# **RESPONSE TO COMMENTS**

on

# STATE OF ALASKA AUTHORIZATIONS

for

# THE KENSINGTON MINE PROJECT

May 6, 2005

Prepared by the

ALASKA DEPARTMENT OF NATURAL RESOURCES OFFICE OF PROJECT MANAGEMENT AND PERMITTING

#### INTRODUCTION

This document provides the responses to public and agency comments received on draft State of Alaska authorizations for the Kensington Gold Project. The comments were received during a public review held in the summer of 2004. Subsequent to the public review period, the Environmental Impact Statement was finalized for the Kensington Project, and now all state and federal permitting decisions are being finalized. The responses in this document have been used to finalize State decisions and permits.

#### BACKGROUND

The Kensington Gold Project is located approximately 45 air miles north of Juneau and 35 air miles south of Haines, Alaska. The mine site is within the City and Borough of Juneau and the Tongass National Forest. The proposed mine will produce approximately 2,000 tons of ore per day and 400 tons per day of development rock over an estimated 10 years. The project will employ approximately 300-400 people during the 22 months required for construction of the facilities and 225 full time employees to operate the mine and processing facilities.

Historically, development and ore production occurred at the Kensington mine site from 1897 through 1938. The adjacent Jualin project was discovered in 1895 and operated from 1896 to 1928. All told, both mines produced 40,513 ounces of gold from 75,208 tons of ore. More recent exploration activity has taken place during the 1980s and 1990s.

The Kensington Gold Project now includes both the Kensington and Jualin properties controlled by Coeur. Mineral reserves are located on the Kensington property and production infrastructure will be located on the Jualin property The Kensington Gold Project is located on federal land overseen by the U.S. Forest Service (USFS), on State of Alaska tidelands, and on private patented property.

In July of 1992, the USFS approved a Plan of Operations for the Kensington Gold Project. The plan called for underground mining; ore process, including onsite cyanidation; a tailings impoundment; marine discharge of process wastewater; and various support facilities, including the use of liquefied petroleum gas for power generation.

In August 1997, the USFS approved a revised Plan of Operation for the Kensington Gold Project. The modified plan called for offsite processing of floatation concentrates; placement of tailings in a dry tailings facility accessed through a pipeline, with 25% of tailings to be paste backfilled in the underground workings; diesel fuel would be used for power generation; and tailing slurry would be piped to a dewatering plant and the reclaimed water returned for reuse.

In November 2001, Coeur Alaska, Inc. (Coeur) submitted an amendment to its approved 1998 Plan of Operations to the USFS. The amendment modified site access and eliminated the dry tailings facility in favor of placing the tailings into an impoundment in Lower Slate Lake. Before this amendment could be approved, a Supplemental Environmental Impact Statement (SEIS) had to be completed. The USFS was the lead agency in charge of the SEIS process, and released the final SEIS in December 2004.

#### PERMITTING

On June 21, 2004, the U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (ACOE), and the State of Alaska released their draft permits, public notices, and decisions relating to the Kensington Gold Mine Project for a 45-day public review and comment. The draft permits for the Kensington Project were developed concurrently with the Environmental Impact Statement (EIS) for the project.

The Alaska Department of Natural Resources is the lead State agency involved in permitting mine projects in Alaska. State agencies involved in the Kensington Project include the Departments of Natural Resources, Environmental Conservation, Fish & Game, and Law. A large mine project team has been established with representatives from these agencies to coordinate state permitting activities for the Kensington Gold Project.

The Alaska Department of Natural Resources (ADNR) prepared draft decisions for two tideland leases for marine terminal facilities, a temporary road closure, road construction and use, and fish habitat permits, and prepared two draft water right authorizations. ADNR also conducted a review of the proposed project for consistency with the Alaska Coastal Management Program.

The Alaska Department of Environmental Conservation (ADEC) prepared draft State certifications of the US Environmental Protection Agency's draft NPDES permit and the US Army Corps of Engineers draft 404 permits.

#### SUMMARY OF PUBLIC COMMENTS

The public review of the draft State decision documents consisted of a 45-day public review period from June 17, 2004 to August 5, 2004, a mailing of the notice of availability of the documents, to over 500 people and organizations, newspaper advertising in the Juneau Empire and the Chilkat Valley News, and publication of the notice of availability of the documents on the DNR and State of Alaska web sites. The public notice for the draft State decisions was coordinated

with the public notice for the US Environmental Protection Agency's NPDES Permit and the US Army Corps of Engineers' Wetlands Fill Permit.

Two public meetings were held during the 45-day review period. The first meeting was held in Juneau on July 26, 2004 and 219 people signed in at the meeting. The second public meeting was held in Haines on July 27, 2004 and 43 people signed in at this meeting. Also, numerous articles appeared in state and local newspapers and trade journals during the public notice period.

The State received 170 written comments by letter, fax, or e-mail. 3 government agencies commented, and all were supportive of the project and permit issuance. 15 non-governmental organizations commented, with 11 in support, 2 opposed, and 2 offered specific comments. 10 Native organizations commented, and all were in support of the project and permit issuance. 26 businesses commented, and all were in support of the project and permit issuance. 116 individuals commented, with 93 in support, and 23 opposed.

The State received 81 oral comments at the two public meetings. At the Juneau meeting, 36 people were in support of the project and permit issuance, and 29 people were opposed. At the Haines meeting, 7 people were in support of the project and permit issuance, and 9 people were opposed.

In addition, during January, February, and March of 2005, DNR received 74 unsolicited comments by letter and e-mail regarding the issuance of the Kensington permits. 73 letters were from individuals, businesses, and organizations, and expressed general support for the project and requested issuance of all state and federal permits. One comment was from an individual that generally opposed the project.

On the following pages, summaries of the comments are presented, along with the agency response. The comments are organized into the following sections:

- Comments on ADEC 401 Certifications
- Comments On Fish Habitat Permits
- Comments On Water Use Authorizations
- Comments On Tidelands Leases
- Other Comments

# COMMENTS ON ADEC 401 CERTIFICATIONS

# Mine Waste as Fill (401 Cert)

Comment. 18 AAC 60.007(b) prohibits the use of mine waste for fill.

<u>Response</u>: ADEC is not permitting use of mining waste for a fill project under DEC regulations. The regulation that SEACC cites, 18 AAC 60.007(b), must be read and applied in conjunction with 18 AAC 60.200(a)(15). The latter regulation exempts fill projects allowed under § 60.007 from the requirement of obtaining a solid waste disposal permit. The Kensington project is not proposing to use the tailings as part of a fill project contemplated by § 60.007. To the contrary, Coeur has requested a disposal permit for its tailings, and ADEC has issued them such a permit in the form of its CWA § 401 certification of the COE's § 404 permit. See 18 AAC 60.200(b). The fact that the COE is issuing a CWA § 404 permit, which is commonly referred to as a "dredge and fill" permit, does not mean that the disposal of the tailings in the TDF is a "fill project" under the state regulations. Placement of mine tailings as "fill" is allowed under the amended federal definition of fill, just as the permitted disposal of such tailings is allowed under state law.

# Maintaining State Water Quality Standards (401 Cert)

**Comment.** DEC cannot designate the lake as an impoundment or disposal site. EPA prohibits use of the lake as a "treatment facility". There is no basis under the Clean Water Act for the agencies to declare that Lower Slate Lake is no longer a lake for the life of the mine. Treating the tailings as fill and ignoring water quality requirements violates state law. Tailings are "pollution" and impoundments are "waters".

<u>Response</u>: The proposed impoundment for tailings disposal falls within the statutory definition of a "treatment work" in state law, AS 46.03.900(33). The federal agencies have chosen to permit the impoundment as a "disposal site" under 40 CFR § 230.3(i), and so did not rely upon the "waste treatment system" exclusion to the definition of "waters of the U.S.". See the Regas memo (5/17/04), at p. 3. The federal agencies have not prohibited the state from making its own determination of the regulatory status of the impoundment under state law.

**Comment.** Lower Slate Lake is a water of the state and so must meet water quality standards.

<u>*Response:*</u> DEC is considering the Slate Lake impoundment to be a treatment works for the duration of the mine operation and for the period of closure. As

such neither the discharge to this impoundment, nor waters within the impoundment need to meet water quality standards. However, when this impoundment has been successfully reclaimed, it will again be a productive lake required to meet water quality standards. It is thought that the quality of water in the water column above the tailings will meet state standards within a short time after the cessation of placing tailings. It should be noted that during the closure and post-closure periods, aluminum exceedences up to natural background levels may be permitted. Present data suggests that aluminum exceedences are originating throughout the Slate Lakes basin.

**Comment.** The proposed discharge is not expected to meet state water quality requirements and thus the 401 cert will likely be denied.

<u>Response</u>: The discharge into Lower Slate Lake will not need to meet water quality standards; however any discharge from the lake will have to. No mixing zone is authorized under the DEC certification of the NPDES permit. Compliance with the permit to meet water quality standards at the "end of the pipe" will be achieved by the use of appropriate treatment technology such as settling and reverse osmosis if necessary.

**Comment.** DEC cannot permit the placement of tailings in LSL with a short-term variance because the activity is not short-term and water quality impacts to the receiving water (lake) are not mitigated.

<u>*Response:*</u> DEC is not proposing to permit the deposition of tailings in Lower Slate Lake under a short-term variance.

**Comment.** The potential for future restoration or amelioration of Lower Slate Lake is uncertain due to the presence of metals and the potential for unknown toxic compounds to exist in the leachable substrates."

Response: See Tailings Toxicity, also Slate Lakes Reclamation

**Comment.** Without additional treatment, the proposed discharge may cause or contribute to violations of Alaska water quality standards for turbidity, aluminum, iron and lead."

<u>Response</u>: Coeur will be required to provide suitable treatment for water discharged from the impoundment such that the NPDES permit limits will be met in the discharge and the water quality standards will be met in the receiving water.

**Comment.** The permittee amended its NPDES permit application to incorporate a contingency treatment system. Neither the NPDES fact sheet nor the DSEIS contain an analysis evaluating the effects from such a substantial change.

<u>Response</u>: The treatment systems proposed by Coeur are proven technology in common use, i.e. flocculation and enhanced settlement for TSS and reverse osmosis for metals (TSS will also be further reduced in the RO plant). Operation of the plant will depend on the quality of the impoundment water at the withdrawal point. When the plant is operating the water discharged will have less minerals and metals than the water it is discharging into. There are not expected to be any adverse effects from this, and it may even result in a better quality of water in East Fork Slate Creek, especially when the natural aluminum level is higher than water quality standards in Upper Slate Lake.

**Comment.** The lowest concentration of ammonia needs to be included in the NPDES permit due to species sensitivity.

<u>Response:</u> Permit limits are derived from current state Water Quality criteria. In-stream monitoring will be conducted to ensure aquatic life is adequately protected. Additionally aquatic life downstream of the discharge will have the benefit of dilution water from Upper Slate Lake to reduce the ammonia level in East Fork Slate Creek.

# Tailings Toxicity (401 Cert)

**Comment.** The Lower Slate Lake tailings impoundment directly exposes the entire lake to the tailings, which have exhibited considerable toxicity.

Response: During mine operations water quality standards will not need to be met in the lake and a water treatment system will be installed to ensure compliance with water quality standards at the point of discharge. The NPDES permit will require that the toxicity of the effluent be checked monthly by the use of a chronic whole effluent toxicity test. Some toxicity has been seen in one fresh water sample for one of the two aquatic species tested. This toxicity is thought possibly to be from mill reagents which will be greatly diluted within the lake. The test that showed toxicity to amphipods showed effects from undiluted tailings interstitial water. Dilution of these interstitial waters, and hence a reduction in toxicity will occur initially by the volume of fresh water in the lake, and subsequently by water that enters the facility from surface flows, rainwater, and storm surge flows from Upper Slate lake. The volume of interstitial waters will be small compared to fresh water entering the site and peripheral vegetation and wildlife should not be subject to toxic conditions. A risk analysis was conducted in the SEIS (Volume 2, section 5.0) with a summary shown in Table 5.1 of this section. During operation, tailings will not be at the periphery of the lake where aquatic plant life will exist. Both aluminum and chromium were determined to pose low risk to either aquatic or terrestrial biota. There could be some risk to water fowl by sediment ingestion, but this is thought unlikely since the tailings will settle at the bottom of the lake.

**Comment.** Due to the demonstrated toxicity of the tailings samples in the bioassay tests, and the limited application of other standard tests on contaminant mobility and pathways, EPA believes that the tailings slurry is a carrier of contaminants. Therefore, the tailings are unsuitable for use as fill material without further treatment or management (e.g., capping). The 404 permit should require engineered capping of the tailings. The Final SEIS must consider the source and suitability of the cap material.

<u>Response</u>: Coeur proposes to cover the tailings. There will be a bond in place to ensure a cover can be placed should the company default on this. Whether a cap will be required and which materials will be best suited for the cap will be determined during the operational phase of the mine by conducting studies on tailings recolonization during the life of the mine, and by extensive monitoring after both the last tailings have been placed and sufficient time has elapsed to establish a reasonable benthic community.

**Comment.** The potential for future restoration or amelioration of Lower Slate Lake is uncertain due to the presence of metals and the potential for unknown toxic compounds to exist in the leachable substrates. Additional testing is recommended by EPA on tailings; DEC cannot certify until tests conducted.

Response: DEC has thoroughly reviewed existing test results and determined that although one fresh water test did show toxicity to Hyalella azteca (amphipods) it is possible that this was due to a mill reagent. The mineral content of the floatation tails is similar to and less than the lake sediment, and therefore the minerals appear to be benign. As consolidation of the tailings occurs, the reagents contained in the interstitial waters will be exuded and the upper layer should then be able to be re-colonized similar to the present lake. Recent consolidation testing indicates upward seepage will be minimal within 2 years of cessation of tailings depositions. Because of the reduction and dilution of mill reagents over time, toxicity is not expected to be long-term. Our review suggests nothing to lead us to suspect that tailings toxicity would preclude or hinder recolonization. To contend with the inevitable uncertainty as to how long recolonization will take, we will include in our certification of the CWA Section 404 permit contingency measures, such as capping or adding organics to deposited tails, in the event they are needed to ensure or speed re-colonization. This determination will be made by monitoring during operations, and after sufficient time has lapsed since tailings were last placed.

Coeur's consultant's prediction is that the re-establishment of aquatic life should take no more than 6 years. DEC in conjunction with the US Forest Service will require Coeur to post a bond adequate to place a cap on the tailings if this is deemed necessary. During operation numerous studies will be conducted on tailings to monitor geochemistry and recolonization, and include the use of trays of sediments in Upper Slate Lake. A fairly detailed cover design and plan, if determined necessary, may be feasible from these tests and studies. However,

the requirement for a cover, and exact details of the design would not be called for until shortly before closure. Coeur's Lower Slate Lake Tailings Storage Facility Ecological Monitoring Plan (an appendix to the Plan of Operations) provides more detail on the studies and monitoring. Recolonization is expected rapidly for aquatic life for which the combination of tailings and residual milling reagents were not found toxic, i.e. *Chironomus tentans*, or midges.

Additional testing of tails constituents and sensitive species survivability will be required, as well as in-situ testing of containers with sediment in Upper Slate Lake during mill operations. From the test trays in Upper Slate Lake it will be possible to estimate the time required to recolonize the tailings. It will also be possible to see whether a cap or organic material amendment is needed to enhance or hasten recolonization.

Coeur has committed to flooding natural sediment around the lake margin at closure as mitigation for the loss of the productive zone in the existing lake. Recolonization of the tailings will actually increase the aerial extent of productivity in Lower Slate Lake during the post-closure period.

#### **Tailings Acid Generation Potential**

**Comment.** Acid generation can occur at 0.2% sulfur; the predicted sulfur content is 0.31%. Using sulfur levels to determine ARD potential when close to the cutoff level is not acceptable. Neutralization potential of the tailings should be determined. Quarterly testing of tailings should be the minimum frequency.

<u>Response</u>: Multiple tests have shown the tailings to be non-acid generating. Should changes in ore composition result in a greater ARD potential, sub aqueous disposal will negate this effect. Sub-aerial (dry) disposal exposes tailings to oxygen, so allowing any potential ARD to develop, albeit over an extended period, possibly hundreds of years. The 401 certification, condition 13, includes the requirement for acid base accounting and the frequency of testing will be increased to quarterly to ensure no significant changes in ore composition occur and that there is no potential for ARD conditions.

# **Tailings Mobility**

**Comment.** How will fines from the tailings discharge be kept from peripheral vegetation?

<u>Response</u>: A combination of BMPs, including use of flocculants and hanging curtains will be used to contain the fines to lower depths of the TSF. The Ecological Risk Assessment (ERA) determined that there would be limited exposure to peripheral vegetation from tailings, and because toxicity is expected

to be low, bioaccumulation is not expected. The monitoring program will be designed to validate the assumptions and conclusions of the ERA, and will include an assessment of exposure of peripheral vegetation to tailings and elevated Chemicals of Potential Ecological Concern (COPECs). Additional management measures will be required if significantly elevated COPECs are found in peripheral vegetation. The dam will be constructed to enable the water level to be raised upon closure, as well as maintain adequate freeboard. When the water quality within the lake is acceptable for flooding vegetation, the lake level will be raised to inundate vegetation that has been above operational water levels as outlined in the SEIS, Volume 2, page D-9.

#### Solid Waste Management Permit

**Comment.** DEC must issue a SW permit under AS 46.03.100(a) and 900(25). A Solid Waste permit should be issued for the tailings disposal and this permit should require a bond for reclamation and post-closure monitoring.

<u>Response</u>: The 401 certification substitutes for a permit under 18 AAC 60.200(b) and the department will enforce the terms and conditions of the certification in the same way it would require compliance with a permit issued under 18 AAC 60.200 for the same activity. The USDA Forest Service will require a bond for all mine related activities, and DEC will participate in determining the amount of that financial assurance to insure adequate coverage and reserves the right to require additional financial assurance if necessary.

# Waste Water Treatment (401 Cert)

**Comment.** It is unreasonable for ADEC to certify the discharge to East Fork Slate Creek without adequate information regarding the feasibility of the treatment system, in particular the treatment method, it's ability to remove aluminum, TSS and other pollutants, how long the system will be required, and how the removed material will be disposed of.

<u>Response</u>: DEC will require adequate treatment to meet effluent limits in the NPDES permit and to meet water quality standards in the receiving water. Reverse osmosis is proven technology and is feasible and capable of removing aluminum, and polymers in conjunction with baffles within the lake are capable of settling fine particles. Adequate bonding will be required to ensure a suitable treatment system is installed and operated.

# Site Specific Criteria (401 Cert)

**Comment.** Site Specific Criteria have not been evaluated for the permit but are stated to be something for consideration and incorporation at a later date as a

permit modification. It is not even known whether it is feasible to issue Site Specific Criteria.

<u>Response</u>: It is possible that in the future natural condition site specific criteria (NCSSC) could be incorporated into the permit for aluminum. In the interim, Coeur will install a reverse osmosis treatment plant to ensure compliance with NPDES permit limits and to meet water quality standards in the receiving water, East Fork Slate Creek.

**Comment.** SSC of 1000 mg/I TDS is allowed; effects on egg fertilization are seen at 250 mg/l, possibly lower.

<u>Response</u>: In regards to discharge from the TSF, the criteria of 1000 mg/I TDS will be protective of the Dolly Varden char population in East Fork Slate Creek. A recent study (Stekoll et al., 2003) examined the effects of TDS from mine tailings on Alaskan salmonids. This study indicates salmon may be sensitive to TDS at concentrations much lower than current criteria would suggest. However, according to this study arctic char, which are very closely related to Dolly Varden char, are one of the most tolerant species to exposure to TDS, with an LOEC during egg fertilization of 1875 mg/l.

# Antidegradation Policy (401 Cert)

**Comment.** What are DEC's anti-degradation implementation procedures and guidance? If none, DEC should follow EPA's: "no significant growth or reproduction impairment". Water quality in EFSC will be lowered; DEC's antidegradation policy prohibits this in a water of exceptional ecological significance. DEC fails to ensure compliance with 18 AAC 70.015(2)(A)-(E).

<u>Response</u>: East Fork Slate Creek (EFSC) does not have any special designation. However, it does support anadromous fish and other aquatic life, so the permit requires that effluent limits be met in the discharge and that water quality standards be met in the receiving water for discharges from the tailings settling facility. In addition to requiring water quality standards be met in the receiving water, in-stream monitoring for metals and other criteria will be required in EFSC, as well as biomonitoring and bioassessment of aquatic life in that creek. These requirements will be stipulations in the NPDES permit.

#### Impacts of Extended Mine Life

**Comment.** The DSEIS and draft permits assume a mine life of only 10 years. It is likely that the mine will operate for a longer period of time. An extended mine life would extend the period of time that LSL resources would be impacted, and could affect the success of lake restoration.

<u>Response</u>: The Slate Lakes TSF is sized to hold the amount of tailings projected for the proposed development project. Once the existing TSF reaches capacity, reclamation will be required. If the mine were to operate at a lower production rate, more time would be required before the TSF reached capacity and would be reclaimed, and Slate Lake resources would be impacted for a longer period of time. Or if backfilling of tailings in the underground mine were maximized, the TSF could be in service for a greater period. DNR does not expect the success of lake restoration to be significantly affected by the period of time the mine is operated. Additional NEPA review will be required if significant change to the configuration of the mine or the resulting environmental impacts are expected.

#### Impacts to Aquatic Organisms

**Comment.** Alternatives B/C also include a very large NPDES discharge to Slate Creek which supports anadromous fish... in terms of the potential ecological pathways for exposure to pollutants, Alternatives B/C pose a higher risk than Alternatives A/A1."

<u>Response</u>: DEC agrees with this statement. It is thought that effluent from the lake would not meet water quality standards for either option B or C, and volumes would be too great for economical treatment. Accordingly these options were not selected.

# Slate Lake Reclamation

**Comment.** Data are inadequate to support the conclusion that LSL will fully support a natural aquatic ecosystem within a short time period after discharge has stopped. Successful reclamation of Lower Slate Lake following disposal of tailings is speculative.

<u>Response</u>: Based on the Ecological Risk Analysis (see FSEIS), our participation in on-going monitoring studies and development of the reclamation plan, DNR is confident that Lower Slate Lake can be successfully reclaimed to support a natural aquatic ecosystem equivalent to pre-construction conditions within the flooded natural sediment immediately and within the tails themselves in less than approximately 6 years. This conclusion is based on the following factors:

- Tailings are expected to have low toxicity and physical characteristics suitable for colonization by native macro-invertebrates. If *in situ* studies during operations determine that tailings are not being colonized, the tailings will be amended with organic material or capped.
- Hydrology of the system will not be significantly altered.

- Seed populations of fish, invertebrates, plants and wildlife native to the lake system will be available from Upper Slate Lake.
- Site-specific restoration techniques will be developed based on ongoing monitoring and testing using LSL and USL as laboratories.
- Lake depth contours can be designed to provide optimum fish and wetlands habitats.

The final reclamation plan being adopted as a requirement of the Fish Habitat Permit will include reclamation performance measures with appropriate financial assurances (bonding) to guarantee that the reclamation will be completed.

**Comment.** Need to determine how long it would take for 10 cm of natural sediment to accumulate on the bottom of Lower Slate Lake.

<u>Response</u>: Given the very low natural rates of sediment input to Lower Slate Lake, a very long time (certainly more than 10 years) would be required to accumulate 10 cm on the bottom. However, 10 cm of natural sediments would not likely be needed for adequate recolonization to occur, especially in the naturally flooded soils around the margin of the lake. If monitoring during operations determines that tailings are not being colonized because of toxicity or physical/chemical conditions, the sediment will be amended with additional organic materials or capped. A bond will be in place to ensure sufficient monies are available for a cover at closure.

**Comment.** Need information on flora and fauna expected to be recolonized and anticipated time.

<u>Response</u>: Baseline studies have adequately described the existing flora and fauna at Lower Slate Lake. It is expected that Lower Slate Lake will be recolonized by the same species as exist there now, which are similar (if not identical) to Upper Slate Lake. Additional studies will be conducted as part of the ongoing monitoring program to characterize the flora and fauna of Upper Slate Lake. Recolonization would be expected to be complete within 6 years.

# COMMENTS ON FISH HABITAT PERMITS

### Slate Lake Fish Habitat Permit

**Comment.** The Fish Habitat Permit for the tailings impoundment contains stipulations that require *future* approval of more detailed plans and specifications that have not been reviewed and approved when the permit is issued. This is not consistent with requirements of AS 41.14.840 that states "plans and specifications [for fish passage] shall be approved by the deputy commissioner *upon application* (emphasis added).

<u>Response</u>: Fish Habitat Permits for complex projects, such as large mines and hydroelectric projects often include authorization that is subject to future review and approval of more detailed plans and specifications for specific project elements. This approach allows DNR to make a determination of whether the activity will be authorized and under what conditions, but provides additional time for the applicant to complete more detailed designs and planning. From our review of plans and specifications provided by the applicant, including conceptual designs for the dam and fishway, and drafts of monitoring and restoration plans, ADNR has determined to authorize the project. However, *before construction can begin* the applicant must gain final approval of the design for the dam and fishway, a plan for stream diversion during dam construction, a fish and water quality monitoring plan and a restoration plan to ensure the project is constructed, operated and closed in accordance with the intent of the permit.

**Comment.** Will out-migrating fish from Upper Slate Lake be able to transit the diversion pipeline successfully?

<u>Response</u>: A weir will be incorporated into the diversion structure to capture outmigrating fish. As part of the monitoring study to document the extent of downstream migration, these fish will be counted and other data collected (size, weight, etc.) prior to physically relocating them around the TSF. As an alternative to the "catch and release" procedure, the diversion pipeline will be evaluated to determine whether fish can safely transit the pipeline.

**Comment.** How will OHMP provide for upstream migration between Lower Slate Lake and Upper Slate Lake if deemed appropriate, in the face of a pipeline diversion?

<u>Response</u>: Passage for upstream migration is not currently possible as there are natural instream barriers, and will not be required during TSF operations. The decision whether to provide upstream passage between the two lakes will be based on results of the monitoring program. At project closeout the pipeline diversion will be removed, and modifications to the channel of Mid-Lake Slate Creek will be considered to facilitate upstream movement between the two lakes.

**Comment.** The draft Fish Habitat Permit requires that the lake be restored as described in the *reclamation plan*, which would constitute the compensation requirement of AS 41.14.850. It is premature for DNR to authorize the project until the reclamation plan is finalized.

<u>Response</u>: The applicant has submitted a draft reclamation plan for review. As stated in the draft Fish Habitat Permit, the reclamation plan must be approved by DNR-OHMP prior to construction, and will be periodically reviewed and updated based on the results of the ongoing fish and water quality monitoring plan.

**Comment.** The applicant must demonstrate that dumping tailings in Lower Slate Lake will not result in extirpation of fish during mining operations.

<u>Response</u>: In light of the proposed pipeline diversion and recent biological monitoring DNR-OHMP anticipates that the population of Dolly Varden char in Lower Slate Lake will be extirpated. The extirpation of this population will be authorized in the Fish Habitat Permit. The applicant will be required to restore the fish population and habitat in Lower Slate Lake after closure.

**Comment.** Loss of the fish resources in Lower Slate Lake should be compensated for per AS 41.14.850 now, rather than rely on potential reclamation many years down the road.

<u>*Response:*</u> Because loss of the fish resources will be temporary, DNR-OHMP accepts the restoration project and the scientific value of the required monitoring program as adequate compensation for loss of the fish resources in Lower Slate Lake.

**Comment.** Clarify what is meant by "the approved plan" referenced in the last paragraph of page 3 of the draft Fish Habitat Permit.

<u>Response</u>: The approved plan referenced in the Fish Habitat Permit encompasses the description of work to be performed (the project) and all stipulations included in the authorization. This includes construction of the dam, fish and water quality monitoring, and reclamation.

**Comment.** Rationale for permit issuance is premature because some the relevant facts, such as tailings toxicity have not been resolved.

<u>Response</u>: The final Fish Habitat Permit reflects updated information from fish habitat studies, tailings toxicity, etc. and will incorporate appropriate mitigation requirements such as capping to eliminate toxicity.

**Comment.** The conclusion that the TSF "should not have an overall negative impact to … wildlife resources" is overreaching as wildlife is not regulated under fish habitat permits.

<u>*Response:*</u> AS 41.14.870(d) requires approval of plans and specifications for the "proper protection of fish *and game* (emphasis added)…"

**Comment.** Fish Habitat Permit – Coeur requests the ability to participate in the decision-making process with respect to fish passage and fish relocation programs with the TSF.

<u>*Response:*</u> DNR-OHMP policy is to work closely with applicants when planning and executing these requirements.

#### Johnson Creek Fish Habitat Permit

**Comment.** Fish Habitat Permits for Johnson Creek – Coeur would like to reserve the right and work with DNR to limit the amount of instream and streambed work to the extent that the existing abutments may be utilized for the bridge construction and location of the infiltration gallery.

<u>Response</u>: DNR supports any approach to minimizing disturbance to streambanks or streambeds during construction of bridges and the infiltration gallery. Bridge design and construction standards, of course, must be consistent with USFS standards.

# COMMENTS ON WATER USE AUTHORIZATIONS

#### Johnson Creek Water Right Permit (LAS 24432)

**Comment.** Coeur's comment on the Johnson Creek Draft Water Right Permit (LAS 24432) is a request to "review the reasoning and calculations used by ADF&G in determining the recommended minimum stream flows," and a note to the effect that additional information "will aid the development of acceptable streamflow minimums."

<u>Response</u>: ADNR/Water Resources has received Coeur's latest Johnson Creek stream gage data (up to 5 April). This has been reviewed, along with ADF&G's final instream flow recommendation that the water right permit carry a condition establishing a required instream flow of 2.5 CFS during the months of November through April, with no required instream flow during the remainder of the year. OHMP has concurred in this recommendation, and Coeur has indicated that it can operate in accordance with this requirement.

**Comment.** SEACC comments (p. 17) that a permit to appropriate water from Johnson Creek is unnecessary, since Lower Slate Lake is available and appropriate for mill process.

<u>Response</u>: ADNR/Water Resources has asked Coeur to consider ways to reduce the mill's water needs and to consider alternative sources, including Lower Slate Lake. Coeur has done so and has responded with an amendment to their water right application that reduces the amount of Johnson Creek water requested from 0.68 CFS to 0.35 CFS.

**Comment.** SEACC comments (pp. 17-18) that "... DNR will need to resubmit the draft permit for additional public notice and comment once the department finalizes an instream flow schedule."

<u>Response</u>: The Alaska Water Use Act requires DNR to give notice of its receipt of a water right application; it does not require notice of a preliminary decision or draft permit. DNR/Water Resources included a draft permit with the public notice of this water right application to provide more information and, since the public notice was consolidated with other authorizations, to harmonize its public notice with those of other authorizations whose statutes do require that public notice include preliminary decisions or draft permits. No further public notice on the water right applications is required.

The decision on this water right application and on its instream flow condition is based on hydrologic and aquatic habitat data available up to now, on the

instream flow recommendations of ADF&G, on comments on the public notice, and on other relevant evidence of record.

The location of the instream flow monitoring point downstream from the infiltration gallery is a technical matter dependent on site-specific stream conditions and the locations of other planned infrastructure. The stream gaging plan that Coeur must submit to DNR will be reviewed in consultation with ADF&G. The exact gage location does not have to be determined prior to permit issuance.

#### Slate Creek Water Right Permit (LAS 24486)

**Comment.** Coeur's comment on the Slate Creek Draft Water Right Permit (LAS 24486) is a request to "review the reasoning and calculations used by ADF&G in determining the recommended minimum stream flows." Coeur notes that Slate Creek receives a portion of its flow from West Slate Creek. Coeur comments on East Slate Creek fish habitat matters. Coeur notes that "additional flow information and project design for the tailing storage facility will also aid in the determination of minimum flow requirements."

*Response:* Coeur has not submitted additional information regarding ADF&G's East Slate Creek instream flow recommendations, or additional hydrologic data for East Slate Creek. Because ADNR/Water Resources intends that these instream flow conditions would not require the maintenance of instream flows higher than concurrent inflows to the reservoir (in other words, higher than "natural" flows), we believe Coeur's concerns in this regard are moot.

Regarding the portion of flow from West Slate Creek, this water right, although sometimes known as the Slate Creek water right, will be for East Slate Creek only. This instream flow requirement is based only on East Slate Creek hydrologic data.

Regarding Coeur's comment that "additional flow information and project design for the tailing storage facility will also aid in the determination of minimum flow requirements", ADNR/Water Resources welcomes any additional data, but believes that sufficient information exists to justify the instream flow requirement.

We note that since ADNR/Water Resources does not intend to require the maintenance of instream flows higher than concurrent inflows to the reservoir (in other words, higher than "natural" flows), the permit will contain a qualifier to the instream flow condition. The condition reads substantially as, "Maintain within East Slate Creek downstream from the tailings impoundment dam, stream flows not less than the flow amounts in the following schedule, or natural Lower Slate Lake inflow if inflow is concurrently less than the otherwise required flow: January 2.7 cubic feet per second (cfs)

February – March	3.5 cfs
April	1.9 cfs
May – August	2.2 cfs
September – October	5.7 cfs
November – December	2.7 cfs

This means that the flows required in the stream below the dam will never have to be greater than the concurrent "natural" flow under low flow conditions, and the reservoir will never have to be drawn down to meet the flow rates listed in the schedule. It does mean, however, that the reservoir will not be allowed to fill at the expense of the required instream flows in the schedule. This does not, of course, preclude increases in reservoir elevations resulting from tailings deposition in the TSF. These requirements are commensurate with reservoir management to achieve approximately constant water levels and coverage over the tailings.

**Comment.** SEACC comments (p. 18) that the draft permit appears to envision a pipeline diversion of water from Mid-Lake Creek around Lower Slate Lake, and states that public review of the permit is premature because the pipeline diversion alternative had not received NEPA review.

<u>Response</u>: SEACC is correct that the draft permit envisions a pipeline diversion of water from Mid-Lake Creek around Lower Slate Lake. This is the water diversion and use configuration that has been applied for. A water right authorization under AS 46.15, the Alaska Water Use Act, does not require NEPA review. The Act does require that DNR, in adjudicating the application, consider the "intent and ability of the applicant to complete the appropriation" (AS 46.15.080(b)(7)). The Final SEIS has reviewed this project feature, which has been included in the USFS ROD. Therefore, Coeur does not lack the ability to complete the appropriation because of any lack of required federal review or authorization for this project feature. The water right will contain the standard condition requiring that all necessary federal, state, and municipal authorizations be obtained.

**Comment.** SEACC states (p. 18) its understanding that water flow in the diversion pipeline may vary, and therefore asks if DNR should not require an instream flow for Mid-Lake Creek, in consultation with OHMP.

<u>Response</u>: Water flow in the diversion pipeline is expected to vary. DNR/Water Resources has been informed by OHMP and ADF&G that an instream flow in Mid-Lake Creek will not be required. The intent is that fish from Upper Slate Lake should be prevented as much as possible from entering Lower Slate Lake and that the diversion structure will serve this purpose. Further, much of Mid-Lake Creek below the diversion structure will become part of Lower Slate Lake once it is flooded to the projected elevation.

#### **Precipitation Data**

**Comment.** Mr. Brakel comments on precipitation data used in estimating streamflows, notes the possibility of Eldred Rock data resulting in estimates that are too low, notes the different snowpack conditions between Auke Creek and Slate Creek, suggests that the Juneau Access studies on climate and snowfall may provide useful information, and requests that permits be changed to reflect the potential for greater precipitation and snowfall.

<u>Response</u>: A DNR hydrologist has reviewed the data Mr Brakel critiques and suggests in his comments. Coeur has gathered additional streamflow data, which reduces the reliance on precipitation data. DNR/Water Resources has made its decisions on issuance of the water right applications based on hydrologic data and other relevant analysis available up to the time of decision. If these drainages actually receive more precipitation than is reflected in the streamflow data we have used, our decisions regarding the availability of water for the proposed water uses will turn out to have been more conservative than we had assumed.

# COMMENTS ON TIDELANDS LEASES

### **Public Trust Doctrine**

**Comment.** Reasonable and traditional access to state land and water must be preserved so as to protect the public trust resources of Berners Bay; the proposed industrial port facilities will substantially impair navigational and anchorage interests in Slate Creek Cove and Cascade Point. (SEACC, p.14-16)

<u>Response:</u> The tideland lease authorizations are issued subject to the Public Trust Doctrine. The State does not believe anchorages are impaired-- Cascade Point is not recognized as an anchorage; Slate Creek Cove is recognized as an anchorage but the proposed tideland lease would not displace the prime location for anchoring at the head of the cove. It is recognized that small boat navigation may be slightly diminished, particularly at Cascade Point due to the location of the breakwater, local currents and exposure; however, navigation would also be enhanced due to the port facility. Through its public trust responsibility the State weighs the wide range of competing interests and considers the impacts and benefits to find an appropriate balance. The State feels it has met its responsibilities under the Public Trust Doctrine, and that reasonable and traditional access to State lands and waters is preserved.

#### **Environmental Risk**

**Comment.** The lease applications do not contain an adequate environmental risk assessment for DNR to make a reasoned decision of the impacts from construction and use of both the Slate Creek Cove and Cascade Point proposed port facilities.

Low levels of recreational boating have a measurable affect on PAH levels; PAHs have been shown to cause [negative effects] to herring. The findings and decision fail to protect public resources by not discussing the possibility of hydrocarbons affecting fish and wildlife.

ADNR must place the burden of proof on the applicant to show the proposed activities will not harm public trust resources.

The harbor facilities are being constructed in known spawning areas for spawning herring, the long-term affect of galvanized piling materials should be addressed. Are there construction materials that are less harmful to herring development?

The risk of spilling oil and contaminated substances may cause irreversible damage to natural resources. The lease should require that all spill prevention sites and practice drills are checked off as acceptable by the USCG. A plan of operations for oil clean up in shallow water should be prepared.

<u>Response:</u> According to DMLW policy, under AS 38.05.035(a) environmental risk assessment is defined to "[mean] an evaluation of the environmental risk

associated with the proposed activity on a parcel of state land... to determine if there is a potential for contamination or site degradation from the proposed activity due to toxic and/or hazardous substances/wastes or petroleum projects." The evaluation is not meant to be a comprehensive environmental risk analysis, but an assessment from the perspective of DMLW's proprietary authority. The applicants will have to meet the local, state and federal requirements of regulatory agencies such as the Alaska Department of Environmental Conservation, U.S Coast Guard, Environmental Protection Agency, whose responsibilities are to protect the lands and waters from environmental risks. This project is subject to multiple agency review and DMLW coordinates with regulatory authorities to ensure environmental protection. In addition, DMLW relies upon the Environmental Impact Statement and Environmental Risk Assessment accomplished as per the National Environmental Policy Act.

DNR has reviewed the available information relating to risks from construction and operations of the facilities to marine resources in Berners Bay. Our review has included recent research on PAHs conducted by the Auke Bay Laboratories. The State's position is that with appropriate construction timing restrictions, best management practices (BMPs) and operational restrictions during the herring/eulachon spawning period, important habitats and marine resources will be protected. The applicant has agreed to fund NMFS to monitor PAHs in Berners Bay on an ongoing basis. DNR will require these controls as conditions for consistency with the ACMP and compliance with the tidelands leases.

#### Fuel Storage/Slate Creek Cove

**Comment.** ADNR states that the applicant has not proposed any fuel storage at Slate Creek Cove. This is erroneous, because there is at least one generator at the cove site which will require fuel storage. The tideland lease must consider the impacts of fuel, oils etc.

The operation plan states that the fueling of barges will be conducted at Slate Creek Cove. What is the frequency?

<u>Response</u>: Fueling operations at Slate Creek Cove are not going to occur on the tideland lease. Fuel use is located on USFS uplands, therefore that risk was not considered in making a determination on the tideland lease. During construction there will be seven barges per week; during operation three to four barges per week. The barges will deliver fuel in isotainers; each isotainer has a capacity of 6,500 gallons and up to 9 isotainers per week will be delivered during operations. They will be stored at Slate Creek Cove above mean high water, the mine portal and the process area. Barges will not be fueled at Slate Creek Cove, and the generator will be located above mean high water (not on the tidelands lease). Agency requirements are as follows:

- EPA: 40 CFR 112 requires a Spill Prevention, Control and Counter Measures (SPCC) plan for storage of greater than 1320 gallons. This is prepared by a professional engineer and kept at the site.
- USCG: The Coast Guard does not regulate facilities where vessels have less than 10,500 gallons of oil capacity, unless the Captain of the Port changes the status of the MTR based on risk to the environment.
- ADEC: ADEC does not regulate facilities with less than 10,000 barrels (420,000 gallons) of non-crude oil. Facilities with less than 10,000 barrels are self-regulated.

#### Life of the Mine

**Comment.** The Kensington Mine will last longer than expected. The finding and decision for the tideland lease does not consider the real length of the mine project. The actual scope of the proposal needs to be determined before it can properly evaluate the tideland lease decision.

<u>*Response*</u>: It is standard policy to issue tideland leases for 25-year period. If the mine closes and reclamation of the site occurs prior to 25 years the lease can be relinquished and closed. If continued use of the development is required after 25 years another best interest finding and decision would be necessary.

#### **Performance Guarantee**

**Comment.** Site restoration and performance guarantee should be reconsidered because the rubble mound breakwater will naturalize and provide habitat such that future removal would cause the loss of habitat.

Coeur requests the opportunity to reconsider the reclamation requirements for a loading ramp/breakwater installed and assimilated as aquatic habitat. The environmental benefits of leaving the structure in place seem to outweigh any liabilities associated with the docking facility once the associated infrastructure is removed.

The Performance Guarantee is low; the amounts should be tripled to account for cleanup of petroleum residues and site reclamation and considering inflation.

The tidewater facilities should be removed when operation of the mine is over; and restoration should consist of returning the land to the pre-dredge and fill bathymetry.

Coeur requests the opportunity to reconsider reclamation requirements for a loading ramp. There are environmental benefits to leaving fill once the infrastructure has been removed.

<u>Response</u>: DMLW concurs that after considerable length of time fill material may naturalize and provide habitat, such that the removal and reclamation to predredge and fill bathymetry could have negative impacts to habitat. However, DMLW believes that the decision of how much material should be removed from the site should be made at the time of the closure, based on the conditions of the site at that time.

DNR believes that the specific removal plan for the breakwater should be contingent on the required marine monitoring plan to determine the habitat value of the breakwater once it has been colonized by marine organisms. For example, if the breakwater proves to provide significant herring spawning habitat, it could be counter-productive to dismantle it as part of final site reclamation activities. OHMP recommends at reclamation that, at a minimum, the proposed breach at the shoreline be extended to the mean low tide line to allow alongshore fish passage at most stages of the tide.

The performance guarantee necessary to reclaim the tideland lease site will include an amount sufficient to remove the entire fill volume and other portions of the development. The performance guarantee for the Slate Creek Cove marine terminal will be a part of the general mine bond; the performance guarantee for Cascade Point will be separate from the general mine bond. DNR has determined that these bond amounts are sufficient. Regardless of the amount retained in Performance Guarantee, should the contamination occur, the responsible party will be liable for clean-up. Also, under 46.03.780 ADEC can recover costs from the responsible party for damage to the environment from a pollution incident.

#### Lease compensation (land use fees)

**Comment.** Concern was expressed about the discretion in setting annual lease fees. The spectrum of possible use fees range from reasonable to ruinous. Will there be an equitable fee negotiation process between the State and Goldbelt?

<u>Response</u>: Fees will be set in accordance with the decision; DNR is statutorily obligated under 38.05.075(a) to maximize return to the state. It would not be in the best interest of the State to charge a fee that is ruinous to lease operation because there would no longer be revenue. While not specifically mentioned, DMLW believes this comment was directed to the commercial recreation component of the lease compensation. The CBJ conditional use permit does not allow commercial recreation activities at this time, however, if this changes in the future, such uses will be governed by the provisions of the lease.

# **Public Access**

**Comment.** Coeur Alaska would like to reserve the right to ensure participation in determining the amount of public action based on MSHA regulations dictating mine activity. Coeur would like to comment that any inspectors acting on behalf of the state will be required to abide by MSHA regulations concerning visitors to the minesite during operations.

<u>Response</u>: As per the draft decision, in order to control public action Coeur Alaska is required to complete a road management plan to be approved by DMLW. In reviewing and approving this plan DMLW will consider all applicable health and safety requirement. State inspectors will abide by MSHA regulations.

#### **Operations and Level of use**

**Comment.** Goldbelt's proposed operations and tourism plan is vague. They indicate one boat in their narrative but illustrate two vessels in their diagrams. The overall proposed use of the lease is indeterminate and therefore it is difficult to assess the impact of this lease on the current recreation and environmental conditions. The proposed use of the facility should be more clearly described.

<u>Response</u>: DMLW believes sufficient information has been provided regarding general operations to make an informed decision to lease State tide and submerged lands. While it is true that Goldbelt's tourism plan will require additional information, measures including reporting requirements and separate commercial recreation fees would be applied to provide appropriate lease management. The CBJ conditional use permit currently does not allow commercial recreation activities; future proposed activities will require consultation with DMLW and be subject to the terms of the lease.

# **Boat Traffic**

**Comment.** It is not clear what the volumes of barge traffic are going to be at Cascade Point. There are no restrictions or mention of alternative transit schedules for the daily ferry and barge trips during peak periods of biological activity, which is common in other industries (e.g. forestry, fishing). Mid-April to Mid-May is a time of peak activity for fisheries resources in Berners Bay. The effects of boat traffic on these resources are unknown and restrictions should be put in place. The number of trips should be restricted, and travel should be restricted for a month when peak biological activity is present. The actual number of boat trips is complicated; a table with weekly schedule of boat traffic should be provided and published. The increased amount of traffic will impact the current uses of Berners Bay.

<u>Response</u>: The Cascade Point facility will not be used to support barges. The tidelands leases require compliance with the DNR approved Coeur's *Berners Bay Transportation Policy and Mitigation and Best Management Practices Plan.* If individuals want to avoid traffic, information will be easily obtained by contacting the companies.

DNR will restrict Cascade Pt. vessel traffic and fueling during the herring spawning period. During the eulachon spawning period, Coeur will reduce ferry traffic to 3 trips/day.

#### Sewage disposal

**Comment.** No sewage disposal system is described in the proposal. Where will human waste be disposed? Will untreated human waste be discharged in Berners Bay? This will cause concentration at the head of the bay. Please consider further study of currents or options for sewage treatment and removal at Cascade Point.

<u>Response</u>: Sewage from the main facilities at the mine will be treated then discharged in accordance with NPDES permit requirements to Lynn Canal, just as any other marine discharge. For Berner's Bay the USCG regulates discharge of sanitary (and other wastes). Vessels are required to have an approved Marine Sanitation Device or holding tank. Coeur's Transportation Plan indicates that sewage from ferries would be pumped from the vessel holding tank and disposed of at approved land-based facilities. Applicants are subject to other regulatory requirements through the US Coast Guard and Alaska Department of Environmental Conservation and are expected to comply with those requirements.

#### **Construction timing**

**Comment.** There was no mention in the lease decisions of construction timing in relationship to fisheries resources, including crab.

*Response*: The authority to regulate construction timing to protect fisheries is vested in the US Army Corps of Engineers, and their Section 404 permit for the tidelands work includes restrictions on construction during critical periods. A prohibition of in-water construction activities during March 15 through June 30 will be required for consistency with the ACMP or incorporated in the tidelands lease.

#### Monitoring

**Comment.** It is not stated who will be the responsible monitoring agency and at what intervals inspections will occur to see if all oil spill prevention devices, runoff filters, and harbor maintenance procedures are occurring and/or in place. Fish and wildlife monitoring should be conducted year around, before and after monitoring.

<u>Response</u>: A monitoring program including water quality (PAH), submerged aquatic vegetation, colonization and habitat value of the breakwater, and documentation of herring spawning will be required as part of the tidelands lease. Monitoring began in the summer of 2004 and will continue during and following construction. In addition, marine mammals and seabirds will be added to the existing monitoring program to address NMFS requirements as outlined in the Biological Opinion. EPA requires an SPCC plan for the facility and can conduct inspections at any time. The company will also be self-inspecting to ensure compliance with their site-specific best management practices and the EPA SPCC plan. Coeur will be required to comply with their Marine Monitoring Plan (an appendix to the Kensington Plan of Operations).

#### Site Closure

**Comment.** A system should be demanded that will close the marine facilities if maintenance does not occur, the safety and clean up items are unavailable and spill response drills are ineffective.

<u>Response</u>: DMLW has the authority to terminate a land use authorization for noncompliance.

#### **Marine Impacts**

**Comment.** Providing adequate protection for out-migrating salmon smolts will help ensure a commercial harvest.

<u>Response</u>: Salmon out-migrating from local streams are most vulnerable to impacts from in-water construction activities, such as pile driving, dredging and filling. In-water construction will be prohibited during the period juvenile fish are expected to be near shore (March 15 through June 30). During operation of the marine terminals, oil spills are also of concern. Risk of spills will be minimized by limiting fueling operations to the Cascade Pt. dock, requiring stringent fuel handling BMPs, containerizing fuel delivered at the Slate Cove terminal, and requiring spill contingency planning and response capability.

**Comment.** Ferry and barge operations could impact salmon smolts, herring, eulachon and marine mammals during mid-April to mid-May, a critical time period for these species. Timing restrictions on operations would be appropriate.

<u>Response</u>: Timing restrictions will be applied to construction and operation of the Slate Creek Cove and Cascade Point docks to protect fish and marine mammals during the critical spring period. These restrictions will be included in the ACMP consistency requirements and tidelands leases. DNR will determine appropriate construction and operational restrictions to protect fish resources. NMFS will recommend appropriate restrictions to protect marine mammals.

**Comment.** Galvanized pilings, which are proposed for dock construction, pose some toxicity to eggs and larval fish. Are there less toxic alternatives to galvanized steel?

<u>Response</u>: Galvanized steel is one of the least toxic alternatives for pilings. Other options include concrete, plastic and treated and untreated wood. All have advantages and disadvantages. Because of relatively low toxicity and structural and construction considerations, galvanized steel is an appropriate choice.

#### Spill Prevention and Response

**Comment.** Spill response planning and capability needs to be more detailed and robust in areas near mouths of streams because of wind and currents and biological importance. What agency will be responsible for monitoring compliance with spill prevention and other pollution control BMPs at Berners Bay?

<u>Response</u>: ADEC does not require the development of site specific pollution response strategies by non-regulated facilities. However, ADEC does recommend that facility operators develop site-specific strategies for their facilities and especially where significant impacts to highly sensitive resources could occur. This would be applicable to Slate Creek, Johnson Creek, Berners, Lace, and Antler rivers, as well as herring spawning habitat. Some planning has already been done for this area. The company will include a set of site-specific strategies as part of its SPCC Plan.

# OTHER COMMENTS

### Aquatic Resource of National Importance (ARNI) Designation

**Comment.** The cove is integrally connected to Berners Bay, designated in 1998 by EPA as an aquatic Resource of national Importance (ARNI). Slate lake & EFSC are tributaries to Berners Bay, a water body that qualifies as an Outstanding National Resource Water.

<u>Response</u>: In 1998 EPA designated Berners Bay as an Aquatic Resource of National Importance. This does not necessarily mean that it is an Outstanding Natural Resource Water "ONRW" under 18 AAC 70.015(a)(3). DEC considers this a sensitive receiving water body and has required adequate treatment in the 401 certification to insure that the effluent limits in the NPDES permit will be met and that the water quality standards will be met in the receiving water. In addition to this, the monitoring of waters and biomonitoring in East Fork Slate Creek and Johnson Creek will also ensure protection of waters in Berners Bay.