



Public Interest Analysis on Ports Options



Prepared for
Yukon Government, Economic Development

Submitted by
Gartner Lee Limited



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Acronyms used in this Report

AAC	Alaska Administrative Code
AIDEA	Alaska Industrial Development and Export Authority
AMHS	Alaska Marine Highway System
AML	Alaska Marine Lines
AMSA	Area Meriting Special Attention
AS	Alaska Statutes
BLM	United States Bureau of Land Management
CFR	Consolidated Federal Regulations
CMP	Coastal Management Plan
COE	United States Army Corps of Engineers
CPQ	Coastal Project Questionnaire
DEC	Alaska Department of Environmental Conservation
DFG	Alaska Department of Fish and Game
DNR	Alaska Department of Natural Resources
DOT	Alaska Department of Transportation
DPS	Alaska Department of Public Safety
EA	environmental assessment
EIS	environmental impact statement
EPA	United States Environmental Protection Agency
FAA	United States Federal Aviation Administration
FERC	United States Federal Energy Regulatory Commission
FLPMA	Federal Land Policy and Management Act
FRA	United States Federal Railroad Administration
HCMP	Haines Coastal Management Plan
NEPA	National Environmental Policy Act
NPDES	National Pollution Discharge Elimination System
NPS	United States National Park Service
OPMP	Office of Project Management and Permitting
PARN	Pacific and Arctic Railway and Navigation Company
PMS	Petro Marine Services
POL	Petroleum-Oil-Lubricants
SCMP	Skagway Coastal Management Plan
SCP	Skagway Comprehensive Plan
SHPO	Alaska State Historical Preservation Office
STC	Skagway Terminal Company
USC	United States Code
USCG	United States Coast Guard
USFS	United States Forest Service
WPYR	White Pass and Yukon Route

1. Introduction

This final project report outlines the issues and challenges that will be faced in the utilization of ports primarily by Yukon mining operators shipping product to market.

The project started with the examination of six port options:

1. Skagway, Alaska;
2. Haines, Alaska;
3. Stewart, British Columbia;
4. Hyder, Alaska;
5. North Yukon;
6. N.W.T. Port in the Mackenzie Delta region.

Our high level preliminary examination of these options was presented in the March 2007 Preliminary Report.

During the intervening weeks, the port scenarios under review have narrowed considerably. The two principle options under detailed review here are:

1. Skagway port realignment scenario for short to medium term use; and
2. Haines port scenario for long term, large volume shipping (e.g., iron ore from the Crest deposit)

Gartner Lee's responsibilities are to review three key areas important to the development of a ports strategy for the Yukon. We are tasked with review of potential environmental challenges, land use considerations and finally the regulatory considerations faced by any substantive port development or port access projects.

This report helps set the context for a ports strategy, but does not constitute a formal environmental assessment or environmental site assessment. A full picture of the environmental, land use and regulatory considerations can only be developed if a formal "project" is submitted for review.

2. Ports Regulatory and Land Use Issues

The purpose of this report is to provide advice on possible land-use and regulatory issues that may arise in connection with the construction, operation or use of port facilities in one or the other of a number of locations for the import or export of Yukon freight.

In this report, a distinction is drawn between land-use issues and regulatory issues. Land-use issues are concerns for the construction, operation and use of port facilities arising out of the existing or foreseeable use of land by others. By contrast, regulatory issues relate to government approvals, permissions or obligations that must be complied with by those proposing to construct, operate or use a port facility.

As three of the port options, including the two main options, are located in the State of Alaska, the general legal, administrative and social context for their land-use and regulatory issues will not be described separately for each port. Rather, they will be described once, as part of this introduction. Because the remaining port options (Stewart and North Yukon) are in different jurisdictions in a different country, these matters will be covered in less depth and together with the rest of the discussion for those particular options.

Land Use Issues

The term “land use” involves the following:

- the actual use of public or private land by the public generally as well as by individuals, whether or not the use is authorized or even recognized in law;
- the “private” ownership of land and the rights, restrictions and obligations that go with private ownership, such as the right to occupy and “use” the land, the right to allow others to use the land, the right to exclude trespassers, riparian rights, and the obligation to pay taxes;
- the public ownership of land and the rights and restrictions that go with this special type of ownership (which are in addition to most of the rights of private ownership), including statutory rights and restrictions.

Discussion of land-use issues therefore requires a description of the actual uses of land as well as legal rights which may or may not be in evidence. Private land ownership may be in fee simple, or it may involve a lease, sublease or other form of tenure from a public- or private-sector owner. The existence of some private interests in land is made known, usually, by the existence (and, especially, “registration”) of surveyed lots. Information about all the rights contained in leases and other agreements relating to the use of land, however, is not necessarily available to the public. An exception may exist, for example, where a

government body (such as the City of Skagway) is a party to the agreement and is required to approve the lease by some public process (such as passing an ordinance).

Most private uses of land, actual or potential, are generally governed by zoning (or similar) legislation. The use of public land is frequently governed by this type of law, but, usually, other legislation also applies. Discussion of the potential uses of land must be tempered by consideration of zoning and similar legislation that is already in place, as well by the possibility of future additions and amendments. Zoning for properties other than those under consideration for use in the shipment of Yukon freight will be described, where relevant, as a part of the “land-use” discussion.

Regulatory Issues

Authority to regulate port construction, operation and use is based, ultimately, on the jurisdiction of the different levels of government and the agencies through which they operate. Although this assumes that the different jurisdictions of different governments are fully realized in the government agencies that have already been established, sight must not be lost of the possibility that future governments will find new and unforeseen ways of regulating ports and access to ports. For the time being, however, the regulatory issues are defined, first, by the respective jurisdictions of the existing agencies and, second, by the specific regulations they have put in place. Zoning for particular port options and related facilities will be dealt with as a “regulatory issue.”

2.1 Alaska Land Use and Regulatory Context

2.1.1 Introduction

Land-use and land management policies are generally determined by land ownership. Land ownership in Alaska is subdivided as follows: federal, state, municipal and private.

2.1.2 Land-Use Issues

Generally speaking, the law relating to land-use (apart from local control of land-use through zoning and similar legislation) is the same in both Haines and Skagway. In other words, although the specifics of the zoning regulations may be different, the legal foundations for enacting and administering the regulations has the same root in State law. Except for this type of legislation, neither the common law nor the federal or state statutes draw a distinction between one place or the other. Thus, for example, the riparian rights of a landowner in Skagway are the same as for a landowner in Haines, except to the extent that they may have been affected by a local regulation put in place by an authority having local jurisdiction. Where relevant, any such distinctions will be sought out and described in the separate discussions of the land-use situations in Skagway and Haines.

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Federal Interests

Federal lands in Alaska can be categorized as follows: general federal lands administered by the Bureau of Land Management; Conservation units administered by the National Park Service, Fish & Wildlife Service, and Forest Service; and military lands controlled by the Department of Defense.

Land ownership patterns in Southeast Alaska are dominated by Federal ownership. This ownership consists of the Tongass National Forest and several conservation units.

State Interests

Under the *Alaska Statehood Act*, the State of Alaska was given the right to select and own approximately 104 million acres of land. The 1952 *Navigable Waters Act* also gave the state ownership of those lands underlying navigable waters.

The State of Alaska also is entitled to all river bottom lands within navigable rivers in Southeast Alaska, as well as tidelands. Alaska Statute Title 38 is the underlying set of laws that defines use of state lands.

Local (municipal) Interests

The State of Alaska was given limited selection rights within the national forest for the purpose of community expansion and recreational activities. Accordingly, Alaska statutes provide a municipal entitlement process which grants local governments a percentage of state land for these purposes.

Private Interests

Private lands in Alaska consist of ownership by private individuals, Alaska Native Regional and Village Corporations.

The *Alaska Native Claims Settlement Act* gave the regional and village corporations selection rights to federal lands within the southeast.

2.1.3 Regulatory Issues

The regulatory context for Alaska is generally set by three federal legislative acts. The *National Environmental Policy Act* (NEPA), the *Water Pollution Control Act*, and the *Clean Air Act*. These laws define the regulatory and permitting regimes for projects in Alaska. Federal agencies that have regulatory authority over site or land management responsibilities are required by NEPA to review activities that occur to assure consistency with NEPA. On state, municipal and private land, if one or more federal permits are required by these Acts then an environmental assessment (EA) or environmental impact statement (EIS) may be required. The state and local regulatory regime is driven by state and local

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statutes, regulations and ordinances that are equal to or more restrictive than the federal law. State and local land management plans also help set policy for regulatory purposes.

Before Alaska was granted statehood in 1959 much of Southeast Alaska was part of the Tongass National Forest. Management was driven by a multiple-use philosophy, with logging, mining, commercial fishing and subsistence the primary uses. Since statehood in 1959, management of activities on federal lands has become more restrictive over time. In 1980, Congress passed the *Alaska National Public Interest Lands Act*, creating several conservation units within the Tongass National Forest. Congress also passed the *Federal Land Management Policy Act* impacting those lands managed by BLM. Activities within the Tongass National Forest are now managed under the Tongass Land Use Management Plan.

All three levels of government have regulatory agencies with jurisdiction over one aspect or another of the construction, operation and use of a port facility. Although each agency has its own statutory sources for its authority, the interest of all agencies in a new work or undertaking is effectively triggered by a single process that applies to all new construction projects. This is the Coastal Management Program, which is discussed below.

To understand the nature and extent of the regulatory influence of each federal, state or local agency in Alaska, therefore, one must figure out the extent to which the project will affect an interest within agency jurisdiction. For example, the US Army Corps of Engineers (COE) will, through the Coastal Management Program, learn of any project involving the placement of structures or materials in navigable coastal waters. The breadth and depth of the review the COE will require depends more on the location and nature of the proposed works than on the size of the undertaking. Thus, for example, the effect of a small project on marine ecosystems may well require very similar information-gathering and analysis as for a larger project. Once a review has been triggered, however, bigger works do tend to have bigger effects on the interests under agency protection, and they do tend to involve a greater need (and more options) for measures to mitigate these effects. Accordingly, bigger projects do tend to attract more attention from agencies and the public, and this can complicate the review process with respect to different agencies.

Federal Agencies

US Army Corps of Engineers – Created by Congress in 1779 by the *General Survey Act* the corps is required to survey routes for roads and canals of national importance. The *Rivers and Harbors Act* (1899) gave the corps authority to regulate obstructions to navigation. In 1972, the *Federal Water Pollution Control Act* (section 404) gave the corps authority to regulate dredge and fill activities within waters of the United States.

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Permits and Authorizations

- Wetlands determination, (*Federal Water Pollution Control Act*, Sec 404, 33 USC 1344 & 33 CFR 122, 125);
- Discharge of Dredge and Fill (*Federal Water Pollution Control Act*);
- Environmental Assessment (*National Environmental Act*); and
- Environmental Impact Statement (*National Environmental Act*).

US Bureau of Land Management – The *Land Ordinance* of 1785 & the *Northwest Ordinance* of 1787 gave rise to the BLM. It is now one of eight agencies within the US Department of the Interior. When the BLM was initially created there were more than 2000 unrelated and often conflicting laws for managing public lands. Congress enacted the *Federal Land Policy and Management Act* of 1976 (FLPMA). All bureau policies, procedures and management actions must be consistent with FLPMA and other laws that govern use of public lands.

Permits & Authorizations

- Surface Lease (*Federal Land Policy and Management Act*, Federal CFRs Title 43);
- Design/Operating Plan Approval, *Federal Land Policy and Management Act*, Federal CFRs Title 43);
- Environmental Assessment (EA), (*National Environmental Policy Act*); and
- Environmental Impact Statement (EIS) (*National Environmental Policy Act*).

US Department of Homeland Security – Generally, the US Department of Homeland Security is responsible for the security of US borders, including the seacoasts. It has jurisdiction over, among other things, the US Coast Guard, and the Immigration and Naturalization Service. This is a relatively new department. Accordingly, there is still some confusion and, apparently, inconsistency in the administration of its policies. Determining Homeland Security's interest in a project and predicting the nature of its requirements is therefore difficult.

US Environmental Protection Agency – Established in 1970 in response to the growing public demand for cleaner water, air, and land, the EPA was assigned the task of monitoring and enforcing compliance for administration of the *National Environmental Protection Act*, *Federal Water Pollution Control Act*, and the *Federal Clean Air Act*. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

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Permits and Authorizations

- Environmental Assessments (National Environmental Protection Act; Federal Water Pollution Control Act, Federal Clean Air Act, Federal CFRs Title 40);
- Environmental Impact Statement (National Environmental Protection Act; Federal Water Pollution Control Act, Federal CFRs Title 40);
- National Pollution Discharge Elimination System Permit (NPDES), (*Federal Water Pollution Control Act*, Federal CFRs Title 40);
- Storm Water Authorization (*Federal Water Pollution Control Act*, Federal CFRs Title 40);
- Hazardous Materials Handling Plan (Environmental Protection Act; Federal Water Pollution Control Act; Federal Clean Air Act, Federal CFRs Title 40); and
- Oil Spill Plan (*Federal Water Pollution Control Act*, Federal CFRs Title 40).

US Fish and Wildlife Service – Administered by the U.S. Department of the Interior. The Department was created by congress in 1849. During the past 100 years, the US has enacted wildlife laws and ratified international treaties to protect wild animals and habitats. Each law and treaty has its own unique purpose and uses permits in specific ways to protect species.

Permits and Authorizations

The General Permit Procedures regulations at 50 CFR Part 13 apply to all permits.

- Bald Eagle Protection Act (Federal CFRs Title 50);
- Endangered Species Act (Federal CFRs Title 50);
- Marine Mammal Protection Act (Federal CFRs Title 50); and
- Migratory Bird Treaty Act (Federal CFRs Title 50).

US Forest Service – Congress passed the *Forest Reserve Act* in 1891 and formalized the US Forest Service in 1905 to manage activities on forest lands. The Forest Service is now administered by the US Department of Agriculture.

Permits and Authorizations

- Surface Lease (Federal CFRs Title 36 200-299);
- Design/Operating Plan Approval (Federal CFRs Title 36 200-299);
- Environmental Assessment (*National Environmental Policy Act*); and
- Environmental Impact Statement (*National Environmental Policy Act*).

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US National Park Service – Established by Congress under the *Organic Act* in 1917, the National Park Service is administered under the U.S. Department of Interior.

Permits and Authorizations

- Provides comment on activities occurring adjacent to Park Lands (*Antiquities Act* U.S.C. Title 16 Sec 432,433,451).

US National Marine Fisheries – Administered by the National Oceanic and Atmospheric Administration.

Permits and Authorizations

- Environmental Assessment (EA), (Marine Mammals Act; Endangered Species Act, National Environmental Policy Act, Federal CFRs 200-299); and
- Environmental Impact Statement (EIS) (Marine Mammals Act; Endangered Species Act, National Environmental Policy Act, Federal CFRs 200-299).

US Coast Guard – The United States Coast Guard, which received its present name in 1915 under an Act of Congress, is one the five uniformed services. It is responsible merchant marine licensing and inspection, law enforcement, maintenance of lighthouse and navigation aids and port security over site. The Coast guard is now administered under the U.S. Department Homeland Security.

Permits and Authorizations

- Transportation Review (Federal CFRs Title 19, Title 46).

State Agencies

Alaska Department of Environmental Conservation – Established by the Alaska Legislature in 1959 under Title 44 and Title 46, the department is responsible for regulation of and controlling pollution on State of Alaska lands. AS 46.03.822 creates strict liability for the release of hazardous substances for, among others,

- the owner of, and the person having control over, the hazardous substance at the time of the release; and
- the owner and the operator of a vessel or facility, from which there is a release of a hazardous substance.

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As the experience of the Red Dog mine shows, some ore concentrates are “hazardous substances” under this statute. Determination of the precise nature of approvals or permits that may be required for different commodities under different transshipment scenarios will require further research.

Permits and Authorizations

- Waste Water Discharge Certification (section 402 *Clean Water Act*);
- Storm Water Discharge Certification (section 402 *Clean Water Act*);
- Air Quality Permit (AS 44; AS 46); and
- Solid Waste or Waste Rock Disposal Permit (AS 44; AS 46).

Alaska Department of Natural Resources – Established by the Alaska Legislature in 1959 under Title 44 & Title 38, the department is responsible for management and regulation of state of Alaska Lands. The Divisions of Mining/Land/Water, Habitat Management and Permitting, and Project Management and Permitting would be the lead DNR agencies for permitting potential port development and operation. The Alaska Department of Fish & Game consults with DNR on Title 16 habitat permits and authorizations.

Permits and Authorizations

- Division of Mining/Land/Water:
 - Tidelands Lease/Permit;
 - Miscellaneous Land Use Permit (AS 38.05.850 & 11 AAC 96);
 - Water Use Permit (AS 46.1540-.155 & 11 AAC 93); and
 - Reclamation Plan Approval (may be required) (AS 27.19 and 11 ACC 97).
- Division of Habitat Management & Permitting:
 - Fish Habitat Permit (AS 46.16.05.840 & AAC 95.010.700-.770); and
 - Coastal Zone Consistency (PL 92-583, 15 CFR 923, 930).
- Division of Project Management (Executive Order 106) lead agency for large project permitting and Alaska Coastal Management Plan (see above);
- State Historical Preservation Office (SHPO) – The National Historic Preservation Act of 1966 (federal) set up the position of State Historic Preservation Officer (SHPO) for each state, to be appointed by the governor. The Alaska Office of History and Archaeology carries out the responsibilities of the State Historic Preservation Office. SHPO participates in the review of projects for compliance with Coastal Management Plans.

Alaska Department of Transportation and Public Facilities – The Alaska Department of Transportation and Public Facilities operates under Alaska Statutes Title 2, 19, 30, and 35. The department is responsible for the planning, construction, and management of Alaska’s highways, airports, public buildings, and marine highway system.

Permits and Authorizations

- DOT uses a project planning process for highways and airports, these are generally large projects subject to the federal EIS process under NEPA.

Alaska State Fire Marshal/Department of Public Safety – During the 22nd Session of the Territorial Alaska Legislature, the Office of Fire Marshal was created within the Department of Territorial Police with Senate Bill 24, which was passed and signed on March 23 1955. The State Fire Marshal’s office reviews large-scale construction plans and projects and issues an operational certificate.

Permits and Authorizations

- Design/operating plan review (AS 18.17.080, 13 AAC 50.027);
- Operational Certification (AS 18.17.080, 13 AAC 50.027).

Local (municipal) Agencies

Local governments are authorized under Alaska Title 29. This legislation enables cities and boroughs to incorporate and define their status as home rule, first-or second-class cities. With each designation a different level of authority is conferred under Title 29. First Class cities and boroughs have direct planning & zoning, police, and taxation powers. Each incorporated entity also is granted a municipal land entitlement under Alaska law.

Haines and Skagway have separate local governments: Haines Borough and the City of Skagway. As mentioned above, the legal foundations of municipal jurisdiction in Alaska State law are the same for both. How this jurisdiction has been exercised by each municipality is discussed separately, below.

Comprehensive planning documents have been developed for both the City of Skagway and Haines Borough. Generally, these documents identify existing uses and describe desirable uses of lands within the municipality. They must, however, be read with two reservations: First, the documents alone do not identify non-conforming or illegal uses. Second, they do not reflect changes in use, or changes in what may be considered a desirable or undesirable use, subsequent to their date of publication.

2.1.4 Regulatory Processes

Alaska Coastal Management Program

Coastal areas in Alaska are subject to the *Coastal Zone Management Act* enacted by the United States Congress in 1972. This law provides incentives for coastal states to develop land and water use plans to manage their coastlines and coastal resources. The *Alaska Coastal Management Act* establishes the Alaska Coastal Management Program and mandates the development and implementation of coastal management plans for Alaska's coastal communities. Pursuant to this legislation, coastal management districts and coastal management plans are in place for both Skagway and Haines.

At a minimum coastal management plans contain the following:

- a description of the coastal management district to which the plan applies;
- an inventory of the “resources” within the district, including a description of the natural and human environment;
- a discussion of the goals, objectives and policies to be promoted by the plan; and
- a description of how the plan is to be implemented, including enforceable policies.

A plan may also describe one or more Areas Meriting Special Attention (AMSA's). An AMSA receives more detailed discussion of resources, and special enforceable policies are put in place for the area in addition to, or in substitution for, the general policies set out in the plan.

Generally, coastal management districts extend inland to the tree-line of coastal mountains. Accordingly, they apply not only to port developments, but also to inland facilities and access routes. Implementation of coastal management plan policies and requirements, however, is through the establishment and enforcement of federal, state and local legislation by the various agencies having jurisdiction. In other words, although review of projects for compliance with the coastal management plan is mandatory, success in obtaining a finding of consistency with the plan does NOT relieve the project from the need to obtain all applicable permits and approvals required by federal, state or local legislation!

Proposed projects within a coastal management district are subject to the enforceable policies listed in the applicable Coastal Management Plan. Where a project needs a State or federal permit or other approval, its consistency with the Plan is determined by the State of Alaska. The State agency responsible for coordinating federal- and state-level reviews is the Office of Project Management and Permitting (OPMP) [See no. 2, below]. The applicable local agency (in this case, the City of Skagway or Haines Borough) is entitled to participate in the State-coordinated review. If no federal or state approval is required, the local agency alone is responsible for reviewing the project to ensure it is consistent with the coastal management plan. This is done as part of the City or Borough's usual permit- or approval-review process.

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The specific process for obtaining review of a project for consistency with the applicable coastal management plan is discussed separately for Skagway and Haines, below.

Office of Project Management and Permitting (OPMP)

The Office of Project Management and Permitting is an agency of the Department of Natural Resources. The OPMP does not impose or enforce any of its own permitting or project-approval requirements. Rather, the OPMP ensures that all aspects of large projects in Alaska are considered during a single review and approval process. The OPMP does this by acting as the lead agency for coordinating large-project permitting and the determination of project consistency with coastal management plans under the Alaska Coastal Management Program.

Outside of the coastal zones, land ownership may determine who the lead agency will be during the permit process.

Contact information of the OPMP is as follows:

Central Office
Gold Street, Ste. 202
Juneau, AK 99801-0030
Ph.: (907)-465-3562
Fax#: (907)-465-3075

Coastal Project Questionnaire and Certification Statement (CPQ)

The Alaska Coastal Management Program mandates that a Coastal Project Questionnaire and Certification Statement be completed for any project requiring, from any federal, state or local agency, a permit for an activity covered by the Program. Completion of the questionnaire requires the applicant to contact any agency that appears to be interested in the project. OPMP will distribute the application to all agencies it thinks has an interest in the project. The applicant has no control over the agencies that may be contacted by the OPMP. Some may have actual permit responsibilities and others may be involved strictly on a consultation comment level only.

Applications for necessary permits from federal and state agencies must be made before the questionnaire will be considered complete, or a statement must be included in the questionnaire for each such permit explaining why an application has not been made. If any permits are needed, a consistency finding may not be issued by OPMP until all the permitting agencies have weighed in. Where a permit is denied by an agency, the project will not be found consistent with the CMP until either mitigation measures have been developed or changes have been made in the project so the permit can be issued.

If no federal permits are required the review generally take 30 days, while reviews requiring federal permits are 60 days or longer and maybe stopped if additional information is needed to be supplied by the applicant These time periods only apply if ALL the permitting issues under the Coastal Management

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Program for all federal and state agencies have been raised with the appropriate agency. Mandated processes for some of those issues provide for public notice and review, which can cause delays before the CPQ will be considered complete. If the project is well defined and the applicant is 100% sure of this, then the process usually goes forward in the allotted review time frame. The wild card in the process may be non-government organizations (NGOs) such as environmental groups who are able to comment during a public comment period for a particular permit.

It is extremely important to note, as well, that the CPQ only identifies permits or approvals subject to a consistency review under the Coastal Management Program. The CPQ specifically warns applicants: “You may need additional permits from other agencies or the affected city and/or borough government to proceed with your activity.” The agencies specifically identified in the CPQ are as follows:

- Alaska Department of Environmental Conservation (DEC);
- Alaska Department of Fish and Game (DFG);
- Alaska Department of Natural Resources (DNR);
- US Army Corps of Engineers (COE);
- US Bureau of Land Management (BLM);
- US Coast Guard (USCG);
- US Environmental Protection Agency (EPA);
- Federal Aviation Administration (FAA);
- Federal Energy Regulatory Commission (FERC); and
- US Forest Service (USFS).

The CPQ also requires the applicant to identify any other federal agencies to which an application has been made. Reading the CPQ is a good way to get an idea of the areas of each agency’s interest with respect to a project. A copy of the CPQ can be downloaded from the following website:

<http://www.dnr.state.ak.us/acmp/Projects/cpqcrt.pdf>

A CPQ may be submitted either to the OPMP or the local authority (in this case, either the City of Skagway or Haines Borough). In either case, a “yes” to any of the questions will require the applicant to engage with the appropriate federal or state agency and result in involvement of the OPMP.

Consistency Decisions and Other Permits

Just because an agency gets to comment doesn’t mean that particular agency can stop a project or impose terms or conditions. This would be because the OPMP process leads only to a finding as to whether the proposed project is or is not consistent with the Coastal Management Plan. Agency comments irrelevant to the CMP can only lead to restrictions or requirements for project modification if the agency making the

comments has its own separate statutory authority in that regard. In other words, DEC has all kinds of statutory authority with respect to air pollution which it also has statutory authority to enforce by denying a permit or attaching conditions to a permit. The National Park Service, on the other hand, typically achieves “enforcement” of its comments (in a case like Skagway) if it can point out some way that the proposal violates the CMP. In this case “enforcement” is not by denying a permit, but simply by leading the OPMP to find that the proposal is not consistent with the CMP. This finding then prevents ALL other agencies from issuing whatever permits the proposal requires. At the very least it would, for example, prevent the City of Skagway from issuing a building permit.

2.2 Skagway

2.2.1 Introduction

Skagway has been the port-of-choice for inbound and outbound Yukon marine freight for over a century. However, trucking via inland highways has now almost completely displaced the marine transportation route connecting to truck or rail in Skagway. Although most of Yukon’s fuel continues to arrive via this route, the use of the port for other inbound freight shipments has virtually ceased. And, the long slump in mining activity means there has been no export of mineral products through Skagway for years. Accordingly, port activity there is now dominated by summertime-only cruise ship traffic.

The land-use and regulatory issues for port construction, operation and use in Skagway, therefore, are mainly issues of accommodating freight uses to tourist uses, and (of course) to the residential, commercial and recreational uses of the City’s full-time and seasonal residents. Some highlights of Skagway’s history relevant to the transshipment of Yukon freight are as follows:

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- 1962 – Skagway conveys a parcel of tidelands to the State for use as a ferry terminal.
- 1968 – City of Skagway leases tidelands to WPYR for the Ore Dock for a 55-year term.
- 1976 – Klondike National Historical Park established by an Act of Congress.
- 1979 – Official opening of the Klondike Highway through to Skagway. New barge facility and ferry terminal completed.
- 1982 – Anvil mine closes and WPYR suspends rail operations.
- 1987 – Faro ore shipped to Skagway by truck for Curragh Resources Inc.
- 1988 – WPYR carries 37,000 tourists in its first year of resumed operations to the White Pass summit. Pollution from ore shipments in the past is discovered. School children are tested by public health officials and blood levels are found to be below normal.
- 1989-1990 – Massive cleanup of pollution in Skagway paid for by Curragh Resources and WPYR.
- 1990 – Broadway Dock for cruise ships opens. AIDEA buys Ore Dock facilities.
- 1991 – Island Princess and Regent Sea collide in Skagway port.
- 1993 – Curragh Resources Inc. files for bankruptcy protection and the ore terminal closes.
- 1994 – Yukon logs are trucked to Skagway and transferred to ships along the Broadway dock. WPYR closes its pipeline to the Yukon after several leaks lead to charges against company officials. WPYR railroad dock collapses causing extensive damage to other harbor facilities.
- 1995 – Ore shipments (via truck) resume.
- 1997 – The Faro mine closes again in the Spring and so, too, does the ore terminal. A re-opening in the Fall only lasts until Christmas.
- 2001 – Airport expansion is completed. Yukon abandons its plans for a dock in Skagway. WPYR reports 318,893 train passengers for the season.
- 2003 – WPYR expands its railroad dock. AIDEA tears down the concentrate shed at the Ore Dock for safety reasons.
- 2005 – Cruise ship passengers traveling on the WPYR number 430,037, arriving in Skagway on 35 ships making a total of 499 visits to the port in a 5-month period. WPYR enlarges the Broadway Dock to accommodate bigger ships.

The City of Skagway

The City of Skagway is a First Class City with the powers that go with this status under State law.

Land ownership within the City is shown in Figure 1. Although the map dates from 1999, there do not appear to have been any ownership changes affecting this report since then (Figure 1: Land Ownership from the Skagway Coastal Management Plan).

Information about the City's municipal government may be viewed at www.skagway.org.

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The Port (Ore Dock)

[The following description and history of the Ore Dock is taken verbatim from the State of Alaska, Department of Environmental Conservation website.]

The Nahku Ore Terminal is located on a 72 acre parcel of waterfront land at the southern end of Skagway at the White Pass Basin of Lynn Canal. The operations at the Nahku Ore Terminal began with the landowner, the City of Skagway, leasing the waterfront land to the White Pass and Yukon Route Railroad (White Pass) in 1967 [sic]. The Terminal was created by dredging the harbor and using the marine spoils (granite-based alluvial soils – coarse sand to gravel) as fill. By 1969, the terminal had been constructed and White Pass began transporting ore from the Cypress Anvil Mine in Faro, Yukon Territory.

Ore concentrate from the Yukon Territory was loaded onto freighters and barges at the terminal from 1967-1993 [sic], with brief interruptions from 1982-1986 and 1995-1997. Approximately 50,000 tons of low-grade zinc (60%) and lead (40%) ore concentrate from the Faro Mine passed through the terminal each month. Ore was transported to the terminal by railcars operated by White Pass until 1982, and then by trucks operated by Yukon Alaska Transportation from 1986-1993. Ore was loaded onto freighters and barges every two weeks on an open conveyor system until 1991 when the system was enclosed during a major renovation of the entire terminal.

Curragh Resources purchased mining operations from Cypress Anvil Mine in 1986 and leased the terminal and land from White Pass. The Bowhead Equipment Company (Bowhead) operated the facility from 1986-1993.

The Alaska Industrial Development and Export Authority (AIDEA) purchased the lease on the property and the terminal facilities from White Pass. The facility shut down in 1993 and then was operated by Mineral Services, Inc. for 16 months in 1995-1997.

Contaminants of concern are lead sulfide, zinc, arsenic, mercury, and cadmium. In 1988, high levels of ore concentrate were found at several locations, including: 1) along the White Pass railroad tracks; 2) White Pass railroad yard; 3) Nahku Ore Terminal facility; 4) Residential properties along State Street and south of 4th Avenue; and 5) White Pass Basin marine sediments.

In 1989, DEC [Alaska Department of Environmental Conservation] conducted a Preliminary Assessment and signed separate Compliance Orders by Consent with Bowhead and White Pass. From 1988-1990, White Pass and Bowhead conducted uplands investigation and cleanup which included: street and residential yard cleanups, train track cleanup, and terminal yard cleanup. In 1992, DEC conducted a Site

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Investigation at the site. In 1995, AIDEA conducted a Baseline Environmental Assessment of the uplands and the marine units.

Contaminated harbor sediments are the main concern at this time. Multiple studies have been conducted over the past two decades. Robinson-Wilson and Malinkey (1982), Dobrocky Seatech (1986), Steffen, Robertson, and Kirsten (SRK) (1989), Tetra Tech (1990a), and Dames and Moore (1995) documented elevated levels of various metals in the harbor. Tetra Tech (1990b) also prepared a *Seafood Risk Assessment* which assessed health effects associated with human consumption of local seafood.

DEC is working with potentially responsible parties to have all prior marine studies reviewed. The results of this review will enable DEC to identify the “data gaps” - what additional sampling must occur, if any.

Since the cessation of Yukon mineral exports through Skagway, the Ore Dock facilities previously dedicated to that purpose have been used for berthing cruise ships. Skagway airport improvements to the north and west of the Ore Dock were completed in 2001.

Similarly, other port facilities once used for inbound Yukon freight are now mostly used for tourism purposes. As a result, the existing use of the port for transshipment of commodities and freight into and out of the Yukon is limited to regular fuel and freight barge service through the Alaska Marine Lines site, occasional barge visits to the easterly portion of the AMHS floating dock, and traffic on the Alaska Marine Highway System.

The Port (Broadway Dock area)

At the south end of Broadway, the filled area built up on the tidelands serves three distinct uses. On the west side, there is a cruise ship wharf known as the Broadway Dock. As discussed below, this facility is actually located on the same parcel of tidelands leased by the City to WPYR in 1968. The cruise ship berth was completed in 1990 and expanded for the 2006 season to serve a larger class of cruise ships. Most of the filled area itself is owned by the Alaska Marine Highway System and used for its ferry terminal. At the north end of this filled area, land known as the City of Skagway Staging Area is owned by the City.

Overland Access to the Ore Dock

The Ore Dock is connected to the Yukon by both road and rail. Details are as follows:

- **South Klondike Highway** – Completed in 1978, the South Klondike Highway now provides year-round access between Skagway and the Yukon. From Carcross, Yukon, the highway passes through British Columbia before crossing the international border into Alaska and the City of Skagway. Before reaching the townsite, the highway passes through approximately one mile of the Klondike

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Gold Rush National Historical Park in the area of the suspension bridge. Within the townsite, the highway proceeds down State Street to 1st Avenue where it turns left for a block and then right on Broadway. The highway ends at the Alaska State ferry terminal located adjacent to the Broadway Dock.

- **WPYR Railway** – The WPYR ceased freight operations in 1982. Since 1988, the railroad has been used exclusively in the summertime to provide passenger service to tourists between Skagway and Bennett, BC. Rights-of-way into the Yukon are not being used (yet), but have not been abandoned. Theoretically, the WPYR remains available for freight service to and from the Yukon.

Assumptions Applicable to Skagway Issues

This discussion of the regulatory and land-use issues in Skagway is based on the following assumptions:

- Shipping of Yukon inbound and outbound freight will be loaded on ships or barges through existing or expanded facilities located at the site of the existing Ore Dock;
- Commodities and freight may be conveyed to or from the loading site by truck. (The possibility of a conveyor for commodities from an upland truck-unloading site is discussed below.);
- Road access to the Ore Dock will be from the South Klondike Highway; and
- Railroad access will be via existing rights-of-way or tracks.

2.2.2 Land-use Issues for Skagway

Discussion of the land-use issues for Skagway divides into two main subject areas: First, there are “port” considerations. These relate to the Ore Dock, and include considerations relating to the Broadway Dock area should it prove desirable to construct an additional berth for cruise ships at that location. Second, there are considerations relating to the construction of an upland truck-unloader and a conveyor system for moving coal or concentrates to the Ore Dock. Land-use issues for these two subject areas are pretty much independent from each other.

Zoning Documents in Place for Skagway

The following planning documents are in place for the City of Skagway:

- **Skagway Comprehensive Plan (SCP)** – The City of Skagway Comprehensive Plan was issued in May 1999. Although it is not a legal document, does not have the force of law, and is somewhat dated, the SCP is still considered a more-or-less authoritative statement of the City’s values goals for future development. Despite their lack of official legal status, apparently plans of this type have been used successfully in litigation by private-sector organizations against municipalities and state governments in the USA.

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As the original intent was to update the plan every ten years, commencement of the review process is imminent. This will be an important opportunity for advancing strategic interests arising out of the Yukon Ports Access Strategy. The SCP may be viewed on-line at www.skagway.org.

- **Skagway Coastal Management Plan (SCMP)** – Because of its integration with federal and state regulatory requirements, the SCMP is the primary document in planning and review applicable to major industrial projects in Skagway. A new version of the plan is now in the final stages of approval. The SCMP may be viewed online at www.skagway.org.

The SCMP establishes four Areas Meriting Special Attention, all of which are directly relevant to this report:

- **Port of Skagway AMSA** – This AMSA applies to the entire developed area of the Skagway waterfront, including the Ore Dock, the Broadway Dock and adjacent port areas to the East. Among other things, it says, “The City of Skagway’s foremost intent is to ensure that the Port is positioned to capitalize on all opportunities to serve as an intermodal transportation link for movement of goods, visitors, fish and freight into Interior Alaska and the Yukon.” (SCMP 5.3.1)
 - **Skagway River AMSA** – This AMSA applies to the Skagway River from its mouth adjacent to the Ore Dock to a point roughly 3.8 miles inland. Special rules for activities in this area appear to be aimed mainly at flood prevention and control.
 - **Pullen Creek AMSA** – This AMSA protects the fishery and recreational interests of this creek. It is relevant because the outlet of the creek is close to the Broadway Dock.
 - **Yakutania Point AMSA** – This AMSA protects the park which is located to the west of the Ore Dock across the Skagway River. It is relevant because it limits access to the Ore Dock from this direction.
- **Skagway City Ordinances**
 - Title 17 – Coastal Management Program – This ordinance implements the Alaska Coastal Management Program for Skagway. It is discussed in more detail below.
 - Title 19 – Planning and Zoning – This ordinance, which is subject to the Skagway Coastal Management Plan, divides the City into “use districts” or zones and regulates the use of property within each zone.

Where relevant, the zoning of properties (and their compliance with the SCMP and SCP) involved in or adjacent to various aspects of the port-development options for Skagway are discussed, below, with the appropriate discussion of individual land-use or regulatory issues.

- **Skagway Land Titles, Leases and Sub-leases**

Reliable information about land ownership (and other rights related to the use of land, including tidelands and underwater lands) in Skagway was not readily available to the authors of this report. Some documents are private as between the parties and were therefore not obtained. Where legal boundaries were described in documents obtained, they tended to be in the form of “metes and bounds” descriptions which are virtually meaningless without a map. Official maps were either unavailable or non-existent. On the basis of the information obtained, it has not been possible to confirm that all the interested parties or all the legal interests have been identified. Accordingly, it has been necessary to rely on anecdotal information, and to make assumptions, in the following discussion. Further legal research and inquiries are therefore required to verify such things as the exact legal identity of “persons” holding interests in lands mentioned below, the exact nature of those interests, and the boundaries of the various lots, leases, subleases and other interests that may exist. When certified copies of the relevant documents are obtained, they may differ from the information provided below.

Lands that would be, or that have the potential to be, used for the construction, operation or use of the port in this study fall into three categories. First, there are the waterfront lands where the berthing and loading of ships would take place. Second, there are the upland areas where truck- or train-unloading facilities could be established. Third, there are the intermediate lands that would be used for a conveyor system to move coal or concentrates from the unloading site to the waterfront.

1. **Ownership of waterfront lands** – The entire waterfront and tidelands of the port of Skagway from the Small Boat Harbor to the mouth of the Skagway River are owned by the City of Skagway. Exceptions are as follows:
 - The tidelands covered by the fill which makes up the Broadway Dock area (excluding the “City of Skagway Staging Area”) are owned by the Alaska Marine Highway System.
 - The road to the AMHS ferry terminal is part of the Klondike Highway, which is owned and managed by the State of Alaska. Presumably WPYR has a right-of-way for the two RR crossings at this location.
 - The small parcel of land adjacent to this road and formerly used for helicopter sight-seeing operations is owned outright by WPYR or one of its related companies.

The most important ownership and leasehold interests on the Skagway waterfront are shown on the attached air photo (Figure 2: Aerial Photograph – Skagway)

The City’s waterfront and tidelands, from AMHS’s Broadway Dock property west to the Skagway River are under lease to WPYR until 2023. WPYR has issued various subleases.

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- a) **WPYR lease** – The so-called “WPYR lease” actually refers to an approximately 72-acre parcel leased from the City of Skagway in 1968 for the construction of the Ore Dock and related facilities. The lease is now held by Pacific and Arctic Railroad and Navigation Company Inc. (PARN, an affiliate of WPYR). Various subleases have been issued (see below).

The WPYR lease area extends from the western edge of the AMHS property to the western edge of the fill behind the new Temsco helicopter site. To the south, the leased property extends into deep water.

The fenced area now occupied by the Skagway Airport is State land and the road providing access to the airport is a State road. All land to the south of this road is within the WPYR lease. The parcel(s) to the north of this road (vacant land and land occupied by the propane business) is outside the WPYR lease. The property occupied by the Skagway Police and other property to the north of the WPYR railroad tracks between State Street and Broadway are also outside the WPYR lease.

Specific terms of the lease are described below, in the discussion of the land-use issues relating to the Ore Dock.

- b) **STC sublease** – The Skagway Terminal Company (STC), which is related to WPYR, holds a sublease from PARN for most, if not all, of the WPYR lease. STC owns and operates the cruise-ship wharf on the Broadway Dock and the cruise-ship and ore-carrier wharf on the Ore Dock. STC is now undertaking work on the property immediately to the north of the Broadway Dock to create a bus-marshalling area to serve this facility.

STC’s status with respect to other operations on the WPYR leased lands is unknown. STC has a small office building at the north end of the pedestrian walkway providing access to the Ore Dock. PARN or STC retains ownership of the roads and parking areas throughout the WPYR lease that have not been included within one or another of the subleases. In this regard, particular note should be made of the road along the western edge of the WPYR lease that provides access to the parking lot and bus-marshalling area at the southeast end of the Ore Dock.

- c) **Alaska Marine Lines sublease** – Alaska Marine Lines Inc. (AML) operates a barge dock on a fenced property just east of the Ore Dock wharf under a sublease from PARN or STC.
- d) **Alaska Industrial Development and Export Agency sublease** – On July 24, 1990, the Alaska Industrial Development and Export Agency (AIDEA) purchased the ore terminal facility from PARN, and subleased the associated lands from the previous sub-lessee (Skagway Terminal Company). The term of the lease is the same as PARN’s head-lease from the City, less 1 day.

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- e) **Petro Marine Services sublease** – Petro Marine Services operates a petroleum products import and distribution business from the tank farm property located in the northwest corner of the WPYR lease.
 - f) **Temsco Helicopters Inc. sublease** – Temsco Helicopters Inc. operates a seasonal helicopter sight-seeing business from a fenced property located at the southwest end of the Ore Dock property.
 - g) **Pullen Creek** – Pullen Creek passes under the Klondike Highway near the AMHS property and empties into the sea between the built-up fill on which the ferry terminal and parking lot have been constructed.
2. **Ownership of truck- or train-unloader sites** – There are three possible sites that could be investigated for unloader facilities:
- a) **West bank of the Skagway River to the south of the 23rd Avenue Bridge** – These lands are owned by the State of Alaska. There is some doubt about this because the State’s ownership depends upon the navigability of the river. If the river is not navigable, the lands would belong to the City of Skagway.
 - b) **West bank of the Skagway River to the north of the 23rd Avenue Bridge** – These are private lands currently zoned and used for industrial purposes.
 - c) **East bank of the Skagway River to the north of the 23rd Avenue Bridge** – This is the location of the WPYR maintenance yard.
3. **Ownership of Routes for Conveyor System**
- a) **Skagway River** – As mentioned above, the Skagway River is considered to be State land, although there may be some doubt about this.
 - b) **Skagway Airport** – The Skagway Airport is owned and operated by the State.
 - c) **Tidelands** – As mentioned above, Skagway’s tidelands are owned by the City. This includes the tidelands at the mouth of the Skagway River, including the pedestrian bridge at this location.
 - d) **Ore Dock** – The tidelands and immediately adjacent waterfront on which the Ore Dock and related facilities have been built are owned by the City. As discussed above, WPYR has a lease, which expires in 2023, and a number of subleases are in place. The conveyor might have to cross one or more of these subleases to reach the Ore Dock.

Ore Dock Land-use Issues

Recommencement of the commodity and freight uses of the Ore Dock involves competition with the new but well-established and extensive (though seasonal) tourist uses. Ideally, this competition would be resolved by re-dedicating the Ore Dock exclusively to industrial and commercial transshipment purposes.

Existing on-site and neighbouring users of the Ore Dock are as follows:

1. **City of Skagway (WPYR lease)** – As mentioned above, the Ore Dock is built on tidelands owned by the City of Skagway. However, the entire property is under lease to WPYR (actually PARN; see below). It is not clear in the lease agreement whether it includes the City’s riparian rights. However, due to the extent of the lease and the depth of the off-shore waters, there does not seem to be any practical relevance to this issue.

The WPYR lease is for a term of 55 years, which is the maximum allowed (including renewal rights!) by State law at the time of its execution. To continue ownership past the March 18, 2023 expiration of this lease, the current lessee would need to obtain a new lease from the City in accordance with the law (Skagway City Code, Title 16 – Public Lands).

The WPYR lease recognizes the lessee’s right to remove improvements from the land on expiration of the lease. Under the lease, the question of compensation for improvements not removed is not perfectly clear.

PARN’s rights to the use of the Ore Dock (and the Broadway Dock, which is on the same parcel of land) revert to the City when the lease expires in 2023 unless a new lease is granted. WPYR may not have railway rights-of-way on the leased property in addition to its rights under the lease. This has obvious implications for the long-term planning of anyone considering construction, operation or use of the Ore Dock for freight, cruise-ship or other purposes.

Upon expiration of the lease, the City is entitled to have the land returned free of liability for pollution caused during the term of the lease. Ownership of leasehold “improvements” left on the property at that time might likewise revert to the City. The solution to questions such as these depends, of course, on any further agreements that the City may enter into respecting the Ore Dock property. One expects that, if possible, City would require the pollution issue to be addressed somehow as part of any such agreement.

Barring such agreements, there is some potential for disputes and even litigation involving current sub-lessors, sub-lessees, operators and users of the Ore Dock, especially PARN, STC and AIDEA. Past users, such as Curragh Resources Inc., may be beyond reach, now, due to bankruptcy or other causes. Similar considerations may or may not apply to past operators, such as Lynden Transport and Bowhead Equipment.

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2. **Pacific and Arctic Railway and Navigation Company (PARN)** (lessee) – As mentioned above, this company, which is related to WPYR, holds the tidelands on which the Ore Dock is situated under a lease from the City of Skagway. As the lessee from the City for the entire period that the Ore Dock has been in existence, PARN bears primary responsibility for returning the land to the City in good condition at the end of the lease. Almost certainly this responsibility to the City is not diminished by its subleases or other arrangements with related companies, such as STC. However, PARN probably does have some rights against owners and operators of facilities causing, contributing to, or failing to prevent damage to the property from time to time since 1968. There is some possibility that these rights could extend to individuals involved in these activities, as well as the owners of the “legacy” substances (i.e., the shippers) that have found their way into the environment.
3. **Skagway Terminal Company (STC)** – As mentioned above, this company, which is associated with WPYR and PARN, subleases Ore Dock property and facilities from PARN for the berthing of ships, including cruise ships. A large parking-lot at the south end of the Ore Dock serves as a bus-marshalling yard for cruise ships docked at the Ore Dock, and also serves the helicopter business located there (see below). A pedestrian walkway along the length of the wharf passes under the ship-loader and crosses railway tracks to reach the downtown area. The close proximity of large numbers of tourists, sometimes on a daily basis, to industrial operations is undesirable. In as much as cruise ships do not stay in Skagway overnight, however, there is some potential for reducing this conflict by scheduling ship-loading and truck or train traffic accordingly. Further, it is already a tight squeeze for cruise ships to be berthed simultaneously at the Ore Dock and the Broadway Dock. Increasing frequency of use of the Ore Dock by ore ships or barges has some potential to add to the marine traffic problems. As mentioned above, STC may have some share in liability for damage to the Ore Dock property (pollution) over the years.
4. **Alaska Industrial Development and Export Authority (AIEDA)** – As mentioned above, the ore terminal and tank farm facilities on the Ore Dock are located on lands subleased from PARN. Reference is made to AIDEA’s rights of access to the berthing facilities at the Ore Dock in its 1990 terminal access agreement with Curragh Resources Inc., but details do not seem to be publicly available. Apparently AIDEA also has unwritten assurances from STC of a Friday-to-Sunday “window” for the berthing of ore ships, but this has not been confirmed. As mentioned above, AIDEA may have some liability for damage to the Ore Dock property (pollution) during the term of its operations. The extent of AIDEA’s legal responsibility, including liability for damage caused prior to its acquisition of the property, is unknown.
5. **Temsco** – Temsco operates a helicopter sight-seeing business from part of the Ore Dock property apparently subleased from PARN or STC. This is an especially convenient location for tourists from cruise ships berthing at the Ore Dock. This location also greatly reduces noise levels for residents and visitors alike compared to its previous location at the south end of Broadway. Access by vehicles

and pedestrians to Temsco is by way a road on the Ore Dock property to the west of AIDEA's ore-loading facilities.

6. Off-site Neighboring Uses

The entire Skagway waterfront is zoned "Waterfront." The existing uses of neighbouring properties appear, generally, to conform to requirements of this designation.

- a) **Skagway River AMSA** – The south end of the Ore Dock property is bounded on the west by the estuary of the Skagway River, which is within the Skagway River AMSA. There is a footbridge across the river at this point providing access from the Skagway Airport parking lot to Yakutania Point Park on the west side of the river. Access by vehicles and pedestrians to the bridge is by the same road that provides access to the Ore dock.
- b) **Skagway Airport** – The Skagway Airport is located on land also abutting the Ore Dock property on the west and north. Access by vehicles and pedestrians to the airport is by the same road that provides access to the Ore Dock.
- c) **Alaska Marine Lines (AML)** – Alaska Marine Lines operates a barge dock adjacent to the northeast side of the Ore Dock on land sub-leased from PARN or STC. As AML is not the owner of this property, it's right to exercise riparian rights would depend on the terms of its sub-lease agreement. Access to this property necessarily crosses over railroad access routes to the Ore Dock.
- d) **Residential uses near 1st Avenue** – While there are no occupied residences abutting the WPYR lease, it is possible that noise from transshipment activities at the Ore Dock could be heard by residents of the City. One suspects the problem could be worst at night in the summertime when port operations are being carried on to avoid conflict with day-time cruise-ship traffic. At this time ambient noise levels would otherwise be low, and it is supposed that residents would be sleeping with their windows open. No information (not even anecdotal information) has been collected to support this supposition. The almost continual wind in Skagway, and the distance of the Ore Dock from even the nearest residences, suggests that this concern may not be substantial.

Broadway Dock Area Land-use Issues

Displacement of cruise ship berthing from the Ore Dock could involve construction of a new berth at the Broadway Dock area. This, in turn, could displace existing users at that location. It could also affect neighboring uses.

Existing on-site and neighboring users of the Broadway Dock area are as follows:

1. **City of Skagway** – The City of Skagway shares ownership of the Broadway Dock filled area with the AMHS (see below). While AMHS owns the entire area built on fill to the south of the City's "Staging Area", the City owns 1/3 of the floating dock. The City also owns the transfer bridge. The

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City occasionally collects a fee for ships or barges to moor at the dock. Details of the arrangement between the City and AMHS have not been researched.

Reconstruction of the Broadway Dock filled area to provide an additional cruise-ship berth to replace use of the Ore Dock for that purpose would involve a “land swap” or purchase to enable relocation of the floating dock, and provision of an alternate terminal, and marshalling and parking space. It could also require disruption or even discontinuance or relocation of the City’s staging area.

The City’s interests in the lands on which the WPYR’s cruise-ship wharf at the Broadway Dock has been constructed (i.e., the “WPYR lease”) is discussed above. In addition to these interests, the City maintains a sewer outfall for its municipal wastewater treatment facility somewhere along the south-west side of the Broadway Dock fill area. Care must be taken to include this facility in planning for reconstruction of the dock.

2. **Alaska Marine Highway System (AMHS)** – AMHS operates a ferry facility on the Broadway Dock fill area, which is on tidelands purchased from the City of Skagway in 1962. The facility includes a parking lot, waiting-room and office-building, and a floating dock which it owns jointly with the City (see above). Displacement of this facility to a location on the south-east corner of the Ore Dock property will bring vehicles and passengers into closer proximity to ore-loading activities. Depending on possible road reconfigurations associated with redevelopment of the Ore Dock, conflicts between access to the ferry and access to freight facilities on the Ore Dock could be ameliorated or exacerbated.

The State is now in the process of budgeting about \$4 million for upgrading the AMHS facilities in Skagway. The funds would be used to reconfigure the facility for use with shuttle ferries that would replace the main-line ferry service when the road from Juneau to the Katzechin River is completed, and to provide a connection for on-board sewage to be discharged into the City’s wastewater treatment system.

3. **Skagway Terminal Company** – The Skagway Terminal Company operates the cruise-ship wharf at the Broadway Dock area. The extent to which these operations might be disrupted by reconstruction of the Broadway Dock area to provide an additional cruise-ship berth is unknown. Ideally, steps would be taken to harmonize planning, construction and operation activities, where necessary, with the on-going use of STC’s existing berth.
4. **Small boat harbor** – The City of Skagway operates a small boat harbor on property owned by the State of Alaska (SCP 6-13) all along the east side of the Broadway Dock. Redevelopment of this side of the dock for berthing of cruise ships has some potential to affect this facility. The City has plans in place for a partial penetrating wave barrier to protect the mouth of the Small Boat Harbor, and for an

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expansion of the harbor by excavating City-owned tidelands to the north and east of its existing staging area.

5. **Klondike Highway** – The Klondike Highway now ends at the AMHS ferry dock. Relocation of the ferry to the Ore Dock would, presumably, involve closing part of the existing highway and designating other (existing or new) roads to be part of the highway. Discussions with the State Department of Transportation and Public Facilities are required to resolve this issue. The new route would proceed from the south end of State Street along the road toward the airport terminal and then to the parking lot near Temsco. This entire route is already a state highway.
6. **WPYR railroad crossings** – Relocation of the Klondike Highway would involve renegotiation or closure of WPYR rights-of-way for the two places where the railroad now crosses the highway (on Broadway).

Truck-unloading Site Land-use Issues

The land-use issues are different for each of the three sites under consideration for a truck-unloader facility.

1. **West bank of the Skagway River to the south of the 23rd Avenue Bridge** – Construction of a truck-unloading facility on property west of the Skagway River south of the 23rd Avenue Bridge could affect nearby recreational uses. These effects would mainly be the result of the truck traffic involved. Redesign of the access to this site from the Klondike Highway would require careful consideration of effects on existing vehicular and, particularly, pedestrian traffic to and from the recreational area.

Existing users of the target and neighboring properties are as follows:

- a) The public lands considered suitable for upland truck-unloading are presently used by the City for dumping small amounts of waste asphalt and similar materials. As these lands, including the access road, are (arguably) owned by the State, a lease would be required from the Alaska State Department of Natural Resources. Because a court might, some day, find that the Skagway River is not navigable, in which case it would be owned by the City, it would be prudent to involve the City in negotiations to secure the use of these lands for the truck-unloader and related access roads.
- b) Other lands at this location near the Klondike Highway have been developed by the City for public recreational purposes, most notably: a ball diamond and a soccer pitch. These lands are owned by the City.
- c) Vacant (undeveloped) lands arguably owned by the State between the ball diamond and the proposed truck-unloader site are also used for recreational purposes, including Frisbee golf. As

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the proposed location is located on the bank of the Skagway River, there are no other adjacent properties to the east, except the airport on the other side of the river. The site is within the Skagway River AMSA.

- d) To the west, a number of residences have been built off the Dyea Road on the hill overlooking the site where the truck-unloader would be placed. There is some possibility that some of these residential users are accustomed to accessing the Skagway River via the property proposed for the truck-unloader. However, the terrain is extremely steep and rugged, and there is little sign of routine direct access from these properties to the riverbank. Nevertheless, further inquiries should be made
2. **West bank of the Skagway River to the north of the 23rd Avenue Bridge** – These are private lands currently zoned and used for industrial purposes. The extent to which a truck-unloader facility might disrupt this use is not known. Use of this location seems to involve the least disruption of traffic on the Klondike Highway. Further, it would keep trucks the greatest distance from users of the footbridge. It is not apparent that this location would disrupt any neighboring uses.
 3. **East bank of the Skagway River to the north of the 23rd Avenue Bridge** – As mentioned above, this is the location of the WPYR maintenance yard. These are private lands currently zoned and used for industrial purposes. The extent to which a truck-unloader facility might disrupt this use is not known. Trucks accessing this site would, of course, add to existing traffic on the 23rd Avenue Bridge. However, it appears that they would not interfere with pedestrian traffic on the adjacent footbridge.

Conveyor System Land-use Issues

Use of a conveyor across and along the Skagway River to transport commodities from an upland truck-unloader to the Ore Dock has little potential for direct conflict with existing uses. This is because the intermediate lands are rendered quite inaccessible by the airport on the east bank and the ruggedness of the terrain on the west bank. However, City and State officials, as well as members of the public, recognize the existing scenic value and recreational potential of this stretch of the Skagway River. There is therefore considerable likelihood of some opposition to developments along the riverbanks.

As mentioned above, the State claims ownership of the river. Construction of a conveyor on these lands would therefore require a lease from the Department of Natural Resources. Because ownership of the river is disputed by the City, it would be prudent for a developer also to obtain an agreement with the City.

Uses of the lands that could be used for the conveyor system are as follows:

1. **Skagway River** – During periods of low water, the Skagway River is used, to some extent, for hiking and similar recreation purposes. There is a park on the west bank of the river at its outlet. And, as mentioned above, there are established recreation facilities and uses near the 23rd Avenue Bridge.

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2. **Skagway Airport** – The Skagway Airport is owned and operated by the State of Alaska. The State also owns the road leading to the airport terminal. Crossing these properties would require an easement or other agreement with the State. This could involve both the Department of Natural Resources and the Department of Transportation and Public Facilities. In addition to the State’s proprietary concerns, there is potential for the conveyor to interfere with access to the terminal by vehicles and pedestrians. Engineering to avoid conflict with the use and safety of the airport will be required to comply with FAA airport regulations (see below).
3. **Pedestrian bridge** – Access to the pedestrian bridge, which crosses the Skagway River at the south end of the airport, is via the roads and parking lot that serve the airport terminal. Seasonal use of the pedestrian bridge may exacerbate any problems with traffic to the airport terminal.
4. **Tidelands** – As mentioned above, tidelands at the mouth of the Skagway River are owned by the City. A conveyor crossing these lands would require a lease or other permission from the City.
5. **Ore Dock** – Depending on the location of the proposed concentrate or coal storage facilities on the Ore Dock served by the conveyor, there may be a need to avoid conflicts with subleases such as the tank farm. There are underground fuel lines that serve the ferries at the AMHS dock, as well as the intake lines used for filling the tanks. Crossing the road to the helicopter facility would also be an issue. The possibility of this road becoming part of the Klondike Highway ought to be taken into consideration.

Overland Access Land-use Issues

1. **Klondike Highway** – “Klondike Highway” is the official name of the highway in Alaska. It is owned and maintained throughout its length by the State of Alaska. As the tourism business has boomed in Skagway, and as the freight business has fallen off, the use of the highway has changed from mainly industrial to mainly tourist traffic in the summer, and mainly “local” traffic in the winter. Resumption of truck traffic therefore raises considerable potential for conflicts between these uses. Tourist uses include not only through-traffic but also stop-and-go sightseeing and recreational uses via bus, rental car and bicycle. Regulatory issues relating to the highway are discussed below.
2. **State Street (Klondike Highway)** – Skagway is no stranger to the movement of ore concentrates through town by truck or train. City officials report no concern about the resumption of this traffic at historic volumes. Truck traffic follows the Klondike Highway from the 23rd Avenue Bridge down State Street to the Ore Dock. Until the area of 8th Avenue, the route passes through a predominantly single-family residential neighbourhood. From this location to about 2nd Avenue, the east side of the route is increasingly commercial, while the west has more residences. From 2nd Avenue to the port the route is increasingly vacant or industrial. City officials have not remarked upon any history of use-conflicts along this route, including speed, noise, dust or parking. However, as mentioned above, the discovery of environmental contamination from concentrate dust along this route (and along the train tracks) did lead to a massive clean-up in 1989-90. City officials report that people in Skagway would be particularly nervous about the possibility of coal-dust pollution

3. **Skagway Unit, Klondike Gold Rush National Historical Park** – Some parts of the Skagway Unit of the Klondike Gold Rush National Historical Park abut the east side State Street. The park is administered by the National Park Service (NPS). The Tait report quotes a letter expressing concern about the proximity of truck traffic on this route to the Skagway Unit. The regulatory aspects of this issue are addressed, below, in the regulatory section of this report.
4. **White Pass Unit, Klondike Gold Rush National Historical Park** – For a distance of about one mile near the suspension bridge near the White Pass summit, the Klondike Highway passes through the White Pass Unit of the Klondike Gold Rush National Historical Park. At vehicle pull-outs both above and below the bridge, the NPS has erected visitor-information signs. There is some potential for large volumes of truck traffic to conflict with traffic entering and leaving these pull-outs, to say nothing of buses, motorhomes, passenger vehicles and bicycles enjoying this stretch of road (there are no reports of frequent pedestrian use). It is no surprise, therefore, that the above-mentioned letter quoted in the Tait report also expresses concern about truck traffic on this route. The regulatory aspects of this issue are addressed below, in the regulatory section of this report.
5. **State Street (portion not part of Klondike Highway)** – As long as the Klondike Highway remains where it is, truck access to the Ore Dock from the corner of State Street and First Avenue is via the road that leads to the airport terminal. The entrance to the Ore Dock Property from this road is via a gate in the fence directly opposite the south end of Alaska Street. Relocation of the AMHS dock to the Ore Dock might result in re-routing the Klondike Highway to follow this road from the end of State Street, instead of turning east on 1st Avenue.
6. **Railroad** – Commodity shipments to the Ore Dock by railroad have considerable potential to interfere with access by the public to the waterfront. One issue that was raised in a meeting with the City would be the noise involved in moving trains and uncoupling and re-coupling cars. With the potential relocation and reconfiguration of at-grade crossings, there may be an opportunity to install federally approved “quiet zones” as a means of mitigating increased noise levels. Apparently the blocking of vehicular or pedestrian traffic on Broadway by trains is a regular occurrence in the tourist season and is not considered a big issue. Alternate access to the Broadway Dock is often possible via a road running along the south side of Pullen Creek.

2.2.3 Regulatory Issues for Skagway

All scenarios considered in this report for mineral or coal shipments out of the Yukon through Skagway require new construction at the Ore Dock. Mineral concentrate shipments require the construction of a new storage shed and, possibly, a new ship-loader. Coal shipments require a storage dome and dedicated ship-loader. In addition a portion of any conveyor from an upland truck- or train-unloader would also involve new construction on the Ore Dock property. All of these construction activities require a permit under the Skagway City Code, Title 15, Buildings and Construction. Consequently, every scenario triggers the filing of the Coastal Program Questionnaire (CPQ) mandated under the Alaska Coastal

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Management Program. The OPMP always receives a copy if the CPQ indicates that a federal or state agency may be involved, and this is always the case because question 5 of the CPQ asks if the project is within 5 miles of a public airport.

Whether approval for a project is being sought from a federal or state agency, or from the City of Skagway, it is mandatory for the proposal to be reviewed for compliance with the Skagway Coastal Management Plan. Project proponents are strongly urged by the SCMP to contact the City of Skagway or the OPMP to arrange a pre-application meeting with their officials before submitting a CPQ. This enables regulatory concerns to be identified so that concerned agencies can be contacted, and so that options and mitigation measures can be developed, without incurring excessive delay in the review process. The contact information for Skagway is as follows:

City of Skagway
ATTN: Coastal Coordinator
P.O. Box 415
Skagway, Alaska 99840
Tel.: (907) 983-2297

It has not been determined whether the building of a shed for storing concentrates requires a permit from at least 1 federal or state agency. If so, this would raise the SCMP review from the local level to the State (OPMP) level.

Skagway City Code

The SCMP says (among many other things), “It is the goal of the City of Skagway to serve as the regional port for northern Alaska and the Yukon, and strengthen its year round economy through providing marine/road transshipment.” Policies giving effect to this goal, and balancing it against competing goals, are expressed mainly in the City’s zoning legislation.

Otherwise, the City of Skagway, despite having some jurisdiction to do so, does not seem to have enacted ordinances specifically to regulate the shipment of freight through the town to the port, or the use of the ports. The following provisions of Skagway’s City Code illustrate the nature of the authority the City has exercised to date. They are provisions of general application, but they may be relevant to the construction, operation or use of port facilities:

1. **Title 5 – Business Licenses and Regulations:** This title requires businesses to obtain a license. The annual fee is \$10.00.
2. **Title 8 – Health and Safety:** At this time this title only contains provisions respecting litter, nuisances and fireworks.

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3. **Title 15 – Buildings and Construction:** For the purpose of regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of buildings and structures or portions thereof in the City, this title adopts by reference the 2000 edition of the International Building Code, excluding Chapter 27 and the International Residential Code. It also adopts codes for the electrical, mechanical, plumbing, fire safety and occupancy.
4. **Title 16 – Public Lands:** This ordinance imposes limits on the terms and conditions that may be contained in a lease of City lands. For example, the maximum term is 35 years, and any lease over 10 years requires a special ordinance. Renewal periods are included within these maximums. Presumably this title would apply to any renewal or renegotiation of the tidelands lease to PARN.
5. **Title 17 – Coastal Management Program** – This ordinance implements the CMP for Skagway. Article 17.10.010 “recognizes that certain uses and activities are of state concern and will not arbitrarily or unreasonably restrict or exclude these uses. Among the most important of the uses of state concern in the Skagway Coastal Management District are the following: management and maintenance of state roads, highways, parklands, airports and ferry terminals; disposition of state lands and waters, management of historic resources, conservation and maintenance of air, land and water quality, and port and harbour development. Among other things, article 17.30.010 recognizes the need to protect historical and recreational scenic values, and specifically subjects the following uses and activities to the SCMP: industrial, port and harbour development, dredging and filling, ports, docks and harbours, highways and roads. The need to harmonize developments with other uses and values is recognized throughout. This ordinance contains comprehensive standards and policies for harbour and other developments that reinforce and supplement federal and state requirements.
6. **Title 19 – Planning and Zoning** – This ordinance, which is subject to the Skagway Coastal Management Plan, divides the City into “use districts” or zones and regulates the use of property within each zone.
7. **Title 20 – Subdivisions** – It is unclear whether this ordinance applies to leases of lands owned by the City or subleases of those lands. Further legal research is required.

South Klondike Highway (Canada) Regulatory Issues

1. By Canadian federal law, Yukon regulations effectively apply to the use of the British Columbia portion of the highway (*Government Property Traffic Regulations*, C.R.C., c. 887). Trucks legally passing over the Yukon portion of the highway are therefore authorized to pass over the British Columbia portion of the highway.
2. Entry into Canada from the United States is controlled by Canada Customs and Immigration.

Klondike Highway (Alaska) Regulatory Issues

1. *Federal Agencies* –

- a) **US Department of Homeland Security** – The Department of Homeland Security controls entry into the United States from Canada at a facility approximately 8 kilometers from the Skagway town site. There is considerable potential for traffic congestion at this location with or without truck traffic. U.S. Customs may require truck inspection as well as collect any tariffs on products.
- b) **National Park Service** – The regulatory jurisdiction of the National Park Service is discussed generally above (see “Consistency Decisions and Other Permits). Further, while the NPS does not have jurisdiction to regulate off-park sources of contamination of park property, it may encourage the implementation of preventative or corrective measures from other federal or state agencies. Also, there may be civil remedies available, such as an action for an injunction or for the recovery of damages.

2. *State Agencies* –

- a) **Department of Transportation and Public Facilities (DOT)** – The Klondike Highway is owned and maintained by the DOT. State legislative authority includes not only maintenance-related issues, such as vehicle weight, but also traffic-related issues such as speed, hours of operation, and even parking.

The Klondike Highway’s designation as an “industrial use highway” under Title 17, Chapter 35.200 of the *Alaska Administrative Code* remains in place. A gross vehicle weight of 170,000 pounds is permitted for trucks that do not exceed 85 feet in length. The single-trip permit fee is \$3.95 per equivalent axle load. Permits may be obtained at the Skagway or Juneau offices of the DOT.

3. **City of Skagway** – The entire Alaska portion of the South Klondike Highway is within the boundaries of the City of Skagway. Further, the road leading from the Klondike Highway to the airport terminal is a State road all the way to Temsco, so it is not within the City’s legislative jurisdiction.

WPYR Railroad (Alaska) Regulatory Issues

1. **Federal Agencies** – In Alaska, the WPYR is regulated by the Federal Railroad Administration, a branch of the US Department of Transportation. The FRA was created by Congress in 1966 (49 U.S.C. 103 section 3(e) (1) and is responsible for railroad safety in the United States.
2. **State Agencies** – Department of Environmental Conservation
3. **City of Skagway** – The extent of the City’s jurisdiction over railroad operations has not been investigated as part of this report. However, no ordinances in the City Code exercise any such

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jurisdiction except as part of the general law applicable throughout the community (zoning, building construction, etc.).

Ore Dock Regulatory Issues

1. *Federal Agencies*

- a) **US Army Corps of Engineers (COE)** – Upgrading of the wharf probably involves, at a minimum, the installation of new pilings. This activity may be approved under an existing COE permit by amending the permit. During the amendment process the COE would generate an Environmental Assessment (EA) under the National Environmental Protection Act for the proposed activity. If the dock upgrade involves a sheet pile structure with fill this will also require an individual 404 dredge and fill permit (federal Clean Water Act) from the COE. For both these permits, an EA would be done by the COE before the permit would be issued.

There also is the possibility the COE might instead require an Environmental Impact Statement (EIS) under the *National Environmental Protection Act*. The need for an EIS rather than the simpler (and faster) EA is not necessarily determined ahead of time; rather, it may be determined during the review process. Because either an EA or EIS might be required, the COE would probably be the lead permitting agency. The U.S. Fish and Wildlife Service, National Marine Fisheries and EPA, along with other federal agencies (such as the FAA and the National Park Service) and reviewing state agencies will all use the EA process to comment on the proposed activity.

Typically an EA action for a small project can be completed in 2 to 3 months. The COE can take up to 18 months for some EA's on more complex projects. An EIS can take from 18 months to several years depending on project complexity and whether or not litigation is involved. Apparently applicants generally try to stay away from the EIS process because of this.

If maintenance activities involve only minor upgrades, the activities may qualify for a “categorical exclusion”, meaning the activities are anticipated to have no significant impacts and will not require an EA or EIS.

2. *State Agencies*

- a) **Department of Natural Resources (DNR)** – The State of Alaska Historic Preservation Office (SHPO) within the DNR has jurisdiction under state and federal legislation to preserve historic artifacts, sites and values. SHPO previously required the City of Skagway to design its solid-waste incinerator facility along the Klondike Highway to look like a circa 1900 industrial building. SHPO might exert similar influence over the construction of a new concentrate storage shed. It might even object to the appearance of the coal dome. However, some people suppose

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that SHPO would be more lenient with new facilities in the waterfront area because it is already so much changed from its appearance a century ago.

- b) **Department of Environmental Conservation (DEC)** – The DEC is very likely to be interested in a new concentrate storage shed because of the potential for dust emissions from the shed itself, or from activities necessarily connected with the shed (i.e., delivery of concentrates by truck). A DEC permit is required for new construction that is expected to release 10T per year of a regulated pollutant into the atmosphere. This seems like a lot. Possibly even the existing ship-loader would not emit this much. But, maybe the combination of new shed plus trucking into the new shed plus using the existing loader out of the new shed is enough to go over the 10T limit. Or, there may be other provisions requiring a permit that further research would bring to light.

Issuance of an air quality permit first requires identification of a boundary around the facility, establishment of air quality monitoring stations, and development of modeling parameters to enable the appropriate standards to be determined. This process tends to require significant lead time for DEC to develop the air model and write the permit consistent with EPA (federal *Clean Air Act*) air quality standards. The DEC may also require a Hazardous Materials Handling Plan for ore concentrates being trucked through town to the ore storage facility. There is also some possibility that the DEC will require a storm water certification under section 402 of the federal *Clean Water Act*.

- c) **Department of Transportation and Public Facilities (DOT)** – The DOT may be, but is not necessarily, contacted by the OPMP as part of the Coastal Management Program. However, the DOT does have jurisdiction to regulate the weight, length and use of trucks on state roads.
- d) **Department of Public Safety** – The Department of Public safety may require truck inspections and the State Fire Marshal’s Office may require certification of the concentrate storage building (AS 18). The DPS also may be, but is not necessarily, contacted by the OPMP. However, truck design and construction could be important for, say, environmental protection, and this issue might be addressed by the DEC.

3. *City of Skagway*

- a) Title 12 – Ports and Harbours (now relates only to the Small Boat Harbour)
- b) Title 16 – Public Lands – [See introduction to Skagway Regulatory Issues.]
- c) Title 17 – Coastal Management Program – [See introduction to Skagway Regulatory Issues.]
- d) Title 19 – Planning and Zoning – The waterfront is zoned “waterfront” and the port operations considered in this report appear to fall within the “principal uses” authorized for the zone.

Truck-unloader and Conveyor Regulatory Issues

The regulatory issues listed below are in addition to those identified above for the Ore Dock.

1. *Federal Agencies*

- a) **US Army Corps of Engineers (COE)** – Location of a truck unloader and conveyor from this facility to the port will require a wetlands determination from the COE and an individual 404 permit (federal *Clean Water Act*) for structures on or crossing over wetlands or floodplain. The same would apply to a new rail line or rail-car-unloader that may be proposed.

Under the Coastal Management Process, the following agencies (at least) would have the opportunity to comment on the application: Environmental Protection Agency; National Park Service, National Marine Fisheries; U.S. Fish and Wildlife; US Department of Homeland Security; Alaska Department of Natural Resources; Alaska Department of Environmental Conservation; Alaska Department of Transportation; City of Skagway.

- b) **US Environmental Protection Agency (EPA)** – If federal transportation monies are used for rail construction this may trigger the federal NEPA process for the project and require an EIS.
- c) **US Federal Railroad Administration (FRA)** – The FRA would probably be reviewing any rail proposal along with the Alaska Department of Transportation.
- d) **US Federal Aviation Administration** – Location of the conveyor system close to the airport (either to the side of the runway or within the flight path), means that review of the plans by the Federal Aviation Administration is required.

2. *State Agencies*

- a) **Alaska Department of Natural Resources** – Where the proposed conveyer system crosses state land the applicant will need a Miscellaneous Land Use Permit from the Department of Natural Resources, Division of Mining Land and Water (AS Title 38). Miscellaneous Land Use Permits generally can be issued within 30 days. Where support pilings for the conveyor system are placed in the Skagway River, an AS Title 41 permit must be obtained from the Alaska Department of Natural Resources, Office of Habitat Management and Permitting.

3. *City of Skagway*

In addition to the provisions referred to in the introduction to this section (Skagway Regulatory Issues), the following provisions of Skagway's City Code may have special relevance to the truck-unloader and conveyor system:

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- a) **Title 15 – Buildings and Construction:** This title 15 imposes special requirements for properties subject to flooding.
- b) **Title 19 – Planning and Zoning** – Two of the sites being considered for a dumping facility appear to be zoned industrial. Use for this purpose seems to be within the principal uses authorized for this zone. Location of the dumping facility and conveyor on State lands within the Skagway River would be in a “residential conservation” zone. Depending on the routing for the conveyor, it may also pass through “industrial,” “light industrial” and other “recreation conservation” zones. In these zones the conveyor is clearly not within the permitted principal uses. Further, a structure such as a conveyor seems not to have been within the contemplation of the ordinance, so provisions for “conditional uses” may not authorize this use. Additional research is required to determine how the conveyor system can be authorized under this ordinance. This issue should be brought to the attention of the City in its up-coming initiative to update the Skagway Comprehensive Plan.

Broadway Dock Reconstruction Regulatory Issues

Regulatory issues for the Broadway Dock are only relevant if the dock is to be extended to provide an additional cruise ship berth to replace loss of use of the Ore Dock for that purpose. The regulatory issues listed below are in addition to those identified above for the Ore Dock, truck unloader and conveyor system.

1. *Federal Agencies*

- a) **US Army Corps of Engineers (COE)** – Because there are so many new components to this scenario, it is conceivable that the COE will write an EIS for the proposed activity. If the COE chooses to write an EIS the process may take from 18 months to several years depending on support or opposition from the public and NGO’s. If the different parts of the proposal can be phased in over a period of years – construction of the coal dome, conveyor and truck-unloader before construction of the new cruise-ship berth – the COE may write a number of separate EA’s instead of one big EIS. The National Park Service, National Marine Fisheries, and U.S. Fish and Wildlife Service generally provide consultation and comment to the COE during the EA or EIS process.

2. *State Agencies*

- a) **Department of Natural Resources** – To exchange land with AMHS, the Alaska Department of Natural Resources, Division of Mining Land and Water may be required to prepare a 945 finding required by AS Title 38.

2.3 Haines (Port)

2.3.1 Introduction

Despite its natural advantages as a port site, Haines has not been used very much in recent decades as a port for inbound or outbound Yukon marine freight. At this time Haines also does not experience the level of cruise-ship traffic found in Skagway. The land-use and regulatory issues for Haines, therefore, are mainly issues of accommodating freight uses to the residential, commercial and recreational uses of the community.

Haines Borough

In 2002, Borough residents voted to consolidate the first-class city of Haines and the third-class Haines Borough into a home rule Borough. This action combined two separate governmental entities into one and mandated adding area wide planning, platting, and land use regulation to the responsibilities of the local government. Areas of the Borough that already had planning and zoning powers, the former City of Haines, Mud Bay and Lutak, retained their respective zoning regulations. The remainder of the Borough has been zoned General Use as described in the Haines Borough Charter and Transition Plan (See www.hainesborough.us)

Overland Access to the Port

Road access to the Lutak Inlet port sites from Canada is via the Haines Cut-off Highway, which ends at the Ferry Dock.

2.3.2 Land-use Issues for Haines (port)

Zoning

The following planning documents are in place for Haines Borough:

- Haines Comprehensive Plan:
 - Mud Bay Plan
- Haines District Coastal Management Plan: and
- Haines Borough Ordinances.

POL Dock and the Federal Tank Farm

The U.S. Government owns the POL (Petroleum-Oil-Lubricants) Dock and the 220-acre Federal Tank Farm. This land is considered to be a desirable location for port-related industrial use, given its distance

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(4 miles) from town and the community tourism dock. However, there is some need for environmental clean-up before the site can be used for other purposes.

Because the POL Dock and the Federal Tank Farm property are currently unused, their reconstruction for large-volume coal or iron ore shipments would not displace any existing uses. Further, adjacent lands, on the whole, have not been intensively developed. Accordingly, the main land-use issues for the POL Dock and the Federal Tank Farm are related to the provision of railroad access to the site.

Neighboring uses to the POL Dock and the Federal Tank Farm are as follows:

1. Lutak Inlet

- a) **Commercial and Subsistence Fishing** (seasonal) – Apparently the waters of Lutak Inlet are, during one or more brief periods in the year, heavily used by commercial and subsistence salmon-fishing operations. These may involve up to 100 nets, each up to ¼ mile long, being placed in the inlet at one time, creating a high potential for conflict with marine traffic to and from the POL Dock. It is believed that avoidance of such encounters by prohibiting fishing in navigation lanes would unacceptably affect fishing operations.
- b) **Foreshore** – The beach around the point to the south of the POL Dock is used for recreational purposes, including sport fishing. There is some need to preserve subsistence “harvest opportunities” along the foreshore of Lutak Inlet between the Federal Tank Farm and the Chilkoot Lumber Company dock. Further research is required to support design, construction and operation of new storage, berthing and loading facilities to avoid or at least minimize effects on these activities.

Due to the popularity of the area for subsistence, sport and commercial fisheries, there could be great concern for the effect of any port development on fish habitat and populations.

2. Lutak Dock

- a) Three-quarters of the Lutak Dock is owned and operated by Haines Borough. A sublease is in place for the petroleum storage and distribution facilities of Delta Western.
- b) The Alaska Marine Highway System owns ¼ of the Lutak Dock for its ferry terminal facility.
- c) In the undeveloped, mountainous wilderness area above the Federal Tank Farm is a dam used for electricity generation and to provide a water source for the Lutak Dock. Extension of improved water and sewer services to this area will be required in the future.

3. Native interests

- a) There may be native or culturally significant historic sites located within the Tank Farm property or nearby.

4. **State lands**

- a) The State of Alaska owns several parcels of land above and the Federal Tank Farm, as well as 16 acres of tidelands for berthing ships, barges, etc. at the Lutak Dock.
- b) The State also owns and maintains a concrete sport boat-launching ramp just north of the Lutak Dock.

5. **Borough lands**

- a) The Haines Borough owns a 115-acre parcel to the north of the tank farm, and a 53-acre parcel to the south.

6. **Private lands**

- a) Chilkoot Lumber Company Dock is now privately owned.
- b) Part of the private land abutting the south side of the Federal Tank Farm has been developed for residential purposes. This creates some possibility of conflict with future industrial uses of the tank-farm site.

7. **Future development**

- a) “Uplands developments will also have to be done with maintenance of the watershed and viewshed values of the eastern slopes of Mt. Ripinski in mind considering the region's world-class cruise ship destination status.”

Road-access Issues

The use of trucks to haul freight to or from a port site on Lutak Inlet has considerable potential to conflict with use of existing roads. Specific scenarios for this eventuality are not considered in this report. Generally, however, the road-access issues are as follows:

- 1. **Haines Cut-off Highway** – There is considerable potential for truck traffic to the port to conflict with a wide variety of individual and commercial uses, especially where the highway passes through the Haines town site. Furthermore, the highway is also the only access route to a small number of residential properties and popular recreational and traditional-use areas further up Lutak Inlet.
- 2. **Lutak Road** – The Lutak Road continues up Lutak Inlet from the end of the Haines Cut-off Highway at the AMHS ferry dock. It provides access to a number of homes, the Chilkoot Cultural Center, and the Chilkoot Lake Recreational Area. This road, which is a popular scenic drive, also provides access to wilderness recreational activities in the Chilkoot Valley, as well along the foreshore of the Inlet.

2.3.3 Regulatory Issues for Haines (port)

Generally, this report assumes that the regulatory issues for the development of a port and related facilities in Haines are much the same as for Skagway. Further research is needed to identify the extent to which this is so, and to investigate the regulatory consequences of the specific works being considered in this location.

Haines Cut-off Highway

The regulatory regime and issues for this highway in the Yukon and Alaska are similar to those for the Klondike Highway. In British Columbia, however, provincial law applies to the use of this highway (although it is maintained by the Yukon Government). Verification of these matters would require further research.

POL Dock and the Federal Tank Farm

1. *Federal Agencies*

- a) US Army Corps of Engineers – placement of fill, piling or navigational aids
- b) US Environmental Protection Agency – storm water runoff
- c) US Fish and Wildlife Service – endangered species
- d) US National Marine Fisheries – endangered species
- e) US Department of Homeland Security (security for incoming shipping & navigation) vessel & cargo inspection

2. *State Agencies*

- a) Office of Project Management and Permitting (OPMP) – coastal zone consistency
- b) Alaska Department of Environmental Conservation (DEC) – air quality, storm water runoff, hazardous materials handling plan
- c) Alaska Department of Natural Resources

3. *Haines Borough*

- a) HCMP favors industrial uses at Lutak
- b) Regulate port use so as not to interfere with fisheries

2.4 Haines (Railroad)

2.4.1 Introduction

At some future time a railroad from the Yukon to the Lutak Inlet port site may be considered. This section deals briefly with land-use and regulatory issues that would apply to the construction and operation of such a project. The route considered generally follows the Chilkat River valley.

2.4.2 Land-use Issues for Haines (railroad)

Zoning

- Haines Comprehensive Plan;
- Haines Coastal Management Plan; and
- Haines Borough Ordinances.

Existing Uses

The main land-use issue for a railroad down the Chilkat River valley would be accommodating multiple long-established uses. Especially, routing of the railroad through or around the Haines town site could be a problem from a land-use point of view.

1. Mining and exploration
2. Film industry
3. Subsistence, including firewood
 - a) Territory Used
4. Haines Cut-off Highway
5. State lands
 - a) Alaska Chilkat Bald Eagle Preserve and Critical Habitat
 - b) Mental Health Trust Lands
 - c) University of Alaska Lands
 - d) Chilkat State Park
6. Timber harvesting
 - a) No economically viable timber resource in district
7. Also
 - a) Many residences
 - b) First Nation lands, communities and interests
 - c) Native heritage uses and concerns
 - d) Recreation and tourism uses

2.4.3 Regulatory Issues for Haines (railroad)

1. Federal Agencies

- a) US Federal Railroad Administration
- b) US Army Corps of Engineers – placement of fill in wetlands
- c) US Environmental Protection Agency – storm water runoff

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- d) US Fish and Wildlife Service – endangered species
- e) US Bureau of Land Management – upland lease, operating plan
- f) US National Forest Service – upland lease, operating plan
- g) US Department of Homeland Security – security for border crossing with Canada) cargo inspection

2. State Agencies

- a) Office of Project Management and Permitting (OPMP) – coastal zone consistency
- b) Alaska Department of Environmental Conservation – storm water runoff, oil spill prevention plan, hazardous materials handling plan
- c) Alaska Department of Natural Resources – upland lease, Title 16 permit
- d) Alaska Department of Transportation and Public Facilities
- e) Haines Cut-off Highway issues
- f) railroad crossings

2.5 Hyder

Land-use and regulatory issues for construction, operation and use of Hyder as a port for inbound or outbound Yukon freight are generally the same as for Skagway and Haines. The main difference is that there is no local government authority in place. Hyder has been excepted – but, apparently, only for the time being – from the designs of the Borough of Ketchikan, to extend its jurisdiction over the entire southernmost portion of the Alaska Panhandle. Further analysis of the land-use and regulatory issues for Hyder has not been undertaken.

2.6 Stewart

2.6.1 Introduction

Because of its distance from the Yukon, Stewart has seen very little use as a port for Yukon freight. Stewart Bulk Terminals, which is a private company, operates a ship-loading facility that could be used by mines in the eastern Yukon.

The District of Stewart

The District of Stewart is a municipality under provincial law having local regulatory (and taxing) authority over an area which includes the port facilities and the land access route (Highway 37A) up to the bridge over the Bear River.

The Port

The existing port facility is located on what may be a foreshore lease adjacent to Highway 37A. It is separated from the international border by a small amount of foreshore.

Overland Access to the Port

Land access to Stewart from the Yukon is via Highway 37 to Meziadin Junction and Highway 37A to Stewart. The highway passes through the townsite along Railway Ave. to Fifth Avenue and on past two marinas, the Arrow Dock and Stewart Bulk Terminals to Hyder, Alaska.

Assumptions Applicable to Stewart Issues

This discussion of the regulatory and land-use issues in Stewart is based on the following assumptions:

- Stewart is most likely to be used as a port for Yukon freight requiring immediate shipment because the facilities are “open” and ready for use.

2.6.2 Land-use Issues for Stewart

Federal Interests

No land-use issues involving the federal government have been identified as part of this report. Further research is indicated.

Provincial Interests

The Provincial Government owns and maintains Highway 37A through Stewart to the international border.

The Provincial Government also owns and tidelands on which any expansion of the port might be built. Regulatory issues respecting any such idea are mentioned below.

No other land-use issues involving the Government of British Columbia have been identified at this time. Further research may be required.

Local (municipal) Interests

The municipal government and, apparently, the general public in Stewart seem to be concerned mainly about the need to revitalize the local economy. The passage of more trucks through town along Highway 37A would, apparently, be welcomed rather than regarded as a traffic, noise, dust or similar problem. Identification of other land-use issues at this level would require further research.

Planning and zoning documents for Stewart are as follows:

- District of Stewart Official Community Plan;
- District of Stewart Zoning Bylaw 651, 1996.

2.6.3 Regulatory Issues for Stewart

Detailed review of the regulatory issues for the shipment of Yukon freight through the port of Stewart has not been undertaken as part of this report. However, the agencies involved, the nature of their interests and the kinds of mitigating measures that may be required is illustrated by the recent application by Stewart Bulk Terminals to expand its existing ship-loading facility. It may be viewed on-line at the Project Information Center of the BC Government's Environmental Assessment Office. The URL is as follows:

http://www.eao.gov.bc.ca/epic/output/html/deploy/epic_project_doc_index_188.html

2.7 North Yukon

2.7.1 Introduction

The north Yukon port scenario, if one were developed, would most likely move product from the central and northern Yukon to a port site such as King Point on the Yukon's north coast.

Except for Old Crow, there are no permanent communities in the North Yukon. Neither are there any permanent structures other than the camps of outfitters and exploration companies, and the occasional trapper's cabin or (abandoned) government facility (such as DEW Line sites). Specifically, there are no port facilities in the Yukon on the Beaufort Sea, and no works are in place or planned to provide access by land to this region. Accordingly, no attempt is made to pinpoint discussion of land-use and regulatory issues to particular locations for a port or an access route to the port from the interior of the Yukon. For example, without more definite information about an access route, it is impossible to comment on its potential effect upon, say, a permanent camp established for an outfitting business or a mineral exploration activity.

Due to the remoteness and emptiness of the North Yukon, its land-use and regulatory issues do not fit in the categories applicable to the more developed port sites discussed above. Virtually all of the area is either public land or First Nation land. There is almost no privately-held fee simple land in the area. However, mineral claims do exist in the North Yukon, and the mine-development rights appurtenant to these claims could affect any port or access-route project.

2.7.2 Land-use Issues for North Yukon

Due to the remoteness of the North Yukon, its land-use and issues do not fit in the categories applicable to the more developed port sites discussed above. Virtually all of the area is either public land or First Nation land. First Nation land, in turn, includes its own subcategories that reflect different uses and regulatory interests.

Administration and control of public land in Canada is to be distinguished from legislative (i.e. “regulatory”) authority over activities on, and over the use of, land. In the Yukon, now, administration and control of public land generally belongs to the Yukon Government. Exceptions are for land retained by Canada, First Nation “settlement lands,” and (of course) lands in which the fee simple has been granted to private persons.

The general public uses possible port sites on the Yukon’s Beaufort Sea coast and land along potential access routes almost exclusively for recreational (sightseeing, hunting, fishing, etc.) purposes. These uses are not numerous due to the remoteness of the location and the cost of getting there. Also, these uses are seasonal, sporadic and temporary. Sometimes scientific studies are conducted in this area. These uses could involve the occupation and use of specific sites for longer periods of time. The only other non-First-Nation uses of the North Yukon are exploration activities associated with the search for mineral and hydrocarbon (coal/oil/gas) resources. There are no operating mines or producing gas or oil wells in the North Yukon, and there are no permanent facilities in place for operations of this nature. Commercial uses of the North Yukon consist only of outfitting and guiding for hunting, fishing and wilderness tourism. Some permanent facilities, such as cabins and docks, have been constructed in the North Yukon in connection with these commercial undertakings.

Members of Yukon First Nations also use public lands in the North Yukon for the same purposes as the general public, as well as for purposes similar to their use of settlement lands. In other words, it must not be assumed that First Nation uses of these lands is in fact limited to their settlement lands. Early engagement of affected First Nations would be required to gauge interest for the project and identify potential concerns.

2.7.3 Regulatory Issues for North Yukon

Three categories of government have some level of regulatory jurisdiction over port and access-route development and use in the North Yukon: federal, territorial and First Nation. Note that, because the Yukon Government and First Nation governments derive their regulatory authority under the Constitution of Canada from federal legislation, the jurisdiction of one is not generally superior to the jurisdiction of the other. In fact, the details of their exclusive, concurrent and overlapping jurisdictions are spelled out in

self-government agreements unique to each First Nation. These details are supported and confirmed by federal legislation. There are no municipal governments in the North Yukon.

3. Ports Environmental Issues

3.1 Introduction

The environmental analysis component of the Yukon Ports Access Strategy Study includes an assessment of current resources and potential environmental impacts related to development activities for each port scenario, including evaluation of study areas typically reviewed during the regulatory permitting process such as environmental assessment or environmental impact statement development. Potential mitigation measure identification and recommendations for further studies and research are also provided.

The environmental analysis was conducted utilizing available information and therefore is not intended to be representative of a complete environmental assessment.

3.2 Skagway

The proposed Skagway port development scenario consists of a multi-phased, stepwise approach, highly dependent on the volume of commodity available for transport. Port scenarios range from low volume throughput in which existing facilities with modifications or upgrades are utilized, to larger volume scenarios involving:

- Port reconfiguration, including construction of a new berth for cruise ship accommodation;
- Development of an upland truck unloading facility and conveyor;
- Development of a an upland coal rail transfer/storage facility and conveyor; and
- Ore dock upgrades including a new barging system for coal.

It is understood that any combination of infrastructure development for the larger volume scenario may proceed dependent on market demand. As such, all components have been analysed for potential environmental impacts associated with construction and operation of the proposed facilities.

3.2.1 Air Quality

Air quality in the City of Skagway is typically good, with air pollutants in the area estimated to be relatively low due to limited emissions sources in the area. The City is located in a Class II airshed, defined as an area generally free from air pollution with some impacts from industrial activities. (City of Skagway 2005). Current sources of air emissions in Skagway include cruise ships and other marine vessels, train movement, power generation activities, waterfront/transshipment activities, local vehicular traffic, residential emissions and wildfires.

The short-term, or low volume, port implementation strategy, which involves utilization of existing facilities, will result increased air emissions associated with the exhaust and dust generation from truck, rail and vessel movement, and fugitive dust emissions for mineral commodities including ore concentrate and coal dust during transport, handling and storage. Pollutants of concern that could potentially increase in concentration as a result of increased port utilization activities include carbon monoxide, nitrous oxides, and particulate matter. Metal-based ore dusts are also of concern due to toxicity and potential deposition into the surrounding terrestrial and aquatic environments.

The high volume, or long-term, port development scenario, which involves reconfiguration of dock facilities, will likely result in slightly higher combustion-related air emissions due increased vessel traffic, as well as dust generation from port construction activities. During operational activities, concentrate and coal dust generation will be most problematic at commodity transfer points, such as truck/rail transfer facilities and ship loading areas.

Although both low and high volume port development scenarios will result in increased air emissions, impacts to air quality are anticipated to be minimal based on predicted traffic flow volumes, proposed commodity containment scenarios and current ambient air quality in Skagway. It is estimated that National Ambient Air Quality Standards will not be exceeded for any criteria air pollutants given the proposed port development scenarios.

Proposed mitigation for minimizing impacts to air quality are applicable to all port development scenarios. Dust generation from dock construction activities can be mitigated through implementation of dust control measures such as water or dust suppressor application during earth moving and clearing. Dust control during operational activities can be minimized through the paving of roads and access routes utilized by trucks. In addition, air emissions from the transport of commodities via truck or train can be reduced through the utilization of low emission trucks and locomotives.

Proper containment of dust-generating commodities such as ore concentrates and coal will be required to ensure fugitive dust emissions during transport, storage, and handling activities are minimized and deposition into the terrestrial and aquatic environment is avoided. Dust minimization during transport of these commodities from the source site to tidewater can be facilitated through full containment of

shipments in both truck beds and railcars. Upon reaching Skagway, ore concentrates should be stored within enclosed structures, preferably with negative air pressure to ensure dust is contained within the structure. Coal should be stored within a proper coal storage facility to minimize dust generation and prevent spontaneous combustion.

If an off-site truck or rail unloading facility is constructed and material is conveyed to the dock area, a covered, completely enclosed conveyor system would minimize dust generation and spillage. Ship loading from the conveyor system or a nearby storage shed should be facilitated using an enclosed ship loader, using dust minimization techniques such as proper loader height, telescopic loading spouts, or other dust control measures.

If the Skagway port reconfiguration development proceeds, various air quality studies will be required for regulatory permitting purposes prior to the commencement of construction or operational activities. These studies may include air quality monitoring programs for establishment of baseline conditions and air quality model development for various mineral commodities shipped from the Skagway port. Ongoing air quality monitoring may also be required throughout operational activities.

3.2.2 Noise

Noise levels in Skagway fluctuate temporally, with a distinct correlation of increasing noise levels observed during summer months associated with increased tourist activity. The main sources of noise generation within the city include vehicular traffic, railroad activity, aircraft operation, and residential emissions (ADOT & PF 2006).

Increased noise levels associated with port utilization and expansion activities will be highly dependent on the volume of bulk commodity shipped through the Skagway port. Noise sources associated with increased activity involving the transport of bulk shipments from the Yukon Territory through the port of Skagway may include:

- Increased vehicular traffic, including large trucks;
- Increased rail traffic; and
- Noise associated with unloading/loading of commodities.

Additionally, if port expansion activities are initiated due to demand for increased shipping capacity through the port of Skagway, noise associated with port reconfiguration construction activities and operation of a conveyor system will contribute to increased noise volumes in the area.

As access to the waterfront is through a residential area and receptor sensitivity to noise is heightened, increased noise levels from large trucks may be considered a nuisance by local residents, especially if increased traffic flow results in several trucks passing through the area within a short time period. Increased rail traffic may be problematic if noise volumes are raised during night time hours, as may be required to avoid peak times of tourist use of the rail system. Although a conveyor system from an off-site loading area would eliminate truck traffic through a residential area, some minor noise generation from operation of the conveyor is anticipated.

Potential mitigation measures for noise reduction if port utilization increases or port expansion development proceeds may include avoidance of operations during periods of heightened noise sensitivity (night time), proper maintenance of noise control equipment, implementation of a conveyor system with a truck or rail loading facility located outside of a residential area, including proper enclosure and placement of the system. Implementation of other noise abatement techniques will be dependent on the design of new transport systems and structures.

If substantive port development activities are initiated, a noise assessment study may need to be conducted for regulatory permitting purposes, including predictions of project specific noise levels.

3.2.3 Water, Sediment and Land Quality

The current status of waters surrounding the City of Skagway is indicative of an area with previous industrial activity. Both the Skagway Harbour and the lower mile of Pullen Creek are listed as Category 5 Water Bodies on the Section 303 (d) list for Non-attainment of Toxic and Other Deleterious Substances standard for metals (ADEC 2006). Elevated metal levels in bottom sediment at these locations are believed to be associated with the transportation of ore from the Faro Mine site during the 1980's and 1990's. Contaminates of concern include lead sulfide, zinc, arsenic, mercury and cadmium (ADEC 2004).

Limited water quality information is available for the Skagway area waterbodies and it appears spatial and temporal water quality trends are relatively unknown. Results of previous sediment sampling programs within the Skagway Harbour demonstrate elevated levels of metals in marine sediments adjacent to the Ore Dock, and significantly lower concentrations at the Broadway Dock (Petratovich *et al.* 1999). A complete sediment characterization of the area has not been completed to date, therefore, spatial distribution of the contamination is not known. Metals contamination does not appear to extend to the Skagway River (Hood *et al.* 2006).

Site investigations conducted in 1988 found land-based metals contamination associated with shipment of ore concentrates from the Faro Mine at four locations in the Skagway area: along the White Pass rail tracks, the White Pass rail yard, the ore terminal facility site, and residential homes along State St. and 4th

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Ave (ADEC 2004). Extensive site clean up was conducted from 1988-1990 by White Pass and Bowland at the above-mentioned sites within the city, as well as along the train route from Whitehorse to Skagway (Danielson, pers. comm., 2006).

Potential impacts to water and land quality associated with the re-commencement of ore shipment from Skagway are consistent with historical concerns and contamination issues. Under the proposed short-term or low volume port development strategy, in which existing ore terminal facilities are utilized with potential modifications or upgrades, potential impacts to water quality include:

- Release of mineral commodities into the Skagway Harbour during commodity storage, handling and ship loading via fugitive dust emissions or other uncontrolled releases (spills);
- Potential disturbance of existing metals-contaminated sediment in Skagway Harbour adjacent to ore dock facility if in-water work is initiated in the form of pilings replacement, dredging activities, etc.;
- Release of commodities during transport activities including both road and rail transport options via fugitive dust emissions or other uncontrolled releases into surrounded water bodies including the Skagway River and Pullen Creek; and
- Storm water run-off from commodity storage areas.

The release of mineral commodities into surrounding water bodies, particularly ore concentrate, is of concern due to the toxicity of metals within the ore including lead, zinc, arsenic, mercury, cadmium, and other heavy metals, as well as impacts from increased sedimentation on fish spawning grounds. Releases of metals into marine and freshwater systems can lead to bioaccumulation within the aquatic food chain and subsequent human ingestion from fish consumption, as well as decreased abundance and diversity within aquatic communities.

Previous studies have determined that existing metals contaminated sediment located in close proximity of the Ore Dock is found within a one-foot strata layer of sediment core profiles, overlain with approximately six inches of clean organic matter (Wood, pers. comm., 2006). The burial of existing contaminated sediment has most likely decreased the bioavailability of metals; however, future disturbance and re-suspension could increase the potential for uptake by aquatic organisms.

Fugitive dust emissions and other uncontrolled releases of mineral commodities could potentially impact surrounding lands, leading to increased concentration levels of metals in local area soils. These metals could potentially enter the aquatic environment via surface run-off during rainfall events.

In terms of long-term or high volume port development strategies in Skagway, including the installation of a conveyor system and truck loading area located near the 23rd St. Bridge, construction of an up-land coal transfer and storage facility, construction of a new berthing facility at the Broadway dock, and

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movement of the ferry terminal to the west side of the existing Ore Terminal, potential impacts to water quality, in addition to lower volume scenario impacts previously listed, may include:

- Commodity dust releases and subsequent deposition into the nearby Skagway River or coastal waters during truck or rail unloading activities or conveyor operation;
- Increased in-water sedimentation from Broadway Dock construction activities and ferry terminal re-location;
- Possible disturbance of metal contaminated sediments within the Skagway Harbour. It should be noted that sediment samples collected in 1999 near the Broadway Dock showed only minor elevations in metal concentrations in comparison to Ore Dock sampling sites;
- Issues related to potential flooding of conveyor, truck/rail unloading facility if located within the Skagway River Floodplain; and
- Tracking of commodities from truck/rail unloading facilities via truck or rail.

Uncontrolled releases of commodities into the surrounding terrestrial and aquatic environments can be mitigated through proper containment techniques, infrastructure design, and location/placement of transport systems for both short and long-term port development strategies. Specifically, these mitigation measures would include:

- Proper enclosure of commodities during transport activities (truck and rail cars);
- Proper storage of mineral commodities, including enclosure to prevent water percolation and leachate generation through piles, and negative air pressure structures to minimize dust emissions;
- Dust/spill control systems during ship loading, including closed conveyance, proper loading height, telescopic spouts, or other dust minimizing techniques;
- Siltation/sedimentation control during in-water dock construction activities, including the utilization of silt curtains;
- Avoidance of disturbance of known sediment contamination areas within the harbour, or proper sediment encapsulation if Ore Dock upgrade or expansion is considered;
- Installation of automatic truck/rail washing systems to remove debris prior to vehicles leaving upland unloading facilities;
- Development and implementation of spill contingency planning in the event of an uncontrolled release during transport; and
- Elevation of truck unloading facility and conveyor above the 100-year flood mark.

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If port expansion activities proceed, an Environmental Assessment (EA) of the proposed project will be required, and dependent on the scope of the expansion activities, development of an Environmental Impact Statement (EIS) may be necessary. During the EIS development process, water quality and sediment quality baseline conditions should be established for the Skagway Harbour, Skagway River and Pullen Creek through the implementation of a comprehensive sampling program designed to identify spatial and temporal trends. It is recommended that a complete characterization of sediment contamination within the harbour area be carried out at that time, as much of the current sediment quality data available was collected prior to the 1994 sub-aqueous slide, and the extent of bottom disturbance from this event is not known.

If the existing ship loader is proposed to be used in its current state or as a modified version, further investigations will be required to determine if dust control and spill prevention is adequate to prevent materials from entering nearby water bodies.

3.2.4 Wildlife

Wildlife commonly found in the Skagway area includes mountain goats, black and brown bears, waterfowl and moose (City of Skagway 2005). Several species of migratory birds including waterfowl, seabirds, shorebirds, and terrestrial birds can be observed in the Skagway area at various times of year. Known bald eagle nests are located on the west side of the Taiya Inlet and along the Taiya River (City of Skagway 2005), outside of the proposed area of port development activity.

As both low and high volume port development scenarios for the port of Skagway involve increased activity within a previously developed industrial area, impacts to wildlife and migratory birds are anticipated to be minimal. It is estimated that species frequenting these areas are acclimated to high levels of human activity and noise levels generated from traffic, and residential/commercial activities.

If future port expansion activities trigger a requirement for an EIS, further wildlife studies and evaluations will be required, including sensitivity considerations of species frequenting the development area.

3.2.5 Fisheries

The port is located at the mouth of the Skagway River which supports coho salmon (*Onchorhynchus kisutch*), pink salmon (*O. gorbushca*), Chinook salmon (*O. nerka*) Chum salmon (*O. keta*), Dolly Varden char (*Salvelinus malma*) and eulachon smelt (*Thaleichthys pacificus*) (from Alaska Dept. of Fish and Game, Fish Distribution Database www.sf.adfg.state.ak.us/SARR/FishDistrib/anadcat.cfm). Pullen Creek flows along the south side of the City of Skagway emptying into the port in the vicinity of the Broadway Dock. This means that juvenile salmon are migrating through the port area in the spring months and

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adults are migrating upstream in the fall. Eulachon adults would be migrating into the Skagway River in the spring.

Aquatic habitats in the vicinity of the port include freshwater stream habitats used by salmonids for migration, spawning and rearing. The near shore marine and estuarine habitats are used by a wide variety of fish species including pink, Chinook, chum, Dolly Varden, walleye, Pollock, pacific staghorn sculpin, great sculpin, high cockscomb, crescent gunnel, starry flounder and rock sole (City of Skagway 2005). The intertidal and subtidal waters of the upper areas of Lynn Canal support a variety of invertebrates and vertebrates including clams; cockles; muscles; snow (tanner) crab; Dungeness crab; brown, blue and red king crab; pink, sidestripe, spot and coonstripe shrimp (City of Skagway 2005). Some of these species also contribute to commercial and recreational/subsistence fisheries. Down inlet areas, Taiya, Chilcoot Inlets and Lynn Canal support various ground fish populations including sable fish and Pacific Cod.

Skagway Harbour is a sample site within the National Benthic Surveillance Project run by NOAA Fisheries. The collection area is adjacent to the ore loading docks which recently have seen a shift from mineral and commercial commerce to large cruise ship operations. The National Benthic Surveillance Project is designed to provide information on levels of chemical contaminants in surface sediments in coastal and estuarine areas, and the levels of these same contaminants in selected marine organisms.

The proposed low volume development scenario indicates that existing facilities will be used with the addition of various shore-based facilities. No expansion of existing dock areas and associated in water works are proposed. Therefore, project effects from this scenario can be mitigated by the use of best practices during the construction and developing effective monitoring and management practices for the operation of the upgraded port facilities. The important measures would include:

- Management of on-site water to minimize erosion and control sediment during construction;
- Install storage facilities that minimize or eliminate the release of coal and ore concentrate to the environment through movement by water or wind i.e. covered stockpiles and conveyors; and
- Installation of an effective stormwater management/capture system at new facilities to capture any deleterious substances that can be released by accident or malfunction and contained before entering the surrounding environment.

The higher-volume development scenario for Skagway includes reconfiguration of port facilities, construction of a truck and/or rail unloading facility and conveyor system. Potential impacts to fisheries related to the long-term development scenario have been evaluated based on specific construction/operational components.

Truck and Rail Dump

The proposed truck dump and rail dump are located in close proximity to the Skagway River. These sections of the Skagway River are within the Skagway River AMSA (Area Which Merit Special Attention) within the Skagway Coastal Management Plan (City of Skagway 2005). Best management practices employed during construction and operation would minimize any impact to the Skagway River including erosion and sediment.

Conveyor

To be constructed and operated between the Skagway River and the airport runway used to move coal and ore concentrate from a truck dump site or rail dump site to the loading dock. The conveyor will cross over the Skagway River and be generally located within the or immediately adjacent to the active river channel. In the area of the proposed conveyor, the river channel is a dynamic depositional zone. As flood events deposit new substrate material within the project area, the main channel shifts within the floodplain. The conveyor must be constructed to withstand flood flows and potential scour of support structures. The coal and ore transported on the conveyor often includes a relatively fine fraction that can be mobilized by wind. The conveyor should be covered to ensure concentrate and coal dust is contained and not able to be blown into the river. This dust has the potential to impact water quality.

Construction activities adjacent to and within the active channel of the Skagway River should be restricted to periods of least sensitivity to the fish stocks that use this section of the Skagway River.

Ferry Dock

According to the Skagway Coastal Management Program report (City of Skagway 2005), the only area of estuarine habitat associated with the mouth of the Skagway River is in the general vicinity of the proposed relocated ferry dock. This could disrupt important intertidal and subtidal habitats. Specific issues include:

- May require infilling of nearshore intertidal and subtidal area;
- Habitat survey required to determine type of habitat, how it is used and the area that will be disturbed;
- In water construction confined to periods of least impact to fish, in particular juvenile salmonid out migration; and
- Consider incorporating habitat enhancement in the design of dock support structures to offset any loss of habitat created by the dock.

Broadway Dock

This dock is in close proximity to Pullen Creek which is also an AMSA. The final 120 m of Pullen Creek appears to flow underground (in a culvert) to its point of discharge in the port area. In order to provide

the appropriate dock length approximately 150 m of existing dry land in the vicinity of the AMHS will have to be dredged. This could result in release of contaminated soils and conflicts with the outfall of Pullen Creek. Issues to consider:

- Sediment assessment to determine contamination;
- Spoil disposal options defined after contamination assessment; and
- Construction restricted to periods of least impact to fish, in particular juvenile salmonid out migration.

On-Dock Facilities

- Construction of various on-dock facilities that are carried out following best management practices are not likely to have any significant environmental effect.
- Operation of facilities will require detailed management plans that describe methods for protecting the environment. In particular any stockpiles of ore concentrate or coal must be designed to minimize the loss of material into the marine environment. Similar precautions are required for the handling of materials on the docks.

Due to the proximity of port facilities and proposed development to the Skagway Harbour, Skagway River and Pullen Creek, careful planning and design based on good understanding of the existing fish habitat conditions will be required to ensure proper mitigation measures are applied to protect fish and fish habitat values in the port area.

3.2.6 Marine Mammals

Upper Lynn Canal is home to a variety of marine mammals, but not in the abundance sometimes found in the outer coastal areas. Marine mammals could include sea otter, sea lion, harbor seal, Dall porpoise, and whales including the humpback whale, minke whale, and orca whale (US Army Corps of Engineers 2002). The Skagway Coastal Management Program (City of Skagway 2005), indicates that traditional subsistence use of marine mammals occurs within a few kilometers of Skagway. Mapping provided in this report indicates that Harbour seals make use of the mouth of the Taiya River as a haulout area.

Potential impacts to marine mammals related to port development include the potential for spills, release of bilge water, marine vessel collisions, and noise causing disturbance to marine mammals. As the potential for impact to marine mammals increases in concert with increasing vessel traffic, impacts from the proposed low volume, or short term development scenario are anticipated to less than those associated with the long-term development strategy due to a lower capacity for shipping coal and ore concentrate, which would mean fewer ships frequenting the Skagway harbour area.

Based on the information available for this report, this site does not appear to have any significant marine mammal issues.

3.2.7 Wetlands and Tidelands

Relative to the rest of Lynn Canal, Taiya Inlet is not a very productive habitat due to high volumes of fresh water and silt, and the deep steep sides of the inlet; however, the inlet does provide habitat for various shellfish and marine fish, provides a migratory pathway for anadromous fish, provides a staging area for a variety of seabirds, and regularly attracts marine mammals (City of Skagway 2005).

Wetlands and tidelands within the project area are found along the banks and at the mouth of the Skagway River. Tidal flats and a small estuarine wetland area are located at the mouth of the Skagway River, and small fresh water lacustrine and riverine wetlands can be found upstream, along the banks of the river. Larger and more extensive estuary wetlands occur northwest of the proposed project area, at the mouth of the Taiya River.

Impacts to wetlands and tidal flats from the short-term development scenario are anticipated to be negligible as no activities or disturbance to wetland areas or tidal flats is proposed. Impacts associated with the long-term development scenario are related to the potential placement of the conveyor system along the Skagway River and movement of the ferry terminal to a location near the mouth of the Skagway River if port reconfiguration proceeds.

As the proposed conveyor system would be placed on pilings if located within the Skagway River floodplain, disturbance to the area is expected to be minimal and short-term, with the exception of small disturbances associated with access for maintenance activities. Movement of the ferry terminal to the west side of the ore dock would require in-water work in the form of placement of dolphins to secure the ferry float structure, therefore potential disturbance to the estuary area at the mouth of the Skagway River is a possibility. Movement of the ferry terminal would require further environmental analysis once a specific location is chosen and the design of engineered structures is finalized. As this area may be utilized by anadromous fish species for migratory purposes and juvenile rearing grounds, activities such as pile driving and dredging may be restricted to timeframes outside of fish migration, spawning and rearing periods.

Further studies, in the form of a wetlands determination assessment will most likely be required if port development proceeds.

3.2.8 Threatened and Endangered Species

Two marine mammals found in the Lynn Canal, the humpback whale and stellar sea lion, are currently classified as endangered species and as such are subject to protective measures as defined by the Endangered Species Act of 1973, as amended (U.S. Fish and Wildlife Service 2006). Humpback whales migrate to the upper Lynn Canal during summer months for the abundant food supply of herring and other small schooling fish. Collision with marine vessels and decrease food stocks are common threats to these mammals.

In the Lynn Canal, the stellar sea lion populations are highest during spring and summer months, with large numbers congregating in several haul out locations along the canal. No critical habitat or haul-out areas have been identified within the immediately vicinity of the proposed development area.

Mitigation measures for the protection of these marine mammals include avoidance by marine vessels when species are present in the area, protection of fisheries forage supplies, and avoidance of any identified haul-out areas during vessel movement.

3.2.9 Geological /Natural Hazards

The City of Skagway is a susceptible to flooding, earthquakes, upland and underwater landslides, locally induced tsunamis waves and slow uplift of land area (City of Skagway 2005). Subaqueous slides have been documented along the southeast wall of the Skagway harbour in 1899, 1966, and 1994. The subaqueous slide and subsequent failure of the Railway dock in 1994 resulted in a tsunami wave approximately 11-12 meters high at the shoreline, causing damage to several dock facilities and structures (Kuklikov et al. 1996). The dock was undergoing construction at the time of the slide.

Studies conducted by the federal Department of Housing indicate the City of Skagway would be inundated by a 100-year flood of the Skagway River, with water levels of less than one foot within the town site. The Skagway River area has been classified as a special flood hazard area (Zone A6), based on flooding potential and severity (City of Skagway 2001). The Skagway area is also susceptible to glacial outburst flooding from failure of up-stream glacial lake moraines. Dikes originally installed by the Corps of Engineers are now maintained by the City as a means of flood control.

Potential environmental impacts associated with natural and geologic hazards from the proposed low volume development scenario include potential damage and associated water quality impacts due to flooding of the Ore Terminal Facility, including ore storage areas. This would most likely be caused by a large tsunami wave, as this facility is elevated above the floodplain and is not as susceptible to flooding from the Skagway River. Construction of new in-water structures could contribute to subaqueous slides due to instability of underwater marine slopes, possibly resulting in locally generated tsunamis.

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In relation to the high-volume port development scenario, additional potential impacts requiring further consideration include the potential of flooding of the conveyor system, truck unloading facility, and rail unloading facility if these structures are located within the special flood hazard area (Zone A6), and submarine stability issues associated with new port construction at the Broadway Dock and new ferry location.

Implementation measures for mitigation of potential natural hazards include proper elevation of the conveyor and truck unloading facility to reduce the risk of flooding of these structures during peak flows, and design suitability considerations for in-water structures given the seismic and submarine instability history of the area.

Recommended studies for future port development activities include further analysis of potential flood water levels based on both 30 and 100 year flood scenarios for the Skagway River in relation to potential placement of a commodity conveyor system and truck unloading facility, and sub-marine geotechnical analyses of potential areas of in-water work.

3.2.10 Visual Impacts

Although much of the waterfront in Skagway is structured around tourism use, industrial related facilities, such as the Ore Terminal, are reminiscent of a time of increased industrial activity, and remain part of the visual landscape. The interpretation of visual impacts is highly dependent on individual and community perception, location of structures, and current land use. Based on the proposed port development strategy, activities and structures that may be perceived to have visual impacts by the public may include:

- Increased presence of large trucks and/or additional rail cars;
- The erection of structures for the containment of mineral commodities;
- Installation of a truck unloading facility near a recreation area (ball park);
- Potential deposition of coal dust to surrounding areas; and
- The presence of the conveyor system near the Skagway River.

As the Skagway waterfront is currently utilized for industrial purposes, visual impacts associated with erection of structures within this area are anticipated to be minimal. Development of a rail car dump facility at the old Russell Metals site will have minimal visual impact, as this site is an area previously utilized for industrial purposes, outside of main residential areas. Placement of structures near recreational areas such as parks and trails and increased industrial activity in residential areas, including the presence of large trucks, are most likely to be perceived as anaesthetic by local residents.

Visual impacts of the truck unloading facility and conveyor system can be reduced by strategic placement, as well as reducing the visibility in residential and recreation areas by installing tree screens and/or maintaining buffer zones. Possible burial of the conveyor system near the airport would reduce visual impacts to the nearby residential and recreational areas. The aesthetic issues associated with coal dust can be mitigated through proper containment of the product during transport, storage and handling. If shipment volumes increase to the point that numerous trucks are passing through the City in a short time frame, initiation of hauling commodity via railcar would alleviate truck volume issues.

3.2.11 Historical and Archaeological Resources

The Skagway area has a diverse cultural background. As the homeland for the coastal Chilkat and Chilkoot Tlingit Indians, and later as a staging area for prospectors during the Klondike Gold Rush, Skagway represents both eras through the preservation of historical and cultural resources sites. The Chilkoot Trail and Dyea Site National Historical Landmarks encompass the Taiya Inlet from Dyea Point up to the Chilkoot Pass and contains Tlingit and gold rush historical and cultural sites. The Skagway and WhitePass District National Historic Landmark includes an area from Skagway Harbour to the Yukon border, and includes numerous historical landmarks and buildings from the gold rush era.

As the port development scenarios are located within previously developed areas, the likelihood of interference with historical sites is unlikely. However, prior to any port expansion activities, further analysis of the specific areas of development will be required to determine the potential for presence of historic and cultural sites. This can be facilitated through consultation with the City of Skagway and the Skagway Traditional Council. Furthermore, all proposed development must comply with applicable requirements of state preservation laws and regulations.

3.2.12 Subsistence

Subsistence is the use of plants, wildlife and fish for personal use. The residents of Skagway gather and collect local resources for subsistence, including salmon and non-salmon fish, shrimp, mussels, crab, waterfowl and upland game birds, goat, moose, berries, seaweed/kelp, mushrooms, spruce tips, and medicinal plants (City of Skagway 2005).

As development associated with port expansion is within a previously developed area, no impacts to subsistence use are anticipated.

3.2.13 Public Health

During the late 1980's, public health concerns related to potential exposure to lead from previous ore concentrate shipping activities from the Faro Mine in the Yukon prompted an evaluation of lead levels in local residents. The State of Alaska Epidemiology determined that the City of Skagway does not have a serious health problem from lead, and contribution from lead from the ore terminal constitutes no basis for public concern (State of Alaska Epidemiology 1989).

Given the results of the study and improved awareness in hygienic practices associated with the handling and containment of mineral commodities, public health concerns related to recommencement of mineral commodity shipment through the port of Skagway are minimal. However, public consultation and education will be required if port expansion development proceeds to ensure public concerns are fully addressed.

3.2.14 Cumulative Impacts

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. Cumulative effects assessment should consider the effects of past, present and future actions associated with the project. Cumulative effects from port development activities in Skagway may occur immediately within the project area in relation to increased shipping activity and marine traffic, however, the effect of increased mine development should also be considered as port expansion within Skagway may increase the feasibility for mineral commodity production in the Yukon, Northern British Columbia and Southeast Alaska.

Foreseeable cumulative impacts associated with port development and expansion activities within the City of Skagway include cumulative air and water quality impacts, and cumulative increases to ambient noise levels. As the Skagway port experiences heavy cruise ship traffic during summer months, additional sea vessels transporting commodities will add cumulative contributions of air emissions, resulting in increased air quality pollutants. In addition, port reconfiguration may add an additional berth for cruise ships at the Ore Terminal during periods when ship loading is not occurring at the facility, further increasing the number of vessels in the Skagway Harbour.

Cumulative impacts to water quality are primarily associated with increased vessel traffic and commodity handling activities, as both are likely to increase throughout time with anticipated increases in mineral commodity production. These cumulative impacts may be associated with the potential for unauthorized discharges from seagoing vessels, and increased fugitive dust emissions and subsequent marine deposition. As the Skagway Harbour currently has metals contaminated sediment, further metals releases could cumulatively impact water and sediment quality and increase toxicity for aquatic species.

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If bulk shipping activities increase over time, ambient noise levels within the city limits are anticipated to raise due to cumulative noise contributions associated with increased marine and vehicular traffic.

Indirect cumulative impacts may occur outside of the project area in relation to increased mine development and increased traffic on surface transportation routes to the port area. This is of particular significance if several mineral deposits within a similar geographic area are developed simultaneously and shipped along common transportation corridors.

If port expansion activities proceed, further evaluation of cumulative impacts will be required as part of the environmental assessment process or development of an EIS, as will likely be required for the higher volume commodity shipment scenarios.

3.3 Skagway Access

Shipment of mineral or other bulk commodities into the Skagway port from source destinations will be by truck via the Klondike Highway, or by rail via the White Pass rail route. The latter rail option will require the construction of a truck/rail transfer facility near Whitehorse or Carcross, location dependent on the termination of viable rail line. Surface shipment routes for commodity transport from source locations is not established at this time, however, construction of an Alaska Canadian Rail Link would facilitate rail commodity transport in conjunction with other surface transport options.

The Alaska and Klondike Highways connect the City of Whitehorse, Yukon, to Skagway, Alaska. The highway runs adjacent to the Klondike National Park, and approximately one kilometre of highway is within park boundaries. Many tourists utilize these highway systems during the summer months.

The main environmental concern related to the transport of commodity along the Klondike Highway and White Pass rail route relate to the release of deleterious materials during transport and handling activities, particularly ore concentrates, through fugitive dust emissions and spills. This concern was realized in the 1980's, when fugitive dust emissions from the shipment of lead and zinc concentrate to Skagway via truck and rail resulted in metals contamination along surface transport routes. A clean-up program was completed in 1990 to remove contaminated material along the rail route from Whitehorse to Skagway, including the White Pass rail yard, and along road access routes (State Street). The unintentional release of bulk commodities during shipment can also have secondary impacts to water quality and fish and fish habitat in the event ore concentrates enter near-by water bodies from surface run-off or direct deposition at water crossing locations.

The likelihood of fugitive dust emissions can be reduced through proper selection of rolling stock designed to reduce releases and through enclosure of truck containers. As coal cannot be fully enclosed during shipment due to the possibility of spontaneous combustion, application of water or an alternative

dust suppressant agent can minimize dust during transport. Development and implementation of commodity-specific spills contingency plans and proper training of commercial shipping supplier employees is necessary to minimize environmental impacts in the event of a spill. The location of the uplands truck/rail transfer station should not be located in close proximity (100 meters) of water bodies due to the potential for dust generation and deposition, or introduction of commodities via surface runoff.

Increased dust and air emissions from both truck and rail traffic may locally impact air quality along the transportation corridors, however, it is not anticipated that U.S. or Canadian ambient air quality standards will be exceeded.

Increased road and rail traffic could impact wildlife in the area due to increased noise levels and wildlife fatalities. Utilization of the Klondike Highway or White Pass rail line will not significantly impact wildlife habitat, as these corridors represent previously established routes and, therefore, additional habitat disturbance will be minimal.

Increased volumes of commercial truck traffic along the Alaska and Klondike Highways will be very visible and may be considered a nuisance in higher density areas, such as Whitehorse, especially during periods of peak tourist traffic. If volumes of commodity shipped to Skagway increases significantly, utilization of the White Pass rail line will reduce the number of large trucks on the road and associated visible impacts.

The environmental assessment process will be triggered if existing surface transportation routes are expanded or new corridors constructed, including new access roads to potential mine sites. This will involve further evaluation and assessment of potential environmental impacts to wildlife, water quality and aquatic resources at all water crossings, air quality, ambient noise levels, endangered species, and archaeological resources within the development area. Cumulative effects and impacts to First Nations will also need to be addressed during this stage of review. Baseline studies, including field investigations, will be required to establish pre-development conditions along the proposed route.

3.4 Haines

The long-term port development scenario for Haines includes the construction and operation of a bulk storage facility for coal and iron ore commodities at the old Federal Tank Farm, construction and operation of a conveyor system, and construction and utilization of two, potentially three, dock facilities for berthing of large capacity vessels. Under this scenario, surface transport of commodities into Haines will most likely be facilitated through construction of a new rail line, due to the large volume of predicted commodity transported to Haines.

A short-term development concept has also been established to facilitate the transshipment of coal from Skagway through Haines. This would require development of an open-air storage site, possibly at the Federal Tank Farm or Chilkoot Lumber site, construction of a new berthing facility for barges and deep-sea vessels, and installation of a conveyor system.

3.4.1 Air Quality

Due to low industrial activity and the current population of Haines, air quality in the area is very good. Currently, main sources of air emissions include marine vessels, vehicular traffic, residential heating and wildfires. Potential impacts from port development in the Haines area in relation to air quality include increased emissions from marine, rail and local vehicular traffic, dust generation during construction activities, and potential fugitive dust emissions from commodity storage and handling. Pollutants of concern that could potentially increase in concentration as a result of port development activities include carbon monoxide, nitrous oxides, and particulate matter, including coal dust.

Considering the scope of the proposed port development scenario and current ambient air quality conditions in Haines, air quality impacts are anticipated to be minimal and National Ambient Air Quality Standards should not be exceeded for any criteria air pollutants.

Employable mitigation measures focus predominately on dust control measures, including proper containment during transport of material through adequate enclosure on rail cars, full conveyor enclosure and proper ship/barge loading techniques including proper loader height, telescopic loading spouts, or other dust control measures. Spraying of coal piles stored within the bulk storage or coal transfer areas with water or alternative dust minimizing compounds, such as latex, will reduce dust generation, and installation of screened fencing around the perimeter of the storage area will minimize coal dust dispersion.

As little data is available for ambient air quality conditions in the Haines area, air quality studies for the establishment of baseline conditions and predictions of potential impacts to air quality through the development of air models will most likely be required for regulatory permitting purposes, including development of an Environmental Impact Statement (EIS). Air quality monitoring may also be required throughout operational activities.

3.4.2 Noise

Ambient noise levels in the Haines area are relatively low due to limited industrial activity and urban development. Implementation of the proposed development strategy for the Port of Haines will result in increased noise levels in the area from both construction and operation of a new rail system and bulk storage facility. Although noise increases from construction related activities will be short-term in

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duration, noise amplification from vehicular and rail traffic and conveyance of materials to dock facilities will occur throughout the duration of operations. The largest contributor to noise generation is expected to be railcar operations, particularly during railcar unloading and shunting activities.

The location of the proposed bulk storage facility will mitigate noise levels, as the old Federal Tank Farm is located outside of the main residential area of Haines. The alternate location for an open-air coal storage facility at the Chilkoot Lumber site is also located outside of residential areas, therefore impacts from noise associated with barge/ship unloading and loading are anticipated to be minimal. Other mitigation measures include avoiding operations during night time hours when noise receptor sensitivity is heightened, maintaining a treed buffer zone around the rail route and terminal facility, installation of noise abatement structures near residential areas, enclosure of the conveyor system, and proper maintenance of noise control equipment.

If port development proceeds, further noise analysis will be required for EIS preparation purposes, including ambient baseline noise assessments and development of noise models to predict future project-related noise levels.

3.4.3 Water, Sediment and Land Quality

Water quality in the Haines area is very good and typical of northern waters, with limited non-point sources of pollution from urban run-off, septic tank leachate, sedimentation from surface erosion, and release of petroleum products from bilge water discharges (Haines Borough 1993).

Sediment quality data in the Chilkoot Inlet is limited. Previous studies conducted indicate localized contamination of metals and hydrocarbons near the Chilkoot Lumber site and small boat harbour (Access Consulting 1999 and U.S. Army Corp. of Engineers 2002).

Land quality at the old Federal Tank Farm, the proposed location for a bulk storage area, is impacted by hydrocarbon contamination from previous operational practices and spills. Groundwater wells at the site indicate levels of hydrocarbons above drinking water quality standards. Current clean-up activities at the site include high vacuum extraction and air sparging (ADEC 2004), with time estimates for clean-up or remedy-in-place status of 5-10 years.

In assessing water quality impacts, it is assumed that coal and iron commodities will be stored in open piles. Based on topography of the area, drainage from the Federal Tank Farm is towards Chilkoot Inlet. Water quality issues related to the Haines port development scenario may include:

- Sedimentation from pile driving and dredging activities;

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- Sedimentation from bulk storage facility construction activities (earth moving and clearing);
- Sedimentation from storm water run-off from spraying of coal piles (sediment loading);
- Release of mineral commodities during storage, handling and shipping loading via fugitive dust emissions or other uncontrolled releases (spills);
- Potential unauthorized discharges from shipping vessels, including spills; and
- Potential for hydrocarbon/metals leaching from previously contaminated soils (dependent on site clean-up status).

Surface run-off from previously contaminated land could potentially create sediment contamination issues down gradient within Chilkoot Inlet. Impacts to land quality include increased metals concentration in soils in close approximation of the bulk storage facility, resulting in inhibited growth of nearby vegetation.

Mitigation measures focus predominately on proper containment of bulk commodities. Coal dust minimization can be facilitated through spraying of piles with water or other dust suppressing compounds during storage. Although dust suppression during railcar transfer activities is challenging, installation of dust screening fences will minimize dispersion to surrounding areas. Full enclosure of conveyor systems, and low dust generating ship loaders will prevent material from becoming airborne and depositing in nearby waters.

Increased sediment loading in storm water run-off associated with open-air storage of commodities can be mitigated through the installation of berms around the bulk storage facility and coal transfer site. This temporary water containment will allow for settling of suspended solids. Any accumulated water may require testing prior to release.

Given the scope of the proposed long-term port development, it is likely that an Environmental Impact Statement will be required. In this process, water and sediment baseline studies would be conducted to establish present conditions at the proposed dock site, as well as a complete characterization of hydrocarbon contamination within the Federal Army Tank Farm. Outstanding clean-up requirements of the Army Tank Farm should be pre-established prior to development of the area.

If dredging is required to accommodate large capacity vessels at the POL dock area or Chilkoot Lumber site, sediment testing may be required to determine dredging material disposal options.

3.4.4 Wildlife

The Haines area has an abundant and diverse population of wildlife. Terrestrial mammals found in the area include moose, brown bear, black bear, mountain goats, mink, marten, otter, muskrat, coyotes, wolf, fox, lynx, wolverine, marmot, porcupine and numerous other animals (Haines Borough 1993). Many species of resident and migratory birds including seabirds, shorebirds, and terrestrial birds can be observed in the region throughout the year. One of the largest populations of bald eagles in Southeast Alaska is found in the Haines area, and the Alaska Chilkat Bald Eagle Preserve is home to thousands of over-wintering eagles during the fall and winter months.

Potential impacts to wildlife in the area associated with the construction and operation of a bulk storage facility area are predominately noise related, and may result in wildlife avoidance of the area. As the potential sites for a bulk terminal facility and coal transfer area are located within previously disturbed industrial areas, wildlife disturbances due to habitat loss are minimal.

Further wildlife assessments and habitat characterization, including field studies, will be required during development of an EIS for permitting and regulatory purposes if port expansion proceeds.

3.4.5 Fisheries

The location of the proposed bulk-handling terminal is approximately 3.5 km north of Haines at the old Army Tank Farm. There are no major fish bearing streams as identified by the Alaska Department of Fish and Game Fish Distribution Database (www.sf.adfg.state.ak.us/SARR/FishDistrib/anadcat.cfm) in the immediate vicinity. The alternate proposed site for transshipment and storage of coal barged from Skagway, the Chilkoot Lumber site, has a small creek that enters Lynn Canal just east of the site.

Five species of Pacific salmon and Steelhead trout are known to use the waters in and around Haines. US Army Corps of Engineers (2002) indicates there are no areas of essential fisheries habitat in the immediate vicinity of the POL Dock. The general Lynn Canal area south of Haines could be considered essential fish habitat for several species of rockfish. These rockfish include species such as the yelloweye rockfish and dusky rockfish. The younger juveniles of many rockfish species use shallow-water habitats for nursery areas, while the older juveniles are known to concentrate along vertical faces in fjord areas (US Army Corps of Engineers 2002).

The primary in-water aspect of a new dock facility located at the POL dock site would be one or two ship docking and loading facilities. The shoreline probably has a relatively steep grade at the loading site and the dock facilities are likely to have very little footprint on intertidal areas. The main dock facilities would likely be located in fairly deep water with minimal impact on fish or fish habitat. Detailed site-

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specific habitat surveys would be required to confirm these comments as they are based on the review of airphotos and not any site survey. The preliminary layout of the rail unloading facilities shows a slight intrusion into the upper beach areas at both the northwest and southwest ends of the track network. These intrusions could have an effect on fish habitat depending on the extent of support structures and how far they might move into the intertidal area.

The proposed coal transshipment site at the Chilkoot Lumber site is located along a deep glacial fjord with a shoreline that generally drops off quickly, indicating that there are unlikely to be extensive sensitive near-shore fish habitats present such as eel grass beds, intertidal mud flats, etc. However, detailed habitat surveys will be required to fully assess potential fish habitat in this area prior to in water work.

Potential impacts to fish and fish habitat from port development activities relate to dock construction and materials handling. As the proposed dock development areas would not likely require extensive dredging to accommodate new dock facilities, the impact of habitat disruptions and impacts to water quality associated with dredging would be minimal.

The application of best management practices for in-water activities, materials handling, and on-site stormwater management during construction and operational activities would minimize impacts to fish and fish habitat in the Haines area. These would include:

- Design of bulk handling facility to minimize footprint in the intertidal area;
- Site-specific assessment of fish habitat;
- Incorporation of design features into dock structures to offset fish habitat impacts;
- Limiting in-water work to specified construction windows; and
- Development of detailed management plans that describe methods for protecting the environment. In particular any stockpiles of ore concentrate or coal must be designed to minimize the loss of material into the marine environment. Similar precautions are required for the handling of materials with in the bulk storage areas.

The information available to us at this time does not suggest that the port development sites would have any unmanageable fish or habitat issues given the port development scenarios presented.

3.4.6 Marine Mammals

Upper Lynn Canal is home to a variety of marine mammals, but not in the abundance sometimes found in the outer coastal areas. Marine mammals could include sea otter, sea lion, harbor seal, Dall porpoise, and whales including the humpback whale, minke whale, and orca whale (US Army Corps of Engineers 2002). The closest major haulout area for Steller Sea Lions is at Gran Point, approximately 20 km down the Canal from the port site (NOAA 2006)

Potential impacts to marine mammals from port expansion and utilization include impacts from potential spills, marine vessel collisions, bilge water releases, and noise disturbance. Mitigation measures for the protection of these marine mammals include avoidance by marine vessels when species are present in the area, protection of fisheries forage supplies, and avoidance of any identified haul-out areas during vessel movement.

Based on the information available for this report, the proposed development sites do not appear to have any unmanageable marine mammal issues.

3.4.7 Wetlands and Tidelands

In the Haines area, freshwater wetlands are located within the floodplains and drainages of tributaries including Takhin, Tahini, Chilkat and Chilkoot Rivers, and Sawmill Creek (Haines Borough 2005). The closest wetland to the proposed development area is the Sawmill Creek wetland, however, the spatial separation from the proposed dock structures and associated facilities is great enough that no direct impacts are anticipated. Indirect impacts to both salt water and freshwater wetland areas can be avoided through preservation of waters within the Lutak Inlet and surrounding drainage systems.

Further assessment and inventory of wetlands, including field investigations, will be required in the Haines area if port development within the scope the proposed scenario proceeds, as current wetland inventories are interpreted from aerial photographs and other data sources—a technique which may not have identified smaller wetlands in the area. A wetlands inventory will most likely be required if development proceeds.

3.4.8 Threatened and Endangered Species

Two marine mammals found in the Lynn Canal, the humpback whale and stellar sea lion, are currently classified as endangered species, and as such are subject to protective measures as defined by the Endangered Species Act of 1973, as amended (U.S. Fish and Wildlife Service 2006). Humpback whales migrate to the upper Lynn Canal during summer months for the abundance food supply of herring and

other small schooling fish. Collision with marine vessels and decrease food stocks are common threats to these mammals.

In the Lynn Canal, the stellar sea lion populations are highest during spring and summer months, with large numbers congregating in several haul-out locations along the canal. No critical habitat or haul-out areas have been identified within the immediately vicinity of the proposed development scenario area.

Mitigation measures for the protection of these marine mammals include avoidance of humpback whales by marine vessels when present in the area, protection of fisheries forage supplies, and avoidance of any identified haul-out areas during vessel movement.

3.4.9 Geological / Natural Hazards

Haines is located in a seismically active area and has the potential to be affected by earthquakes of significant magnitude and secondary effects including avalanches, landslides, land displacement, sub-aqueous slides and localized tsunamis. Slope instability may also result in avalanches and landslides, as well as slope failure and erosion, typical of high relief areas such as Haines. Flooding hazards exist within flood plains of river systems during periods of peak flow, and along the coastline from storm surges and localized tsunamis.

Potential effects of local hazards on proposed port structures and operational activities include dock structure failure due to destructive waves, earthquakes, landslides or sub-aqueous slides, and conveyor support structure failure due to slope instability or localized tsunamis. As the proposed location for bulk storage is located several meters above sea level, impacts from storm surges or localized tsunamis are not anticipated. Portions of the bulk storage facility are within the predicted boundary of a 100 ft-above-sea-level water rise, however, this catastrophic event has a likelihood of once in one thousand years (Nanny 1989).

Erosion and potential subsequent slope failure can be mitigated through minimization of earth clearing and vegetation removal on sloped surfaces and revegetation of disturbed areas. The design and construction of in-water structures should be appropriate for seismically-active areas to minimize the potential for structure failure during geological events.

Further evaluation of natural hazards in the Haines area will be required if the current project development scenario is initiated, including a site assessment of the proposed development areas. Construction design should consider proper site preparation, structure placement and erosion control measures.

3.4.10 Visual Impacts

The landscape in Haines is characterized by beautiful coastlines, mountains and plentiful undisturbed natural areas. This visually pleasing environment attracts numerous visitors and ever increasing numbers of retirees. Haines has limited industrial development and current shipping activities involve relatively small volumes.

The interpretation of visual impacts is highly dependent on individual and community perception, location of structures, and current land use. Visual impacts from port development in Haines include coal dust residue from commodity handling, aesthetics of a bulk storage facility, coal transfer facility, conveyor system and new dock facility, and increased vessel traffic.

The proposed location for the bulk storage facility, coal transfer facility and related dock structures themselves reduces visual impact to local residents, as these development sites are located outside the main residential area, within an area currently utilized for industrial activity. Coal dust dispersion can be minimized through dust control measures such as spraying of piles, and installation of dust-filtering fencing around the bulk storage facility. Tree screening for both the bulk storage facility and conveyor will help camouflage these structures and reduce visual impacts.

3.4.11 Historical and Archaeological Resources

Haines has a rich history of Tlingit culture and military establishment. Numerous historical and culture sites are documented within Haines and surrounding areas, such as the first known Tlingit settlement in Alaska, located 20 km from Haines along the Chilkat River (Haines Borough 1993).

One known documented site may be within proposed development scenario boundaries. Tanani Village is a site of historic and prehistoric significance located at the Federal Tank Farm (Haines Borough 1993). This site will require further evaluation, in addition to further characterization of potential archaeological sites within proposed development boundaries if development is to proceed.

3.4.12 Subsistence

The majority of subsistence use by native and non-native residents is through harvesting of fisheries resources, however, terrestrial mammals and birds are also gathered for personal use in the Haines area. Protection of subsistent uses in relation to the Haines port development scenario would focus primarily on preservation of fish and marine species habitat, including water quality preservation. Impacts to terrestrial resources within Haines are anticipated to be minimal, as the proposed project areas are within previously disturbed industrial areas.

3.4.13 Public Health

It is anticipated that the main public health concern associated with initiation of shipping of bulk commodities through the port of Haines is related to the potential for coal dust generation. Airborne coal dust increases the particulate matter in the air, decreasing ambient air quality, which can lead to potential health problems in individuals with heightened respiratory sensitivities.

Proper dust control measures, including conveyor enclosure, spraying of coal piles and installation of dust-screening fencing will decrease the potential for dust generation and dispersion, and ensure ambient air quality standards are met. The proposed location of the bulk storage facility and coal transfer site (outside of the main residential area) will also decrease the potential for adverse health impacts to the residents of Haines.

3.4.14 Cumulative Effects

Cumulative impacts result when the effects of an action are added to or interact with other effects in a particular place and within a particular time. Cumulative effects assessment should consider the effects of past, present and future actions associated with the proposed development scenario. Cumulative effects from port development activities in Haines may occur immediately within the project area in relation to increased shipping activity and marine traffic, however, the effect of increased mine development should also be considered as port expansion within Haines may increase the feasibility for mineral commodity production in other areas, such as Northern Yukon. Improved shipping facilities could potentially attract shipments of bulk materials other than mineral commodities, leading to increased marine traffic. Air emissions, noise, levels, and the potential for unauthorized discharges will increase in concert with increasing vessel traffic.

Indirect cumulative impacts may occur outside of the project area in relation to increased mine development. This is of particular significance if several mineral deposits within a similar geographic area are developed simultaneously and shipped along common transportation corridors.

Given the scope of the proposed port development scenario, a requirement for preparation of an EIS will most likely be triggered, and will involve further evaluation of cumulative impacts associated with port expansion activities in Haines.

3.5 Haines Access

In the proposed Haines port development scenario, transport of commodities to tidewater will be facilitated by construction of a rail line to the site of the bulk storage facility, as predicted volumes of mineral commodities are very large. Preliminary evaluation suggests that the potential rail route may commence in Northern Yukon or may transect the proposed Alaska Canada Rail Link at an alternate location. Access into Haines may be via the Chilkat Inlet, as topography of this potential corridor is suitable for rail construction and operation.

Due the trans-boundary nature of the proposed project, its location on several First Nations' traditional and/or settled lands, and the pristine and environmentally sensitive area that the rail line may transect, extensive environmental review will be required prior to development. During the environmental assessment process, impacts to resources will be evaluated and mitigation measures identified. Main issues will include, but not be limited to:

- Assessment of impacts to wildlife due to loss of habitat, wildlife fatalities and habitat fragmentation. As the proposed route may pass through the Chilkat Bald Eagle Preserve, location and avoidance of nests would be required;
- Assessment of impacts on aquatic resources, including fish habitat of the Chilkat River and other water crossings. Restriction on construction activities during fish migration, spawning and rearing periods may be required;
- Assessment of impacts to subsistence and affected First Nations in both Yukon and Alaska. This will involved extensive consultation with all affected parties; and
- Location and avoidance of archaeological resources, given the high potential for historical and archaeological sites in the area.

Proper route selection for the proposed rail line will be fundamental in mitigating impacts to natural resources through avoidance of environmentally sensitive areas.

3.6 Ports – Other

3.6.1 Hyder and Stewart

The port of Stewart, B.C. has existing facilities owned by the private sector that are capable of expanding shipping capacity in the event of increased market demand. As predicted volumes potentially shipped through this port can be facilitated utilizing existing facilities, no expansion or port development is anticipated. Therefore, a detailed environmental examination has not been performed at this time.

3.6.2 North Yukon

Because of the high latitude and delicate nature of the ecology in north Yukon, there are a number of considerations that would have to be treated with care in the application for development of a port and access to tidewater.

If new transportation corridor(s) are considered or existing corridors are expanded, the following environmental issues will need examination:

- Number and types of water crossings (anticipate that this will be a critical threshold indicator in the Land Use Plan for the North Yukon);
- Fisheries, fish bearing streams and types of fish habitat;
- Water quality (disturbances, sedimentation);
- Types of commodities transported (are they sufficiently toxic that they present a serious environmental risk if transported near or over fish bearing water courses?);
- Wildlife habitat loss/fragmentation (anticipate that this will be a critical threshold indicator in the Land Use Plan for the North Yukon);
- Migratory key indicator species pattern disruption;
- Vehicle/wildlife interactions (e.g., mortality events);
- Endangered/threatened species inventory;
- Migratory bird implications;
- Wetland habitat considerations;
- Air quality;
- Noise; and
- Heritage resources (archaeological sites).

The preceding list relates to baseline information that will be required to ascertain the significant potential environmental effects of a corridor, and where there are anticipated effects, where mitigation measures will need to be developed and employed. These can be both significant individual events, and studied from a cumulative effects perspective as required under YESAA.

Public Interest Analysis on Ports Options

If a North port is to be constructed, the following environmental issues will need examination:

- Aquatic habitat;
- Fisheries and fish habitat;
- Marine mammal presence (e.g., whales);
- Invasive species possibilities;
- Water quality (sedimentation, potential spills during transfer of materials);
- Sediment quality;
- Types of commodities transported (if sufficiently toxic that they present a serious environmental risk if stored and shipped through this port);
- Terrestrial environment and wildlife;
- Endangered/threatened species inventory;
- Migratory bird implications;
- Air quality;
- Noise; and
- Heritage resources (archaeological sites).

These reviews are particularly relevant where there is storage and handling of toxic materials, and dredging and infilling activities associated with port construction.

The preceding list relates to baseline information that will be required to ascertain the significant potential environmental effects of a north port, and where there are anticipated effects, where mitigation measures will need to be developed and employed. These can be both significant individual events, and studied from a cumulative effects perspective as required under YESAA.

There are a number of potential challenges we are aware of at this point:

- Potential catastrophic events caused by engineering failure to address severe weather conditions (e.g. permafrost active layers, climate change/warming, ice impacts).
- Migratory patterns of the Porcupine Caribou Herd across potential transportation corridors to King Point.
- Assuming a north NWT port option, dredging would likely be required, raising significant sediment issues in offshore areas.
- Environmentally and culturally sensitive area that has undergone little or no previous development.

Species at risk that may be encountered, dependent on development scenarios, include the eskimo curlew (endangered), woodland caribou (threatened), peregrine falcon (threatened) and the grey whale, eastern North Pacific population (special concern).

4. Conclusion

At this high level of investigation on port options for a Yukon ports strategy, there do not appear to be insurmountable challenges of an environmental, land use or regulatory kind that would prevent moving forward with the ports scenarios considered most promising. The work associated with environmental management, securing necessary land and obtaining approvals, however, is not insubstantial.

Skagway has a development orientation with a long history of port service for both tourist and commodity traffic. Therefore, the scenario for realignment of dock space to maximize utility of space can work within the current economic orientation of that community.

Sensitivities surrounding this port scenario relate to the proximity of the ore dock to the Skagway River; this is important fish habitat. In addition to the development of the dock and introduction of an ore conveyor system, this is the preferred location for relocation of the ferry terminal. Therefore, the development of the ore dock as envisioned, as well as the establishment of the ferry dock near the mouth of the river, means that care and attention will be necessary in construction given proximity to tidal, estuarine habitat.

The Haines port option for the longer-term shipment of high volume ore, such as iron from the Crest deposit in the Peel Region of the Yukon, is also a workable option from what this study has found regarding the environment, land use and regulatory context.

The more significant challenges and unknowns relate to the access to port by way of rail through Alaska, northern British Columbia and in the Yukon. The YESAA process has not been “tried” for this kind of large linear corridor development (though it might be at time of development depending on the timing for the Alaska Highway Pipeline). A related challenge is the coordination of the environmental processes in Canada and between Canada and the United States for the corridor so described.

In addition, without an actual route selected for the rail, it is difficult to identify, with any degree of confidence, the kinds of environmental challenges resulting from rail construction and use.

Public Interest Analysis on Ports Options

Where Haines is concerned, it will be important to secure the old tank farm as the rail terminus for ore shipments through Haines; securing the route for rail through or adjacent to Haines will also be an important consideration. It is understood that there are plans for a multi-year clean up of the old tank farm. From an environmental standpoint, it is reasonable to assume that this would be a precondition for the use of that property depending on the extent of the contamination.

An alternative large volume port option through the north Yukon is currently not considered an attractive alternative to the large volume rail/port scenario at Haines. The environmental assessment/regulatory context is highly complex. Jurisdiction for environmental assessment and permitting is spread among the Inuvialuit (North Slope), Vuntut Gwitchin (depending on access corridor routing), and Yukon and federal governments. In addition, migratory species such as caribou and birds that nest in the Arctic present considerable environmental sensitivities. This is also habitat for wide-ranging species like grizzly bear. Construction of a port and access is also challenged by permafrost conditions and sea-ice conditions.

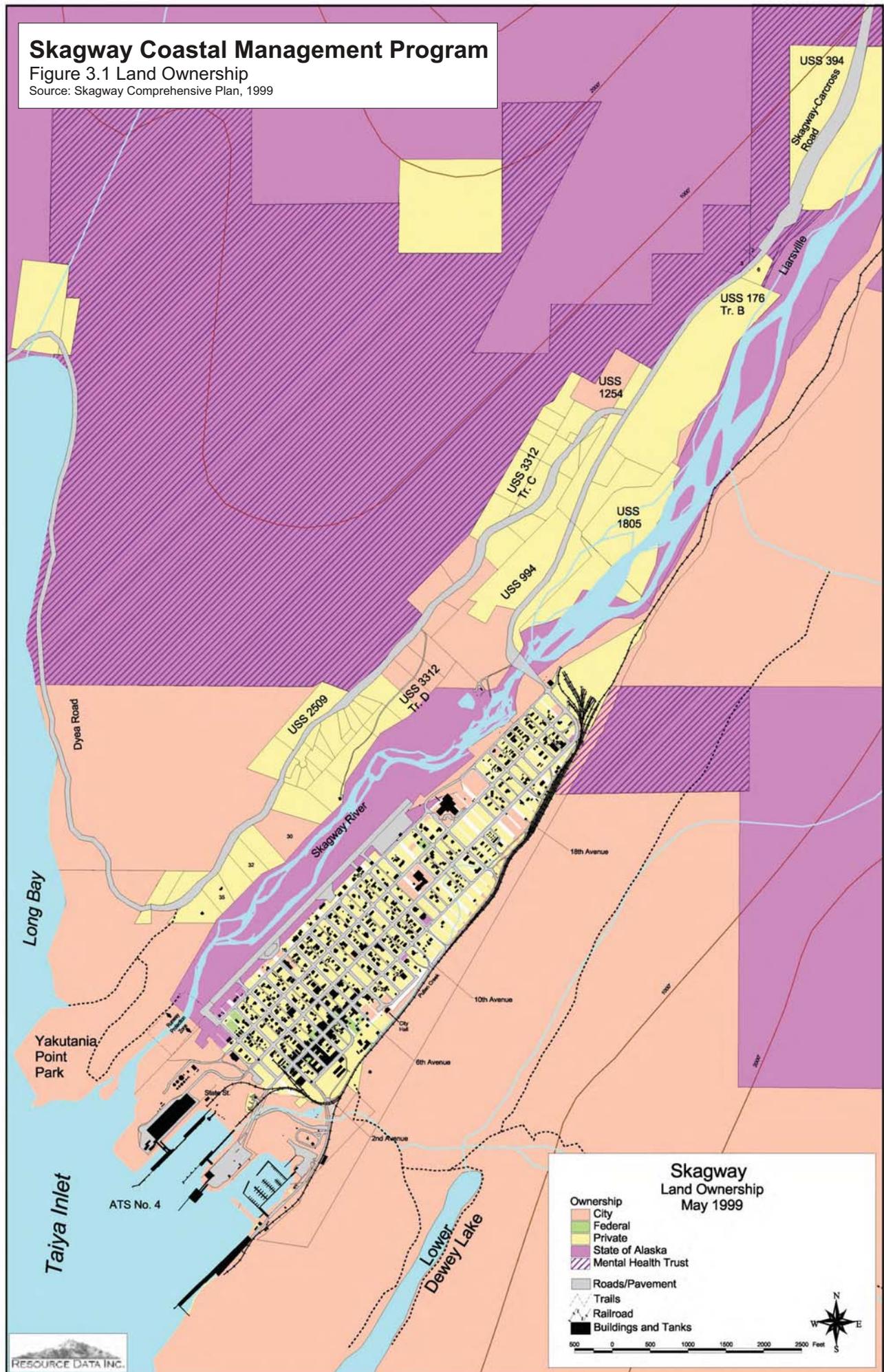
This report has provided substantial information regarding the authorities that will have to be considered with any significant port development. It is evident from this overview that developments of the magnitude proposed for Skagway and Haines will have significant time and cost implications. These are difficult to pin-point with any degree of accuracy until a formal development proposal is received. Suffice it to say that a significant realignment of the Skagway dock facilities or the construction of a rail-ship link at Haines will require multi-year staging for the design, environmental assessment and subsequent construction.

Figures

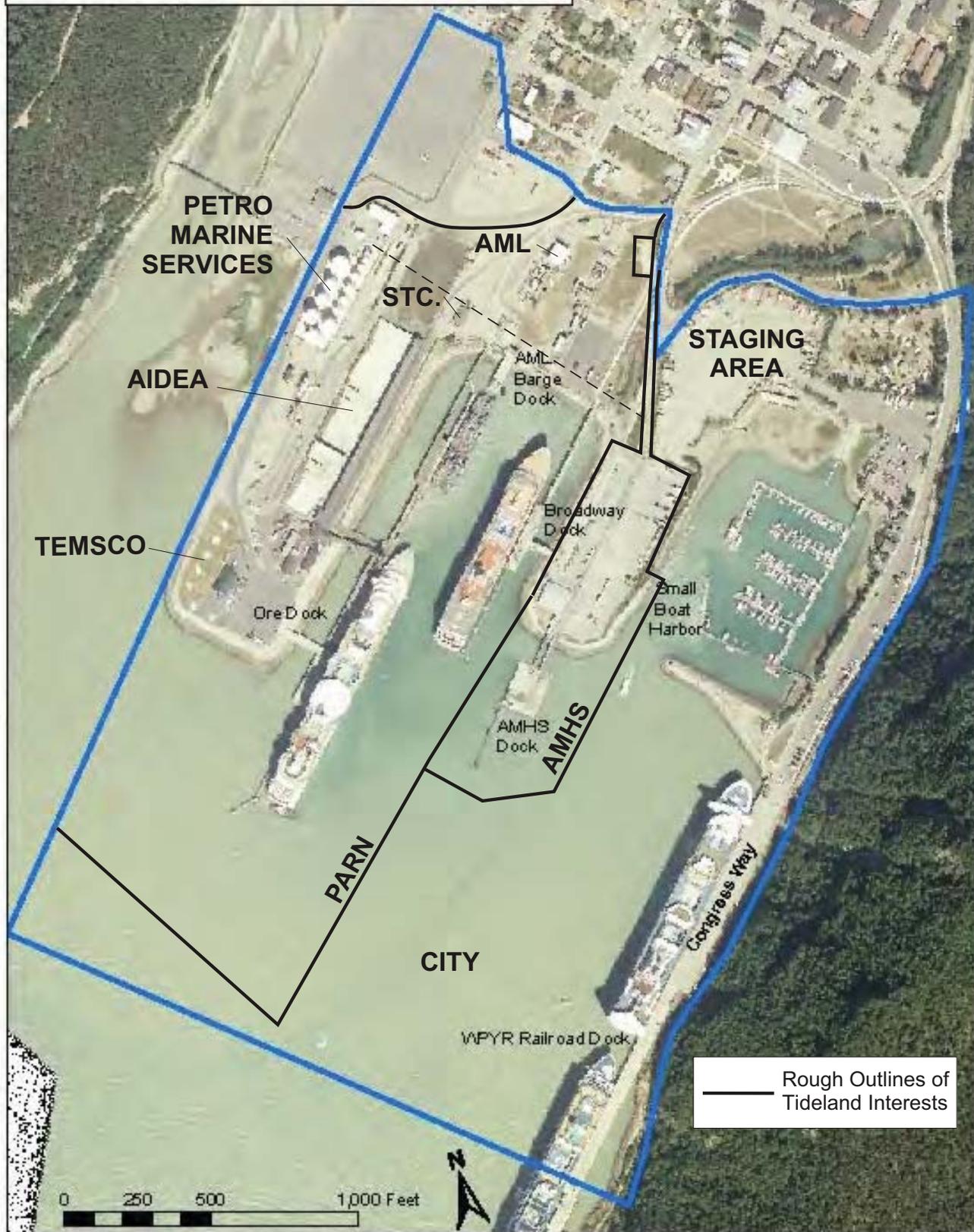
Skagway Coastal Management Program

Figure 3.1 Land Ownership

Source: Skagway Comprehensive Plan, 1999



PORT OF SKAGWAY, AMSA



Aerial Map Credit: AeroMap, Anchorage, AK 2003

Appendices

Appendix A

U.S. Federal Laws

U.S. FEDERAL LAWS

[This description of federal laws that may (or may not) apply to port construction, operation or use is taken verbatim from the National Park Service website.]

1. **Endangered Species Act, 1973** - This act requires federal agencies to ensure that any action authorized, funded or carried out does not jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modifications of critical habitat.
2. **Clean Water Act (Federal Water Pollution Control Act of 1972 as amended)** - This act sets objectives for restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. Also, the act regulates discharge of pollutants and requires federal agencies to avoid adverse impacts from modification or destruction of navigable streams and associated tributaries, wetlands, or other waters.
3. **Clean Air Act, 1970** - This act establishes a nationwide program for the prevention and control of air pollution and establishes National Ambient Air Quality Standards. Under the Prevention of Significant Deterioration provisions, the act requires federal officials responsible for the management of Class I Areas (national parks and wilderness areas) to protect the air quality related values of each area and to consult with permitting authorities regarding possible adverse impacts from new or modified emitting facilities.
4. **Land and Water Conservation Fund Act, 1965** - This act establishes a fund, administered by the National Park Service, *"to assist the States and federal agencies in meeting present and future outdoor recreation demands and needs of the American people."* Three main sources supply the funds: sales of federal surplus real properties, a part of federal motorboat fuel taxes, and Outer Continental Shelf (OCS) revenues from leasing of oil and gas sites in coastal waters. The act stipulates that not less than 40% of every annual appropriation from the fund goes toward acquisition of recreation and conservation lands specifically authorized within areas administered by the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, and Bureau of Land Management. Additional funds are made available to the states for 50% matching grants. A site that has been acquired, developed, or rehabilitated with this grant money cannot be converted to non-recreational use except where approved by the National Park Service and replaced with lands of equal market and recreational value.
5. **National Environmental Policy Act, 1969** - NEPA is the basic national charter for environmental protection. It requires a systematic analysis of major federal actions that includes a consideration of all reasonable alternatives as well as an analysis of short-term and long-term, irretrievable, irreversible, and unavoidable impacts.
6. **National Trails System Act, 1968** - This act establishes a national system of recreational, scenic, and historic trails and prescribes the methods and standards for adding components to the system.
7. **Outdoor Recreation Act, 1963** - This act lays out the Interior Department's role as coordinator of all federal agencies for programs affecting the conservation and development of recreation resources. The secretary of Interior is directed to prepare a

nationwide recreation plan and provide technical assistance to states, local governments and private interests to promote the conservation and utilization of recreation resources.

8. **Wild and Scenic Rivers Act, 1968** - This act establishes a system of areas distinct from the traditional park concept to ensure the protection of each river's unique environment; it also preserves certain selected rivers that possess outstanding scenic, recreational, geological, cultural, or historic values and maintains their free-flowing condition.
9. **Wilderness Act, 1964** - The Wilderness Act establishes the National Wilderness Preservation System. In this act, wilderness is defined by its lack of noticeable human modification or presence; it is a place where the landscape is affected primarily by the forces of nature and where humans are visitors who do not remain. Wilderness Areas are designated by Congress and are composed of existing federal lands that have retained a wilderness character and meet the criteria found in the act. Federal officials are required to manage Wilderness Areas in a manner conducive to retention of their wilderness character and must consider the effect upon wilderness attributes from management activities on adjacent lands.
10. **Antiquities Act, 1906** - This act provides for the protection of historic or prehistoric remains and sites of scientific value on federal lands, establishes criminal sanctions for unauthorized destruction or removal of antiquities, authorizes the president to establish national monuments by proclamation, and authorizes the scientific investigation of antiquities on federal lands, subject to permit and regulations. Passage of the Archeological Resources Protection Act (1979) supersedes the Antiquities Act as an alternative federal tool for prosecution of antiquities violations in NPS areas.
11. **Historic Sites, Buildings, and Antiquities Act, 1935** - This act directs the secretary of Interior to carry out wide-ranging programs in the field of history and places with the secretary the responsibility for national leadership in the field of historic preservation. It authorizes the Historic American Buildings Survey, Historic American Engineering Record, and National Survey of Historic Sites and Buildings.
12. **Archaeological Resources Protection Act, 1979** - This act secures the protection of archeological resources on public or Indian lands by regulating the excavation and collection of resources and fostering increased cooperation and exchange of information between private, governmental, and professional communities. The act defines archeological resources to be any material remains of past human life or activities that are of archeological interest and are at least 100 years old. It also requires the notification of Indian tribes prior to issuing permits for activities at sites which may be of religious or cultural importance to them.
13. **National Historic Preservation Act, 1966** - This act establishes additional programs for the preservation of historic properties throughout the nation and establishes a system to classify properties on or eligible for inclusion on the National Register of Historic Places. This act establishes that prior to approval of an undertaking that will adversely affect resources eligible for or listed in the National Register, the approving federal agency must evaluate the effects of the undertaking and afford the State Historic Preservation Officers and the Advisory Council on Historic Preservation an opportunity to comment on the undertaking. The act also provides for reviews at the state and federal level. It was amended by P.L. 94-422 (Land and Water Conservation Fund Act of 1965, as amended, to establish the National Historic Preservation Fund) to require the

development of professional standards for preservation of historic properties, require the heads of all federal agencies to assume responsibility for the preservation of historic properties that they own or control, direct agencies to use historic properties, allow agencies to lease a historic property to ensure preservation, restructure the Advisory Council, and direct the Council to promulgate regulations for any exemption from requirements.

14. **American Indian Religious Freedom Act, 1978** - This act protects and preserves the inherent and constitutional right of the American Indian, Eskimo, Aleut, and Native Hawaiian people to exercise their traditional religions. Other than requiring an evaluation of federal procedures and policies, the statute imposes no specific procedural duties on federal agencies. Religious concerns should be accommodated or addressed through implementation of the National Environmental Policy Act or other appropriate statutes.

Appendix B

Environmental Considerations References

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