge, fuel, heavy equipment, transportation, camp upgrades

**Estimated Cost: $2.25M**

**Year 4: February 2024– December 2024**

**Work Outline:**
- sample analyses
- produce in-house technical project report and compliant resource indicated estimates according to SK-1300 regulations and guidelines
- independent consulting firm to conduct a Technical NI-43-101 Report or JORC Report including compliant indicated resource estimates
- product development such as database and GIS-based packages for marketing

**Estimated Cost: $2.25M**
- marketing
- meetings with large scale placer mining companies and HM industry
- competitive lease offering, negotiated lease or JV

**Procurement:**
- independent consulting firm to conduct a Technical NI-43-101 Report or JORC Report including compliant indicated resource estimates

**Estimated Cost:** $1M

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Table 2: Outline of work schedule for Option 2 Phase 1.

### 1.2.2 Option 2 Phase 2 Pre-feasibility study

If the outcome of Option 2 Phase 1 is favorable, the Board of Trustees might decide to continue financing the Project towards the pre-feasibility stage. Option 2 Phase 2 is the second part of an incremental approach. It is not a stand-alone package, but rather the continuation of Option 2 aimed at advancing the Project towards a prefeasibility study which includes test mining, and operating a pilot plant to test commercial production, mineral separation, and recovery.

When the Project is developed to the point where a pre-feasibility study can be completed with a mine plan and discounted cashflow evaluation, the intrinsic value of the asset will be more accurately established and a better return will be achieved by the TLO. Test mining and a pilot plant are necessary scope items that will provide the process design basis for recovery of both precious metals and industrial heavy minerals for a full-scale plant. Importantly, the pilot plant will also provide grade confirmation from drill samples from select mining areas.
TLO estimates $5.5M to be spent over 3.5 years to complete Option 2 Phase 2. Work under Phase 2 would begin as early as January 2025 and end with offering the Project to the industry in mid-2028. According to Hatch, expected returns to the TLO for reaching the pre-feasibility stage are highest of the alternatives they evaluated. It is plausible that TLO can generate revenue through royalties in a range of $100M to $150M (based on 10% royalty for placer) for one prospect during its mine life. This is based on the information shared with the board during executive session. However, this can only be achieved if the Project achieves a positive pre-feasibility study. Even with positive compliant indicated resources, other factors such as operating costs, recovery processes, logistics, and permitting must also be evaluated to reach a positive pre-feasibility study. Assuming we can reach that positive result, this will also de-risk the project significantly making it more attractive for potential mining companies to invest in and develop this Project. TLO believes it could re-coup its entire investment by a bonus bid as described in the Cost Recovery Plan.

1.2.2.1 Work schedule for Option 2 Phase 2

Year 5: January 2025 – December 2025

**Work Outline:**
- inspect camp and vehicles, inventory facilities, camp, and infrastructure improvements
- engineering firm to assist in pilot plant design and test mining
- test and prepare ground for test mining operation in 2026
- permitting
- marketing

**Procurement:**
- barge, fuel, heavy equipment, transportation, camp upgrades
- engineering firm to assist in pilot plant design and test mining
- test mining equipment
- mining contractor for 2026 and 2027
- pilot plant

**Estimated Cost: $1M**

Year 6: January 2026 – December 2026

**Work Outline:**
- test mining to verify gold, PGM and HM grades
- pilot plant to test commercial production, mineral separation, and recovery
- mining and metallurgical engineering studies
- ship concentrates in super-sacks to potential buyers for industrial testing
- investigation of energy resources for future mining operations at Icy Cape
- approximately 4 months of field work

**Procurement:**
- barge, fuel, heavy equipment, transportation

**Estimated costs: $2M**
Year 7: January 2027– December 2027

**Work Outline:**
- test mining to verify gold, PGM and HM grades
- pilot plant to test commercial production, mineral separation, and recovery
- mining and metallurgical engineering studies
- ship concentrates in super-sacks to potential buyers for industrial testing
- investigation of energy resources for future mining operations at Icy Cape
- approximately 2 months of field work
- independent consulting company to conduct pre-feasibility study based on generated data

**Procurement:**
- barge, fuel, heavy equipment, transportation
- independent consulting company to provide an economic pre-feasibility study for the Project

**Estimated Cost: $1.5M**

Year 8: January 2028– August 2028

**Work Outline:**
- independent consulting company to provide an economic pre-feasibility study for the Project
- ship concentrates in super-sacks to potential buyers for industrial testing
- continue environmental baseline studies
- product development such as database and GIS-based packages for marketing
- marketing
- meetings with large scale placer mining companies and HM industry
- competitive lease offering, negotiated lease or JV

**Procurement:**
- independent consulting firm to provide strategy study for the development of the project for highest ROI

**Estimated Cost: $1M**
1.3 **Option 3, no additional funding from the Trust**

Option 3 is to conduct a competitive lease offering with no further exploration efforts other than completing the assay of the existing core samples. The Project will have depleted its funding by the end of CY 2021. Currently the Project is in an early stage of development where the perceived level of risk for interested mining companies appears to be high. The TLO believes that there are no junior mining companies with significant enough experience with both gold and heavy mineral placers and sufficient financial backing to advance to an operating mine that fully exploits the resource and maximizes returns to the Trust. Though one might form under the right circumstances, that places overconfidence in TLOs ability to market the Project sufficiently to achieve that result. The probability of this Project never becoming a mine that fully exploits the resource is significantly increased by leasing the area at this stage of exploration.

Without defined mine economic parameters at this stage of development potentially interested parties will most definitely negotiate a buy-in and royalty rate on the Project at a highly discounted rate. This means that it is also highly unlikely that TLO will recover its current investment of $5.2M. The greatest potential returns to the Trust are from royalties from a producing mine, not the leasing fees. The risk of not reaching a producing mine is significantly higher at this stage of exploration.

Another drawback of Option 3 is the fact that TLO faces the risk of losing its expert team after termination of further exploration of the Project. TLO could not as effectively market the Project to target industry since its technical expert team with its experience and expertise would not be available.

The reality is that TLO has offered the Property through a competitive leasing process for mineral exploration in the past but received no interest. We have additional information about the potential resource now which could increase interest. It is perceivable that interest might come from small-scale placer miners interested in the gold, however, the estimated $20K annual revenue, if that, is insignificant of what TLO could get if the Project was advanced to the pre-feasibility stage and with a large-scale mining company as partner to develop the Project. It is unlikely that any interest from companies at this point...
will focus on the full suite of resources, potentially leaving the heavy minerals undeveloped and the Trust forgoing those revenues.

Under Option 3 the Project would be offered to the industry as early as January 2022.

1.3.1 Work schedule for Option 3
Year 1: January 2021 – October 2021

**Work Outline:**
- finish sample processing
- finish sample analyses
- produce final report
- product development such as database and GIS-based packages for marketing
- marketing
- competitive lease offering

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Table 4: Outline of work schedule for Option 3

1.4 Conclusions and Recommendations

As long as there is exploration success, it is important to move forward with the Project for the Trust to eventually receive the highest returns. As with all mine projects, there is risk in progressing with exploration because there is the chance that the TLO would not be able to obtain expected results from the exploration project. This is why many junior mining companies do not succeed in advancing project to a producing mine. However not advancing the Project ensures lower returns if the TLO were successful in leasing or finding a joint venture partner.

In agreement with the recommendations from Hatch the TLO recommends the best option is to advance the Project to the pre-feasibility stage with compliant indicated resource estimates and to continue communication with the industry to find suitable partners for the Project. Option 1 is the best economic and timely option to achieve the Project’s goal, however, Option 2 will reach the same goal, except it will cost significantly more and it will take longer to reach the desired goal. TLO does not recommend Option 3 as it is most likely to fail to return to the Trust sufficient revenues warranted by such a mineral rich land base.

Although there is inherent risk in all the options, advancing further in exploration will better define the resource and bring the highest likelihood of bringing the Project to a producing mine. The advancement
of the Project to indicated resources and then to prefeasibility study incrementally and substantially de-risks the project for potential developers. The Trust is carrying the risk for this portion of the project, but in TLO’s opinion is supported by the robust results from the exploration to date.

According to Hatch, in-house financing has the highest likelihood of success, given the current level of project advancement. In Hatch’s opinion, it is unlikely that a partner with sufficient credentials, experience, and good faith development desire will be secured before the mineral resource estimate is advanced to a compliant indicated classification and a pre-feasibility study conducted. This is a key driver for Hatch’s strategic recommendation.

Small-scale placer miners do not have the experience, expertise, and financial back-up to advance and develop this large-scale placer gold and industrial heavy minerals project, but large mining companies do. Therefore, the goal is to advance the Project to pre-feasibility status and thus de-risk it to make it attractive for marketing to the large-scale placer mining industry. The potential revenue that the Project will generate if advanced toward production justifies further Trust investment, especially if the investment can be recovered by a bonus bid prior to any further development. According to Figure 1, the likelihood of advancing an exploration project from pre-feasibility via feasibility and to production is 75%.
Exhibit C

Timelines for cost estimates for Option 1, Option 2, and Option 3.

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Exhibit D
De-risking the Icy Cape Gold and Industrial Heavy Minerals Project

Introduction
Expenditures for mineral resource exploration and development activities at Icy Cape are investments for the Trust. These resources are indicated to be rewarding for the Trust and for the mining company that develops the prospects on the Property. While mineral resource development can involve risk, return on investment on successful exploration and development can be very large.

The purpose of this exhibit is to discuss the risk for both the Trust and for the potential future partners in the Project and discuss ways to reduce risk on both accounts. De-risking the project for external parties is congruent with de-risking the project for the Trust to avoid financial loss. The more attractive the Project is to other parties, the more likely the Trust will realize desired returns. In any case the Trustees must be cognizant of the inherent risk with mine development when making investment decisions.

Potential investors and/or mining companies look for high returns on investments, and in order to attract and retain risk-averse investors, the plan is to focus on de-risking the Project. The Project can achieve this through exploration and development work with in-house financing in the short- to medium-terms and by producing certified pre-feasibility studies for the prospective localities within property and adjacent areas. As the Project is developed to the point where an economic assessment can be completed with a mine plan and discounted cashflow evaluation, the intrinsic value of the asset can be more accurately established and a better return can be achieved. Thus, the Project will be incrementally de-risked as it progresses through stages as shown in Figure 1.

Figure 1: ‘Progress triangle’ for global copper mine projects, demonstrating how many projects are each stage and advancement options for the Icy Cape Project. Modified from Sykes, J.P., 2013. Why is developing a mine so difficult? In Proceedings Curtin Business School Higher Degree by Research Students’ Colloquium, pp 35–49 (Curtin University: Perth)
That is the optimistic straight path to success. We must clarify that each step of this path for de-risking the Project depends on good results and positive outcomes which can not be guaranteed. As additional drilling is performed, the TLO is optimistic of finding results that match or exceed predictions of quantities and grades that were discussed in executive session with the board. Fortunately, the TLO has found increasingly positive results at each stage of exploration which bodes well for continued refinement of the resource.

If a positive indicated resource is achieved, pre-feasibility studies that examine the environment, permitting, proposed operation plans, processing, logistics and economics also need to find results that are positive for a successful mine. Though the TLO can produce probable scenarios and supporting documentation, ultimately a 3rd party expert consultant must find sufficient data to support a probable mine success. This is required to attract the right type of mining company partner to buy into the project and advance the Project to a mine.

Therefore, each incremental stage of the advancement of this exploration project has potential for disappointing results that would inhibit progress to a producing mine and ultimate return on investment. But if the Project is advanced with positive results at each stage of the exploration, the likelihood of reaching a producing a mine with expected revenues is increased as shown in Figure 1.

Financing

The Project’s plan is to define its position as a low-risk investment to potential developers by self-financing a mineral-resource-compliant pre-feasibility economic study. An independent pre-feasibility study with compliant indicated resource will likely secure the highest returns for the Icy Cape mineral resources compared to offering the Project for lease or joint venture at this stage. By investing in-house capital on further exploration, testing and piloting over the next several years, the economic parameters of the Project can be better defined. This will reduce the risk profile of the Project for external parties and lower the cost of capital associated with external financing. Advancing the Project to well-defined economic parameters will facilitate and attract interest from partners that will provide the necessary support in terms of resources (capital and experience) in later stages of development. Although this advancement to pre-feasibility study with indicated resources does make the Project more attractive to investors or developers, it is not a guarantee that a large company will buy into the project. As we have seen with Covid-19, worldwide factors can influence future economic decisions by external parties.

Resource confirmation

TLO, investors and/or major mining companies want to profit, but neither will without a viable resource. TLO plans to significantly de-risk the Project by presenting a pre-feasibility study based on compliant indicated resources that outline how the resources can be mined and processed profitably. The higher the expected revenues or the lower the expected costs, the more attractive this investment opportunity is. Moreover, comprehensive drill hole and assay databases, geophysical data, test-mining, pilot plant, processing, and metallurgical engineering data, as well as environmental baseline data and other relevant environmental data will be available for due diligence studies. This is a new project and not recycled and renamed.

Decreasing costs

Mineral exploration in remote regions is expensive, but TLO can lower costs by maximizing efficiency by using state of the art technology and research, latest analytical methods and latest industry procedures. As a strategy, decreasing costs is often tied to planning. TLO focusses on tightening its processes and actively seeking out low-cost solutions. As an example, TLO plans to hire as many local people as possible to work on the Project rather
than hiring out of State. Logistics are tightly controlled to lower operations costs. Using contractors that have experience with the project from earlier stages has helped reduce costs. This will allow for additional work while still within budget and provides investors a greater chance of a high return on investment. Demonstrable cost control measures help to support the economic evaluations in the pre-feasibility study. This will also add to de-risking the Project.

**Jurisdiction**

Alaska is mining-friendly and ranked as a top-tier mining jurisdiction by the Fraser Institute based on geological attractiveness, mineral potential, and government policies. The Icy Cape Project is a placer project and not a hard rock project. Alaska has a straightforward and predictable permitting process for placer operations. Due to the size, remote location and distance from communities and other projects, and nature of the Icy Cape Project, Hatch, an independent consulting company, considers risk of permit delays or denials to be low.

There will be further assessment of the environmental resources of the area so that future operational plans can avoid or mitigate impacts of the future mining operations. Already the TLO has been in coordination with ADF&G in identifying anadromous streams. As a reminder, this is a placer deposit rather than hard rock deposit, therefore there is a much less complex permitting structure for placer mines. Because it will not require chemical separation processes to extract the minerals, many of the challenges of hard rock mining are avoided.

Since 2016, TLO has engaged the communities of Yakutat and Cordova on a regularly scheduled basis. The people in these communities have expressed interest in employment opportunities. Yakutat has expressed the desire to increase borough revenues through excise tax. When possible, TLO has used local businesses to support operations. TLO is committed to community engagement and relationship building.

**Management team**

TLO manages a group of research, exploration, and mining professionals led by the TLO’s Certified Professional Geologist who has 25 years-experience in mineral exploration and mine development. The group is composed of professionals experienced in multiple disciplines and TLO continues to build its team by specialized skills such as in “permitting.” In-house financing gives TLO flexibility to get expertise through hiring consultants or contractors. While the Project is managed by the TLO, project development goals can be controlled, but once the Project is leased, the TLO loses its ability to control the trajectory of the Project.

**Examples of successfully de-risked exploration projects leading towards mine development**

The purpose of the following examples is to show the progression to mine development via junior mining companies. There is a specific focus on the method of financing. The most similar mines in grade or remoteness were chosen. Because of the lack of placer examples, the examples are mostly hard rock projects.

**Example 1**: Contango ORE and Royal Gold Inc. produced a preliminary economic assessment (PEA) for the Peak Gold project in eastern Alaska that attracted Kinross Gold Corp’ interest. In October 2020, Kinross Gold Corp. agreed to pay US$93.7 million to buy a 70% stake in the Peak Gold project near the town of Tok in eastern Alaska, an acquisition slated to deliver high-grade feedstock to the mill at Kinross’ Fort Knox Mine near Fairbanks.

Peak Gold hosts 9.2 million metric tons of measured and indicated resources averaging 4.08 grams per metric ton (1.21 million ounces) gold and 14.19 g/t (4.2 million oz) silver. Based
on this resource, Kinross expects to produce 1 million oz of gold-equivalent, which includes the value of both the gold and silver recovered, from Peak Gold ore over a 4.5-year mine life, or roughly 222,000 oz per year (source: North of 60 Mining News, October 2, 2020).

**Example 2:** Goldrich Mining produced measured and indicated resource estimates for its Little Squaw gold placer deposit in the Brooks Range, Alaska and attracted a partner for development. In April 2012, Goldrich announced the formation of Goldrich NyacAU Placer, LLC, a 50/50 joint-venture company formed by Goldrich and NyacAU, LLC (source: goldrichmining.com), to bring Goldrich’s Chandalar placer gold properties into production. While there was no cash payment made to Goldrich, under the terms of the LOI, NyacAU will provide a funding package of loans and equity that, subject to the timing of production, are estimated to total approximately $8.5 million. The loans are to be repaid from future production.

**Example 3:** Back River Project is 100% owned by Sabina Gold & Silver Corp. The gold project is advanced and fully permitted, located in a remote region in Nunavut, Canada. The company has advanced the project from grassroot exploration to pre-feasibility, and further to feasibility and therefore has significantly de-risked the project. It is a great example of how a junior exploration company matures to a mid-tier mining company by deciding to develop a project itself all the way to production to maximize returns and shareholder value. The Goose Mine project, part of the Back River project, hosts 12.4 million metric tons of reserves averaging 6.3 grams per metric tons gold in three open-pit deposit (source: sabinagoldsilver.com and North of 60 Mining News, November 1, 2019).

**Example 5:** In January 2010 Underworld Resources delineated the Golden Saddle deposit in the White Gold District in the Yukon, Canada, with an indicated resource of 1M ounces of gold grading 3.2 g/t plus an inferred resource of 407,413 ounces of gold grading 2.5 g/t. Because of the favorable results, Kinross Gold purchased Underworld for $139M in March 2010 (source: investment.com, September 2017).

**Example 6:** Kaminak Gold’s journey in the White Gold District of the Yukon began in 2009. After 6 years of development and more than $100 million spent, the company has identified a world-class resource and created value for its shareholders. In 2014 Kaminak completed a Preliminary Economic Assessment for the Coffee Gold Project, which indicates a robust, high margin, rapid pay-back, 11-year, open pit, heap leach project in Canada at current gold prices. After announcing a very positive feasibility study for the Coffee Gold Project in early 2016, Kaminak was acquired by Goldcorp in 2016 for $520M (source: pinnacledigest.com May 19, 2016).
**Exhibit E**

**Cost Recovery Plan**

**Introduction**

20 AAC 40.610 allows the Trust to approve a plan to recover development costs from royalties and other resource transactions when those costs are used to enhance the value or marketability of the land. Per 20 AAC 40.610 this is a cost recovery plan for investment options in the Icy Cape Gold and Industrial Minerals Project described in Exhibit B “Advancing the Icy Cape Gold and Industrial Heavy Minerals Project towards a Pre-Feasibility Study”. The intent is to achieve a pre-feasibility status in which indicated resources are defined. Financing will be provided by the Trust Land Office Development Account (TLODA) which is a subaccount of the Mental Health Trust Settlement Income Fund and upon recovery will be paid back to the Fund with a plan specifying pro-rated returns on TLO expenditures.

**Subject**

A pre-feasibility status for a mining project is an economic assessment that includes a mine plan and discounted cashflow evaluation. “Indicated resources” are marketable, enabling the solicitation of advice from competing independent consulting firms on options and bids for competitive leasing, negotiated lease, or a joint venturing with a mining company, among others. Many companies have expressed interest in the Project’s resources, and competition promotes higher bids.

Investing in the Project will significantly increase the property’s market value. The Trust lands are typically valued at $1 per acre in audit valuations. Mineral resources are not typically valued by appraisers until a mineral project reaches bankable reserves. At $1 per acre, the 23K acres containing the nearshore marine sediments of interest are valued at $23K. However, using the cost approach method in mineral property appraisals allows to estimate a potential future value for the different options. As investment will be spent on property development, the Project, on achieving pre-feasibility stage, will be valued at full-investment cost. Currently $5.2M has been allocated to the Project and the board may approve either and additional $10M, $7M or $12.5M depending on the option chosen. Therefore, the project could be valued at $15.2M - $17.7M on achieving pre-feasibility stage.

This assumes successful results. Obviously results that don’t confirm an indicated resource equal to or exceeding expectation, or a pre-feasibility study that does not show the Project as economically viable would devalue the project. The cost recovery plans shown below use revenue returns that are based on the current understanding of our findings from exploration with conservative estimates of gold prices and high costs for operating a mine as explained in the past executive session. Future royalties returns are based on standard placer royalty rate of 10%.

**1. Cost Recovery Plan for Option 1**

Under Option 1 TLO estimates $10 million to be spent over the next five years to bring the Project to the pre-feasibility stage. This assumes that the positive results will continue, and a positive pre-feasibility report can be
obtained. The work plan and budget allow for a seamless and continuous workflow between drilling, updated indicated resource estimates, test mining and pre-feasibility study. This will entail definition drilling at one prospect, testing, and sampling and a pilot plant to test commercial production, mineral separation, and recovery.

1.1 Mechanism
Under Option 1, the Project, at the completed pre-feasibility stage will be offered to the mining industry for development as early as Fall 2025. To acquire the Project, the lessee or partner will be required to make a one-time cash payment in excess of the Trust’s investment costs to the TLO, due on the day the lease agreement or JV contract gets signed. This is a practice that occurs the mining industry and allows exploration companies to recoup investment costs. This can range from straight cash payments to future investment guarantees, depending on the nature of the deal. Straight buy out is more common as a purchase of a project, whereas joint ventures may spend toward advancing the project. The future offer of this Project from the TLO is much like a sale of a junior mining project that is seen in the industry. The TLO would not be selling the land but giving exclusive rights for development. If the TLO is successful in obtaining a bonus bid when leasing or creating a joint venture, the TLO could recover investments starting as early as December 2025. The advantage of using a “bonus bid” mechanism is that it allows the Trust to recover its investment prior to any development and/or production. The Trust’s accounting mechanism classifies a “bonus bid” as income that may go into the Mental Health Trust Settlement Income Fund. This would capture both the $5.2M already invested, along with the $10M allocated by the board under Option 1 as income replenishing the Mental Health Trust Settlement Income Fund.

What if a potential mining company will not make a bonus bid but offers to pay increased royalty instead? In this scenario, it is assumed that production will not start before 2031 due to necessary confirmation drilling, feasibility study, permitting and mine development. Based on the most recent technical data and as well as on an average 20-year gold and HM price, it is perceivable that investment costs can be recovered with the revenue received during the first year of production, whenever that might be, but as early as 2031. In this event under Option 1 through approval of this cost recovery plan, initial royalty payments would be used to recover the approved income investment funds used. 20 AAC 40.610 does not allow recovery of development costs that occurred before a cost recovery development plan is approved. Once this $10M is returned to the Mental Health Trust Settlement Income Fund, further royalty collected would go to the Mental Health Trust Fund as principal.

What if there will be no interested mining company to develop the Project after a completed pre-feasibility study? With the current interest expressed by large mine producers in the Project after the Project advances to pre-feasibility stage, the TLO believes this is unlikely. However uncontrollable factors such as severely depressed mineral prices, slumped economy, or prolonged pandemic could influence the marketability at the time offered. Historically finding no interest is unlikely given that 75% of projects with a completed positive pre-feasibility study advance all the way to production (see Sykes, 2013). However, in this event the Trust will not have lost future opportunity since it still owns the Property, but with one significant difference. It will now have a defined gold and
industrial heavy mineral resource on its Property. This will significantly increase the property’s market value to the industry since the Project will have been significantly de-risked. At the completion of a positive pre-feasibility study, the Property is valued at its full-investment cost. TLO can also make data packages available for purchase to interested parties to re-coup some of its investment costs. Unfortunately, under this scenario we cannot accurately state the time of return of investment, however the means of cost recovery would be the same as the two previous paragraphs.

The TLO presents these alternatives with the assumptions of the earliest recovery dates possible. The actual return dates may vary depending on duration of negotiations, outside business decisions, and factors that the TLO cannot control.

Under Option 1 all work processes, including logistics, transportation, field work, sample processing, engineering studies, and procurement interlock and occur concurrently allowing a continuous workflow. This means that termination of the Project at any given time during the 5-year work plan will not allow full recovery of the investment since it will be considered an incomplete project. The Trust does have the option to ask for the project to be halted and expenditures to cease if the results of the infill drilling produce poor results. For instance, if poor drill results occurred in the first year, after hearing reports of poor results, drilling might be stopped for the subsequent years. After contractual obligations are met, some of the approved funds could be kept by the Trust. Stopping the Project mid-stream discourages investors or future partners, thus it may be challenging to obtain higher returns desired by getting to a producing mine. Highly discounted lease agreements may be all that is possible and there is a strong possibility that this would mean that cost recovery could only be through lease payments if the mine never makes it to production.

1.2 Summary of Cost Recovery Alternatives under Option 1:
Through a bonus bid, recovery of at least $15M (income and principal) as early as December 2025.
Through royalty, recovery of $10M income as early as 2031.

2. Cost Recovery Plan for Option 2
Option 2 is part of an incremental approach to finance development of the Project. It is a phased package aimed at advancing the Project towards defined and internationally accepted and compliant indicated mineral resource estimates through definition drilling at one selected prospect. For Phase 1, the TLO estimates $7M to be spent over 4 years to bring the project to indicated resource status. If the board then approves Phase 2, the TLO estimates and additional $5.5M to be spent over 3.5 years to complete the pre-feasibility study.

Because of the Phasing of Option 2, and the possibility that no additional funding will be provided after Phase 1, the cost recovery plan for Option 2 will be divided into phases with the return potential varying for each phase.
2.1 Option 2 Phase 1 Indicated Resource

This option proposes to spend $7M over the course of 4 years to reach compliant indicated resources. If the TLO is successful in bringing the Project to internationally compliant indicated resources, the TLO believes it could recoup some of this investment costs by a bonus bid, but most likely not the full value. Under this option a pre-feasibility study with detailed engineering studies is not included and therefore, the Project’s economic and technical parameters will not be defined. Without those, a potential mining company interested in the Project will most likely negotiate a buy-in and royalty on the Project at a discounted rate since the company would have to significantly de-risk the project by conducting their own engineering and pre-feasibility study.

2.1.1 Mechanism

Under Option 2 Phase 1, the Project, at the completed compliant indicated resource stage, and further de-risked since it is now considered an advanced project, will be offered to the mining industry for development as early fall of 2024.

To acquire the Project, the lessee or partner will be required to make a one-time cash payment in excess of the Trust’s investment costs to the TLO, due on the day the lease agreement or JV contract gets signed. However, due to the reasons stated above, this may not happen. The potential lessee or partner will likely negotiate for a lower bonus bid and a lower royalty rate. Under the assumption that the bonus bid amounts to $7M and discounted royalty rate is 5%, the Option 2 Phase 1 investment would be recovered through the bonus bid, however the balance of the Trust investment made previous to the Phase 1 investment will not be able to be recovered. Those previous investments do not fall under the provisions of 20 AAC 40.610 for cost recovery, therefore royalty payments will be placed in the Mental Health Trust Fund as principal.

What if a potential mining company will not make a bonus bid but accepts to pay the standard royalty rate of 10%? In this scenario, the Trust would have to wait to recover the $7M investment once the mine begins production. However, the time period between the initial agreement and the first received annual royalty payment would be 8 years at minimum, if not more. The Trust would recover $7M through royalty payments during the first year of production, placing that in the Mental Health Trust Settlement Income Fund with any additional royalty being allocated to the Mental Health Trust Fund as principal. That recovery would likely not be realized until 2034.

What if there will be no interested mining company to develop the Project after the compliant indicated resource status has been achieved? This is possible, given that 11% of projects with compliant indicted resources reach the production stage (see Sykes, 2013). If there is never interest, the investment funds do not get recovered. Since this is a straight-forward placer mining project and not a hard-rock project, a partner would likely be found eventually and Phase 1 investment costs will be recovered by either a bonus bid, royalty payments, or a combination of both as shown in the previous paragraphs at an indefinite time in the future. At that point in the future, the $7M would be recovered as income first before any of the revenues would be deposited as principal.
2.1.2 Summary of Cost Recovery Alternatives under Option 2 Phase 1:
Through a bonus bid, recovery of at least $7M (income) as early as December 2024; or through royalty, recovery of $7M income as early as 2034.

2.2. Cost Recovery Plan for Option 2 Phase 2
Option 2 Phase 2 is not a stand-alone package, but rather the continuation of Option 2 Phase 1 aimed at advancing the Project towards a prefeasibility study which includes test mining, and operating a pilot plant to test commercial production, mineral separation, and recovery. TLO estimates $5.5M to be spent over 3.5 years. This assumes that Option 2 Phase 1 produces positive indicated resources that warrant further investment in Phase 2.

2.2.1 Mechanism
Work under Phase 2 would begin as early as January 2025 if approved by the board and end with offering the Project to the industry in mid-2028. The successful completion of the pre-feasibility study will significantly de-risk the project to the point where it has a 75% probability to advance to development (see Sykes, 2013). A pre-feasibility study that does not endorse the probable success of the Project advancing to a mine would leave the Trust at trying to market the Project similar to what was discussed above under Option 2 Phase 1.
To acquire the Project after a published positive pre-feasibility study, the lessee or partner will be required to make a one-time cash payment in excess of the Trust’s entire investment costs to the TLO, due on the day the lease agreement or JV contract gets signed. This would include both investment costs for Phase 1 and Phase 2, but also the previous $5.2M invested in the exploration, returning at lease $17.7M as income. Again, this is a practice in the mining industry that allows exploration companies to re-coup investment costs. TLO could recover investments starting as early as fall of 2028 by a “bonus bid” mechanism that allows the Trust to recover its investment prior to any development and/or production. The Trust’s accounting mechanism classifies a “bonus bid” as income that may go into the Mental Health Trust Settlement Income Fund. Further royalty payments would be allocated principal allocated to the Mental Health Trust Fund.

What if a potential mining company will not make a bonus bid but offers to pay increased royalty instead? In this scenario, it is assumed that production will not start before 2034 due to necessary confirmation drilling, feasibility study, permitting and mine development. Based on the most recent technical data and as well as on an average 20-year gold and HM price, it is perceivable that investment costs can be recovered with the revenue received during the first year of production, whenever that might be, but as early as 2034. Initial royalty payments amounting to $12.5M would go directly into the Mental Health Trust Settlement Income Fund recovering the investment for Phase 1 and Phase 2. Further royalty would be allocated to principal and deposited in the Mental Health Trust Fund. 20 AAC 40.610 does not allow the initial development costs of $5.2M to be recovered as income.
What if there will be no interested mining company to develop the Project after a completed pre-feasibility study? This is unlikely given that 75% of projects with a completed positive pre-feasibility study make it all the way to production (see Sykes, 2013). However, in this event the Trust will not have lost future opportunity since it still owns the Property, but with one significant difference. It will now have a defined gold and industrial heavy mineral resource on its Property. This will significantly increase the property’s market value to the industry. At the completion of a positive pre-feasibility study, the Property is valued at its full-investment cost. TLO can also make data packages available for purchase to interested parties to re-coup some of its investment costs. Unfortunately, under this scenario we cannot accurately state the time of return of investment, however the means of cost recovery for the $12.5M would be the same as the two previous paragraphs.

2.2.2 Summary of Cost Recovery Alternatives under Option 2 Phase 2:
Through a bonus bid, recovery of at least $17.7M (income and principal) as early as December 2028; or through royalty, recovery of $12.5M income as early as 2034.

3. Cost Recovery Plan for Option 3
Option 3 is to discontinue with exploration of the Project with no further investment and conduct a competitive lease offering. The Project will have depleted its current funding by the end of CY 2021. No Cost Recovery Plan is required under Option 3 since it does not fall under 20 AAC 40.610. This means that there is no way for the TLO to recover its current investment of $5.2M as income. If the Project was developed in some way at this stage, normal allocation of income and royalty under 20 AAC 40.610 applies.
In addition to the presentation and recommendation from the TLO, the Trust must consider other factors as it considers a $10m investment in the Icy Cape mineral exploration project. I bring this additional information to ensure that the Trustees have a broader perspective on this decision. Additionally, these considerations should be part of the record of the Trustees decision on this matter.

As CEO, I don’t favor or disfavor the TLO recommendation. I can productively support the Trust if the TLO recommendation is endorsed and I can similarly support the Trust in developing the Icy Cape project differently.

I have three primary areas of additional factors to be considered.

**Mining Partnerships Could Be Explored Further**

The TLO recommendation is not the only opportunity to develop this mineral deposit. The TLO proposed role for the Trust as the sole investor in the exploration work is an uncommon role for a public, native corporation, or institutional landowner. Typically, the funds for exploration work would be provided by professional mining exploration companies and their investors. Such a partner would typically negotiate an exclusive arrangement for ultimate development of the resource and would fully fund the exploration and ultimate development expenses. In exchange, the landowner receives a royalty or share of profits in the event an actual mine is developed. If we pursued that option, the risk is carried by the partner, which in turn will require the Trust to accept less revenue if a mine is developed. The Trust would also share development decision-making with the partner rather than being in complete control.

The TLO does not believe that a mining company would be willing to invest as we propose and commit to fully develop the resource. I agree that there are few if any mining exploration companies that are configured to develop deposits like the one at Icy Cape. But my high-level conversations with several experienced Alaska miners indicates that we might find suitable partners if we aggressively marketed the project with the data we have developed in our initial exploration work. No one outside of our team has seen the results of the exploration work conducted so far. Perhaps others will find it as compelling as the TLO does.
It would take at least six months to determine if satisfactory partnership could be developed. If, at the end of a diligent marketing effort, there were no satisfactory exploration partnership opportunities the Trust could re-consider the allocation of Trust funds as proposed now by the TLO.

**This Is A High-Risk Investment**

The Trust must seriously consider the speculative nature of this investment. Investments in projects with this relatively low level of exploration work are considered high-risk. Institutional investors (like the Trust) would typically avoid allocations like this. The fact that the TLO does not think anyone else would invest in the project at this time is an indication of the high level of risk. Why do we think this is a good investment of Trust assets if professional mining investors don’t find it attractive? Are we smarter than the marketplace?

Our investment could fail for one or more reasons. Here are four possibilities that are particularly conspicuous:

- The continued exploration work may not confirm the expectations we have. Either or both ore grades or quantities may be lower than the sampling we have done so far.
- It may be more difficult for various reasons to develop a large mine at this site. The deposit is located in a remote area without good transportation or power options. The project economics, as evaluated in a pre-feasibility study, may not support the level of investment required of a mine operator.
- The project may be more difficult to permit than expected. The project area is adjacent to (but outside) of a National Park’s designated wilderness area and a U.N. designated World Heritage Site. Local, state or national anti-mining advocacy could make permits hard to get or create higher project costs than expected.
- Even with positive results from exploration and pre-feasibility work, a partnership with a mine operator with the necessary capital and operating expertise may not materialize on the terms anticipated by the TLO.

There is a very real possibility that the investment of $10m will never be recovered.

Contrarily, although a high-risk investment should not be a large part of a perpetual Trust’s portfolio, $10m represents less than 2% of the Trusts invested assets and could be justified since we stand to be so well compensated if the project ultimately pays off.

**There Is Other Trust Work That Could Be Funded Instead**

The source of funds for this investment – Trust reserves – are considered spendable income, they can be used for any Trust purpose. The funds requested by the TLO for the Icy Cape project could otherwise fund programmatic and/or capital needs associated with the implementation of the Comprehensive Integrated Mental Health Program Plan (Comp Plan). Between our current focus areas we could deploy these, or other reserve funds, and improve short and long term benefit for our beneficiaries.
The proposed investment in the Icy Cape project would be as large as any single use of Trust spendable income in our short history. The only comparable commitment of Trust funds was the $10m investment in Medicaid expansion and reform. Those funds have caused the State to operate Medicaid more efficiently and the expand Medicaid services to 62,000 previously uninsured Alaskans – tens of thousands of which are Trust beneficiaries.

Conversely, and happily, the Trust reserves are currently capable of providing the funds recommended by the TLO and also significantly increasing program spending.
Revenue Projections: There are no revenue projections specific to this consultation. However, the appropriate management of Trust lands, as discussed in the Resource Management Strategy (RMS), will produce yearly revenue streams of principal and income.

Transaction/Resource: The updated RMS provides strategy and guidance to the TLO for management of the Trust’s non-liquid asset base. This modification, which replaces all previous versions, is made considering the financial requirements of the Trust for both operational and programmatic purposes, and economic and market conditions in the areas where the Trust has assets or made investments, and the Trust’s Asset Management Policy Statement. Since the land management decisions are made under the authority granted to the Executive Director of the TLO, this consultation provides the trustees opportunity to review and comment on the strategic direction being provided by the Executive Director for management of Trust assets. After this consultation, the TLO will write a Best Interest Decision and solicit public comment before finalizing the RMS revisions.

Property Description/Acreage/MH Parcel(s): Includes Trust owned assets statewide and wherever the Trust owns non-liquid assets.

General Background: The RMS is modified by the Trust Land Office (TLO) from time to time. Pursuant to 11 AAC 99.090(c), the TLO is required to adopt and maintain a long-term asset management strategy that establishes goals for managing Trust land assets to execute the overall Trust management principles of 11 AAC 99.020. To that end, on July 15, 2003, the TLO adopted the “Long Term Asset Management Strategy (LTAMS).”

The document, “Resource Management Strategy” was originally published and adopted in 2013, officially replacing the “LTAMS July 15, 2003.” The latest version of the RMS was approved in March
The adoption of this “Resource Management Strategy, 4th Edition” fulfills the obligation of 11 AAC 99.090(c), replaces all previously adopted strategies, and provides guidance to the TLO for management of the Trust’s non-liquid asset base.

The board of trustees adopted a revised Asset Management Policy Statement (AMPS) on August 29, 2019. There are sections of the AMPS that address assets managed by the TLO. It is the intent of the Executive Director to align with the AMPS as long as it is consistent with overall Trust management principles of 11 AAC 99.020.

There was a Legislative Audit completed after the 3rd edition of the RMS was finalized. Some aspects of the RMS needed revision in response to the findings of the audit.

**Anticipated Revenues/Benefits:** Appropriate management of Trust owned assets ensures that Trust principles described in 11 AAC 99.020 are fulfilled. Managing Trust assets according to the strategies and goals described in the RMS will guide the TLO in making decisions that are in the best interest of the Trust and its beneficiaries. This should guide the TLO toward a path of increasing revenues, protecting the corpus, and being responsive to the Board’s Asset Management Policy Statement.

**Anticipated Risks/Concerns:** There are no anticipated risks or concerns.

**Project Costs:** There are no project costs specific to this revision of the RMS. There may be some publishing costs that are absorbed into the TLO operational budget.

**Other Considerations:** While preparing to print the RMS, there may be some minor ministerial corrections or adjustments during the editing procedure. An example is the Table of Contents will surely be adjusted. The TLO would bring the RMS back for consultation if there were any substantial changes to what is presented in this consultation.

**Due Diligence:** The TLO reviewed applicable laws, AMPS, legal advice, and Trust needs while revising the RMS.

**Alternatives:** There are no alternatives proposed.

**Trust Land Office Recommendation:** That the Trustees concur with the revisions to the RMS as expressed in the RMS 4th edition draft.

**Applicable Authority:** 11 AAC 99.090(c).

**Trust Authority Consultation:** This briefing document fulfills the consultation requirements that are applicable to the transaction. In the event that significant changes to the transaction are made necessary by the public notice process, the Trust Authority will be consulted regarding the changes.

**Exhibit(s):**  
Exhibit A: Summary of RMS Changes  
Exhibit B: RMS Intro
Exhibit C: Land Section
Exhibit D: Minerals & Materials Section
Exhibit E: Program-Related Real Estate Section
Exhibit F: Forest Section
Exhibit G: Real Estate Section
Exhibit H: Energy Section
Exhibit I: Mitigation Marketing Section
EXHIBIT A
Summary of Changes for RMS 4th Edition

1. RMS Intro
   a. To match the AMPS changes, references to “non-cash” are changed to “non-liquid”.
   b. Although “investments” can be understood as spending funds on Trust assets to improve return, “deploying capital” or “capital improvements” are another way to separate it from the “investments” made by the Permanent Fund Corporation.
   c. Added clarity in the discussion of Trust Funds.
   d. Under Trust Funds, added discussion of TLLODA and new revenue allocation regulations.
   e. Added “changes in legal understandings” as another reason for changing the RMS.
   f. Inserted a paragraph and references to the impacts of Covid-19 pandemic.
   g. Addressed the changes in the commercial real estate program post legislative audit.
   h. Other minor technical edits to make the document read better.

2. Land Section
   a. Added an example of Master Utility Agreement as an innovation example.
   b. Updated technical figures or information.
   c. Added General Permits under Revocable License for Land Use under Income Generating Authorizations.
   d. Although mitigation marketing is separate chapter in the RMS, mitigation projects are included in non-perpetual easements.
   e. Added clarification of additional revenue from land payments.
   f. Updated the Competitive Land Sale section to include discussion of the newer successful Over-The-Counter program.
   g. Expanded discussion of bonding under Risk Management.
   h. Added discussion of the new General Permit program under Public Access section.
   i. Discussed the Section Line Easement MOU that is nearing completion.
   j. Added discussion of decisions for land sales and OTC.
   k. Modified discussion of drones to be more current.
   l. Added importance of IT work in relation to Financial Reporting and Information Management.
   m. Added objectives for Commercial Leasing inventory and marketing program and Big Game Guide Permitting Program.

3. Minerals and Materials Section
   a. Clarified the importance of proximity to development for material sales.
   b. Under Strategy, revised discussion of corporate approvals, market trends, and strategies regarding mine exploration and material sales.
   c. Under Political and Regulatory Environment Effects, some discussion was inserted regarding Covid-19, commodity prices and demand. Clarified the focus of exploration and development projects when evaluating mineral exploration.
   d. Under Capital Risk, discussion added regarding the use of Trust capital in regard to exploration.
   e. Under Diversification added discussion of end-of-life cycle for mines.
   f. Added objective to track large development projects in the state for potential material sales.
4. **Program-Related Real Estate**
   a. Added discussion regarding efforts to find PRRE buildings for acquisition.
   b. Clarified that the TLO will evaluate and advise the board on potential of reduced revenue or potential revenue regarding PRRE use of Trust lands.
   c. Added example of when TLO may ask for reimbursement for time and expenses on PRRE.
   d. Deleted discussion on use of utilizing principal resources.
   e. Removed Appendix A as it is unnecessary.

5. **Forest Resource Management**
   a. In a few places, updated section with information from recent trends and effects of USFS land exchange.
   b. Updated that forest stewardship plans are complete for Icy Cape and Tyonek lands.
   c. Under Strategy discussed watching market conditions and other activities for opportunities.
   d. Under Market Risk discussed the use of harvest market agreements.
   e. Under Business Models removed discussion of TIMOs.
   f. Under Land Exchange updated information about the exchange and probable completion timelines.
   g. Clarified that the model of sustainable returns by controlling harvest and rotation cycles does somewhat depend on factors outside of TLO control.
   h. Added that timber harvest will be evaluated against other alternative uses of the resources.
   i. Modified objectives that speak to timing of sales.
   j. Deleted Appendix A explaining the Exchange parcels.

6. **Real Estate**
   a. Restructured the section to remove much of the criterial and advice on how the real estate portfolio should be grown, which is a responsibility of the board and thus the discussions should be addressed outside of the RMS.
   b. Made changes to the section that are a result of the findings of the Legislative Audit of 2019.
   c. Under Introduction discussed the difference of the two management structures between real estate on trust land and investment properties purchased by the Trust.
   d. Under Strategy, clarified focus on income generation.
   e. Under Strategy, shifted the focus to managing the assets currently owned over acquiring new properties.
   f. Under Strategy, added option for “reverse build to suit”.
   g. Under Strategy, revised discussion of risk.
   h. Under Strategy, removed discussions about construction authorities and TLO staff progressing to a full construction management program.
   i. Under Strategy, discussed that the TLO may still acquire income properties at the direction of the board, that the investment guidelines will be directed by the board, and that the TLO will focus on maintaining legacy real estate and commercial real estate investment properties for positive net operating income.
   j. Under Strategy, reaffirmed TLO’s goal of having tenants pay the operating and capital expenses before distributions to the Trust.
k. Under Risk, focused on managing risk in existing properties rather than acquisitions.
l. Under Risk, added a sub-category about Tenancy that is very important to de-risking ongoing management.
m. Under Project Profile, added focus on location of assets.
n. Under Investment Return, corrected or improved discussions of the various ways to consider investments.
o. Under Investment Return, expanded discussion of leveraging.
p. Under Investment Return, removed discussion of how revenue will be allocated from property sales.
q. Under Goals and Objectives, removed focus and priority of acquisitions and rather focused on managing current assets for predictable stream of income.
r. Under Goals and Objectives, discuss the professional standard of care and considering use of industry best practices.
s. Removed Appendix A: Prudent Investor Rule which is more appropriate for board investment decisions.

7. Energy Section
a. Under Introduction, recognize the decrease in production volumes.
b. Under Authorities and Responsibilities, clarify authorities for oil and gas leasing.
c. Under Inventory, Coal and Lignite, added discussion about unitization of coal leases.
d. Updated Inventory, Underground Coal Gasification section for current status.
e. Under Risk Management, added clarification about losing some project control when leasing.
f. Under Capital Risk, added statement of potential recommendation for exploration funded by Trust.
g. Under Disposal of Trust Energy Resources, Oil and Gas, clarified that lease sales are timed off of market price and interest and that negotiated leases are possible.
h. Under Disposal of Trust Energy Resources, Oil and Gas, added bonding subsection that addresses the need to plug and abandon wells and the new AOGCC regulations.
i. Under Disposal of Trust Energy Resources, Coal, added discussion of unitization of leases.
j. Under Disposal of Trust Energy Resources, Underground Coal Gasification, updated discussion of UCG compared to standard coal mining.
k. Clarified Goal 2 to have lease sales when markets are conducive to profitable extraction.
l. Removed Pac Rim from Goal 3 and added unitization objective.

8. Mitigation Marketing
a. Added Carbon Credits discussion.
b. Under Mitigation Marketing Strategies, added information about the challenges of creating mitigation banks.
c. Under Mitigation Marketing Strategies, Partnerships, added discussion of working on projects outside of banks like the Donlin Project.
e. Under Site Selection, added alternative to establishing a bank.
f. Added new objective regarding evaluation of carbon credit market.
Resource Management Strategy

Pursuant to 11 AAC 99.090(c), the Trust Land Office (TLO) is required to adopt and maintain a long-term asset management strategy that establishes goals for managing Trust land assets to execute the overall Trust management principles of 11 AAC 99.020. To that end, on July 15, 2003, the TLO adopted the “Long Term Asset Management Strategy (LTAMS).”


Strategies will be reviewed from time to time to ensure that they are relevant with respect to a variety of factors, including the desired allocation of non-liquid assets within the Trust’s portfolio, the financial requirements of the Trust for both operational and programmatic purposes, and economic and market conditions in the areas where the Trust has made investments and where it is considering deploying capital. As changes to these strategies are proposed, they will go through the consultation process.

Background

In 1956, the Territory of Alaska was granted an entitlement of one million acres from vacant, unappropriated and unreserved federal public lands for the purpose of providing income for mental health programs. Under the Alaska Mental Health Enabling Act, all lands and related income were to be “administered by the Territory of Alaska as a public trust and such proceeds and income shall first be applied to meet the necessary expenses of the mental health program of Alaska.” A public trust, called the Alaska Mental Health Trust Authority (the Trust), was subsequently established to provide Alaska with the resources to provide comprehensive, integrated mental health services. Prior to the establishment of this trust, there were few mental health services available to individuals who experienced mental illness or developmental disabilities (i.e. Trust beneficiaries).

The Alaska State Legislature was charged with the fiduciary responsibility to manage Trust lands, but gross mismanagement resulted in a class action lawsuit, filed in 1982. At that time, 65 percent of the Trust’s real property portfolio had been disposed of by the state. The Alaska Supreme Court ordered the restoration of the original land in 1984, but it wasn’t until 1994 that a final settlement reconstructed the Trust with 500,000 acres of original Trust land, 500,000 acres of replacement land and $200 million in cash. Together, these assets formed the original corpus (Principal) of the newly reconstituted Trust.

The settlement segregated management of Trust assets across multiple state agencies. The Alaska Mental Health Trust Authority was established to administer the state’s mental health programs. The management of land and other non-liquid assets - primarily composed of land, real estate, timber, materials and subsurface oil, gas, coal and minerals — fell to the newly created TLO within the Alaska Department of Natural Resources (DNR). The TLO was created as an office within DNR in order to effectively manage non-liquid Trust assets as separate from those under general state ownership. The Alaska Permanent Fund Corporation was assigned management of the cash corpus as a commingled percentage of the Permanent Fund, upon a contribution of such funds by the Trustees.

Legal Framework

The Alaska Mental Health Enabling Act (Public Law 830) provides the basis for all subsequent statutes, regulations, and policies that the TLO must follow in performing its obligations. Section 202 (e) of the Act states the following:

(e) All lands granted to the Territory of Alaska under this section ... together with any property acquired in
exchange therefore, or acquired out of the income or proceeds there from, may be sold, leased, mortgaged, exchanged or otherwise disposed of in such a manner as the Legislature of Alaska may provide, in order to obtain funds or other property to be invested, expended or used by the Territory of Alaska.

With the adoption of AS 38.05.801, the Alaska Legislature agreed to apply the principles set forth in P.L. 830 to the lands. Further, it directed the Department of Natural Resources to adopt regulations that would address:

1. Maintenance of the Trust land base;
2. Management for the benefit of the Trust;
3. Management for long-term sustained yield from the land; and

The TLO must always act in the best interest of the Trust and its beneficiaries. Alaska Administrative Code (11 AAC 99.020) provides a framework through which land management decisions can be vetted and provides a force of law behind those decisions.

11 AAC 99.020

(c) In determining the best interest of the trust and its beneficiaries, and in determining consistency between state law and the Alaska Mental Health Enabling Act (P.L. 84-830, 70 Stat. 709 (1956)), the executive director shall, at a minimum, consider the following trust management principles:

(1) maximization of long-term revenue from trust land;
(2) protection of the corpus;
(3) protection and enhancement of the long-term productivity of trust 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.

Alaska Administrative Code (20 ACC 40.700) further clarifies the Trust’s responsibility with respect to Trust asset development and investments. That section of the code states:

(a) From time to time, the board may determine that it is in the best interest of the trust and its beneficiaries to use receipts from the management of trust land to:

(1) Acquire for the trust new land; or
(2) Improve or develop existing trust land.

(b) If the board decides under (a) of this section to acquire new land or improve or develop existing trust land, the authority will establish a development account for the purpose of monitoring and accounting for receipts used and the costs incurred by the trust to carry out that acquisition, improvement, or development project.

Under the provisions of the above referenced statutes and codes, the TLO is required to protect and enhance the value of the Trust’s holdings. Under federal and state law, the TLO is authorized to use, manage, lease, develop, and sell the Trust’s non-liquid assets in order to generate revenue. This includes the possibility of developing Trust land and/or acquiring real estate for the Trust. The legal ability to engage in such activities gives the TLO broad management authority. In addition to the strict adherence to the Trust management principles stated above, this authority requires:
1. Compliance with state laws and regulations pertaining to transactions;

2. Consultation with and/or approval of the board of trustees with respect to the TLO’s activities associated with disposal and acquisition of assets;

3. Reporting to the Trust of its ongoing activities; and

4. Appropriate planning, budgeting and forecasting efforts to keep the Trust informed of its planned activities.

Trust Funds

Revenue generated by the TLO is classified as either principal or income depending on the nature of how it was generated as prescribed in 20 AAC 40.610. Revenue generated from the disposal of Trust assets (i.e. sale of land or royalties from resource extraction) are considered principal and must be transferred to the Mental Health Trust Fund (the Fund) which is managed by the Alaska Permanent Fund Corporation (APFC) as a commingled investment with other state investments. The Fund is intended to safeguard the value of the principal assets and produce spendable income for the Trust. The Trust withdrawals 4.25% of the rolling four-year average of the aggregate net asset value of the funds invested thru APFC (inclusive of earnings reserve) and reserves held at the Department of Revenue. This ensures that the principal will continue to generate income from the fund in perpetuity. Revenue generated by the TLO through leases, fees, bonus bids, interest, etc. (non-principal) are considered income. Income generated from the TLO and income from the percentage of market value of the Mental Health Trust Fund are used by the Trust for programs and operating costs. Through its management of the non-liquid assets, the TLO is responsible for obtaining the maximum return on non-liquid assets through revenue generation, both income and principal, and maintaining and/or increasing value of Trust corpus.

Maintaining the value of Trust assets requires the funding of stewardship and management of Trust land and resource rights. This includes a broad range of activities, from managing trespass issues to developing inventory and asset management systems to participating in public process regarding regulation of land use and resource activities. Although these activities may not generate revenue directly or immediately, they are required as a duty of the Trust to protect the assets and generate revenue in perpetuity.

The Resource Management Strategy (RMS) is designed to provide broad guidance to help the TLO pursue development activities and revenue-producing projects that will preserve and enhance the value of Trust assets and increase the revenue generation of the portfolio. Where necessary or appropriate, it will also propose specific criteria for the board of trustees to use in evaluating capital improvements and development opportunities.

The new and updated regulations for 20 AAC 40.610 provide opportunities for the Trust to recover development costs before allocating revenues to principal or income. This is an important consideration for certain projects where the TLO requests development capital from the Trust to improve or acquire assets to increase revenue return. It affords the board an opportunity to approve a development plan before development with described allocation of revenues from the project. In some cases, this will prevent undesired conversion of income invested to principal as a parcel or resource is sold or royalty obtained. Revenue equivalent to the invested income could be returned to income for further use before the remaining revenue is deposited in the Mental Health Trust Fund as principal. Therefore, these regulations mixed with the board approved Trust Land Office Development Account provides a tool for the TLO to plan for and use appropriated development funds to increase revenue returns in some cases.

1 20 AAC 40.610(a)(1)
2 The annual withdrawal calculation methodology is stipulated in the Asset Management Policy Statement
3 20 AAC 40.610(a)(2)
Although overall land management principles remain constant, each update of the RMS must consider changes in the respective asset or commodity markets, the economy, changes in legal understandings, as well as the funding needs of the Trust. As of this edition, the long-term economic forecast for Alaska is significantly impacted by decreasing revenues from North Slope crude oil production, COVID-19 pandemic restrictions, and the challenges posed by unpredictable commodity markets. 2020 brought unprecedented economic upheaval throughout Alaska and the world.

The World Health Organization declared the Coronavirus (COVID-19) as a pandemic in March 2020. Originating in Wuhan, China, the outbreak continues to develop, and cases are progressively being detected around the world, including Alaska. The outbreak continues to cause economic and financial uncertainty in both local and global markets. Financial markets worldwide have been negatively impacted as a result of the response of governments and the public to the virus. Business and personal finance decisions appear to be significantly altered in response to this pandemic. Though stabilizing and relief efforts were performed by the Federal Reserve and the President the financial markets remain volatile. Specifically, in Alaska, Governor Dunleavy introduced the Covid-19 Economic Stabilization Plan aimed at mitigating the health and economic impacts as a result of the virus. A vaccine could give the economy a jump start in 2021, but expert economists suggest that the economy will take longer to recover from the historic blow to jobs, investment and businesses and likely not until 2022 or beyond may the economy look like it did prior to the pandemic.

As the decline in state revenue predictably continues, there will be less income available from both public and private sources to provide programs and services for beneficiaries of the Trust. Simultaneously, the number of beneficiaries is increasing, along with demand for Trust-supported services. In the long term, this combination of trends will likely create pressure on all sources of funding for mental health programs and highlight the need to find new methods of generating program funds. This plan has been developed to help offset these trends, providing a pathway for the Trust to increase the balance of its principal fund while maximizing the revenue-producing capabilities of its non-liquid assets. This will help the Trust to address the widening gap between available funding and program needs.

Another substantial change since the last edition was in its commercial real estate program. The TLO was chosen by the Trust to manage its commercial real estate investment portfolio that was intended to diversify its portfolio, hedge against the volatility of the Permanent Fund earnings, and grow the yearly income available for programs and services. The Trust was on a trajectory to grow that portfolio over time. In 2019, a legislative audit challenged how the Trust invested principal in commercial real estate investments. In response to the audit, the Trust has frozen any new acquisitions of investment properties using principal. This limits the growth potential from this area of non-liquid assets and redirects to maximizing revenue from the existing assets. However, the Trust’s Asset Management Policy Statement still allows the use of income for prudent investments in non-liquid assets already owned by the Trust or through the acquisition of additional assets.

While the Trust has taken steps to accommodate variations in its income stream from the Permanent Fund, further diversity among its income sources is desirable. The TLO will continue to be innovative and explore alternative ways to monetize trust assets to produce increased revenues. The TLO continues to pursue more and varied resource development and extraction activities on Trust land.

How to use this document

The RMS is segregated into seven asset classes:

1. Land
2. Minerals and materials
3. Program-related real estate
4. Forestry
5. Real estate
6. Energy
7. Mitigation marketing

Each of the Trust’s specific non-liquid assets is placed into the category that best fits its most significant and beneficial use. It is important to note that each asset may move from one category to another as more information is obtained or as external factors affect its highest and best use.

Each non-liquid asset is managed under a resource plan that may include up to three primary components: a narrative plan, investment and resource management criteria and goals and objectives. The narrative plan reviews the current assessment of the resource in all aspects, including accessibility, marketability, environmental feasibility and other external factors. Investment and resource management criteria will be established, and recommendations will be made concerning potential characteristics that will help balance risk factors and asset return potential. The investment criteria component summarizes and restates the investment principles found in the narrative.

In addition to following the Trust land management principles set forth in 11 AAC 99.020 (page 2 of this document), the TLO will, in general, consider the following in the strategies developed for each asset class:

1. Allocation of investments
2. Management of risk profile
3. Establishing diversity guidelines that address:
   a. Asset allocation among land use types
   b. Geographic distribution
   c. Partnership opportunities
   d. Recommended levels of debt, when appropriate
4. Consider leveraging Trust resources through development partners, both public and private, when appropriate.
# Land Resource Management Strategy

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**Introduction**

The Lands Section works on behalf of the Trust to identify and enhance lands for economic development and mitigate risk liabilities of the land estate held by the Trust. Management actions must be consistent with Trust principles as established by the Alaska Mental Health Enabling Act of 1956.

The Lands Section uses a dynamic and versatile approach to encourage principal and income revenue streams while maintaining the long-term value of the land corpus. As new technologies, such as fiber optics and telecommunication systems, demand greater land-based infrastructure needs, the TLO has delivered solutions such as Master Utility Agreements with greater efficiency than other private and government sectors.

The Trust’s land estate is divided into three regional areas (Northern, Southcentral, and Southeast), each comprised of organized and unorganized boroughs. The Lands Section’s regional managers offer professional expertise to focus on business transactions, land and resource management, and the economic and political climate of their respective regions. TLO staff assist the regional managers with adjudication of title issues, encumbrance research, and the replacement lands program strategy with the State of Alaska.

**Stewardship**

The Lands Section manages the perpetual Trust land prudently, efficiently, and with accountability to the Trust. Best management practices ensure Trust lands are maintained, assets inventoried, liability exposure minimized, and value is retained for the present and future. A strong field presence ensures protection of the surface resources and continues to be sustained through a working knowledge of the portfolio, identifying and resolving liabilities, and effective working relationships with customers, public, agencies, and governments.

**Revenue Generation**

This plan provides guidelines for management and development of the surface lands in order to generate a predictable stream of income and principal funds. Through FY2019, the Lands Section has contributed $100.5 million or 45% of all TLO revenue. New opportunities to generate revenue must meet operating expectations and focus on resources at the high end of their market values best markets and then on land or resources with best market potential within the next two to ten years.
Inventory of Land Resources

The surface lands are made up of approximately 582,496 acres and segregated into asset classes as described below.

Performing Assets

A performing asset provides a positive cash flow on a parcel or a selection of parcels. The Lands Section manages land use through various authorizations that generate revenue from fees, licenses, leases, easements, and land sales. As of this publication, the Lands Section actively manages more than 437 active land use authorizations. These authorizations grant individuals, corporations, government agencies and other entities limited or full property rights for the use of Trust land.

Projects authorized on the surface lands are often diverse and require Lands Section staff to possess complex land management skills and knowledge. Project types may include easements for utilities, fiber optics, and roads; land sales either competitive or negotiated; land leases for short- or long-term development with infrastructure, such as cellular/communication sites; licenses for exploration or analysis; and letters of authorization for community events or other minor projects.

Nonperforming Assets

A nonperforming asset is defined as a parcel that is not producing revenue. The Lands Section proactively explores business opportunities to generate a wider range of authorizations, such as cottage industries, roads, utilities, communications infrastructure, and subdivision development.

Values

Throughout the Trust’s history, valuation of the real property portfolio has been difficult to quantify. In the settlement of the class action suit that reorganized the Trust in 1994, the fair market value of Trust lands could not be agreed upon due to valuation issues related to the original Trust lands compared to the substitute lands awarded in the 1994 settlement agreement. The Trust has made a conscious decision to not specifically attempt to value the land or non-cash portfolio that has been held by the Trust from inception. An important consideration in making that decision was the difficulty and expense associated with establishing and maintaining those values accurately. Each parcel may contain numerous monetization possibilities, and identifying every possibility would be impractical. The TLO does, however, appraise and evaluate parcels in the course of doing business.

The TLO utilizes multiple evaluation tools to determine valuation. The valuation process entails a wide range of analysis methods based on the proposed type of authorization. Current parcel values are determined by either an internal review process that may include historical values, review of tax assessment records, analysis of comparable sales transactions, and/or external reviews such as a broker opinion of value or an appraisal.

The 1994 settlement established a mechanism to replace parcels from other state lands under a Replacement Land Program whose values from encumbrances or other restrictions significantly hindered its economic value. The first round of the replacement land program was closed in 2015. Future parcels that are encumbered by DNR authorizations such as interagency land management agreements, plat restrictions such as greenbelts, or physical characteristics such as submerged lands rendering the parcel value as de minimis, may be negotiated in a future land replacement program.

Values Inventory Tools

The Lands Section is entrusted with the responsibility of protecting or enhancing the future value of the surface lands. This includes developing stewardship policies, procedures, and guidelines to assess current parcel conditions, alleviate and mitigate unauthorized land use and trespass, and develop restoration and reclamation projects. To facilitate this process, the TLO developed a Parcel Attribute Library (PAL), an electronic database that documents...
each parcel’s known condition, attributes, use history, known values and authorizations. PAL is an important
management tool for the continuity of future transactions and the current demands for management decisions. PAL
recently has been reworked with new technology and additional information such as consultation and appraisal data
has been added.

The RED Team (Review, Encourage, and Develop) is an important dynamic communication tool that has yielded
authorizations of higher revenue value and efficiencies. This is an internal working group among various TLO
resource groups was established to promote and facilitate the development of the surface estate to achieve the highest
and best use of a parcel and to reduce the conflict of uses related to a specific parcel.

Focus Area Plans (FAP) are an additional tool to increase higher revenue values. A FAP is similar to comprehensive
plans but will define future uses in respect to land use development and asset preservation for a smaller geographic
area within a region. They are intended to forecast an area’s economic trends and land resource potential as well as
identify preservation opportunities and needs. The process may include the evaluation of site characteristics, history of
land use, analysis of local zoning regulations, evaluation of market potential, identification of appropriate management
policies, and coordination with other resource sections. The FAP will target strategic areas for development at the
optimum market conditions. These plans will be reviewed and approved by the TLO executive director.

Authorization Contracts

Land resource management generates revenue through a variety of transactional authorizations that grant
permissions or rights for compensation. The basis of an authorization type is predicated on:

1. The amount of risk to the Trust associated with the proposed activity;
2. The term or extent of the authorization; and
3. Infrastructure added or modification of the
   property.

Authorizations types are described below.

Income-Generating Authorizations

Letter of authorization: A revocable and non-exclusive land use for a short period of time, with low risk and low
impact to the surface lands. Often, these are used for community-supported events and may provide opportunities
for positive public relations for the Trust.

Revocable license for land use: A license allows non-exclusive use of the surface lands and is revocable without cause
and infrastructure is temporary. The TLO also created a system of general permits available for purchase on line, these
being revocable licenses.

Land lease: A lease allows exclusive use of the property and typically will add more infrastructure associated with its
use. At the end of the lease term, the infrastructure may be removed, sold to another party or retained by the Trust. It is
considered a disposal and requires consultation with trustees.

Non-perpetual easement: A long-term easement for land use development that may include communication
towers, roads, trails, utilities, and mitigation projects. Co-locations require a separate authorization by TLO. A
master easement agreement was created for applicants that required multiple easements over time.

Interest from land sales: The contract interest rate is set by statute and determined by the prime rate as reported in the
Wall Street Journal on the first business day of the month plus 3 percent. The TLO offers payment plans with no credit check. The interest is income in addition to the principal received for the land sale.

Principal-Generating Authorizations

Perpetual easement: Often used for linear features such as roads but can also be used for other site-specific uses. A disposal of the surface land in which the mineral rights are usually retained by the Trust. Perpetual easements are negotiated on a limited basis because of the potential for lost economic opportunity in the future. Perpetual easements are treated as a negotiated sale and the value is determined by an appraisal plus a 20 to 30 percent surcharge to compensate for not selling through a competitive process.

Competitive land sales: The program is designed to dispose of subdivided lots and small parcels that do not lend themselves to resource development. The competitive nature of the program is derived from the directive to maximize revenue from Trust land. TLO regulations require the disposal of the surface lands on a competitive basis, unless the executive director determines a negotiated sale is in the best interest of the Trust.

An outgrowth of the competitive land sale program is the Outcry Auction. Since 2006, properties with unique characteristics (waterfront, scenic view sheds and islands) are offered for sale in the Outcry Auction. Although the number of parcels offered in the Outcry Auction is usually low, the competitiveness of auction dynamics often increases revenues compared with other methods.

Over the Counter sales: After parcels do not sell in a competitive land sale, the parcels are moved to an online over the counter sale and sold for 30% over appraised value to account for the non-competitive offering. This is a low overhead program that continues to produce results. OTC parcels can be moved back into future competitive sales.

Negotiated land sales: From time to time, private parties, communities, conservation groups, nonprofits and local governments approach the TLO, interested in acquiring Trust land. Each request is carefully evaluated and subjected to a stringent adjudication process. If pursued, each sale requires consultation with trustees, a written finding of a best interest decision and publication of a public notice under 11 AAC 99.050. A negotiated sale is based on a current appraisal plus a 20 to 30 percent surcharge to compensate for not selling the parcel through a competitive process.

Risk Management

Risk management is the mitigation of the Trust’s liability through a process that identifies and assesses the risk associated with a resource management decision and establishes a method to minimize, monitor and control the risk within the parameters of land resource management criteria. Best practices include:

1. Use of contract stipulations requiring indemnification and insurance in all land use contracts issued by the TLO. Boilerplate language for risk mitigation has been recommended by the State of Alaska risk management group. On a case-by-case basis, specific authorizations may include input from the Department of Law for prudent environmental or transactional stipulations or conditions.

2. For certain large scale projects, the TLO will ask for bonds to cover full dismantlement, removal, and restoration (DR&R) of the site in the event of default. However, most of the smaller and medium sized authorizations use a performance guarantee rather than full DR&R bond coverage because the cost of the bond would prevent many companies from entering into the authorization. There is some assumed risk in not asking for full DR&R coverage balanced against the ability to collect revenues for use of Trust land. TLO may evaluate the intended use, company financial strength, operational history, estimated cost to,

1 Division of Risk Management http://doa.alaska.gov.
3. Risk management is not static and can change over the life of a project. It can change based on a variety of factors including, but not limited to, the change of operations or potentially on the financial strength of the lessee.

Development Issues

Surface lands are managed for the economic benefit of the Trust — not for the public at large. Consequently, TLO management practices may conflict with the priorities of various public or private user groups. This conflict between the public’s interest in Trust land versus the interest of the Trust has at times led to confusion and tension between the Trust or the TLO and user groups, government agencies, and individuals.

The Lands Section may receive pressure to limit the development of surface lands through the public process: public relation campaigns, agencies, or zoning laws. Often the public process inadvertently devalues the property and does not compensate the Trust for its limitation of parcel development opportunities from the full market potential. This action is inconsistent with AS 38.05.801 and 11 AAC 99.

Public Rights of Access and Compensation

The burden of section line easements, RS2477 rights of way, and ‘to and along’ easements on Trust lands may, on a case-by-case basis, be in conflict with the TLO’s mission as well as inter-agency agreements. Generally, these are public rights of access created without compensation to the Trust prior to the settlement. There are instances when these rights augment the development of Trust resources. At the same time, there may be instances when these easements diminish the value of Trust land or create a risk or liability to the Trust from trespass or other unauthorized activities. The 1994 settlement allows the Trust to challenge the validity of any encumbrance or interest. Existing case law supports compensation for public takings, such as access easements. The TLO is seeking to memorialize an agreement between the TLO, the Division of Mining, Land and Water in DNR, and the Department of Transportation/Public Facilities on section line easements that would better inform the public of when they might apply or not to Trust lands.

In 2020 the TLO created a general permit program that allows the public to acquire permits online for motorized use, overnight use, subsistence trapping, and firewood cutting. These permits are flexible to be purchased in increments of daily, weekly, monthly, or yearly. A media campaign was used to heighten awareness that Trust land is only available for non-commercial, non-motorized, day use without permit. The public continues to need education regarding the different status and purpose of Trust lands as compared to general state land. Although there is substantial use without authorization, the TLO continues to inform the public of the purpose of Trust lands to produce revenues for the Trust and its beneficiaries.

Land Management Strategy

The Lands Section has a three-pronged business strategy to continue to build upon past successes, develop new markets, and use innovation to make each authorization more efficient and less costly to produce. The competitive land sale program has been extremely successful for the Trust and it is important to note that less than 2.5 percent

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2 AS 19.10.010
3 AS 19.30.400
4 AS 38.05.127
of the land corpus has been sold. Historically, DNR conveyed small lot subdivisions to the Trust as a result of the 1994 settlement. Almost all of the DNR small lot subdivisions have been sold and the future of the competitive land sale program is dependent on subdividing smaller parcels into recreation or marketable residential lots. The Lands Section continues to select small parcels requiring minimal infrastructure for subdivision development that will generate maximum revenues. Revenues from land sales contribute both principal and income if sold under a land sale contract.

While determining areas to subdivide for further land sales, the TLO evaluates the potential development costs of creating a subdivision, local platting authorities that might have road construction requirements, local markets and demand for new land for sale. As boroughs or communities extend their platting authorities with increased requirements for road construction or subdivision restrictions, the TLO may seek to develop subdivisions before platting expansion.

The TLO developed an online Over the Counter land sale program that continues to offer parcels at 30% over appraised value after they have been competitively offered. This program is extremely cost-efficient at marketing and creating additional sales revenues at large premiums.

Emerging markets from various new technologies are required to satisfy the Alaskan population's need for access to internet and communication technology for personal and business demands. As utility companies expand in these markets, the demand for fiber optics easements or cellular tower sites continues to grow. The Lands Section created an innovative long-term master agreement that allows those businesses with multiple easements or leases to do so efficiently and at a predictable cost over time. The efficiency of the agreement dramatically lowered cost and reduced permitting times for both the TLO and its customer.

As long-held federal and state easements issued to utilities in the 1950’s and 1960’s begin to expire, the TLO is able to capitalize on this existing infrastructure that has previously been a low revenue producer. The utility companies do not plan to remove their infrastructure and are in the process of negotiating with the Lands Section for future long-term agreements affording legal access. The master agreement is a particularly effective tool to meet the utility’s needs.

TLO is using Unmanned Aircraft Systems (UAS) or drone technology as management tools. This assists with identifying trespass and boundaries, collecting data when doing field inspections, marketing trust land, and more. Another application for drones is the acquisition of multi-spectral aerial imagery, which can provide data that helps managers evaluate development projects, material sales, timber typing, trespass and more.

Financial Reporting and Information Management

The State’s financial management system does not adequately report on operational and profit measurement standards for the Trust’s for-profit business model. With an eye toward prudent use of trust funds and a generalized cost-benefit analysis of projects and authorizations, the Lands Section has been able to focus on authorizations that yield strong profits to the Trust with greater labor efficiency.

Presently, the Lands Section is continuing its efforts at developing business efficiencies to its daily work processes through the planning and implementation of automated systems. Currently in development are electronic submittals and routing of electronic applications, enhanced document production and management tools, and enhanced integration with state systems such as LAS. Pre-population of data into electronic records will streamline and create greater accuracy of the business process. The IT staff are transitioning the technology used for internal data storage and file sharing, populated additional data into the shared platforms, and updating TLO document retention schedules to incorporate increased reliance on electronic documentation and business processes. In addition, the Lands Section developed online tools for the public to obtain general permits.
Key Performance Indicators

Key performance indicators are based on achieving profit in both principal and income funds, as well as revenue maximization by type of authorization and parcel. Authorizations for land use that have low returns will be denied unless they fulfill a stewardship obligation by increasing the inherent or potential value of a parcel.

Stewardship typically does not have revenue performance measures because its focus is the preservation of the parcel; however, revenue potential may be created through lease opportunities for nondevelopment easements to keep lands pristine and undeveloped.

Goals and Objectives

Goal 1: Maximize long-term revenue by increasing development opportunities over time.

Objective 1: Encourage lease programs for nondevelopment on nonperforming assets that will employ sound economic and environmental practices while providing income/revenue.

Objective 2: Promote income producing authorizations for commercial opportunities related to industry drivers in tourism, pipelines, roads, utilities, and communication sites.

Objective 3: Maintain a three-year inventory of lots through subdivision developments in support of the competitive land sale program.

Objective 4: Develop a program to maintain an ongoing inventory and marketing of lands available for commercial leasing.

Objective 5: Create and maintain a new Big Game Guide Permitting Program on some of the larger tracts of Trust lands.

Goal 2: Manage Trust land prudently, efficiently, and with accountability to the Trust and its beneficiaries.

Objective 1: Develop Focus Area Plans and market analysis reports that will make recommendations for future land use that will encourage a diversity of revenue-producing uses and generate strong returns.

Objective 2: Continue to develop new business processes that will increase efficiency of operations and reduce operational costs.

Objective 3: Develop management reports to measure revenue over expenses and track costs including labor time by authorization type.

Goal 3: Protect and enhance the inherent value of the surface lands through stewardship obligations.

Objective 1: Establish or increase collaborative relationships with local governments, NGOs, communities, and

5 Non-government organizations
state and federal agencies to advance the TLO’s mission and land management decisions.

Objective 2: Actively engage in monitoring and abating proposed actions of governments and agencies related to zoning, regulatory changes, plans, operations, and projects that may adversely affect value of Trust land.

Objective 3: Identify and resolve issues that negatively impact Trust land related to access, trespass, environmental degradation, or contamination.

Objective 4: Resolve long-term pre-1994 settlement DNR actions that negatively affect the value of Trust land such as inter/agency management agreements.
MINERALS AND MATERIALS RESOURCE MANAGEMENT STRATEGY

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” 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

(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 “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.

1 Sec. 2.2 (c)
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. The development of industrial minerals often is driven more from proximity to other development projects than to the existence of the resource.

**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, and Haines land blocks. Kodiak properties will be evaluated next. 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.

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Fort Knox</th>
<th>Livengood</th>
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</thead>
<tbody>
<tr>
<td>Potential Trust</td>
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2 11 AAC 99.990(8)(b)
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 adapting to new situations and business opportunities. For many of the larger mineral companies who have projects all over the world, exploration on Trust land must compete against demands for corporate funds in other states or countries. The TLO must be adept at following world-wide trends, market demands, and commodity pricing to appropriately market Trust lands for mineral development.

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. Many exploration projects do not get developed as producing mines. The TLO produces revenue by authorizing exploration projects with the aspiration of moving to commercial production mines which greatly increases revenue streams when royalty payments are received. Therefore, mineral leases are structured to incentivize the movement from exploration to commercial production. Once in commercial production, mineral leases continue as long as commercial production continues.

The TLO will actively market is industrial minerals such as sand, rock and gravel as projects are developed in proximity to potential deposits. Known material sites will be identified for the public so that they are considered as source pits.

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 Trust 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 grantee’s 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. During 2020 with the Covid-19 pandemic, oil prices have significantly decreased, which has fed into further declines of oil production in the state. Conversely, commodity prices for some mineral have significantly increased, leading to increased exploration. With the increased national demand for renewable resources, there is a corresponding increase in demand for mineral production that is required for that energy sector.

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.

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, 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. In some cases, if
preliminary reconnaissance exploration identifies a probability of a promising deposit of sufficient scale, the TLO
may request some Trust capital to advance the exploration to make the deposit more marketable and increase
potential revenue generation. In that case, the Trust will be presented with both the justification and the identified
risks.

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. Albeit much of the mineral
authorizations are driven more by external interest than by TLO promotion.

Mines have a life cycle that will come to an end as a deposit is exhausted or becomes uneconomic to continue. As an
eexample, revenues are starting to decline from Fort Knox as it nears the end of its life cycle of the existing pit. The
success of an ongoing mineral project rests heavily on commodity prices which are out of TLO control. Therefore, it
is imperative that the TLO seek to have multiple mineral projects active on Trust lands to ensure a steadier stream of
revenues.

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.


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.

Objective 3: Actively track large development projects in the state and market our proximal source of materials for sale when possible.

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.
EXHIBIT E

PROGRAM-RELATED REAL ESTATE RESOURCE MANAGEMENT STRATEGY

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Resource Management Strategy 1

Risk Management 2

Policies 2

Goals and Objectives 3

Appendix A: Program-Related Investments 4

Introduction

The use of Trust land for a Trust beneficiary or organization acting on behalf of Trust beneficiaries to directly benefit persons is consistent with Congress’ intention to create a mental health trust for the State of Alaska. The Alaska Mental Health Enabling Act (1956) obligated the Territory of Alaska to administer the lands granted as a public trust. Congress further declared that proceeds and income from the land shall “first be applied to meet the necessary expense of the mental health program of Alaska.” It is consistent with the formation of the Trust to use its lands to directly benefit beneficiaries. This potential direct use is anticipated in the TLO regulations:

11 AAC 99.110 Direct use by beneficiaries.

A Trust beneficiary, or an organization acting on behalf of a Trust beneficiary wanting to use Trust land to directly benefit persons as part of, or to fulfill, the Trust Authority’s purpose to ensure a plan for an integrated, comprehensive mental health program prepared under AS 47.30.660 (a)(1), may be granted use of Trust land. Trust land use to be granted under this section must be approved by the Authority before consideration by the executive director.

The above provision is interpreted to also allow the use of properties acquired by the Trust for program and beneficiary purposes.

This plan serves to provide general guidance on the use of Trust land for beneficiary programs but is limited in scope to real estate or land use related issues. Decisions related to beneficiary programs or policies are made by trustees. In addition, the plan identifies policies, procedures and other considerations relative to Trust land use or property/land acquisition for beneficiary programs.

From time to time, Trust staff, working on behalf of or with a beneficiary group, may bring a proposal to the TLO for real estate consideration. Proposals may identify the need to acquire select properties and/or the need to identify a parcel of Trust land that would be appropriate for the development of a beneficiary program or facility. TLO staff can provide technical and professional assistance and service to Trust staff by identifying existing Trust land or other available land for potential consideration by Trust staff and/or trustees.

This scenario was employed for the development of the Fairbanks Enhanced Detox Facility (2004-2008). The TLO worked with a team of stakeholders representing nonprofits, tribal organizations, and state and federal agencies to acquire raw land, develop a subdivision with road and utilities, and contract for the design and construction of a 10,500-square-foot treatment facility. The TLO’s role included land and entitlement acquisition, project management and procurement for subdivision development, oversight of the construction...
contract and negotiation of the facility and land lease with Fairbanks Community Behavioral Health Center (FCBHC). Although initially the facility was owned by FCBHC to support funding its construction, it is now owned by the Trust, and TLO contracts with a property manager to manage the building and provide ongoing maintenance. This model, or a variation thereof, can be implemented when facilities need to be acquired or constructed for Trust-funded program purposes.

**Program-Related Real Estate Resource Management Strategy**

Upon initiation by the Trust, the TLO will research, analyze and conduct due diligence relative to proposed beneficiary uses of Trust land to make recommendations to the Trust and its board of trustees. The TLO will consider those issues related to the Trust acquiring lands or buildings for beneficiary purposes but will defer to the Trust for direction and decisions related to program needs and program development. The TLO will consider long-term and short-term risk to the Trust, financial risks and considerations, investment implications and due diligence findings and provide recommendations to Trust staff and the trustees when appropriate. Any proposed beneficiary program on Trust land will be treated by the TLO as it would any other project — all recommendations will consider the best interest of the Trust. The TLO will not consider or verify the merits or values of a beneficiary program but defer to Trust program officers and the trustees for these decisions.

Between 2018 and 2020 the TLO has evaluated several properties for a new home for Choices and the Consumer Web. The TLO coordinated closely with the Trust Authority program officers and the non-profit organization staff to understand their property needs. TLO located potential properties and found ones that might fit the purposes. TLO negotiated purchase price and conducted physical building inspections and best fit evaluations to create expected budgets to complete the acquisition and building retrofit. The TLO was unable to find any available buildings that met all the needed parameters within the budgetary constraints. This highlights that the TLO can provide technical assistance, but it does not guarantee results on any individual project.

The use of Trust land for beneficiary interests at times may conflict with the TLO’s mission to maximize revenue from Trust land. As a result of the settlement agreement of 1994, the Trust received some lands that were encumbered by long-term leases or other management agreements established under the Department of Natural Resources’ (DNR) management of the lands as “general state land.” Although the TLO has an ongoing obligation to honor valid existing rights, such as public and charitable leases, the long-term management goal of these lands will be to maximize revenue generation over time. Each scenario will need to be considered and reviewed on a case-by-case basis, as lease conditions vary. In the case of nonprofit organizations that may also serve beneficiaries of the Trust, the TLO should always consider the potential revenue opportunities that a parcel of Trust land may offer and be ready to manage for other uses in the event that a beneficiary or nonprofit-oriented lease expires or the occupant abandons the property or changes its need for the land.

Any recommendations to the Trust Authority Office or the board of trustees for use of Trust land for beneficiary purposes will include an assessment of any reduced revenue or revenue potential by encumbering the land as proposed. Trustees can make the determination to forgo alternative revenues when balanced against the potential future funds that would be necessary to produce the same program benefit without the program related land use. The trustees can also determine how much to subsidize the program related land use, fully, partially, or at market rents while providing a necessary facility.

**Risk Management**
The primary consideration of risk to the Trust for beneficiary-related uses of Trust land includes, but may not be limited to, the following:

- Loss of potential revenue from alternative/competing development projects;
- Holding costs associated with program development when the Trust advances a program-related investment (PRI) acquisition;
- Instability in operating budgets or loss of beneficiary program funding for an existing program;
- Management or administrative issues that could negatively impact beneficiary program operations; and
- Loss of TLO staff time focusing on revenue-producing opportunities.

These potential risks vary depending on the scenario at hand. Some beneficiary-related uses of Trust land were granted prior to the reconstitution of the Trust (for example: ARC located in the Community Park Alaska Subdivision, Anchorage). Generally, these land use rights were granted by DNR under a limited rights conveyance document (such as a management agreement) or other long-term lease document that granted exclusive use rights, at times without an expiration date. In some instances, these land use rights were assignable to other non-profits or beneficiary groups. As in the case of Catholic Social Services (CSS), also located on Trust land in the Community Park Alaska Subdivision, the land lease originally had been granted by the Municipality of Anchorage to the Sisters of Providence for a 40-year term. In 1991, the lease was assigned to CSS. The CSS programs at this location serve some of the Trust’s beneficiaries, but are not considered solely “mental health programs.” The complexity of existing land use rights coupled with the need for program services makes the identification of risk and consequent management of these existing rights and assets more difficult. As such, the TLO will work with Trust program officers to advance the mission of the TLO and the Trust subsequently, when possible.

Policies

In order to balance beneficiary needs with the TLO’s mission to maximize revenue for the Trust, proposed beneficiary-related uses of Trust land should be initiated by Trust staff. Requests from beneficiary-related groups or mental health providers operating or proposing to operate on Trust land should be considered on a case-by-case basis.

Decisions to use Trust land to directly benefit beneficiaries or to fulfill the Trust Authority’s plan for an integrated comprehensive mental health program must be approved by the trustees, and then forwarded to the TLO for consideration by the executive director.

When appropriate and approved by the board of trustees, TLO staff may seek supplemental funding from the Trust for time and funding spent for projects initiated by Trust staff. This would typically be when the expenditures were not planned for or can not be absorbed by the approved TLO operational budget.

TLO and Trust staff will work together to set priorities for specific beneficiary-related projects with the direction of the board of trustees.

Goals and Objectives

Goal 1: Assure the real estate needs of mental health programs sponsored by the Alaska
Mental Health Trust Authority are met as appropriate.

Objective 1: TLO will provide expertise to Trust staff relative to program-related real estate projects or land use authorizations on Trust land.

Objective 2: TLO will provide expertise and services to the Trust to acquire land or property for beneficiary programs.

Goal 2: Manage Trust land for the long-term preservation of the Trust’s land base while supporting and enhancing the Trust’s mission to promote a comprehensive integrated mental health program.

Objective 1: TLO will manage land and facilities owned by the Trust to serve the best interest of the Trust.

Objective 2: TLO will provide professional property management and other real estate and stewardship services to protect the value of program-related Trust investments.

Goal 3: Develop Trust land inventory and long-term management plans related to beneficiary programs.

Objective 1: TLO will maintain an inventory all of existing beneficiary related uses of Trust land.

Objective 2: As a function of maintaining the land base, the TLO will develop individual long-term management plans for existing mental health programs located on Trust land. The plans will identify opportunities and potential scenarios for future revenue generation.

Objective 3: TLO will create an inventory identifying all Trust land that is currently zoned consistent with potential Trust beneficiary needs.

The Trust has been examining PRIs as a way to achieve greater impact in the area of housing for beneficiaries. The following outlines some of the parameters that may be used to examine and develop a potential program in order to facilitate the discussion by trustees.

**Definition and strategy goals**

Housing has been discussed as one potential area for using PRI. This is likely a good place to begin with a program for the Trust: specifically, assisting nonprofit organizations in acquiring property and holding this property until they are able to apply for grant funding has been the focus of our work. Other targets may be identified to benefit the overall nonprofit sector. Examples:

- Social programs: Trust resources may be used for other programs than housing. One use may be to incentivize areas of interest, such as programs demonstrating fuel efficiency or pairing PRI resources with projects moving forward in the legislative process as an incentive for...
**FOREST RESOURCE MANAGEMENT STRATEGY**

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**Introduction**

The TLO manages approximately 130,000 acres of lands with commercial forest potential. These lands are located across Southeast, Southcentral, and Interior Alaska. Each region has different forest types due to topography, soil conditions, and climates. These different types vary in the quality, density, and size of the timber which grows there. Revenue derived from Trust forest assets is, as a result, quite variable. Historically, forest resource revenue was generated primarily from traditional, large-tract, old growth timber sales in remote areas of Southeast. These opportunities have dwindled and the region has been transitioning to smaller, young growth sales. Much of the remaining forest land in Southeast is located in areas of high recreational value or in viewsheds in and around communities. The majority of the forested Trust lands is situated in Southcentral and Interior Alaska, but has smaller, less valuable timber making it less feasible to develop.

It is important to understand the diversity of the forest products industry, the quality of the timber required to produce a given product, and the markets and prices associated with those products in order to successfully manage the Trust’s forest resources.
History and Objectives

Original land selection under the 1956 Alaska Mental Health Trust Enabling Act included lands located in and around existing communities. In the 1950s, the United States Forest Service (USFS) oversaw a robust timber harvest program on federal lands. Consequently, timber harvest on new Trust lands was not a priority. Multi-use land and community growth were more important factors in selecting Trust lands than the presence of timber resources. Even so, much of the acreage ultimately selected for the Trust does include harvestable stands of timber scattered throughout the state. Some of this acreage is in close proximity to communities.

The timber program began shortly after the establishment of the TLO and timber has been a major source of revenue generating over $20 million. These revenues are split 85 percent to principal and 15 percent to income. The first timber sale was conducted at Icy Bay in 1995. Subsequent sales were held near Thorne Bay, Ketchikan, Hollis, Control Lake, and Wrangell. Sales were predominately large-tract, old growth sales in a high-demand market. Over the last several years, timber revenue declined and the nature of the sales changed significantly due to the type and location of available timber. However, that trend began to reverse a few years ago with the Icy Cape timber harvest commencing as well as on the newly acquired lands from the USFS at Naukati. Recent challenges with market price and China tariffs have made this resurgence less vigorous than should have been.

Trust land often borders private residences and some lands have traditionally been used by the public for subsistence, recreation, water sources, view sheds and other activities. These traditional uses are often viewed by the public as conflicting with development. In recent history, objections over proposed Trust timber harvests from adjacent communities have made it difficult to monetize some timber. The TLO has utilized various methods to mitigate the public concern while meeting the Trust’s objectives. These include selective helicopter harvesting, public education, and exploring alternatives to timber harvest and land exchanges. These strategies are essential because much of the remote parcels have been harvested.

The TLO is conducting a land exchange with the U.S. Forest Service (USFS) to increase the portfolio of harvestable timber. Trust parcels in and around communities are to be exchanged for remote federal land. When completed, this exchange will provide the Trust with a timber asset base that will likely provide a continuous rotation and cycle of timber harvest revenues and opportunities. Because the exchange has been done in phases, the Trust has already received parcels near Naukati. The TLO proactively contracted with Viking Lumber to harvest old growth timber from the Naukati parcels as the TLO receives them. Therefore, active timber operations are underway on newly acquired exchange lands even before the full exchange has been completed.

Industry Trends

The current Alaska forest products industry is composed of relatively small but diverse components. Each region of the state has its own unique composition of forest managers, loggers and sawmills. The current size and changes in the forest products industry in general reflect multiple cyclical and long-term phenomena occurring domestically and internationally. Developments in policies, programs, technologies, consumer preferences, as well as social pressures affect the industry and availability of resources. This is especially true when a majority of the land is federally owned as it is in Alaska.

Timber experiences price fluctuations according to the laws of supply and demand. Prices may vary significantly from one market to another based on factors such as availability, cost of production, transportation, and currency exchange rates. Special dynamics such as the China tariff war and Covid-19 can have a profound effect on the market prices. The price paid for any product class also varies according to quality.

The costs associated with timber production in Alaska are typically higher than in most timber producing regions of the world. These high costs are due in part to the logistics of operating in remote locations, environmental regulations, and relative small volumes of timber. Costs such as road construction, infrastructure development,
transportation, labor and freight coupled with small operations are challenges to maximizing revenue to the landowner. These costs are off-set by proximity to tidewater, shorter shipping distance to Pacific Rim markets and value of timber (old growth, tight grain wood). Old growth timber from Southeast Alaska is known for its tight grain and clear (no knots) composition. These components are rare in the international markets. As Southeast Alaska transitions to young growth timber it loses the scarcity component of this equation (old growth). Southeast Alaska young growth is very similar to the young growth in other regions of the world.

The Pacific Rim constitutes the primary markets in Southeast Alaska. This export market allows for much higher returns. The TLO has averaged returns of $125 to $300 per mbf (for all species) in past sales. Timber volumes of 20 mbf/acre and higher provide greater stumpage returns and the value of timber is based on the value of the products that can be made from them. This is dictated by size (height and diameter), species and quality of the trees. This is especially significant when comparing young growth timber (a readily saleable commodity) and old growth timber (a scarce niche market product).

The markets for timber in the northern region are primarily domestic and are typically about $100 per mbf for spruce sawlogs. The volume per acre is typically low with an average of less than 3 mbf/acre of spruce. This low volume per acre makes profitable sales difficult. The firewood markets have potential but require extensive administration and seldom provide a positive financial return. Limited export sales have occurred in the past because the distance to markets makes transportation costs challenging.

From 2008 to 2011 the TLO benefitted from an upswing in market demand in China. The Chinese demand for wood began to rapidly increase in 2008 and the Trust, through its timber purchasers, was well positioned for the advantageous market. This market allowed smaller logs which were previously not marketable to be sold. The closure of many West Coast pulp mills made the selling of logs less than 12” in diameter very challenging. If markets could be found, the offered price often did not exceed production costs. Although the market for Alaska’s high-end, tight grain, clear timber remains, it has become a niche market. The most dramatic market shift has been the decreased high-end demand from Japan for both Sitka spruce and western hemlock. Japan has been the primary market for expensive vertical grain wood, but this shift has reduced the quantity of high grade Sitka spruce that is sold annually.

Trust timber competes with timber grown all over the world. There are vast tree farms in the southeastern United States, Chile, New Zealand, South Africa, Russia and other regions that compete in the international commodity markets for timber. Random Lengths International, a trade journal which reports on global wood products markets, states, “prices of North American stock in China are heavily influenced by the volume and prices of logs and lumber from Russia, Scandinavia, New Zealand, South America, and other supplying regions.” In 2019 and 2020 this volume issue crushed the China market when Russia and Europe flooded the China market with logs from the beetle kill epidemic along with heavy exports from New Zealand.

A potential developing market for Trust timber is for use in biofuel power and heat facilities. There have been a few large biofuel projects proposed in the northern region of the state. To date, none of the larger projects have progressed past the feasibility analysis stage. Clear Airforce Base and Fort Greeley, the City of Fairbanks, University of Alaska, and Alaska Power and Telephone have all conducted studies but have not moved the projects forward. It appears that the emphasis on natural gas in the region to alleviate diesel and coal dependence is a key factor.

Small biofuel projects primarily associated with the heating of schools and other government buildings have been very successful. These projects use pellets, wood chips and cord wood for facility heating. These projects are primarily driven by various government grant programs promoting diesel conversion with the objective of reducing the use of hydrocarbon fuels. However, as these grant programs decrease, the market for timber to supply these small biofuel projects is expected to also decrease. The price paid for timber used as biofuels is typically not sufficient to provide a profit to the landowner.
Inventory of Forest Resources

Trust lands on the Kenai Peninsula, Mat-Su Area, and north of the Alaska Range, constitute the majority of the forested acreage. Although these lands are considered timber lands, the volumes, species, density, and remoteness can create an insurmountable challenge to development and profitability. The highest-value timber is located in Southeast. The geographic separation of the Trust’s timber assets complicates and increases management costs to implementing a sustainable timber harvest plan. The TLO focuses inventory projects on areas with the greatest potential for creating revenue to the Trust. For this reason, inventories have focused on parcels in Southeast. Forest stewardship plans have been created for Kasaan, Leask Lake, Ivy Cape and Tyonek lands. Statewide inventories will continue to identify revenue producing opportunities on Trust forest lands.

Timber is a renewable resource. The primary asset (land) is held while the secondary asset (timber) continues to accrue. Harvest of the secondary asset can occur every 50 to 100 years (70 years on average in Southeast). Timber is a solid source of revenue to the Trust and will continue to make significant fiscal contributions if prudently managed.

Forest Resource Management Strategy

Forest management is defined as the planning and implementation of sustainable production of forest crops and other forest resources and uses. Key decisions in forest management include land allocation to different uses or combination of uses, silviculture\(^1\) method and practices, intensity of management, timber harvest scheduling and environmental protection.

The TLO will continue to employ various forest management strategies to decrease the time between harvests which will increase income to the Trust. Furthermore, it will work toward increasing fiber production for long-term management of Trust lands and research different methodology to maximize the financial return to Trust beneficiaries from its timberlands.

Forest stewardship plans and silvicultural techniques will be developed to improve timber management while still maintaining flexibility to take advantage of high market conditions. Industry and product trends, as well as market conditions and the economy, will be evaluated to determine when and how to sell a given commodity. The TLO will continue to work closely with industry and keep resources available for desirable market conditions.

The TLO will look for and evaluate projects where multiple resources can be developed simultaneously on Trust land or use the timber development to positively affect the other resource development potential. For instance, this may be a combination of timber sales and subsequent land sales utilizing the infrastructure built by the forestry project to enhance the subdivision sales. At times timber sales may enhance access for mining development.

The TLO will watch market conditions and be responsive to opportunities that capture key opportunities for value. Timing of sales are important, as well as coordination with the industry activities in an area where coordination of effort with other landowners may produce better sales. The TLO will market young growth timber as market conditions and as previously harvested areas mature to viable timber stands. This is expected to occur in the next few years.

The TLO works to maintain a viable timber program in Southeast Alaska. If all the companies that can support timber harvest and the necessary infrastructure disappear, the marketable timber on Trust lands will not be harvested, causing a loss of revenue to the Trust. The TLO will work with the Division of Forestry and the University of Alaska and other parties to offer enough timber to at least maintain a small timber industry in

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\(^1\) Silviculture is the practice of controlling the establishment, growth, composition, health and quality of forests to meet diverse needs and values.
Southeast Alaska.

The TLO uses a basic economic exercise to determine if a given parcel of Trust land with a timber component is viable for harvest. The process identifies potential profitability by evaluating whether the project generates revenue greater than the cost of the operation. One of the primary factors that determine the amount of revenue generated by a project is the volume per acre of merchantable material. In Southeast Alaska, volumes per acre can be as high as 30,000 board feet per acre (30 mbf/acre) or more for four merchantable species (hemlock, Sitka spruce, red and yellow cedar). In Alaska’s Interior, volumes of spruce (desired saw log) in a stand are much lower (2 to 5 mbf/acre) with no other viable species, based on current markets. The average price in the Interior paid for saw log stumpage is $100 per mbf to a limited domestic market. In Southeast, the average price paid for all species is $100 to $300 per mbf to a large young growth market and limited old growth market. (prices are from recent timber sales).

The following considerations are measured when testing the viability of a timber harvest:

a. Cost of operation (access to resource, road construction, infrastructure and harvest costs);

b. Cost of transporting timber to point of sale;

c. Quality and quantity of the timber being produced; and

d. Price the market will pay for timber.

The market price (d) must be greater than the sum of the first three values (a-c) or development of the parcel or resource is not feasible (i.e. there is no profit). If the projected selling price is not adequate to cover access, harvest, transportation, and administrative costs, the project is not considered viable. If a harvest project is not viable, the TLO must decide either to wait for more favorable markets or to consider developing the parcel for a purpose other than timber.

The TLO must also determine if the revenue derived from the sale of the specified asset will be higher or lower in the near future. Harvest opportunities often swing with market conditions. Typically, many Alaska regions are viable for timber harvest only at extreme high markets. This is primarily due to access difficulties and expensive harvest costs, low volumes per acre and distance from markets.

**Risk Management**

**Market Risk**

The risk of not obtaining the highest potential market values for timber can be mitigated by utilizing long-term contracts, monitoring trade publications and maintaining relationships with a variety of individuals and companies that are active in the trade. The TLO monitors industry, proposals and developments that could favorably affect the harvest of Trust assets statewide. The viability and profitability of various contingencies are analyzed often to determine if and when it would be in the Trust’s best interest to participate in a market or offer a resource for development. The TLO will attempt to issue harvest contracts that shift the majority of the risk of market fluctuations on to the operator, yet providing enough flexibility to allow for the operators to capture the highs of the market. The TLO will utilize different structures of contract to minimize risk to the Trust while still keeping the sales attractive to operators.

**Regulatory Risks**

**Federal**
Federal regulatory intervention in the management of timberlands is a major risk. Statutes such as the Clean Water Act, Clean Air Act, and Endangered Species Act can have a profound impact on forest land management. These risks can be somewhat mitigated by monitoring Federal agencies, Non-Governmental Organizations, and maintaining relationships with trade and economic development entities. It is important that the TLO maintains relationships with groups which monitor and comment on Federal regulations to influence them to minimize impacts on Trust lands.

State

The Alaska Forest Resources and Practices Act is the primary statute regulating timber lands and associated activity within Alaska. The implementation of this act is overseen by the Board of Forestry. The board is comprised of seven seats representing commercial fisheries, the timber industry, environmental, recreation, foresters, native organizations, and the State Forester. The TLO attends these biannual meetings, which provide an awareness of new and ongoing forest land issues statewide. Close association with Alaska Department of Fish and Game also aids in minimizing impact on Trust timberlands. Although the TLO has identified potential development issues within this document, there are no current statutes preventing the Trust from harvesting its current timber holdings.

Social License

This has been defined as a local community’s acceptance or approval of a company’s project or ongoing presence in an area. It is increasingly recognized by various stakeholders and communities as a prerequisite for development. These groups can use opposition of development, including timber sales, as a means to raise awareness for various causes and fund raising. These groups are generally very organized and have the capability to mobilize quickly to oppose a project. Because of their willingness to litigate to stop projects, it is a growing concern for timber harvest proponents.

Over the past several decades the commercial harvest of timber has become more complex. The U.S. Forest Service harvest focus on restoration, wildlife management, and management objectives other than commercial timber harvest. State and private landowners continue timber programs although operations must adhere to additional and restrictive statutory regulations and permitting processes that can require considerable expense and risk.

Business Models

Timber is an asset that literally grows physically and in value through time. A tree typically increases in size and volume and becomes more valuable with age. This relationship between a tree’s biological growth and its financial value means that the negative impact of the time value of money and the risk of negative returns can be offset through timberland investment. This is due to the increasing timber volumes it generates through time.

Long Term Contracts

Timber, like any other commodity, experiences price fluctuation according to the laws of supply and demand. Prices may differ significantly in accordance with the markets and timing in which it is sold. Previous TLO timber contracts have demonstrated that contracting for an extended term maximizes revenue by obtaining higher bids because of the longer terms. Long term contracts provide time for contractors to develop markets and then sell the resource at optimum market rates. Contractors involved in international and domestic trade deal with multiple factors that affect price, including government fiscal policies, changes to international transactions such as currency fluctuations, market expectations, and supply and demand. The TLO will seek to create long term contracts when possible, but recognizes the need for shorter term contracts when the volume of timber does not warrant long term contracts.
Harvest Marketing

Through experience and working closely with industry partners and the known limitations and challenges previously discussed, the TLO has developed a new harvest strategy that capitalizes on market highs. The TLO’s experience with this harvest-market strategy (HMS) has demonstrated that cooperating with a reliable partner in a long-term business relationship can provide higher revenue returns for both parties. When this relationship is employed in the timber industry it allows the operator to find specific markets suited for the type of timber to be harvested. Most purchasers are looking for long-term dependable supplies and will pay premium prices to guarantee stability. This vertically structured marketing can provide higher returns for all parties involved. The TLO has determined it to be in the best interest of the Trust to employ this model and utilize a harvest marketing strategy model in select instances.

The HMS concept is based on a shared risk and shared profit scenario. The Trust receives a percentage of the net profit rather than a fixed stumpage rate. This contractual relationship requires close scrutiny of costs and returns by the TLO but provides a means to increase volume as well as revenue. This maximizes revenue to Trust beneficiaries and fulfills a TLO mandate. A typical harvest marketing agreement contract will require sale layout, timber harvest, marketing and maintenance of infrastructure but may also require the application of silvicultural treatment (pre-commercial thinning). The operator will have rights to construct road, harvest and market timber, and perform activities associated with timber harvest.

Roads, camps, log transfer facilities, shop facilities and other infrastructure constructed during the timber sale represent substantial capital expenditures. When left in place, these capital improvements may provide future economic opportunities unknown at the time of the initial timber sale contract. The presence of roads, bridges and camps can greatly enhance mineral exploration, recreational opportunities, real estate development, tourism opportunities, material sales and other economic revenue generation. In addition, long-term maintenance of this infrastructure is necessary to support access for future silviculture activities, and potentially for other development projects.

Whereas the traditional fixed stumpage price puts the risk solely on the purchaser, the HMS is based on net profit. Operating costs incurred by the contractor are deducted from the sale of the resource. The TLO must closely monitor these costs, but this effort can be mitigated with experienced contract managers. The contract negotiation can fix the pricing of overhead and development costs such as road construction per mile, thereby reducing risk to the Trust. Other costs can be negotiated on a board foot basis. These include logging costs based on system (cable and shovel), landing costs, haul costs on a per mile basis, sortyard and scaling costs, rafting, transportation to ship loading, stevedoring, shipping, and administration. The HMS was applied on the addition to the Leask Lake Timber Sale in 2011. This sale provided a significant increase in stumpage payments to the Trust as compared with the traditional fixed stumpage scenario. Utilizing this strategy, the Trust received 66 percent of the profit while the contractor received 34 percent. This contract change resulted in a 58 percent increase over the initial contract stumpage return.

Contrarily, it is possible that employing HMS could negatively affect the Trust’s timber revenue. However, if timber markets crashed during the term of an HMS contract, it is most likely that both the Trust and the contractor would agree to cease timber harvest until such a time as the markets recovered. The HMS could potentially put a minimum stumpage rate the TLO must receive to protect the TLO against harvesting in the lowest markets.

Land Exchange

In 2005, a proposed TLO timber sale in Petersburg was strongly opposed by a local group. At issue was the question of whether the logging of timber on steep slopes created a public safety hazard. The proposed sale included logging
units located on steep ground above the Mitkof Highway and some residential subdivisions. The group contended that harvest of trees could result in increased soil erosion and landslides. The TLO proposal utilized selective harvest by helicopter to reduce required road construction and impacts such as landslides. While the TLO still believes the Petersburg timber sale area could be harvested. In a safe and responsible manner, the controversy provided an opportunity to re-craft the Trust timber harvest program to be less impactful while still profitable. The TLO decided to postpone the timber sale while it pursued a new alternative — an exchange of the Trust’s timberlands near communities for USFS lands in more remote areas. That effort has led to the USFS/TLO land exchange.

Because the congressional act removed discretion from the USFS, there was no NEPA and no decision required by the USFS. Although taking longer than anticipated and costing more than expected, the land exchange is proceeding. Phases 1 and 2a were accomplished and parcels conveyed. The land exchange is expected to be complete by early 2021.

The TLO will be better positioned to fulfill its mandate of maximizing Trust timber assets after the exchange is complete. When complete, the Trust will own forest resources in areas more suitable for timber harvest, mitigating the known public opposition to monetizing its current and future assets. These assets will be managed for long-term timber production and supply revenue for Trust programs on a continuing basis.

It is the TLO’s goal to provide a sustainable revenue source from the Trust’s timber resources. This can be accomplished in Southeast Alaska by consolidating the timber asset base through the land exchange with the USFS. Once consolidation takes place, these new timber assets can then be managed on a sustainable basis. The rate of harvest and rotation cycles will depend greatly on market values and what timber supply other landowners are offering.

For example, under the current land exchange, the Trust will acquire new timberlands. The new land, coupled with existing timberlands including Icy Bay, totals about 48,000 acres of Southeast Trust timberlands. These lands will be harvested over time. A harvest plan based on a 70-year rotation provides 686 acres of harvestable land each year. This process creates a continuous cycle of mature trees. For example, an average yield of 20,000 board feet (20 mbf) per acre can be applied. The resulting annual harvest is about 14 million board feet (14 mmbf) of wood per year. The TLO will manage the Trust’s timber assets to maximize long-term revenue from Trust land while preserving the long-term viability of the resource. In practice, annual harvest rates vary and should be project specific.

### Summary

The Trust Land Office’s (TLO) objective for its timberlands is to maximize revenue to the Trust beneficiaries. To facilitate this objective, the TLO will continue to research new forest products, perform ongoing timber inventories, conduct site visits throughout the state, track timber markets, attend seminars on developing technology and maintain an on-going timber sale program.

Timber has been a solid source of revenue for the Trust and with careful planning and management will continue to be long into the future. The overall objective is to consolidate Southeast timberlands and place them in long-term contracts to maximize stumpage return to the Trust and seek profitable ventures to utilize timber assets statewide. The TLO will also explore all options to monetize the Trust timber holdings including: exploring new technologies and industries, harvest marketing sales, sales of timberlands, sale of future timber options, and other land exchanges. Revenue generation potential from timber harvest will be evaluated against other alternative uses such as carbon credits as all revenue generation options are explored.
Goals and Objectives

The goals for managing Trust timber and forest resources are straightforward. It is important, however, to recognize the need for flexibility and the ability to respond to the market and political and environmental changes. It is also important to remember that the Trust’s forest resources extend beyond the traditional timberlands in Southeast Alaska. These goals and objectives are intended to recognize all of these considerations.

Goal 1: Maintain, manage, and develop forest resources to maximize revenue for the Trust.

Objective 1: Provide sustainable revenue for the Trust from a timber portfolio acquired through the USFS-AMHT Land Exchange.

Objective 2: Time harvest activities with optimal market conditions, unless there are other revenue generation issues that positively influence the decision.

Objective 3: Develop timber programs throughout the state when viable.

Objective 4: Offer targeted sales when opportunities arise in difficult sale areas if it is unrealistic to expect better returns by waiting for optimal market conditions.

Objective 5: Encourage domestic processing and/or use of forest products while preserving maximum revenue to the Trust.

Objective 5: Manage and develop non-timber forest resources.

Goal 2: Manage for long-term preservation of the Trust’s forest resources.

Objective 1: Implement forest stewardship plans to preserve the inherent value of the Trust’s timber portfolio.

Objective 2: Focus on timber or other forest resources on Trust land in the Interior and Southcentral areas to determine potential value and viability.

Alternative Plan to Land Exchange

Under a scenario in which the TLO is not successful in full conveyance of the lands identified in the USFS-AMHT Land Exchange, an alternative plan will be pursued to generate revenue from the Trust’s timber portfolio. Toward that end, extensive planning has been conducted on the Trust’s current timber holdings within the proposed exchange. Although several of the parcels in the exchange were logged in the past by TLO contractors, other Trust parcels (also in the exchange) would net significant volumes and revenue to the Trust.

Potential options for utilizing timber assets which have been explored in the past and will continue to be monitored are conservation easements, and carbon sequestration credits, and sale of the lands.

The following parcels will be analyzed for resource development and extraction if the proposed USFS-AMHT Land Exchange is not successful:

Juneau
This parcel on Douglas Island includes uplands above the Treadwell Mines and other claims. These lands will be assessed for potential timber and mineral production. This area is also considered important for public recreation to Juneau residents and is anticipated to be controversial.

Petersburg
These parcels have gone through the TLO’s administrative process for the disposal of Trust assets. A large timber sale was negotiated and then canceled due to local opposition. These lands would be reconsidered for a competitive commercial timber offering.

Sitka
Parcels will be assessed for subdivision or other revenue generation. The Katlian Bay parcels were previously helicopter harvested for timber. There are known recreational trail use issues and potential conflicts on the parcels adjoining Sitka.

Wrangell
Parcels have had prior harvesting by the TLO or were harvested prior to conveyance to the Trust. Areas not previously harvested have local zoning restrictions that may require variances for timber harvest.

Meyers Chuck

Item A  
RMC 01-07-2021
When formed, Trust was endowed with approximately one million acres located in Alaska. This acreage consists of both fee simple and partial land estates. The Trust’s non-cash assets are most commonly described as “land;” however, this is a misnomer. It is important to identify these assets by their highest and best use. In terms of the Real Estate Management Plan, it is critical to distinguish real estate from all other resources, specifically land.

For the purpose of this plan, real estate is defined or identified under the following criteria:

1. All of the following must apply:
   a. Includes only the surface estate of a parcel (excludes natural resources including mineral and subsurface rights);
   b. Be surveyed;
   c. It is property that has or will have a material investment (basis) intended to add value (e.g., buildings or other improvements); and
   d. Not currently used primarily for Trust programmatic or administrative purposes.

2. Some of the following may apply:
   e. The highest and best use is determined to be income generation through commercial development;
   f. Identified potential in the near or medium term for generation of positive cash flow and/or;
   g. Specifically identified by the executive director of the TLO as real estate.

The TLO manages real estate under two management structures. Lands and properties owned by the Trust through the original endowment or under the reconstitution are managed under the same authorities as the TLO uses for other Trust land management. However, the TLO also has been tasked by the board of trustees to manage their commercial real estate investment properties. These are generally properties held by the Trust under limited liability corporations and are managed in the interest of the Trust for income revenue generation. For these investment properties, the Trust Authority board of trustees sets the investment strategy which can be modified from time to time and the TLO manages the properties to meet those...
investment goals.

Real Estate Management Strategy

Managing commercial real estate provides the TLO opportunities to produce more near and long-term income revenue. Of all the asset classes that fall within the Trust’s fixed asset base, real estate in its various forms provides the greatest potential for and the greatest control of predictable income revenue. Other assets owned by the Trust in differing industries may have greater potential to produce principal revenue but are often constrained by a variety of factors not affecting the real estate industry as it pertains to the Trust. These factors include the following:

- Legacy agreements not in the Trust’s interest;
- Remote locations;
- Regulatory issues;
- Unpredictable commodity markets;
- Environmental Concerns; and
- Social contract and public relations issues.

With the desire to create predictable streams of income revenue and the factors listed above for other asset classes, there are several methods the Trust can use to generate income cash flow through real estate, whether that be as management on trust owned land or acquired investment assets as directed by the board of trustees.

These may include:

1. Leasing land for real estate development;
2. Developing and leasing Trust owned real estate;
3. Acquisition of land to develop income properties;
4. Acquisition of existing improvements for redevelopment;
5. Acquisition of existing income properties; and
6. Sale of Trust land for commercial real estate development or sale of investment properties.

Leasing Trust land offers a high level of value conversion to the Trust because the Trust has no basis in its land base. Leasing land is low risk but is not always a marketable solution and is affected by the availability and cost of financing. In addition, land leases are fully dependent on third party capital to monetize the property and offers very little upside potential. From a building owner/developer perspective, land leasing can be an attractive alternative to paying cash for land when interest rates and the cost of borrowing are high. In addition, although the Trust owns a large land base there are very few parcels that are situated to be commercially leased. When the Trust owns a parcel well situated for real estate income generation, leasing can be attractive to maintain the longevity of the income production beyond the life of initial development.

Self-development of Trust assets may add risk, for which a commensurate level of return can be expected. Development can take many forms. It may involve physical improvements as simple as clearing trees or improving drainage to a property. The physical improvements could progress to include a finished product for a tenant, known as a “build to suit”, or a finished product constructed by the tenant with a contribution toward the cost improvements, known as a “reverse build to suit”. Other possibilities for development could involve changes to entitlement issues such as master-planning, wetland delineation, utility and access improvements, or addressing title concerns such as easements or other clouds on the title.

Clearly more risk is associated with fully developing property as an investment strategy. Primary risk factors include entitlement risk, construction risk and lease-up risk; however, such risks can be mitigated. For instance, predevelopment meetings with city staff and community outreach meetings can ascertain objections prior to entitlement efforts and projects.

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Deleted: Of these options, acquiring existing income properties offers the quickest access to measurable return and can be a good balance of risk and return.

Moved down [1]: By acquiring existing income property, decisions can be made based on current information and historical data.

Deleted: Typical development risks associated with entitlements, permits, construction and market timing are all removed from the equation. The consideration is that assets with little perceived risk also provide little return and have very limited upside.

Moved down [2]: Owning any type of real estate involves risk; income property is no exception. However, detailed due diligence, transferring risk to others where possible, and conservative investment guidelines will serve to reduce much of the risk.

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Deleted: The factors mentioned above add multiple opportunities for a project to be derailed or for costs to increase. Conversely, the value of development to the investor is the ability to maximize the value of the land and the opportunity to build exactly the type of structure that fits the investor/user’s needs. The most common risk, and the one most difficult to control, is construction cost. Demand for new space has to outstrip the supply of current space before rents can rise to support the cost of a new building.
can be pre-leased rather than being built on a speculative basis. Proper due diligence and comprehensive design review can help minimize construction risk. While full development of Trust land may be less desirable due to risk exposure, this option should remain. The level of risk of (self) development often comes with a commensurate level of expected return.

Another potential is to utilize joint ventures where the TLO provides the Trust owned land as a “buy in” to the development, which increases the returns. In that type of scenario, the TLO does not charge for the use of the land but shares the risk with the developer. The revenues from the development project are shared with the TLO based on the value of the contribution to the project.

Acquiring and developing land, or acquiring existing improvements for redevelopment, are the highest risk options and should be expected to provide the highest returns. The most likely scenario for a project of this type would be a joint venture with a partner who can provide the necessary expertise, insight into a market, and/or an opportunity not then available to the TLO.

Acquiring existing income properties, under direction from the board of trustees, offers the quickest access to material revenue growth with measurable, risk-adjusted returns. By acquiring existing income property, decisions can be made based on current information and historical data. The typical risks associated with development, including entitlements, permits, construction and market timing, are all removed from the equation. Other risk items, such as financial distress and market corrections, can influence existing income properties and create opportunities. The consideration is that assets with little perceived risk also provide little return and have very limited upside; the key emphasis is on finding situations and opportunities offering greater upside with limited, manageable risks.

Owning any type of real estate involves risk; income property is no exception. However, detailed due diligence, transferring risk to others where possible, and conservative investment guidelines will serve to reduce much of the risk. Investment guidelines for acquiring income property will be directed by the board of trustees rather than the TLO.

The board of trustee investment strategy continues to evolve over time and has been influenced by change of staff, trustees, and a legislative audit. The TLO continues to manage and maintain existing real estate to be productive, stable revenue generators with strong tenancies. At the point that the board gives further clarification to the long-term goals of their commercial real estate investments, the RMS will be modified as necessary to reach their goals.

The TLO will focus on maintaining legacy real estate and the commercial real estate investment properties in a way to create positive net operating income with a stable and predictable source of income. To that end, properties will be managed in good working order with high occupancies. Development and improvement expenditures will be weighed against the life of the properties, cash flows, property expenses, and needs to keep the properties marketable. When possible, properties will be managed to have the cash flows from tenant rents pay the operating and capital expenditures before distributions to the Trust.

Although much of the focus of commercial real estate is toward direct income generation, on occasions it is prudent for the TLO to sell commercial real estate properties or sell land for commercial real estate development. Similar to how the TLO determined that the Juneau Sutport waterfront property was more expeditious and advantageous to sell rather than lease, the TLO will consider the relevant factors that influence the potential near and long-term revenue potential. In some cases, selling the property to let private companies develop the land relieves the TLO of development risk and long-term management costs, while creating principal that will offset return spendable income through investments of the Mental Health Trust Fund. Any sale of investment properties will be done with approval by the board of trustees.

Risk Profile

Risk can be mitigated using a number of techniques. At its most basic, mitigation involves avoidance of concentrated exposure. This includes avoiding too much exposure to any single investment type, too much concentration in one location, and too much concentration of tenants without sufficient credit strength or simultaneous lease expirations. Mitigation of risk may also involve sharing risk and/or assigning risk to others. The TLO will consider all of these techniques in managing the Trust’s risk to new real estate developments and, under the direction of the board of trustees, acquisitions.

1. Asset Type

There are many major income property types: office, retail, industrial, hospitality, infrastructure, and multifamily residential to name the most common. The risk levels vary as demand drivers and other factors for product types change. The TLO

Deleted: The TLO will make improvements to existing real estate holdings where necessary to increase value for future transactions. The TLO holds a delegation of authority for construction procurement from AKDOT&PF, and is focused on utilizing this delegation to make material improvements in the form of improvement projects that add value to certain existing holdings. Development efforts may involve physical improvements as simple as clearing trees or making drainage improvements.

Deleted: The ability to procure construction independently coupled with prudent and capable construction management will enable the Trust to recognize greater revenues from these holdings than if the improvements were contracted out, or made by the end user of the parcel in a ground lease scenario. Additionally, building a competent in-house construction management program is a necessary step toward eventual full development of a “build to suit” project completed for an end user/leasee.

Moved (insertion) [1]

Moved (insertion) [2]
will focus on projects that are the most likely to produce the desired returns, at acceptable levels of risk, over the proposed holding period.

If the Trust determines to further invest in acquisitions, the Trust should invest in high quality opportunities with durable cash flow. The TLO is not equipped to manage properties with intensive needs such as multifamily or hospitality and should only proceed with investment in such opportunities with exceptionally qualified joint venture partners. These factors should be considered, but not necessarily criteria in evaluating target acquisitions.

2. Asset Location
Over-concentrating investment in one location or local economy is to be avoided. This is to minimize the effects of impacts from factors outside the Trust’s control, such as an economic downturn or an oversupply of property type within specific markets.

3. Tenancy
Emphasis should also be placed on avoiding tenant mixes both within individual properties and throughout the portfolio without sufficient credit worthiness. Further, emphasis should be placed on achieving varied lease expiration dates to avoid concentrated tenant rollover at specific points in time.

Project Profile
Based on the guidelines above, the Trust has developed a commercial income property portfolio composed primarily of high quality commercial and industrial projects. If that portfolio is expanded or migrated to other properties, the following factors should be considered:

1. Single investments should not be too large in relationship to the portfolio as a whole, in order to maintain diversity.
2. The Trust’s portfolio should be comprised of well-located assets with above average access and visibility.
3. Properties within the Trust’s portfolio should be above average in terms of quality, design and construction.
4. Tenant profiles will be examined closely. In buildings with multiple occupants, the tenant mix should be compatible and the financial strength of the tenants should be very high. In single-tenant buildings, vacancy risk takes on a new dimension; consequently, the quality of that tenant is the primary factor in deciding to make the investment. Only long-term leases with credit-worthy tenants would be acceptable for single-tenant buildings.
5. Variations from these principles can be allowed, but only after careful review.

Investment Return
There are several return factors to consider when underwriting a potential substantial investment in either existing assets or new acquisitions. The methods of determining if an investment fits the needs of the Trust for this plan may be cash-on-cash return, net present value (NPV), internal rate of return (IRR) and return multiple. Each factor defines the return on an investment in a unique and meaningful way and has its place in determining the overall fit of an investment with the plan.

Cash-on-cash return is a simplistic metric indicating the yield on equity invested; it is equivalent to the cap rate for all cash deals with no projected lease commissions, tenant improvements or capital expenditures. It is useful as an initial litmus test for prospective acquisitions and for more basic properties such as single-tenant, net-leased assets. Greater leveraging
Item A


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NPV is an important tool when considering investment in an asset that produces a long-term income stream. Dollars in the future are not as valuable as dollars today, and NPV defines that future income stream into today’s value based on a given discount rate. The rate used, which should be commensurate with a property’s intrinsic risk, will affect the value of a given income stream, and the longer the income stream, the greater the effect of a change in rate. It is possible to have a negative NPV when other factors are indicating a good investment. Specifically, NPV calculates the current value of an income stream (including the terminal sale at the end of the holding period) given a selected discount rate.

Similar to NPV but solving for yield instead of value, IRR calculates the return on an income stream (including the terminal sale at the end of the holding period) based on a given current value (e.g., a negotiated purchase price). The calculated yield can then be compared to a hurdle rate (a minimum required rate) for a go/no-go decision in the case of acquisitions, or returns from alternate investments for hold/sell decisions in the case of owned assets. Further, the calculated yield can also be compared to returns from benchmark indices for the purpose of performance evaluations.

Return multiple is an easy expression of whether an investment will pay out more than was invested. Multiples are typically stated as 4x, 2x, etc., where projected returns equal or double the equity investment, or whatever the case may be.

For the purposes of evaluating the success of this investment plan, the primary measurement should be the IRR, with the objective of maximizing the risk-adjusted returns for individual assets and the portfolio as a whole. This is a result of the income nature of the investment returns; the cash will be used to fund programs in the future periods. For NPV analyses, the base rate to be used as the “hurdle” for new projects should be the current capital cost for commercial properties of the type being considered plus the anticipated growth rate. The NPV of projects should always be at or as close to positive as possible.

An important consideration for investment return is the concept of leveraging, which is the amount of debt utilized. In general, prudent use of leverage augments investment returns and primes in larger income streams; however, above certain thresholds, greater leveraging can create excessive risk. Balancing higher returns against the volatility a property or portfolio can experience is paramount. For reference, loan to value (LTV) ratios in the 35 to 50 percent range would typically be considered ultra-conservative, 50 to 65 percent would be considered conservative, 65 to 80 percent would be considered moderately aggressive, and above 80 percent would be considered highly aggressive.

As a corollary to leverage, amortization is also an important consideration which can improve returns and build equity. However, amortization periods that are too short can leave little or no cushion in periods of volatility such as at tenant rollover. Accordingly, amortization periods must be balanced with the amount of leverage utilized (higher LTV financing would warrant longer amortization periods).

Property appreciation from a variety of factors serves to increase the absolute cash flow from rent and other possible sources over time. Inflation serves multiple advantages to the financed property both devaluing the dollars paid back to the lender and increasing the cost to potential market competitors of emulating the asset. The use of debt and the ensuing loan amortization for the purposes of the Trust is also a strong positive as when the initial loan is paid off using income from the asset; the Trust owns a property free of debt effectively purchased by the tenants. In this regard, at the completion of two cycles of 50% fully amortized financing on a property, the Trust would own a property purchased with income.

The TLO will take into account market factors as well as current and future needs of income revenue when making recommendations to the board about property financing.

When making recommendations to the board for development improvements to Trust land for commercial real estate, the TLO will consider the possible use of recovering the development costs through provisions in 20 AAC 41.610. Proposals will show the expected returns on investment when presenting to the board.
Goals and Objectives

Goal 1: Provide a stable and predictable stream of income revenue from commercial real estate investment properties and other Trust owned commercial real estate.

Manage and oversee existing commercial real estate investment properties and other Trust owned commercial real estate in a way to maximize near and long-term income production by:

i. Maintaining the existing commercial real estate properties well to keep them desirable for current and future tenants.

ii. Actively market to fill tenant lease vacancies when they occur, utilize commercially recognized incentives as appropriate to acquire new tenants or maintain tenants, and plan to minimize vacancies by appropriate timing of leases and renewals.

iii. Plan capital expenditures within property cash flows when possible and to maximize long-term returns.

iv. Manage property reserves, distributions, and debt repayment prudently and in alignment with established board investment goals.

v. Make recommendation to the board of trustees when it is prudent to make changes to the portfolio structure, property ownership, sale, or acquisitions.

vi. Obtain the appropriate insurance to protect the:
   a. Asset,
   b. Owner/entity, and
   c. Trust.

vii. Source and oversee the best professionals to manage the property, including:
   a. Day-to-day operations,
   b. Leasing,
   c. Capital planning, and
   d. Construction.

viii. Utilize high professional standard of care in the management of assets, evaluating best industry practices and making improvements when appropriate.

Goal 2: Create additional income properties on Trust land by appropriate development and marketing.

Utilize strategically located Trust land for real estate development:

i. Seek capital improvement funds that can produce increased income revenue through improvements to the land and infrastructure leading to commercial capitalization through ground leasing, joint venture development, buy in agreements, or sale.

ii. Produce attractive marketing materials and target companies and industries that match desired development profiles.

iii. Conduct appropriate research and evaluation to determine appropriate development strategies and to optimize opportunities.

iv. Seek credit-worthy lessees, tenants, development partners, and durable improvements.

v. Structure agreements, contracts, and deals to limit Trust risk, protect Trust corpus, provide at or above market returns.

Goal 2: Create additional income properties on Trust land by appropriate development and marketing.

Hurdle return rate for

Deleted: will vary based on the needs of the Trust and the Permanent Fund’s projected 10 year return.

Goal 2: Protect the Trust from unnecessary risk.

Use single purpose entities to:

i. Own the property,

ii. Operate the property, and

iii. Obtain non-recourse debt.

Use non-recourse leverage to decrease the Trust’s principal investment.

Moved down [4]:

Goal 2:

Use non-recourse leverage as appropriate to:

i. Increase total return for both the subject property and portfolio as a whole,

ii. Reduce risk, and

iii. Provide capital for other investment.

Moved up [4]: Construction.

Moved (insertion) [3]:

The role that each investment or course of...
ENERGY RESOURCE MANAGEMENT STRATEGY

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<td>Underground Coal Gasification</td>
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</table>
Introduction

Energy resource development decisions made today will impact the Trust and its beneficiaries for generations to come. Accordingly, a profound energy resource management strategy and a sound resource policy are required to enable economic growth on Trust lands.

Energy revenue has potential to be a major source of financial contribution to the Trust. Trust lands have significant potential for traditional energy resources (oil & gas, coal). Some natural gas production has already been realized, principally from natural gas on the Kenai and in West Cook Inlet. The importance of that production is growing as more wells are drilled. New discoveries are essential for the continuing growth in Trust land oil & gas production. Such growth is critical to retain the Trust’s capacity to generate revenue to fund Trust beneficiary programs. Production volumes have decreased from existing wells, therefore exploration for new discoveries is urgently required to ensure that an ongoing pipeline of energy 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 in Sec. 202(c) that “all grants made or confirmed under this section shall include mineral deposits” subject to prior existing rights. It is inherent in the enabling 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.

Hydrocarbons such as oil and gas, including coalbed methane, are part of the mineral estate but are managed through authorities specific to oil and gas. There are no TLO specific regulations that guide oil and gas exploration and leasing. The TLO uses AS 38.05.131-134 and 38.05.180 except where there are inconsistencies that do not allow the TLO to act in a manner that is solely in the best interest of the Trust and its beneficiaries.

Management of Trust lands is guided by Title 11, Chapter 99 of the Alaska Administrative Code. 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 “management shall be conducted solely in the best interest of the Alaska mental health trust and its beneficiaries.” Mineral exploration, development and production on Trust lands are additionally permitted through the state and federal regulatory agencies. Coal is an energy resource that is managed under these mining regulations.

Inventory of Energy Resources

General

The TLO maintains a portfolio of multiple energy resource projects and creates partnerships with companies that fund major exploration work and resource development on Trust land.

Proper inventory of Trust lands is critical; therefore, the TLO is in the process of developing a systematic Energy Resource Information System utilizing Geographic Information System (GIS) technology. The comprehensive GIS databases are comprised of geological, structural geological, geophysical exploration datasets and subsurface exploration data accommodating spatial and non-spatial information.

Oil and Gas
Trust oil and gas resources are largely restricted to the Railbelt. As of the publication of this document, the Kenai Loop field is producing 10 million cubic feet of gas per day (MMCFD). In March 2013, Ralph E. Davis Associates issued a reserve estimate report for the proved developed producing (PDP) and proved developed non-producing (PDNP) components of the Kenai Loop reserves. The PDP reserve estimate was 19.9 billion cubic feet (BCF) of gas, which is equivalent to 3.3 million barrels of oil (BOE); the PDNP reserves were estimated at 2.4 BCF or 400,000 BOE.

The total proved developed reserve category is therefore 22.3 BCF or 3.7 MMBOE. The reserve estimate calculated the PDP and PDNP reserves to have a future net income of approximately $100 million. The Trust’s share of this reserve is roughly 8.75 percent, which means a future net income value of approximately $8.75 million.

<table>
<thead>
<tr>
<th>Field/Area</th>
<th>Volume</th>
<th>Gas Value ($/MCF)</th>
<th>Certitude</th>
<th>Resource Value to Trust (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenai Loop</td>
<td>$6.40</td>
<td>Proven</td>
<td>$8.75</td>
<td></td>
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<tr>
<td>Nicolai Creek</td>
<td>$6.40</td>
<td>Probable</td>
<td>$0.7</td>
<td></td>
</tr>
<tr>
<td>Cook Inlet undiscovered gas</td>
<td>475 BCF</td>
<td>$6.40</td>
<td>Highly speculative</td>
<td>$3,900</td>
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<tr>
<td>Cook Inlet undiscovered oil</td>
<td>14.5 MMBO</td>
<td>$100.00/bbl</td>
<td>Highly speculative</td>
<td>$181</td>
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**Coal and Lignite**

*Chuitna Proposed Mine Reserves*

The coal-bearing sediments in the proposed mine area are part of the Tertiary Tyonek Formation of the Kenai Group. Although at least 18 coal seams (including stringers) are known to occur within the proposed mine area, four are of adequate areal extent and thickness to be significant to mining: Red 1, Red 2, Red 3 and Blue seams. A fifth seam, the Green Seam, is present in isolated areas and is potentially significant to mining only at several locations in the northwest area. The Chuitna Project’s estimated minable reserve is approximately 300 million tons. Given a conservative coal price of $30 per ton, the Trust’s 5 percent royalty has a value of $450 million.

**Coal Resources on Trust Lands**

<table>
<thead>
<tr>
<th>Coal Project or Area</th>
<th>Resource (Million Tons)</th>
<th>Coal Value per Ton ($/ton)</th>
<th>Resource Category</th>
<th>Resource Value to Trust (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chuitna Mine</td>
<td>300</td>
<td>$30.00</td>
<td>Minable</td>
<td>$450</td>
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<tr>
<td>Wishbone Hill</td>
<td>0.3</td>
<td>$35.00</td>
<td>Minable</td>
<td>$0.5</td>
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</table>

The Trust holds leases with production from a small part of the Nicolai Creek field in west Cook Inlet through an agreement with Aurora Power. Nicolai Creek still actively produces new gas from other reservoirs in the field. The Nicolai Creek field is estimated to contain approximately 1 BCF of gas. It is a small field with little upside potential. The Trust’s current allocation from this field varies but overall is about 2.3 percent (28 percent of 12.5 percent) of approximately one-half of the field. Given the known reserves, the Trust’s portion is thus 2.3 percent of 0.5 billion cubic feet of gas with a value of approximately $740,000 (based on a gas price of $6.40 per thousand cubic feet).
Wishbone Hill Reserves:
Usibelli Coal Mine Inc. estimates the surface minable reserves at Wishbone Hill at 14.4 million tons; approximately 300,000 tons is located on Trust land.

Jonesville Reserves:
The Jonesville coal project hosts the Joint Ore Reserve Committee-compliant measured, indicated and inferred resources of 130.7 million tons of coal (17 measured, 17.3 indicated, and 96.4 inferred). Coal at the Jonesville coal project is a quality high volatile B bituminous rank. It has excellent steam or thermal combustion qualities and has been used in the past for power generation. Its heat content averages 10,400 to 13,400 Btu/lb. One of the coal’s key attributes is its low sulfur content (0.3 to 0.4 percent), making it valuable as a compliance coal. At a coal price of $30 per ton, the Trust’s 5 percent royalty has a value of approximately $200 million.

Chickaloon Resource:
In the Chickaloon-Castle Mountain coal district, Barnes (1967) reported total coal resources of 25 million short tons (23 million metric tons) based on apparent rank of bituminous coal, with thicknesses greater than 14 inches (35 cm) and between 0 and 2,000 feet (0 to 610 m) of overburden. Total resources were divided into 0.0 measured coal resources, 0.7 million short tons (0.6 million metric tons) indicated coal resources and 24.3 million short tons (22 million metric tons) inferred coal resources. At a coking coal price of $150 per ton, the Trust’s 5 percent royalty would have a value of approximately $225 million.

Rosalie:
The Trust has considerable land holdings north and south of the Usibelli Coal Mine’s (UCM) operations. UCM has leased approximately 3,400 acres of Trust land, mostly in the Healy Creek area, including the historic Rosalie mining area. UCM estimates 6.7 million tons of minable tons of coal at Rosalie. The TLO entered into a lease unitization agreement with Usibelli, Division of Mining, Land and Water, and the University in 2019. This will allow the TLO to realize revenues earlier as a percentage of the entire leased mine area rather than the planned development schedule of the Trust owned coal resources.
Jarvis Creek:
The Trust owns the subsurface estate of two contiguous sections in the central portion of the Jarvis Creek coalfield, or about 10 percent of the known field. This field is the easternmost extent of the Central Alaska-Nenana coal province. The unnamed coal-bearing rocks are Tertiary in age and they unconformably overlie Birch Creek Schist. The field is estimated to contain a measured resource of 17.3 million tons, an indicated resource of 37.0 million tons, an inferred resource of 227.4 million tons and a hypothetical resource of 533.5 million tons. Data indicate that the Trust’s acreage is underlain by 4 feet of coal and thus contains approximately 18.4 million tons of coal.

Underground Coal Gasification (UCG)
In May of 2011 the Trust entered into three exploration agreements with Linc Energy Alaska Inc. to explore approximately 167,917 acres of Trust land in three separate areas of the state (Kenai, Tyonek, and Interior) to determine the potential for UCG production. Linc pulled back its efforts in Alaska and these agreements have expired. UCG is a relatively new form of gas utilization with relatively few sites in production worldwide. Although this company did not bring this resource to production, the lands explored still have good potential of hosting coal-bearing strata at depths of 600 to 3,000 feet below the surface where UCG could take place. For instance, nine square miles of land with a 25-foot coal seam is capable of producing sufficient synthesis gas, or syngas, for a gas-to-liquids plant to produce 20,000 barrels of diesel fuel per day for 40 years.

Coalbed Methane (CBM)
The coal resources of Alaska contain significant potential CBM resources. The gas currently produced in Cook Inlet is methane derived from coal that has migrated and is stored in sandstone reservoirs; CBM is gas stored in the coal itself.

A USGS estimate for Cook Inlet placed undiscovered CBM at 4,674 BCFG, or approximately 4.7 trillion cubic feet of gas. Given the Trust’s land holdings in this area (3.1 percent), it can be estimated that these holdings may possess 145 BCFG of undiscovered CBM.

Hydropower
Potential may exist on some Trust lands for sites suitable for development of run-of-river hydro projects. Plans exist to assess and evaluate this potential. The Trust often does not own the beds of the rivers but has land adjacent to the rivers that might be necessary for projects.

Geothermal
The TLO may evaluate the potential for geothermal energy sites on Trust lands.

Wind
Trust land parcels have not yet been assessed for wind power potential. The National Renewable Energy Laboratory has mapped wind potential for Alaska which can be cross referenced with Trust parcels, however more parcel-specific information is needed to better evaluate potential.

Development Issues

Land Use Conflicts
Resource conflicts on fee simple Trust lands are rare, largely because the marketplace usually quickly 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 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 right to 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.

Environmental Conflicts
In recent years, coal energy has become increasingly controversial on both the local and global level, and new and ongoing development projects are routinely met with objection, particularly from environmental groups. However, the world continues to consume approximately seven billion tons of coal per year. Much of the energy resource value of Trust lands is contained in coal resources. And on much of its land, the Trust possesses only subsurface estates. As the Trust is mandated to manage the economic development of its resources for the best interest of its beneficiaries, it will continue to foster and support the responsible development of these resources.

Location
Wind and hydrokinetic projects are dependent on proximity to population centers that will use the power produced. Because of the smaller scale of energy produced by these projects, greater transmission distances reduce the profitability of the projects and can make them unfeasible. Therefore identifying locations where resources and proximity to end market coincide is critical.

Energy Management Strategy
Energy resource development projects are guided by the following management principles:

1. Must be accomplished while protecting and enhancing the non-cash asset value and productivity of Trust land.
2. Maximize revenues from Trust lands over time.
3. Maximize return at prudent risk levels, embrace a diversity of resource projects, provide ancillary values such as enhanced access to Trust lands, and prevent liability risks.
4. Competitive lease offerings are preferred, but non-competitive leases can be used where competitive lease sales have failed or where a non-competitive lease agreement benefits the Trust in other ways.

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, 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. Also when the Trust leases a property.
to a developer, the Trust will lose some control of timelines and methods used to develop the property.

Capital Risk
Without a doubt, the Trust has the potential to make much more profit on a large-scale resource extraction operation if it were to successfully explore its land, discover a deposit or reservoir, prove the resource is 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. A 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 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 energy business. The TLO may suggest for certain projects limited exploration funded by the Trust to advance the marketing potential and attract potential investors and developers.

Partnering
The characteristics of major natural resource projects — longevity, scale, capital requirements, social and environmental impacts, specialized and demanding technology, and exposure to commodity market risks - mean that development of large projects is most efficiently achieved in cooperation with partners that possess both significant financial capacity and the necessary technical and managerial skills. Attracting such partners while still securing full value for the Trust’s resources requires carefully designed leasing policies and contractual terms. TLO follows well established 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). Additionally, where leasing is employed, eligibility is restricted to those entities that have demonstrated possession of, or access to, sufficient capital resources as well as appropriate management and technological capabilities.

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 and reduces risk to be involved with a wide selection of resources including non-energy ones. Since some commodity prices fall as others rise, the TLO seeks to be involved with as many commodities as are available on Trust land — oil, gas, coal, UCG, CBM, wind energy, etc.

Royalty Type
There are a number of options regarding financial return to the Trust in resource extraction. These are usually in the form of royalties, typically either a net-type royalty or a gross-type royalty.

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. There can also be a mix of leasing fees and royalties as the full renumeration package. This minimizes risk to the Trust’s income stream.

The Trust receives revenue in the form of rents and royalties according to the terms and conditions of the agreements.

Disposal of Trust Energy Resources
“Disposal” here means the issuance of a lease that grants the lessee the right to explore for, develop, remove and
market a particular Trust resource that might be located on Trust land.

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 disposals 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) n existing law that is applicable to other state land and that is consistent with (a)-(b) of this section allows for a negotiated transaction.

This is the key regulation that determines how an interest in Trust land may 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).

**Oil and Gas**

The Trust owns approximately 300,000 acres that are considered to be prospective for oil and gas resources. Most of this acreage is located in the Cook Inlet Basin, but some acreage exists in the Nenana Basin.

In January of 2001, the TLO contracted with Petrotechnical Resources of Alaska (PRA) to define leasable tracts of Trust land in the Cook Inlet area with oil and gas potential that the TLO could offer for lease in its own offerings. Fifty-seven tracts were delineated by PRA, including tracts on the Kenai Peninsula, the west side of Cook Inlet near Tyonek and Beluga, Point MacKenzie, and an area north of Big Lake. These tracts do not include the Nenana acreage. The TLO conducted its first lease sale in the fall of 2001, and continues to occasionally conduct sales when markets prices encourage exploration interests.

Most TLO oil and gas leases are competitive as required by 11 AAC 99.020(d) unless the Executive Director determines that a negotiated lease is in the best interest of the Trust. The leasing process used by the TLO closely resembles the process followed by the Division of Oil and Gas, except that the TLO does not operate according to a five-year schedule nor does it conduct an annual sale, simply because the Trust does not have enough acreage to warrant an annual offering, especially if most of the more prospective tracts are already leased.

Typical lease terms for a Trust oil and gas lease include the following:

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1 11 AAC 99.020 (c)
1. **Primary term:**
Leases may be issued for a primary term of five to ten years. The lease is extended automatically if and for so long as oil or gas is produced in paying quantities from the leased area. It can also be extended if the lease is committed to an approved unit.

2. **Annual rental:**
Annual payments starting at $1 per acre and ranging to $10 per acre with annual incremental increases are required to maintain the lease. Payment rates may be increased at TLO’s discretion if the lease is extended beyond the primary term. Annual rental paid in advance is a credit against royalty due for that year.

3. **Royalty on production:**
Except for oil, gas, and associated substances used on the lease area for development and production, or unavoidably lost, lessee shall pay to lessor as royalty 12.5 percent in amount or value of the oil, gas, and associated substances saved, removed, or sold from the lease area. The TLO, in an attempt to incentivize production, has used a production royalty rate of 10.5 percent for production in the primary term only. Beyond that, the rate increased to 12.5 percent.

4. **Bonding:**
Appropriate bonding will be placed on all oil and gas leases. With new Alaska Oil and Gas Conservation Commission regulations, careful attention will be applied to developing the bonding, inclusive of the need to plug and abandon wells. Wording must be carefully crafted to no leave any ambiguity in purpose of bonds so that AOGCC does not double bond for the same purposes.

Terms are subject to change based on specific opportunities or current industry practices.

A TLO oil and gas lease provides for the development of coalbed methane (shallow gas) as well as conventional oil or gas deposits.

It reserves for the TLO the right to lease oil, gas, and associated substances if the lease is extended beyond the primary term based solely on the development and production of CBM.

TLO can also issue oil and gas leases on a negotiated basis as allowed by 11 AAC 99.020(d)(1). In these instances, all the terms of the lease, including payment of cash bonuses, may be subject to negotiation, depending on the circumstances.

Also in the Trust portfolio are leases, or portions of leases, issued by the Division of Oil and Gas that were in place when land was conveyed to the Trust. The leases, termed “legacy leases,” are very limited in number and include a portion of a lease in the Beluga River Unit, portions of leases in the Nicolai Creek Unit, and leases at Three Mile Creek. The Trust receives rent and royalty revenue according to the terms of these state leases.

### Coal
As of this publication, there are 9 coal leases on Trust land that cover approximately 10,000 acres. These leases consist of two negotiated leases with UCM at Healy, two legacy leases with UCM at Healy, and five legacy leases (or portions of leases) with UCM at Wishbone Hill (Sutton).

Similar to the oil and gas leases, the legacy coal leases were in place when the land was conveyed to the Trust. The Trust is subject to the terms of these existing leases, which include an indefinite term, rentals of $3 per acre per year (which may be subject to adjustment, depending on the effective date of the lease), and a production royalty of 5%.

Deleted: 18
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Deleted: a competitive lease issued to Riversdale Alaska for land at Chickaloon,
Deleted: six
Deleted: one legacy lease with Ranger Alaska at Jonesville (Sutton), and six legacy leases with PacRim Coal at Chuitna.
The TLO entered into an agreement with the Division of Mining, Land and Water and the University to unitize the coal leases at Healy for Usibelli. This is financially favorable to the Trust by receiving earlier payment from a percentage of the production of the combined lease package.

Underground Coal Gasification

In May of 2011, the TLO entered into several exploration licenses for UCG development. The licenses were issued to Linc Energy (Linc), and they allowed Linc to conduct various exploration activities on Trust land in order to locate specific areas that would be suitable for UCG development. The licenses allowed Linc to convert that specific acreage to a lease, which would grant it the right to develop the coal to produce products through the UCG process. This never was developed to lease, but the resource potential still exists. With the challenge of changing markets and increased public opposition to standard coal mining, UCG may offer a different and more attractive way to use the coal resources.

The authorization process used for this resource involves the initial issuance of an exploration license rather than a lease because of the large amount of acreage involved and the significant expenditures required to explore that acreage. Such large acreage is needed because development of coal in place, and in particular the gasification of coal in place, requires that the coal possess certain characteristics, such as proper depth, acceptable moisture content, and a location that has particular geologic parameters. While these characteristics are thought to exist in the Cook Inlet area, the location of specific areas will require extensive exploration. The exploration licensing process is a competitive process, and the successful applicant is selected based not on a bonus bid per acre but on the quality and value of the exploration program the applicant proposes. Factors used to determine the successful licensee include the nature of the exploration program proposed, the expenditures associated with that program, and the schedule in carrying out the program.

Other terms of the license issued for this program include a license term of seven years; a minimum one-time, non-refundable license fee of $1 per acre; and compliance with the work program submitted as part of the application process. The licensee is required to relinquish acreage at various points during the license term so that the entire license area does not remain encumbered, preventing other potential land uses. It is anticipated that the exploration program, if successful, will lead to a reduced, more focused land package that the licensee will lease for coal gasification development without the need for an additional leasing process. If a lease is executed, it will be on a standard Trust coal lease form, with a finite lease term. Rental will start at $4 per acre per year, and royalty will be negotiated based on a mutually agreed upon method of determining coal consumption and value.

Wind Energy

To date the TLO has not authorized the development of wind energy on Trust land, although the office has received inquiries regarding the potential development of this resource and has issued licenses authorizing the installation of towers and equipment to capture data on wind speed and direction in several areas.

It is anticipated that if and when an authorization is issued to allow for the development of this resource on Trust land that the terms of the lease agreement would resemble those that the state has with Golden Valley Electric Association (GVEA) for the Eva Creek project. These include a 25-year extendable lease term with annual lease payments based on appraised value of the land plus $3,000 per megawatt installed capacity, adjusted every five years by the Consumer Price Index. There is also a one-time installation fee of $1,500 per megawatt. Questions exist as to the actual leasing process since 11 AAC 99.020(d) requires the disposal of Trust land to be on a competitive basis. DNR is working on new wind regulations and the TLO will have to determine if the new regulations are compatible with 11 AAC 99.020.
Hydroelectric Energy
No hydroelectric energy-generating projects are currently authorized on Trust land. It is anticipated that a prospective project would be authorized through a competitive leasing process with lease terms including annual land payments based on appraised value plus a fee for power produced, similar to that of a wind project lease.

Geothermal Energy
Like wind energy, leases for geothermal energy would involve fees related to surface access, surface uses, and annual rental based upon an acreage basis commensurate with other typical energy and mineral lease rates. The royalty would be based on a percentage of the gross revenues derived from the production, sale or use of the geothermal resources under the lease. There are specific state regulations that pertain to the permitting and leasing of geothermal resources, and it is anticipated that any leasing program on Trust land would follow these regulations to the extent that they are not in conflict with Trust management principles. An example of terms of an existing geothermal lease on state land include a primary lease term of 10 years; rental of $3 per acre per year; and a royalty of 10 percent of the gross revenue derived from the project.
Goals and Objectives

Trust lands have a significant but undetermined amount of valuable energy resources, predominantly in the form of oil, gas, and coal. The current program of aggressively leasing land for oil and gas development is already returning good revenues. The goal is to manage these resources to provide a relatively steady and increasing stream of revenue until such time as they are exhausted.

Goal 1: Develop a diversified portfolio of energy products that can contribute significant revenue to the Trust.

Objective: Conduct leasing programs utilizing the plan guidelines for resource development on lands permissive of coal, oil, gas, underground coal gasification, coalbed methane, geothermal, wind, peat and other energy resources.

Goal 2: Continue with the current program of managing oil and gas leases to encourage exploration and development.

Objective: Conduct lease sales as parcels become available for leasing and markets are conducive to profitable extraction.

Goal 3: Continue with the current program of managing leases to encourage exploration and development in the near term.

Objective 1: Unitize coal and oil and gas leases where appropriate to increase revenues and still encourage further exploration and development.

Objective 2: Include provisions in exploration permits and leases that require acreage reduction if not developed into production.

Goal 4: Dispose of mineral- or coal-only portions of the land estate that have little chance of development because of surface use conflicts.

Objective: Consider returning these portions of Trust land to the State to receive replacement lands pending agreement from DNR.

Goal 5: Continue with periodic lease offerings of coal-bearing lands.

Objective: Coal lands in the vicinity of the Usibelli Coal Mine operations at Healy are high-value coal lands and should be offered for competitive leasing first. With the Healy Coal Unit agreement in place any new coal leases with UCM in the Healy area will become part of that agreement.

Goal 6: Promote the development of the Trust’s deep coal reserves for underground coal gasification.
**Objective 1**: Monitor the state’s work to develop a UCG guidance document to be used by developers seeking to advance UCG projects and by regulators as a road map for the permitting process.

**Objective 2**: Promote UCG evaluations of Trust land through identification of additional Trust lands with potential for UCG and conduct a lease offering if appropriate.

**Objective 3**: Establish UCG royalty provisions for leases. Research royalty provisions in other jurisdictions and develop provisions for Trust leases. Consideration should be given to establishing the royalty on either a BTU basis or a coal value basis.

**Bonding Goal**: Ensure adequate bonding for oil and gas developments on Trust land.

Objective: Establish bonding criteria, in concert with state and federal bonding requirements that protect the Trust while maintaining competitiveness.

**Coalbed Methane Goal**: Promote the development of the Trust’s deep coal reserves for coalbed methane production.

**Objective 1**: Evaluate Trust lands for CBM potential and as a revenue source.

**Objective 2**: Using TLO and published geologic information, develop a leasing strategy for CBM in the Railbelt and conduct a lease offering as appropriate.

**Wind Energy Goal**: Promote the development of wind energy projects

**Objective 1**: Evaluate opportunities to develop wind energy on Trust land.

**Objective 2**: Utilizing GIS data and the Wind Atlas, rank Trust land for applicability for wind energy development.

**Objective 3**: Evaluate potential demand, users and developers of wind energy and offer Trust land for evaluation, testing and development through leasing. Develop competitive business terms for wind energy leasing.

**Replacement Lands 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.

**Objective 3**: Seek a remedy through administrative, legislative, or legal proceedings so that the intent of Congress can be met.

**Resource Inventory Goal**: Develop and maintain an inventory of energy resources.

**Objective 1**: Continue to develop an Energy Resource Information System based on GIS technology.
Objective 2: Continue to expand resource inventory tables for the various resource commodities on Trust land that provides information on the amount of resources present and their value.
Introduction
Mitigation has become a resource industry in its own right and is marketed in Alaska through various trust land organizations and other entities. Trust land has the capacity to support both resource development and mitigation, at times concurrently on the same parcel. The policies and strategies within this plan will help guide the Trust Land Office (TLO) and the trustees as they develop and manage mitigation opportunities on Trust land. A new asset classification has been created, Mitigation Marketing, to take advantage of the dynamic economic opportunities of mitigation marketing in Alaska.

Wetlands Mitigation
Wetlands mitigation banking holds the greatest potential for the Trust in mitigation marketing as it falls within the most established and lowest risk of mitigation markets. It is also the preferred mitigation by the Corps of Engineers (COE), the regulatory agency, which through a Congressionally-mandated rule adopted jointly with the Environmental Protection Agency (EPA), regulates compensatory mitigation for aquatic resources, including wetlands. On average, 35 percent of the Trust fee estate is considered wetlands. The value of wetlands when appraised as standard real estate is very low in comparison to mitigation value. Contributing a small and select portion of the Trust’s wetlands into a mitigation bank can monetize low-value wetlands into higher value properties that could also support revenue generating Trust resource development projects.
The Clean Water Act (CWA), as implemented by Executive Orders and interpreted by the Supreme Court, requires any development project in the U.S. that creates unavoidable impacts to wetlands be offset or “mitigated.” Planning for and approving this mitigation occurs during the project’s permitting process. This essentially requires the project developer to replace the function of the wetlands lost from the development’s proposed impacts. Studies have found that using bank credits to mitigate impacts significantly reduces the time and expense of permitting a project (Birnie, 2013). This efficiency increases the opportunity for the project to begin operations or production sooner and increases cash flow earlier. In so doing, Trust mitigation bank opportunities not only support generation of Trust revenue from resource industries (mining, energy, land, real estate and forestry) but also create a new revenue source by selling bank credits to project developers on and off Trust land. The increased production time directly impacts the bottom line of a resource development project and is a direct result of having the mitigation already in place during the permitting process for a resource project.

Carbon Credits
Carbon credits is another mitigation marketing program. Carbon credits is a social license program that requires companies to offset their carbon use footprint by investing funds in other lands to preserve or lock up carbon. The most prevalent expression of this is where forests are preserved by landowners by either establishing conservation programs or avoiding/delaying planned timber harvest. The commercial entity pays the landowners to conserve the forest biota for a long term or perpetually. The process involves inventory, pricing, conservation agreement, and regular post agreement monitoring for duration of the conservation agreement term. This carbon credit program can either be under the California regulated carbon credit program or through the open market. The California market is the most regulated and structured but also creates certain challenges for the Trust because of being a government entity.

The TLO has evaluated carbon markets and worked with a few carbon credit sales companies to evaluate how the Trust resources could be used to establish carbon credit sales. At this time, there has not been a clear path that shows how the TLO can sell carbon credits and more importantly, make more revenue from selling carbon credits than traditional forest management. The TLO continues to explore carbon credit opportunities.

Mitigation Markets
In 1989, President George H.W. Bush established the national policy of “no net loss of wetlands.” This set a precedent for replacing a newly impacted wetland with a wetland of the same size with similar functions and values. In 2008, the EPA and COE instituted a new mitigation rule (i.e. 2008 Mitigation Rule); this national policy of no-net loss became a law that relied heavily on a market-based approach to mitigation. Under the 2008 Mitigation Rule, a project developer has three options to satisfy its unavoidable wetland impact obligations, which are listed in descending order of regulatory preference:

1. Purchase wetland credits from a mitigation bank created by a third party’s successful restoration or preservation and protection of wetlands. This is the preferred regulatory option because mitigation banks perform mitigation prior to development impacts.

2. Purchase credits from an in-lieu fee program that can only be sponsored by certain non-profit entities or the government. The in-lieu fee entity promises to restore or preserve wetlands within a certain time frame determined by the COE.

3. Perform an offsetting mitigation project themselves. An important concept is the synergistic relationship between a mitigation bank and resource development. There is no market demand for mitigation banking without development impacts; development impacts do not occur without mitigation (within the same watershed and with equivalent habitat). The Trust is in a unique position because it owns
large surface acreage most often in the existing watershed of Trust projects. This inventory of comparable wetlands and the foreknowledge of future projects provide the Trust a competitive advantage with the formation of a mitigation bank.

There are other types of mitigation marketing in addition to wetlands, including conservation banks based on the Endangered or Threatened Species Act, and credit exchanges for carbon, water quality, and biodiversity. These other mitigation markets are still in their formative stages; the TLO will monitor emerging mitigation markets for future economic potential.

**Valuation**

The current highest and best use of many wetland parcels is mitigation banking. Studies of federal wetland permitting across the U.S. demonstrate that when mitigation bank credits are used to offset impacts, permitting time is cut in half.\(^1\) This time and cost savings is the direct result of having the mitigation already in place prior to the COE approval process.

Mitigation banking also increases the appraised value of the lands within the bank because they are no longer appraised as low-value, non-developable wetlands under the national appraisal standards, Uniform Standards of Professional Appraisal Practice (USPAP).

Undeveloped wetlands are typically appraised by the sales comparison approach under USPAP. Few wetlands are sold for higher than appraised value unless they are used to form a mitigation bank. A bank valuation is determined by what financial market participants are willing to pay to acquire the business based on investment and the intrinsic value of the anticipated understanding of the bank’s economic potential.

**Pricing Structure**

The COE does not determine bank credit pricing; the marketplace determines the credit price based on supply and demand. However, it is difficult to predict credit pricing and bank profitability because of the competitive nature of the market. Typically, only the transaction participants know credit values unless it is disclosed in the public record.

The location of a mitigation bank is a key component in determining the credit value. High-density urban properties carry the highest credit price value because the raw land value is also higher. The average price of non-tidal credits nationwide is $74,535.\(^2\) In Alaska, the cost per credit for remote wetlands was $5,300\(^3\) on the low end in 2013, and the reported highest cost was $140,000 per credit in the Municipality of Anchorage. Generally, 1 acre of wetland within a bank generates one bank credit. The COE, in turn, determines how many bank credits 1 acre of wetland impact will require as mitigation; historically, this ratio can range from 1.5 per one acre of wetland impact to as much as three credits per one acre of wetland impact. Thus, for remote wetlands in Alaska, the price cited above may need a multiple of three to offset a single acre of impact, increasing the cost to $16,500 per acre of impact.

**Mitigation Marketing Strategies**

\(^1\) Under 33 U.S.C. §1251 et seq. (1972), the Clean Water Act establishes the structure for regulations on discharges of pollutants into the waters of the U.S. and quality standards for surface waters.


\(^3\) Ecosystem Marketplace
The strategy of the TLO in developing a mitigation marketing management plan is to form banks or mitigation projects that support and facilitate development projects on Trust land. A mitigation bank is considered a method of resource development. Revenue generated from a wetland mitigation bank can be significant. Consider that in 2008 the total payments by developers in the U.S. for wetland mitigation were $1.3 - $2.2 billion. However, mitigation banks are expensive and challenging to create, often taking many years to set up. Mitigation banks can include multiple landowners. The TLO has investigated cooperating with a mitigation bank being created by DNR but didn’t add land to the bank. While credit sales from a bank could provide direct Trust revenue, secondary Trust revenue should also occur as the bank facilitates Trust resource projects from streamlined and cost effective permitting.

The TLO evaluated a variety of options for participation in the mitigation bank process, including equity partnerships and Trust ownership of a bank. These options are described below. The mitigation marketing management plan is an operational guideline. It does not advocate or specify a preference for a Trust-owned bank versus a partnership. The TLO will consider and evaluate opportunities for mitigation marketing on a case-by-case basis before a project is brought to the board of trustees.

A Trust Bank
Trust bank ownership is one option for mitigation banking. The advantage of a Trust-owned bank is that the entire economic benefit would be disbursed to the Trust. The disadvantage is that creating a Trust bank would require not only sizeable capital outlay for expenses related to the scientific analysis, legal work, permitting, and restoration/preservation actions, but also operational expertise and expenses for running the day-to-day activities of the bank.

The COE also requires that mitigation must function over the long term and that the bank has legal protections in place over the bank’s wetlands; typically, a conservation easement is the legal document used. The COE also requires the bank owner to maintain a long-term stewardship account to finance the long-term management of the bank wetlands. The account must identify the range of duties, activities, and enforcement of the easement conditions. Long-term stewardship management is already performed by TLO; under the bank scenario, specific monies may need to be secured in a separate account to meet stewardship obligations.

Partnerships
Partnerships may be employed to develop a wetland mitigation bank. The Trust’s partner would assume the responsibility of developing and operating the bank. The advantage to the Trust is that a third party would take on much of the upfront capital requirements and associated risk. Working with an experienced partner would also shorten the time needed for COE approval. The downside is that a portion of the economic benefit will go to the partner; however, this may be offset by the comparatively greater economic benefit that an experienced partner may generate for the bank.

Partnerships can also be developed outside of the structure of a bank. For instance, the TLO worked with a mining company and offered acres of wetlands to be conserved for 99 years for a price. The mining company was responsible to work out the approval of the wetlands conservation being approved by the COE to offset potential wetlands disturbance from a future mine. In this case the mining company purchased the conservation easement on the wetlands in advance of mine development under a tiered purchase arrangement which was approved by the COE as wetlands mitigation offset. This type of project did facilitate mineral development on other state lands and could be used in other cases to facilitate projects either on Trust lands or on other land ownership.

4 The Conservation Fund
**Risks**

The TLO has well-defined processes in place through statutes and regulations for the management of non-cash assets. This document sets forth portfolio management strategies to enable the TLO to implement the goals set forth by the board of trustees to manage the non-cash assets of the Trust. These management strategies include:

- creating economic diversity;
- ensuring integrity of investments;
- leveraging investments;
- managing risk by working with partners; and
- reporting financial outcomes to the Trust.

Each potential mitigation transaction under Mitigation Marketing will be evaluated and follow the long-term asset management strategy principles under 11 AAC 99.090(c). The TLO will also follow the administrative process for consultation with the board of trustees prior to public notice.

Important risk management factors to consider for the Trust relative to the wetland mitigation market are discussed below.

**Site Selection**

Site selection is a critical component for the success of a bank. The bank site must be within the same watershed that the impacts from the development project occur (this is called the bank’s service area). If the Trust bank service area is located outside of the development impacts, the COE would look at other mitigation providers to fulfill the permittee’s mitigation obligation inside the service area and the Trust would lose that potential revenue. The risk of selecting the wrong bank site is reduced when the creation of a bank for the Trust occurs within the mid- to end-stages of the Trust’s project permitting process.

Another potential risk in site selection is that the site may yield a new resource discovery or a technology may develop that could create greater economic value than mitigation banking. The bank structure is flexible enough to allow deliberative changes to the bank site. In extreme cases, the COE allows subsurface use of land encumbered with a conservation easement for development. However, to the extent the proposed development may degrade surface wetlands, the bank would likely be required to find a similar parcel to offset the mitigation. This concept is known as “mitigating the mitigation.”

Another alternative used by the TLO is to not establish a bank but rather sell the wetlands conservation directly, thus the risk associated with selecting the wrong site is eliminated.

**Capital Investment**

Formation of a Trust bank without a partner will require large capital investment for expenses related to the science, field work, mapping, legal work, permitting, restoration requirements, and operational infrastructure for the bank. A bank is required to complete its mitigation prior to receiving credits to sell. “This large initial investment, combined with delayed cash flows, exposes bank entrepreneurs to a longer payback period…” (Hook and Shadle, 2013). The risk could be abated by:

- Working closely with the project developer on Trust lands and phasing the creation of the bank development process. While this would reduce capital costs and their associated risk, certain upfront capital costs (namely, funding bank permitting and development) would still be a risk for the Trust.
• Working with a partner who will fund the large capital outlay under negotiated terms.

• Or alternatively don’t create a bank, rather sell wetlands conservation directly to entity in need of wetlands offset. This removes the capital outlay and places the cost of inventory and monitoring on the purchaser. The cost per acre received may be less than banking because of the purchaser having to absorb some of the significant costs, but it significantly reduces risk for the Trust.

Demand

Wetland mitigation banks have a synergetic relationship between development impacts and a market for the mitigation credits. A bank’s inventory must not outweigh the demand of the market for a specific type of wetland or the bank will not generate optimal returns. For very large-scale projects, a bank may be developed to specifically focus on that project’s credit needs; this is often referred to as a “single-user bank.” While this kind of high-volume, well identified demand can be attractive, there is still risk from this approach if the single-user project does not proceed. The risk could be lessened by targeting an area with multiple project demands in the same watershed to increase the market for credit sales.

Federal policies affect demand by increasing or decreasing regulations that mandate the mitigation obligation. Rule changes could alter the market environment such as the availability of credits, the bank’s service area, and unequal application of the 2008 Mitigation Rule. While the regulatory environment is dynamic and the processes are continually refined through adjustments to policy and agency procedures, the trend is that federal regulators are more consistently enforcing the requirements of the 2008 Mitigation Rule for project developers. A Trust bank will effectively assist the project developer to meet the federal no-net loss permitting obligations.

Summary of Mitigation Marketing

Federal and state regulatory permitting law mandates that project developments that impact wetlands must mitigate unavoidable impacts. Project developers on Trust land are required to comply with those regulations and the developers must pay the mitigation costs to satisfy the regulatory obligation. Developers who pay for mitigation credits generally obtain their permits in a shorter timeframe than those developers who try to restore the site on their own because the mitigation has been performed prior to impacts. Mitigation requirements have increased since the no-net loss policy of President George H.W. Bush, regardless of Executive Branch control.

Although 35 percent of the Trust’s portfolio is considered wetlands, only a small segment of those parcels will be selected for mitigation marketing. The relationship between watershed location and development impacts is a key component of the success of mitigation marketing.

The highest and best use for a small group of Trust wetlands is for use in mitigation marketing. Entry into mitigation marketing will be treated as its own asset classification. The advantage of creating this new asset classification is to provide performance indicators that will measure the results of this new resource and generate additional revenues from its development. Mitigation marketing will leverage revenues received from mitigation obligations plus revenues from the traditional resource developments in land, mining, energy, timber, and real estate sectors that its mitigation facilitates. The Trust will now not only be able to market the resource, but also provide a solution for efficiency of federal permitting obligations.

Continue to evaluate and monitor the carbon credit system in the US. The California Market is undergoing changes and constriction of opportunities. There is significant revenue to be created by carbon credits under the right circumstances. The asset portfolio will continue to be evaluated against the opportunity to create revenues through carbon credits. Opportunities for carbon credit will be evaluated against other net revenue generation opportunities over the required lifecycle of a carbon project.
Goals and Objectives

Goal: Evaluate the potential for one mitigation marketing project to promote a Trust resource development to move forward through the federal permitting process.

Objective 1: Identify future projects which may have mitigation requirements in the coming decade.

Objective 2: Select potential parcel(s) with equivalent wetlands that may have potential to offset those resource development project impacts through known databases.

Objective 3: Evaluate and assess pro forma analysis to determine suitability of bank ownership structure through a partnership or sole-ownership by the Trust.

Objective 4: Monitor the changes in the carbon credit market and evaluate whether any Trust forest resources can be used profitably to sell carbon credits as compared to other potential uses.