8510 Mendenhall Loop Juneau, AK 99801 Phone: (907) 586-8790 Fax: (907) 586-8795

2 3327 (2 37)

File Code: 2800

Date: 10/6/2010

Dear National Forest User.

The Tongass National Forest is initiating a National Environmental Policy Act (NEPA) analysis to consider proposed changes to tailings and waste disposal facilities at the Greens Creek Mine, operated by Hecla Greens Creek Mine Corporation (HGCMC). This analysis is in response to HGCMC's request to expand the existing tailings facility as described in more detail in the scoping document included with this letter. As part of the analysis, the Forest Service is inviting interested parties to comment on the Greens Creek Mine Tailings Disposal Facility Expansion project. Input from interested parties is an integral part of the environmental analysis and will assist the Forest Service in identifying preliminary issues, exploring possible alternatives, and identifying other past, present, or future projects near the Greens Creek Mine.

HGCMC's proposed action would encompass approximately 200 acres by expanding the existing tailings facility by 60 acres, essentially doubling the current facility's approved size, and developing an additional 140 acres to the south for supporting infrastructure. These additional facilities would include: storm water structures; quarry sites; soil/reclamation material storage areas; new access roads; a new truck wash facility; a new or expanded water treatment plant; and an upgraded treated water discharge line into Hawk Inlet. Based on preliminary engineering analyses, the tailings expansion would also allow an increased height of the overall facility.

The expanded tailings facility would accommodate an estimated additional 15 to 20 million tons of tailings and waste rock. This volume would allow capacity for ongoing operations and project reserves, plus providing volume for waste rock co-disposal and an expanded resource base defined by ongoing onsite exploration activities. The proposed expansion would also meet HGCMC management direction to design and permit a "long-term" tailings facility capable of handling projected operational requirements. HGCMC proposes to use the same tailings disposal techniques, environmental management procedures, and reclamation measures analyzed in the 2003 Environmental Impact Statement (EIS).

#### NEPA Schedule

The scoping comment period will run 30 days from publication of the Notice of Intent (NOI) in the Federal Register on October 5, 2010. The Forest Service will review all comments received during the scoping period and prepare a summary report to define and frame the issues for analysis. The Draft EIS is projected to be filed with the Environmental Protection Agency (EPA) in the summer of 2011 and will begin a 45-day public comment period. The Final EIS and the Record of Decision are expected to be published in the spring of 2012.

#### How to Comment

The Forest Service will host two public scoping meetings. Each meeting will consist of an informal open house where representatives from the Forest Service will be available to answer questions about the project.

The times and locations of the open houses/public meetings are as follows:

Juneau

October 14, 2010

Centennial Hall 101 Egan Drive,





Juneau, AK 99801 Time: 4:30 – 7:30 PM

Angoon

October 15, 2010

Angoon Community Association Building

800 Big Dog Salmon Way Angoon, AK 99820 Time: 4:00 – 8:00 PM

Comments may be submitted by regular mail, e-mail, or facsimile, and will also be accepted at the public meetings noted above. Please be sure to include your name, mailing address, and e-mail address with your submittal as well as your organization's name, if you are commenting as a representative of an organization. Comments must be received no later than 5:00 PM local time on November 4, 2010 to ensure their inclusion in the scoping review.

By Regular Mail/

Admiralty Island National Monument

Hand Delivery:

Tongass National Forest

ATTN: Greens Creek Tailings Expansion

8510 Mendenhall Loop Road

Juneau, AK 99801

By E-Mail:

 $\underline{comments\text{-}alaska\text{-}tongass\text{-}admiralty\text{-}national\text{-}monument} @\textit{fs.fed.us}$ 

Please note "Greens Creek Tailings Expansion" in the subject line.

By Facsimile:

907-586-8808

#### Additional Information

Questions about the proposed project or the EIS process may be directed to:

Chad VanOrmer, District Ranger Admiralty Island National Monument 8510 Mendenhall Loop Road Juneau, AK 99801 (907) 789-6202

or

Sarah Samuelson, Interdisciplinary Team Leader Tongass National Forest Minerals Program Leader 8510 Mendenhall Loop Road Juneau, AK 99801 (907) 789-6274

Sincerely,

CHAD VANORMER Monument Ranger

# **Scoping Document**

for the

Greens Creek Mine
Tailings Disposal Facility Expansion
Environmental Impact Statement

Greens Creek Mine Alaska

**Prepared by** USDA Forest Service

October 2010

## **TABLE OF CONTENTS**

Purpose	1
Introduction	1
Background	1
Agency Involvement	
Permitting Requirements	
Federal Authorities	
State Authorities	4
Local Authorities	4
Scoping Schedule	4
Scoping Meetings	5
How to Comment	5
Information Sources	6
Activities after Scoping	6
Proponent's Proposed Project	7
Alternatives	12
Preliminary Issues of Concern	12
Public Solicitation for Other Projects in the Project Area	13
LIST OF FIGURES	
Figure 1. General Location Map	
Figure 2. Greens Creek Mine Tailings Disposal Facility Expansion EIS Process and Schedu	
Figure 3. Approved Site Layout	
Figure 4. Initial Tailings Facility Expansion	
Figure 5. Final Tailings Facility Expansion	
Figure 6. Post Tailings Facility Closure Layout	11

#### **ACRONYMS AND ABBREVIATIONS**

ADEC Alaska Department of Environmental Conservation

ADF&G Alaska Department of Fish and Game
ADNR Alaska Department of Natural Resources

ANILCA Alaska National Interest Lands Conservation Act APDES Alaska Pollutant Discharge Elimination System

CBJ City and Borough of Juneau
CFR Code of Federal Regulations
Corps U.S. Army Corps of Engineers

CWA Clean Water Act

EIS environmental impact statement

EPA U.S. Environmental Protection Agency

Forest Service United States Department of Agriculture Forest Service, Tongass National

**Forest** 

GPO general plan of operations

HGCMC Hecla Greens Creek Mining Company (the proponent)

KGCMC Kennecott Greens Creek Mining Company

MOU Memorandum of Understanding

NEPA National Environmental Policy Act NMFS National Marine Fisheries Service

NOI Notice of Intent

NPDES National Pollutant Discharge Elimination System

OPMP ADNR's Office of Project Management and Permitting

ROD Record of Decision

USDA United States Department of Agriculture

USFWS U.S. Fish and Wildlife Service

## **Purpose**

The United States Department of Agriculture Forest Service, Tongass National Forest (Forest Service) is initiating a National Environmental Policy Act (NEPA) analysis to consider proposed changes to certain changes to the approved HGCMC General Plan of Operations (GP0) regarding tailings and waste rock disposal and related infrastructure at the Greens Creek Mine. This analysis is in response to the mine operator's request to expand the existing tailings facility as described in more detail below. As part of the analysis, the Forest Service is inviting interested parties to comment on the Greens Creek Mine Tailings Disposal Facility Expansion project. Input from interested parties is an integral part of the environmental analysis and will assist the Forest Service in identifying preliminary issues, exploring possible alternatives, and identifying other past, present, or future projects near the Greens Creek Mine. The Forest Service will use input from interested parties in developing an environmental impact statement (EIS) for amendments to the general plan of operations (GPO) and lease for the Greens Creek Mine.

### Introduction

### Background

The Greens Creek Mine is an underground polymetalic mine near Hawk Inlet on northern Admiralty Island. It is located about 18 miles southwest of Juneau, Alaska (see Figure 1, General Location Map). The mine is located in the Greens Creek watershed within the Tongass National Forest and the Admiralty Island National Monument. In 1980, Congress provided for mining at the Greens Creek site in Section 503 of the Alaska National Interest Lands Conservation Act (ANILCA).

Before mining operations began, the Forest Service published the *Greens Creek Final Environmental Impact Statement* (1983 EIS) and issued its Record of Decision (ROD) for overall development and operation of the mine project. In early 1984, the Forest Service approved a GPO for Noranda Mining, Inc., the owner and operator at that time.

That original GPO called for underground mining with ore crushed and concentrated in a mill near the mine portal. The ore concentrate was to be trucked about nine miles to the Hawk Inlet port at the Cannery, a privately-owned inholding within the Tongass National Forest. From the port, concentrate was to be shipped to smelters outside Alaska for processing and refining. The *tailings*—the material left after the minerals have been removed—were to be placed in a *slurry*, or watery mixture, and piped along the road corridor to a site in the Tributary Creek drainage for disposal. While still in the planning stages, ownership of the mine changed hands, and in early 1986, Amselco assumed control of operations. The new owner decided to change some aspects of the GPO, particularly the method of tailings disposal. Instead of putting tailings in a slurry, Amselco proposed to truck dry tailings to a smaller area within the same general vicinity for disposal in a "dry stack." In July 1987, the Forest Service determined that this and other proposed changes to the GPO required a NEPA review. The following year, the Forest Service published the *Environmental Assessment for Proposed Changes to the General Plan of Operations for the Development and Operation of the Greens Creek Mine* (1988 EA).

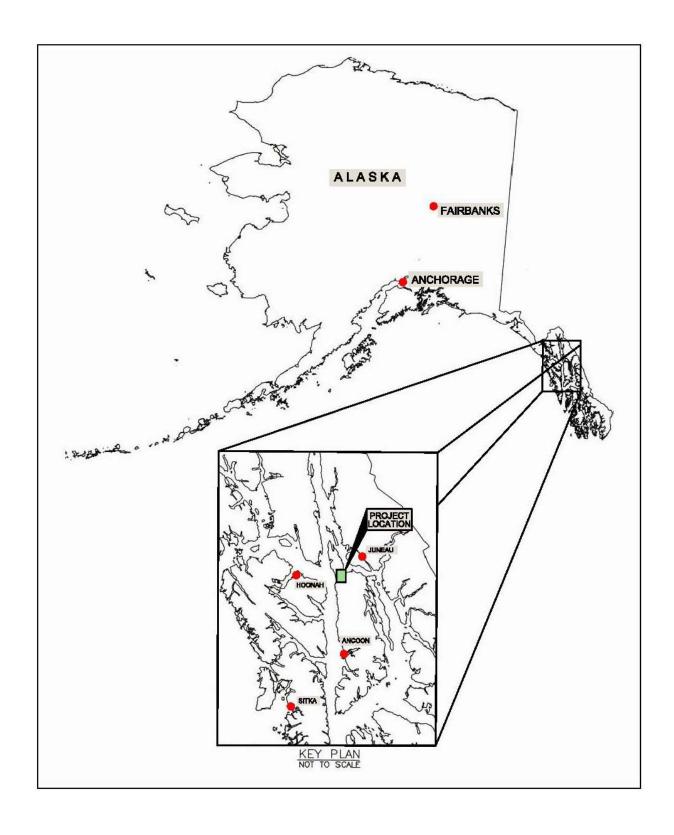


Figure 1. General Location Map

Full-scale development of the mine began in 1987. Ongoing exploration identified additional ore reserves and resulting changes in needs for waste rock disposal. As a result, the project's operator at the time, Kennecott Greens Creek Mining Company (KGCMC), sought approval for additional waste rock disposal capacity in 1990. In response, the Forest Service began a third NEPA review in 1991, and the following year published the *Environmental Assessment (EA) for Additional Waste Rock Disposal Capacity at Greens Creek Mine* (1992 EA).

In April of 1993, KGCMC temporarily suspended mining operations due to depressed prices for metals. KGCMC reopened the project in July of 1996, and in conjunction with the resumption of mining operations, the Forest Service approved an amendment to the GPO.

Based on the need for additional surface disposal, in January 2001, KGCMC submitted an application to the Forest Service requesting a modification of the existing GPO for expansion of both the area and the disposal capacity of the tailings facility existing at that time. In November 2003, the Forest Service released the *Greens Creek Tailings Disposal Final Environmental Impact Statement* (2003 EIS).

In April 2008, the Hecla Greens Creek Mining Company (HGCMC) purchased the project from KGCMC and assumed control of the mine's operation. HGCMC considered past activities and future resource evaluations and desires to complete long-term planning for the operation. The forthcoming EIS will evaluate activities over the next 30 to 50 years and will tier to the 2003 EIS and other pertinent NEPA documents prepared for the Greens Creek Mine.

The EIS will analyze alternatives to and the effects of approving the expansion of the tailings and waste rock disposal facility and development of associated infrastructure, based on pertinent physical, biological, and social resources in the area of the proposed expansion. The EIS will assess the technical, environmental, and reclamation design criteria and explore possible operational and reclamation alternatives to the action proposed by HGCMC.

The Greens Creek Mine currently employs nearly 330 people with an annual payroll over \$26 million and has a daily production rate of over 2,000 tons of ore, which contains silver, lead, zinc and gold. The ore is processed at an on-site mill, which produces lead and zinc concentrates that are shipped to worldwide smelters from a marine terminal at Hawk Inlet.

## Agency Involvement

The Forest Service will be the lead federal agency for the EIS process, and will issue a ROD documenting the EIS conclusions and Forest Service's decision regarding expansion of the tailings disposal facility.

The Forest Service has discussed the project with and will continue to work with other agencies, including:

- U.S. Army Corps of Engineers (Corps)
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (USFWS)
- National Marine Fisheries Service (NMFS)
- Alaska departments of Natural Resources (ADNR), Environmental Conservation (ADEC), and Fish and Game (ADF&G)
- City and Borough of Juneau (CBJ).

The Corps, EPA, State of Alaska (led by ADNR's Office of Project Management and Permitting [OPMP]), and CBJ have agreed to participate as cooperating agencies within the EIS process.

The Forest Service will conduct and document any Tribal consultation ("government-to-government" protocol) completed under federal guidelines.

### **Permitting Requirements**

The proposed expansion of the tailings disposal facility would require the modification of existing permits before development could proceed. The major permits or authorizations that may be required are listed below.

#### **Federal Authorities**

Forest Service:

- Approval of modifications to the GPO
- Lease expansion approval

#### U.S. Army Corps of Engineers:

 Clean Water Act (CWA) Section 404 wetlands permit for the discharge of dredge or fill material into waters of the U.S., including jurisdictional wetlands

**Environmental Protection Agency:** 

Review Spill Prevention, Control and Countermeasure Plan

#### State Authorities

Alaska Department of Natural Resources:

- Reclamation plan approval
- State water rights permits for water withdrawals
- Certificate of Approval to Construct a Dam
- Certificate of Approval to Operate a Dam

Office of Project Management & Permitting (DNR)

 Coastal Zone Consistency Determination under the Coastal Zone Management Act and the Alaska Coastal Management Program Act of 1977

Alaska Department of Environmental Conservation:

- Waste Management Permit covering disposal of mine tailings, waste rock, overburden, and solid waste, management of ground water, storage and containment of hazardous chemicals, facility reclamation and facility closure
- Air Quality Permit to Operate (Title V)
- CWA Section 401 certifications of reasonable assurance for COE/Section 404 permit
- Alaska Pollutant Discharge Elimination System (APDES) Permit

Alaska Department of Fish and Game

• Fish habitat permits for diversions and water withdrawals

#### **Local Authorities**

City and Borough of Juneau:

Large Mine Permit

### Scoping Schedule

The scoping comment period began when the Forest Service published the Notice of Intent (NOI) to prepare an EIS in the Federal Register on October 5, 2010. This scoping document was distributed for public and agency review and comment at the same time. The scoping comment period will end at the

close of business on November 4, 2010. While interested parties may participate throughout the NEPA process, scoping comments should be received by this date to be most useful. The Forest Service will then review all comments received during the scoping comment period, identify the issues, and distribute a scoping response summary to the public and to the state and federal agencies and Tribal governments in early December 2010. The scoping response summary will summarize comments received during the scoping period and describe how the Forest Service intends to respond to them during the EIS process.

### **Scoping Meetings**

The Forest Service will host two public meetings: one in Juneau and one in Angoon. The times and locations of the public meetings are as follows:

Juneau October 14, 2010 Centennial Hall

101 Egan Drive, Juneau, AK 99801 Time: 4:30 – 7:30 PM

Angoon October 15, 2010 Angoon Community Association Building

800 Big Dog Salmon Way Angoon, AK 99820 Time: 4:00 – 8:00 PM

Each public meeting will consist of an informal open house where representatives from the Forest Service will be available to answer questions about the project. The scoping meetings will serve two important purposes. The first is to listen to and record the public's comments about the project as described in this scoping document. The second is to respond to the public's requests for background information that they might need to fully understand the project description and proposed scope of the EIS analysis before commenting. The Forest Service will accept comments during the scoping meetings, or interested parties may submit comments as described below.

#### How to Comment

Interested parties may provide comments at the open houses, or they may submit comments to the Forest Service in writing, by e-mail, or by facsimile, until the comment period deadline at the close of business on November 4, 2010. Comments should be sent to:

Admiralty Island National Monument Tongass National Forest ATTN: Greens Creek Tailings Expansion 8510 Mendenhall Loop Road Juneau, AK 99801

Comments may also be hand delivered to the same address or sent via e-mail to comments-alaskatongass-admiralty-national-monument@fs.fed.us with Greens Creek Tailings Expansion on the subject line, or via facsimile to 907-586-8808. Include your name, address, e-mail address and organization name if you are commenting as a representative of an organization.

#### Information Sources

Copies of the scoping document, the 2003 *Greens Creek Tailings Disposal Final Environmental Impact Statement*, the *General Plan of Operations*, and other documents may be viewed at the following location:

Admiralty Island National Monument 8510 Mendenhall Loop Road Juneau, Alaska 99801

These same and additional materials are available on the internet at

http://dnr.alaska.gov/mlw/mining/largemine/greenscreek/.

## Activities after Scoping

Tetra Tech, the third party contractor, will prepare the EIS under the direction of the Forest Service following the scoping process and identification of issues. The steps involved in EIS preparation and public and agency review of the document are shown in Figure 2. The Forest Service welcomes the public to participate throughout the EIS process, although there are points at which public input is specifically sought. These are listed below along with their tentative dates, though schedule changes will likely occur. Project documents, as well as any changes in schedule will be posted on the Tongass National Forest NEPA project website at http://www.fs.fed.us/r10/tongass/projects/projects.shtml under the Greens Creek Mine Tailings Disposal Facility Expansion project.

Public participation process:

•	Pub	lish	NO	[/Scop	ing com	ment period	
				~ -			

- Distribution of Draft EIS for public/agency review
- Draft EIS open houses and public hearings
- Close of public/agency Draft EIS review period
- Distribution of Final EIS
- Forest Service Record of Decision

Fall 2010 Summer 2011 Summer 2011 Late Summer 2011 Spring/Summer 2012 Summer 2012

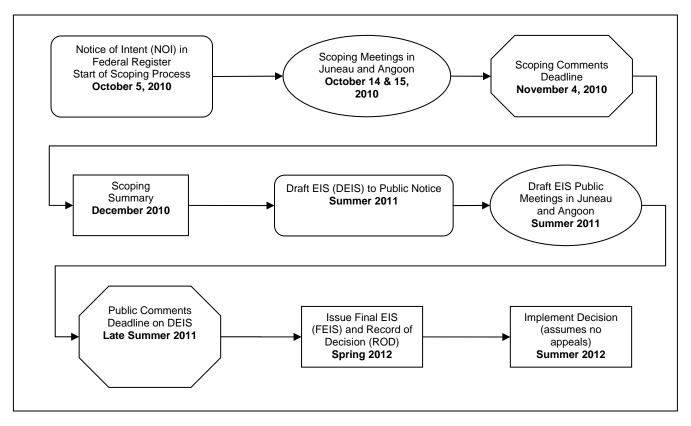


Figure 2. Greens Creek Mine Tailings Disposal Facility Expansion EIS Process and Schedule

## **Proponent's Proposed Project**

Because of the way in which the ore remaining in the ground is identified, measured and reported (to investors), the mine's "proven" reserves are estimated to last about 10 years into the future. However, the mine has operated as a "10-year" mine for the last 20 years with the likelihood that new reserves will continue to be identified well into the future. The combination of new proven reserves and improved metal prices has driven the need for additional tailings storage capacity to allow for the continued operations of the Greens Creek Mine. The existing tailings facility is considered sufficient to provide for HGCMC's needs until 2014. The proponent has estimated that pre-tailings construction work would need to begin in mid-2012 to prepare the site for tailings placement in 2014. Based on the expectation of continued positive exploration results, the design of the tailings facility expansion submitted by HGCMC assumes production from the mine for an additional 30 to 50 years.

HGCMC uses the "dry-stack" tailings disposal technique at the Greens Creek Mine. This technique allows less disturbance than either conventional slurry tailings or paste tailings disposal. HGCMC plans to extend the existing "dry-stack" tailings disposal site in a southward direction for the targeted additional capacity. Figure 3 shows the extent of the existing permitted tailings facility. Figures 4–6 show the proposed expansion of the tailings facility from its early configuration through final reclamation over an operational period of approximately 50 years.

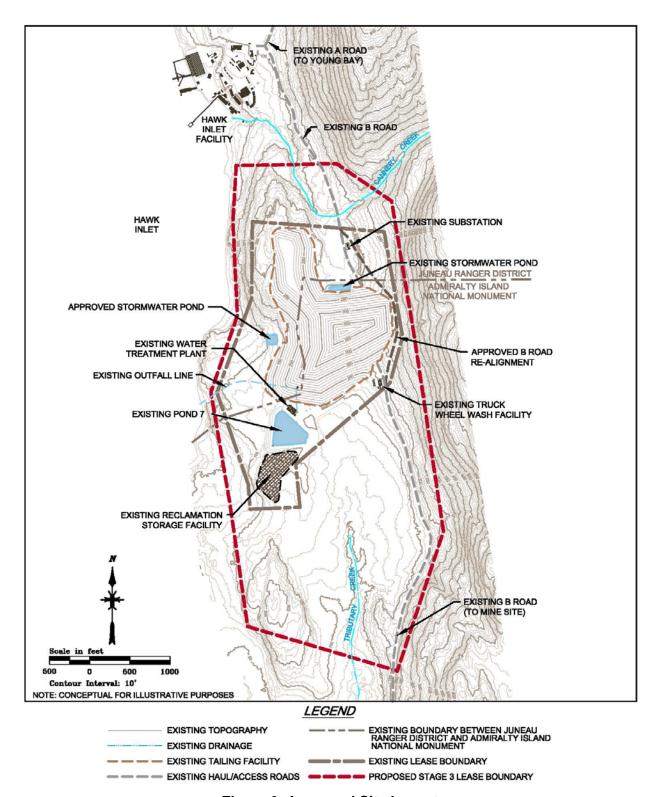


Figure 3. Approved Site Layout

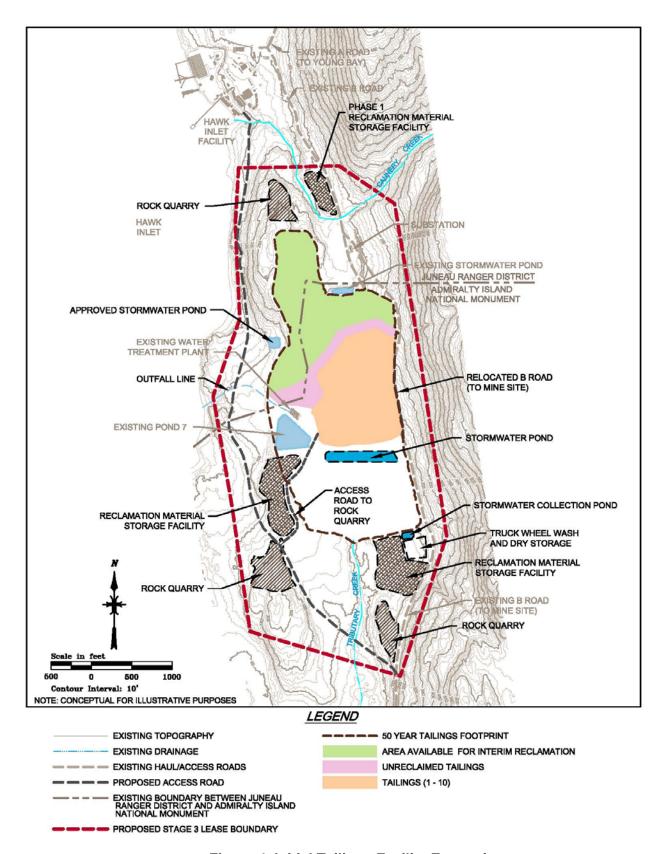


Figure 4. Initial Tailings Facility Expansion

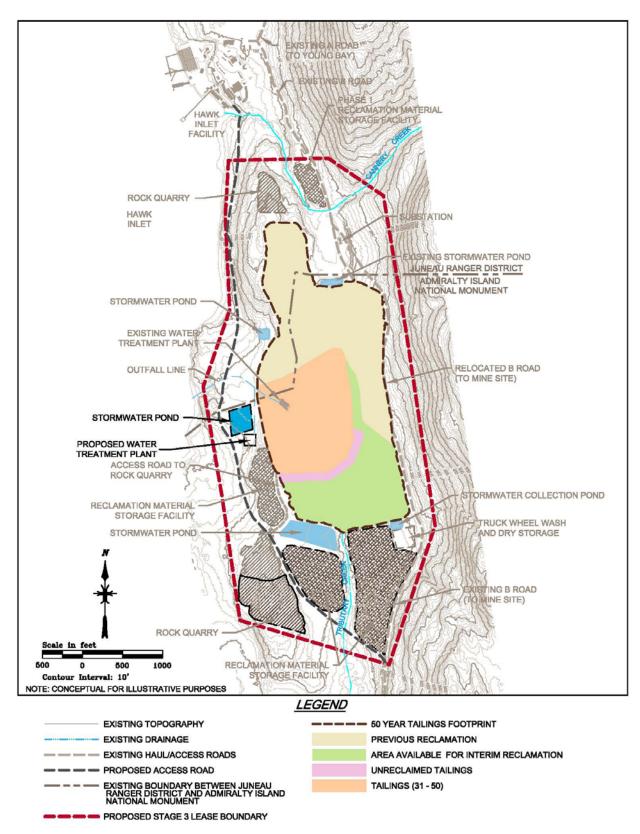


Figure 5. Final Tailings Facility Expansion

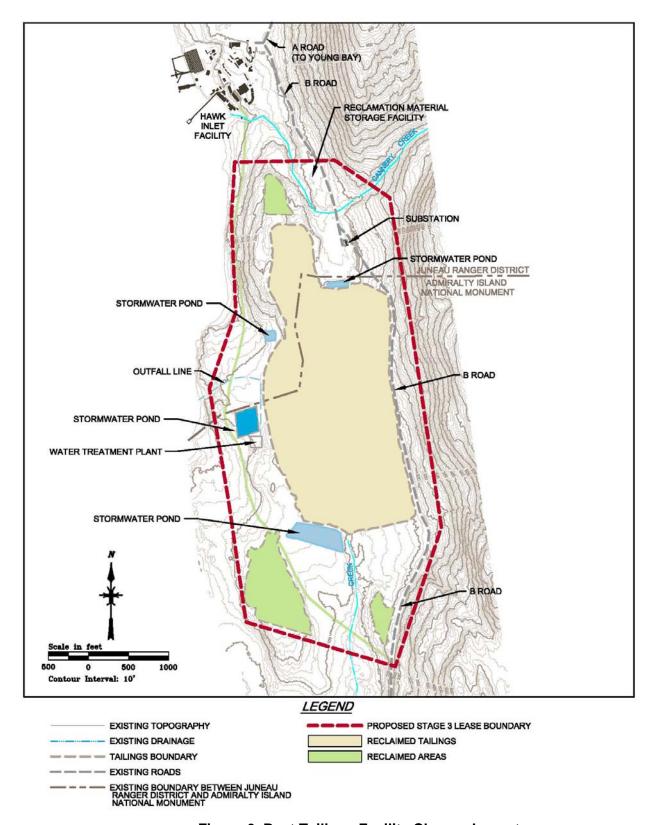


Figure 6. Post Tailings Facility Closure Layout

The proposed tailings facility expansion would accommodate an estimated additional 15 to 20 million tons of tailings and waste rock. This volume would allow capacity for ongoing operations and project reserves, plus providing volume for waste rock co-disposal and an expanded resource base being defined by ongoing on-site exploration activities. The planned expansion will also meet HGCMC management direction to design and permit a "long-term" tailings facility capable of handling projected operational requirements.

The proposed action provides for an expansion of the existing tailings facility area to the south for an increase of approximately 200 acres. This would include an increase of approximately 60 acres for tailings, essentially doubling the size of the currently approved facility, and an additional estimated 140 acres for supporting infrastructure. Supporting infrastructure would include storm water facilities, quarry sites, storage areas for soils/reclamation materials, new access roads, a new truck wash facility, a new or expanded water treatment plant, and an upgraded water discharge outfall line into Hawk Inlet. In addition, the height of the facility would increase without affecting the overall stability of the pile.

As the tailings disposal facility expanded, HGCMC would have the ability to initiate interim or concurrent reclamation on sections of the tailings facility, where possible. In addition, HGCMC would continue to use the "dry-stack" tailings operational, maintenance and monitoring techniques that the company has employed since the late 1980s, as well as the more recently approved procedures of codisposal of waste rock into the tailings facility. By expanding the existing tailings disposal site, HGCMC can effectively use existing supporting infrastructure which should minimize the environmental effects over the construction of a "new" remote tailings disposal site. The company would continue to meet the requirements set forth under the State Waste Management Permit and the National Pollutant Discharge Elimination System (NPDES) Permit, which will soon become the APDES.

## **Alternatives**

One of the primary purposes of the scoping process is to identify a range of reasonable alternatives that will be evaluated in the EIS. In addition to the proposed project described above, the EIS will evaluate a No-Action Alternative. The No-Action Alternative reflects conditions if the proposed change does not occur and will serve as the baseline for estimating the effects of other options. Under the No-Action Alternative, tailings disposal would continue according to the approved GPO for the Greens Creek Mine.

Alternatives in addition to the proposed action and the No-Action Alternative will be developed in response to issues raised during the scoping process. Potential alternatives may include design criteria options or alternative locations or configurations of the tailings facility. Design criteria and alternatives considered for the tailings expansion must satisfy the purpose and need for the project and be practical and feasible given technical and economic considerations.

## **Preliminary Issues of Concern**

Tentative issues identified for analysis in the EIS includes the potential long-term effects on water quality due to the project expansion; both during operation and after closure. A second issue involves how the proposed expansion area in and adjacent to the National Monument boundary may affect "Monument values" including wetlands, habitat, and the intrinsic characteristics that warranted the initial establishment of the monument. Additionally, an analysis of impacts to the following resources will be included in the EIS:

- Aesthetics and Visual Resources
- Climate and Air Quality
- Cultural Resources (Heritage Resources)
- Geology and Geochemistry
- Hydrology (including water quality)

- Fisheries and Wildlife, including Subsistence Resources
- Land Use and Noise
- Socioeconomics
- Soils and Reclamation of Cover Materials
- Vegetation (including wetlands and invasive plants)

The Forest Service is seeking public input to identify other issues and concerns. The Forest Service will consider all issues raised during scoping and formulate the scope of analysis for the EIS and develop alternatives based on substantive issues.

## Public Solicitation for Other Projects in the Project Area

NEPA requires that EISs include an assessment of cumulative impacts. Specifically, 40 Code of Federal Regulations (CFR) Part 1508.7 defines cumulative impacts and directs federal agencies to assess, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

All federal and state agencies, Tribal governments, local governments, private companies, organizations, and individuals are asked to notify the Forest Service of any past, present, or future actions they are aware of near the Greens Creek Mine. The Forest Service respectfully requests this information to ensure that the EIS adequately addresses the cumulative impacts that may occur to the environment if the tailings disposal facility is expanded. If you are aware of another agency or entity that has, is, or likely will take action near the project area, please contact Sarah Samuelson by the close of the scoping process comment period (see previous section for contact information).