Sawmill Cove Industrial Park Feasibility and Planning Studies

Detailed Proposal – June 11, 2013

Prepared for

City and Borough of Sitka

June 11, 2013

Prepared by

Northern Economics

880 H Street, Suite 210
Anchorage, Alaska 99501
Phone: (907) 274-5600
Fax: (907) 274-5601
Email: mail@norecon.com

119 N Commercial Street, Suite 190
Bellingham, WA 98225
Phone: (360) 715-1808
Fax: (360) 715-3588

1 Introduction

In February 2013, the City and Borough of Sitka (CBS) issued a request for proposals related to an evaluation of feasibility and preliminary planning for the development of a marine industry center at the Sawmill Cove Industrial Park (SCIP) in Sitka, Alaska. Three specific components were identified:

- A marine haul out facility
- A moorage facility for large commercial vessels
- A deepwater dock

In a letter dated April 29, 2013, CBS notified Northern Economics that it was selected to enter negotiations for completing the project. After submitting a detailed proposal on May 10, 2013, CBS provided Northern Economics with comments on the activities to be conducted in Phases 1 and 2 of the proposed scope of work, as well as a split of Phase 2 into two phases, 2A and 2B. This proposal has been revised based on the May 10, 2013 comments.

1.1 Background

Alaska Pulp Corporation operated a pulp mill at Sawmill Cove from 1959 to 1993, when operations ceased and equipment was removed. CBS acquired approximately 210 acres of land (80 acres of upland, 130 acres of tideland) in April of 1999 as part of a land transfer and monitoring agreement.

CBS also obtained title to 16 acres of nearby uplands and water rights from Blue Lake, with the latter including 17.4 million gallons of water per day for industrial use and an additional 26.1 million gallons for potential export as bulk or bottled water (CBS, 2013).

Part of the post-operations plans agreed to by the CBS, State of Alaska, and owners of the mill required 40 years of monitoring of wood solids and associated contaminants at the former outfall site.

The first 10-year post-baseline monitoring survey was completed in May 2011 and results indicated approximately 54 percent of the Area of Concern (AOC) has a completely recovered benthic community, a much faster rate than expected (Germano, 2012). Report authors noted organic material from nearby fish processing operations may have a slowing impact on biological improvement of the AOC, but overall the situation has improved greatly.

Economic recovery at Sawmill Cove appears slower than biological recovery. The Sawmill Cove Industrial Park (SCIP) includes the former pulp mill and dock sites; an independent board of directors, appointed by the Sitka Assembly, manages the SCIP. Directors adopted a Sawmill Cove Industrial Park Strategic Plan (June 2009) with three strategic policies:

- Strategy 1 – We will develop a comprehensive land use and marketing program for the park.
- Strategy 2 – We will develop a plan to build a multi-purpose dock at the park.
- Strategy 3 – We will continue to monitor market and local conditions to determine if the development, marketing, and management of the Sawmill Cove Industrial Park is appropriate or needs adjusting.

SCIP directors and managers work closely with the Sitka Economic Development Association (SEDA) to promote Sitka as a location for business investment. SEDA maintains three websites and also publishes a Sitka Community Profile with information on demographics, the economy, and labor force. SEDA also supports the Sitka Marine Industries Directory (SEDA, 2013) as well as the SCIP web site.

The CBS Comprehensive Annual Financial Report for the year ending June 30, 2012, reports SCIP operating revenues of $118,401 and Operating Expenses of $696,825 (including depreciation) for a net operating loss of $578,424.

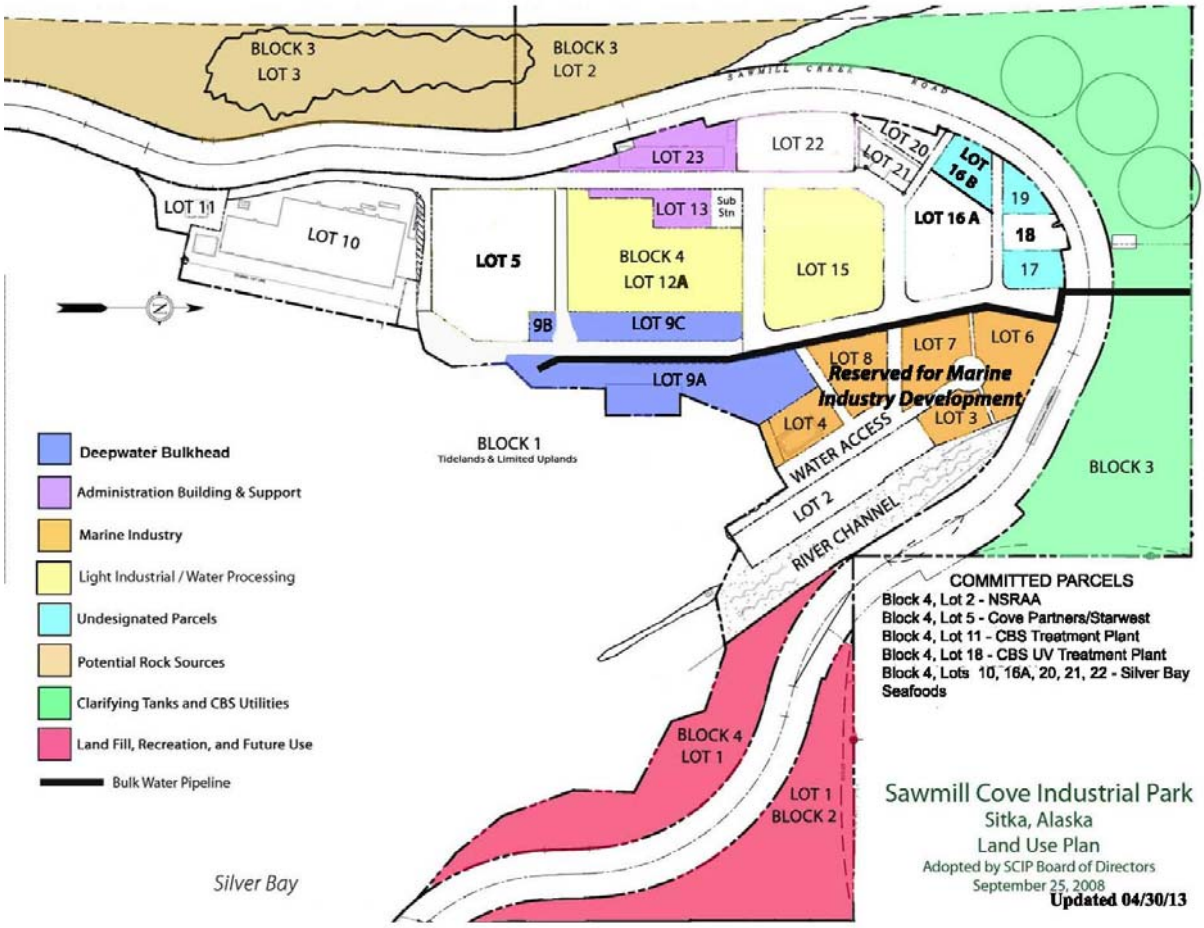
As an enterprise fund operated in a business-like fashion, the Sawmill Cove Industrial Complex Fund budget for fiscal year 2013 estimates cash inflows (revenues) of $261,209 with forecasted operating cash outlays of $256,887 for essentially a break-even operation.

Revenues are projected from two sources: building rental ($83,209) and sale of water ($150,000).

1.2 General Location, Sawmill Cove Industrial Park

Figure 1 is a general location map of the Sawmill Cove Industrial Park, showing current parcels, leases, and access, as published and updated from the Park's Land Use Plan (adopted 2008). Note the five lots reserved for Marine Industry Development, immediately north of the deepwater bulkhead, an ideal location.

Figure 1. Sawmill Cove Industrial Park (April 2013)



1.3 City and Borough of Sitka, Comprehensive Plan

CBS published a comprehensive plan update in 2007, including the following content related to economic growth:

> The primary potential for growth in the local economy lies in the continued redevelopment of the Sawmill Cove Industrial Park…Most of the older structures on the site have been removed and a number of the remaining sites have been refurbished. A water bottling plant, seafood processing plant, and chocolate manufacturer are currently located on the site along with a municipally run recycling center and a brown bear habitat. Opportunities for further growth on the site include a multi-use dock to accommodate fisheries and cruise ships, and, water export facilities.
>
> Additional growth potentials include the continued expansion of Mt. Edgecumbe High School and independent tourism…the independent tourist sector and shore based excursions have substantial room for growth.
>
> Fisheries are expected to remain stable with the potential for modest increases following the recovery of the pricing pressure that was evident in previous years.
>
> The other sectors of the local economy are expected to remain fairly stable.

The 2007 CBS Comprehensive Plan is still relatively current and the team will use it as one reference for its project work, with specific options discussed below.

1.4 Project Goals

Attachment A to the Request for Proposals provided a more detailed Scope of Work, in a report prepared by Garry White, Director, Sawmill Cove Industrial Park, dated February 4, 2013. Project goals from that attachment are:

- Determine the best type and location of infrastructure to provide deepwater port access to the SCIP based on most likely needs and users.
- Determine the feasibility of a marine haulout facility at the SCIP.
- Determine the feasibility and options for a commercial vessel moorage facility, either at the SCIP or at Herring Cove.
- Identify and analyze options to best incorporate the above three components to make the best use of the SCIP assets.
- Develop a planning document that demonstrates step-by-step procedures to move forward with proposed feasible projects.
- Provide a detailed permitting plan for proposed feasible projects.
- Assist with permitting.

The Scope of Work also required consultant consideration of any negative effects on local businesses from development at SCIP.

Finally, project completion must "…determine if and how the three components…might be developed to support and enhance the local and regional economy and create net new jobs and revenues."

2 Proposed Scope of Work

The following subsections provide detail about our proposed scope of work. The work has been divided into phases. In general, these phases represent the following stages of project development:

- Phase 1: Scoping
- Phase 2: Screening-Level Feasibility
- Phase 3: Detailed Feasibility
- Phase 4: Implementation and Business Planning

2.1 Phase 1: Scoping and Initial Data Collection

The first phase of work would consist of scoping meetings and initial data collection. The outcome of this phase will be a decision by CBS, SEDA, and the SCIP Board of Directors about what specific market opportunities should be assessed in Phase 2A.

Task 1. Kick-off Meeting, Site Visit, and Public Meeting

Our first task will be for the consulting team to travel to Sitka for kick-off, scoping and public meetings. This will be a two- to three-day trip for Mike Fisher, Cal Kerr, Dick Somerville, and Linda Snow.

On the first day of the trip, the team will meet with SEDA and CBS staff. These kick-off meetings will be used to discuss project objectives, open lines of communication, and clarify expectations for the Phase 2A work, including details about a public meeting, how outreach activities such as surveys and interviews will be conducted, and so forth. As time allows, the team will conduct site visits and meet with other key informants as available to gather information and discuss the study.

In the evening of the first day, the team will hold a joint SCIP Board of Directors and Public Meeting. The purpose of the meeting will be to present the scope of work for the study and to solicit public input in the planning process before conceptual designs are prepared. It will be conducted as a presentation to the SCIP Board of Directors, followed by ample time for Q&A and public feedback. Members of the public will also be invited to submit written comment cards.

On the second day of the trip, the team will hold a debrief session with CBS and SEDA staff to discuss what was learned during the site visit and public meeting, and what the next steps will be. The rest of the day will be used for follow-up activities as needed. Cal and Linda will stay for a third day to conduct additional interviews and data collection related to cargo handling and other deepwater dock uses, in preparation for Phase 2A.

Decision Point

Following the Task 1 trip, team members will nominate specific marketing opportunities to the SCIP Board of Directors and/or CBS. Input from these reviewers will determine what market opportunities the consulting team should consider for screening analyses.

Task 2. Development of Phase 2A Scope and Fee

Once the consulting team has received direction about the opportunities to be considered in Phase 2A, it will develop revised scopes and fees for the included studies.

Phase 1 will conclude upon the acceptance of the revised scopes and fees.

2.2 Phase 2A: Data Collection, Infrastructure Inventory, and Screening-Level Feasibility Assessment

Once authorized, Phase 2A will consist of information collection and analysis needed to conduct screening-level assessments of the markets and industries anticipated to be served by facilities at Sawmill Cove.

Task 1. Competitive Haul-out and Moorage Facility Overview

Potential haul-out and moorage facility users are faced with choices when deciding where to obtain these services. Past studies have developed inventories of competing haul-out facilities in the region and the state. The consulting team will start with these past inventories, and update them to include newly-developed and expanded haul-out and shipyard facilities and the services they offer, and to develop current comparative costs of the services at those facilities.

Potential competing haul-out and large vessel moorage facilities on the west coast of Canada and the U.S. that could reasonably be considered competition with Sitka's planned developments will also be considered in this overview, and the moorage facilities will be inventoried and costs of services determined. This information will be helpful in estimating not only the number of customers who may choose Sitka's planned facilities, but will also help determine what prices could be charged for these services, and what revenues could be earned. It may also be important to estimate capacity and use of both competing haul-out and large vessel moorage facilities to determine market shares, and whether Sitka's planned developments could meet pent up demand for these services.

Task 2. Vessel Owner Survey

The consulting team will undertake a survey of vessel owners with vessels moored or waitlisted in Sitka, with vessels moored elsewhere in the region, as well as those who transit the region and might reasonably be considered users of Sitka's planned developments. Results of these surveys can tell us what haul-out and shipyard services and large vessel moorage services are required by what types of vessels, and where those services are currently obtained. Survey results can also enlighten us as to why services are obtained where they are now, and how those decisions are made. We can learn what is important to vessel owners requiring these services, what they might be willing to pay, and how far they might be willing to travel for goods and services. In addition, we can find out how these vessel owners get information about haul-out and shipyard facilities and large vessel moorage on the west coast of North America, which will help develop the marketing plan.

Survey participants will include commercial fishing vessels; fish tender and processing vessels; commercial vessels involved in tourism, charter fishing, and cargo movement; and larger pleasure craft. Identification of vessel owners is available through various government databases.

The surveys will be undertaken through a mailing to inform potential participants of a website where the survey itself can be accessed. CBS may want to consider offering some kind of incentive to encourage survey participation. In addition, where it is vital to get a robust response from small but important market segments such as cargo vessels, tourist-industry vessels, fish processing vessels, and possibly some local groups, interviews will be conducted via telephone.

At present, the budget does not include the cost of mailing postcards or any incentives. The team will discuss the best options for conducting the survey during the Phase 1 kick-off meeting and modify the Phase 2A budget appropriately.

Task 3. Base Map Preparation

PND will combine available topographic, as-built, aerial, and cadastral survey information collected from the CBS and other potential sources to prepare an initial electronic base map of the study area(s). The base map will be used for general planning purposes to assess site configuration options for the various development opportunities at SCIP. This work will be completed within two weeks of receiving available data.

Task 4. Preliminary Site Recommendations

Based on available and new site data and other initial findings, PND Engineers will develop preliminary site recommendations for the proposed facilities. PND will assess navigational corridors, water depths, upland availability, geotechnical conditions, utilities, site access, and adjacent infrastructure throughout Sawmill Cove and Herring Cove to determine the optimal use of space for each of the three potential marine facilities.

Task 5. Preliminary Infrastructure and Equipment Recommendations

Based on existing site data and other initial findings, PND Engineers will develop a preliminary set of recommendations for infrastructure and equipment needed at the proposed facilities. These recommendations will be finalized after a market analysis has determined the demand for different types and capacities of equipment and infrastructure.

Task 6. Preliminary Conceptual Designs

PND will develop conceptual level designs for the marine haul out facility, deepwater dock, and large vessel commercial moorage facility. Deliverables will include schematic site plans and typical sections illustrating the proposed improvements at each facility.

Marine Haul out Facility

Planning for the appropriate features of a proposed haul out facility will include:

- Boat Lift equipment of appropriate capacity to meet to local and regional demand
- Boat haul-out pier suited for various combinations of lift sizes
- Supplemental loading wharf allowing for optional crane operations
- Boat lifting berth with suitable water depth for all tide operations
- Vessel approach and access to the lift with option for temporary moorage float alongside
- Hydraulic trailer for yard operations and efficient on site storage of vessels
- Outside work area spaces
- Sheltered work areas for services to be performed in controlled work space environments
- Storage area spaces
- Wash down pad with optional heated slab for winter usage
- Wash water treatment facilities
- Storm water runoff and discharge treatment facilities
- Security fencing and surveillance
- Water, sewer, power and lighting utilities

- Appropriate environmental & operating permits including NPDES MSGP and Section R SWPPP

Deepwater Dock

Planning for the appropriate features of a proposed deepwater dock will include:

- Dock capacity to meet to local, regional, national and international demand
- Various loading operations and configurations necessary for a multi-use facility
- Freight, bulk cargo and water export needs
- Berth with suitable water depth for multiple marine operations at all tidal stages
- Safe navigational approach and departure lanes
- Shoreside facility needs
- Outside and sheltered storage area spaces
- Storm water runoff and discharge treatment facilities
- Security fencing and surveillance
- Water, sewer, power, and lighting utilities
- Environmental requirements applied to the upland and bay operable units at Sawmill Cove following the closure of the former pulp mill.

Large Vessel Commercial Moorage Facility

Planning for the appropriate features of a large vessel commercial moorage facility will include:

- Site access
- Upland parking & staging
- Utilities
- Wind and wave protection
- Water depth
- Channel markers
- Access trestles and gangways
- Moorage floats
- Harbor office
- Public restrooms
- Space for trash receptacles, waste oil containers & parking
- Boat launch ramp with trailer parking options

Task 7. Screening-level Assessment of Large Vessel Moorage

The consulting team will use the vessel owner survey results and interview findings to conduct its screening analysis for a large vessel moorage facility.

First, the team will do a brief analysis of the survey results to determine rough estimates of the numbers and sizes of vessels that may be interested in moorage at Sawmill Cove. These numbers will

then be used to develop revenue projections based on current moorage rates in Sitka or alternative rates (at CBS's discretion).

Next, the team will compare revenue generation potential with probable capital, operations, and maintenance costs. The team will develop an annualized estimate of the facility's total cost and then compare that cost with the potential revenue stream to determine what portion of costs might be covered by moorage alone.

Based on the ratio of cost to revenues, the team will provide a recommendation about whether the ratio represents a probable opportunity, strong opportunity, or weak opportunity. The recommendation will be documented in a brief memo and then incorporated in the overall documentation for Phase 2A.

Task 8. Screening-level Assessment of Vessel Haul-out Facility

The consulting team will also use the vessel owner survey results and interview findings to conduct its screening analysis for a vessel haul-out facility.

As with the proposed moorage facility, the team will first do a brief analysis of the survey results to determine rough estimates of the numbers and sizes of vessels that may be interested in being hauled out at Sawmill Cove. These numbers will then be used to develop revenue projections for CBS based on competitive rates in the region and for local businesses based on survey results about money spent when vessels are hauled out. Two to three lift sizes will be considered, since the size will affect the number of vessels that can be lifted.

Next, the team will compare potential lift revenues and spending in the community with probable capital, operations, and maintenance costs. The team will develop an annualized estimate of the facility's total cost and then compare that cost with the potential revenue streams to determine what portion of costs might be covered by lift fees.

Based on the ratio of cost to lift revenues—and a consideration of local spending impacts—the team will provide a recommendation about whether the demand represents a probable opportunity, strong opportunity, or weak opportunity. The recommendation will be documented in a brief memo and then incorporated in the overall documentation for Phase 2A.

Task 9. Screening-level Assessment of Cargo Handling at Deepwater Dock Facility

The proposed deepwater dock could possibly serve both cruise ships and general cargo vessels and barges as noted in the comprehensive plan:

> Lacking a system of highways or railroads, the regional economy of the City and Borough of Sitka relies instead on the Alaska Marine Highway system (state ferry) to move passengers around the region, and ocean barge services for most of its freight and bulk-fuel needs – the alternative being expensive airfreight. The State has a docking facility located six miles from downtown.

The screening level assessment will include an estimate of current cargo volumes in-bound and out-bound from Sitka, along with interviews of barge and cargo shipping companies, including Alaska Marine Lines, Samson Tug and Barge, Northland Services, and Arrowhead Transfer. Estimated cargo volumes will be drawn from generally available reports, such as the Waterborne Commerce data published by the U.S. Army Corps of Engineers. Besides general cargo, whether containerized or not, special attention will be focused on exports of aggregates (including armor rock for breakwaters), ore, and possible compost. In addition, several alternative energy projects in Southeast Alaska have

considered bulk fuel deliveries of bulk wood chips and wood pellets; if any are located, they will be included in the screening analysis.

These estimates will be used as a point of departure for the interviews discussed. Cal Kerr and Linda Snow will contact and interview transportation company representatives, with focus on growth trends, unmet needs, and how a proposed deepwater dock would improve or enhance operations.

Task 10. Screening-level Assessment of Deepwater Dock Facility

Sitka is an island-based community with water and air access routes for commerce, recreation, and resource development, as more specifically addressed in the comprehensive plan excerpt below:

> Sitka relies on the Alaska Marine Highway System for a year-round passenger and vehicle service. Barge lines move the bulk of commercial freight, including dry goods, fuel and building materials. (Comp Plan)
>
> There is a breakwater at Thomsen Harbor but no deep draft dock. A multipurpose deep water dock is being proposed at Sawmill Cove Industrial Park which will be structurally capable of handling very heavy freight and cargo vessels including bulk water ships, and berthing one cruise ship at a time. Cruise ships currently anchor in the harbor and lighter visitors to shore. A boat launch, marine haul-out, boat repairs and other services are also available.

Cargo vessels (including barges) can dock at Sitka in all months of the year, as identified in Sitka's comprehensive plan (above). More specifically, the following potential dock uses are listed in the SCIP Strategic Plan dated June 2009 (Strategy 2):

- Bulk Water shipment
- Ocean-going freight, in or out of Sitka
- Container transshipment facility tied to Prince Rupert
- Shipment of bottled water
- Shipment of fish processed at SCIP
- Export of rock [and ore]
- Bio-fuel projects using fish waste, wood products, and recycled materials
- Scientific and Marine/Fishing Research vessels
- Cruise Ships

As stated earlier in this proposal, team members will focus on cargo operations. Interviews scheduled for Task 9 (Cargo Handling) will provide cargo estimates for both in-bound and out-bound operations. Task 10 will include specific focus on containerized cargo and whether or not this use of a potential deep water dock fits well with the proposed Marine Industry Development site at lots 3, 4, 6, 7, and 8. These lots are immediately adjacent to the deepwater bulkhead identified on the SCIP Land Use Plan map, updated to April 30, 2013.

Task 11. Documentation and Recommendations

The consulting team will consolidate the screening analysis findings into a draft report. The report will provide a discussion about the screening analyses' approaches and findings, along with recommendations about the market opportunities and infrastructure improvements that appear

feasible. After submitting the draft report and receiving one round of comments, the consulting team will make necessary revisions and submit a final report.

Task 12. Presentation and Meetings

At the conclusion of the Phase 2A screening analyses, the consulting team will travel to Sitka to present findings and recommendations to the SCIP Board of Directors. If desired, the presentation can be followed by a debriefing and discussion of next steps on day 2.

Decision Point

Following the Phase 2A presentation, the SCIP Board of Directors and/or CBS will determine which infrastructure improvements and supporting market opportunities the consulting team should consider for in-depth feasibility assessments.

Task 13. Development of Phase 2B Scope and Fee

Once the consulting team has received direction about Phase 2B, it will develop scopes and fees for the each of the studies to be included.

Phase 2A will conclude upon the acceptance of the scopes and fees.

2.3 Phase 2B: Data Collection, Infrastructure Inventory, and Screening-Level Feasibility Assessment

Once authorized, Phase 2B will consist of remaining tasks needed to conduct screening-level assessments of the markets and industries anticipated to be served by facilities at Sawmill Cove. The following tasks are indicative of the work that could be performed in Phase 2B, though the actual work to be included in Phase 2B will be determined at the conclusion of Phase 2A.

Task 1. Topographic, Bathymetric and Sub bottom Geophysical Surveys (Optional)

To supplement the base map preparation, O'Neill Surveying and David Evans & Associates (DEA) are included on our team to provide accurate and up to date onshore and offshore site information as options to the CBS. O'Neill will provide field topographic surveys in areas of the site that lack sufficient topographic definition. Accurate bathymetric and subbottom geophysical surveys would be very beneficial to the planning for all three proposed marine facilities. DEA will provide the offshore marine surveys and are currently under contract for other similar services with the CBS. Should the CBS elect to proceed with this option, DEA would be able to economically complete this work while in Sitka. They are currently scheduled to complete their other work the beginning of August and can commence with the services under this project at that time.

Task 2. Screening-level Assessment of Seafood Exports

In order to understand the potential that a deep-water dock at Sawmill Cove could result in seafood exports directly from Sitka, we will first need to answer a series of questions regarding the demand for direct transport services, including the following.

1. What is the total product volume and value generated by seafood processors in Sitka?
2. Currently, where are the final markets for the various products processed in Sitka?

3. Are processors in Sitka already exporting products indirectly—i.e. from Washington State after transport from Sitka?
4. How are products processed in Sitka currently being transported to their markets?
5. Are processors in Sitka looking to expand to markets they are currently not serving?
6. If processors had the option of shipping directly to export markets out of Sitka, how much would they ship?
7. Would there be any negative consequences of changing out of the status quo product transport chain?

Once we've investigated the demand side of the issue we would also need to examine the supply side. We would try to answer the following questions:

1. Are there communities in Alaska that have significant amounts fish processing and which have the capacity to handle bulk cargo ships, but which do not export fish? If so, why?
2. Which communities are currently utilizing direct exports of seafood?
3. Which companies are currently involved in transporting direct exports of seafood from Alaska?
4. Are there companies that are dealing with volumes similar to those that might be available in Sitka?
5. What are shipping rates for processors in similarly situated communities?

The primary means by which most of these questions would be answered would be a series of key informant interviews with fish processors. We would seek to interview each of the major processors in Sitka. We would also seek to interview representatives of processors in other similarly situated communities not only in Southeast Alaska, but also in other Alaska communities. Finally, we will seek to interview operators of seafood transport services—including the current suppliers of transport services in Sitka, as well as operators of cargo ships that that are currently operating in Alaska. Overall, we would expect to conduct as many as 20 interviews.

In addition to the key informant interviews, we will obtain and compile seafood processing data from ADF&G. We have been informed by ADF&G that these data are generally available if we ask for data that combines processors in Sitka with processors in Pelican. If we request data for Sitka alone, much of the information could not be disclosed due to confidentiality rules.

Task 3a. Screening-level Assessment of Bulk Water Exports *(see third-party review option, below)*

In 2004, Alaska's Denali Commission funded a feasibility analysis related to bulk water export from Alaska. That report (Northern Economics, 2004) found that Alaska contained a considerable fresh water resource, much of it located near tidewater and suitable for tanker delivery. The nearest major markets for bulk water export included Los Angeles, Long Beach, and San Diego, although delivery costs, primarily tanker fuel and labor, were rising at a time when desalination costs were dropping.

A spreadsheet model, prepared by team engineers and analysts, suggested delivered costs (2004) of bulk water at $10,600 per acre-foot, while comparable costs for desalinated water (delivered) of $230 to $1,500 per acre-foot, approximately seven times less expensive than bulk Alaska water.

The project team noted bottled water from Alaska, by comparison with bulk water volumes, held considerable market appeal, especially in Southeast Asia. Alaska's pristine mountains and glaciers

were strongly associated with clean, refreshing Alaska water with consumers expressing a decided interest in bottled products.

Costs have changed in the nine years since this report was submitted, especially those related to fuel, while air quality regulations related to marine vessels have also altered their operating cost structures.

As part of its screening assessment for CBS, Northern Economics will update the 2004 spreadsheet with readily available costs and conduct a preliminary re-assessment of potential delivered bulk water costs, especially those related to price differentials between delivered bulk water and desalinated product in southern California.

Along with the cost model update, Northern Economics will review potential markets, adding those who have expressed interest in buying bulk water.

Task 3b. Third-party Review of Bulk Water Export Feasibility Study *(see screening study option, above)*

CBS may have copies of other bulk water feasibility studies; if so, Northern Economics will review these on a third-party basis, using the basic process developed in 2004. Newer costs and more attractive markets may positively affect the CBS bulk water export potential.

Task 144 Screening-level Assessment of Cruise Ship Use of Deepwater Dock Facility

Currently, cruise ships lighter passengers from larger vessels to shore-based terminals as shown in Figure 2, a view of the O'Connell Bridge Lightering Facility from the Baranof Castle Hill State Historic Site.

Lightering passengers consumes more time, fuel and effort than a road-based access route, such as that proposed should a deepwater dock be suited for cruise ship mooring. As part of the screening level assessment, team members will contact cruise ship representatives and discuss the potential for moorage at a dock in Silver Bay, versus the current lightering method.

Figure 2. Large Vessel Lightering, O'Connell Bridge, Sitka

Source: Northern Economics, 2010

For this task, Cal Kerr and Linda Snow will contact cruise ship representatives in Juneau, Seattle, and Anchorage, or other relevant locations, to assess their level of interest in a dock suitable for cruise ship passenger embarkation and debarkation.

Questions will relate to time spent on lightering versus bus time to and from the Silver Bay area, security, and liability, especially as related to passengers with special needs (wheelchairs, etc.).

2.4 Phase 3: Feasibility Assessments

Phase 3 will consist of detailed feasibility assessments for each of the infrastructure improvements planned for Sawmill Cove. The consulting team proposes the following tasks with the understanding that the scope and effort involved in these tasks will be determined at the conclusion of Phase 2B.

Task 1. Large Vessel Moorage Feasibility Study

The comprehensive large vessel moorage feasibility study will expand on the screening-level analysis from Phase 2A to include a more in-depth analysis of moorage demand; quantity and size of slips and/or other mooring infrastructure required; revenue generation potential; and capital, operating, and maintenance costs. The feasibility study will include a life cycle cost analysis to understand the true cost of a mooring facility and what level of revenues will be required to maintain it. The

consulting team envisions an iterative process for sizing the facility based on the trade-offs between potential moorage revenues and the costs associated with providing the necessary facilities.

Once the team has developed an understanding of the financial aspects of the proposed facility, it will:

- Evaluate funding and financing options
- Discuss the effect of various ownership and management options (including mixes of public and private involvement)
- Comment on the facility's competitive position with other moorage facilities in Sitka and elsewhere in the region
- Evaluate the broader economic impacts associated with mooring large vessels at Sawmill Cove

The analysis of economic impacts will consider information gathered from vessel owner surveys, anticipated moorage rates and other fees charged at the facility, information collected from interviews with business owners, and multiplier effects as modeled by the IMPLAN™ input-output modeling software. The team recognizes that impacts may be positive and negative; for example, by attracting vessels to Sawmill Cove that are currently moored in the Sitka's existing public harbors, it may affect the fiscal position of the existing harbor system and CBS as a whole. While vessels on the waiting list might fill in the vacancy in the existing harbor, it may also be the case that the space would remain unused. Also, the availability of services in the community and the decisions of business owners to expand, move, or otherwise change their operations could be a factor. The team will consider all of the effects, positive and negative, in its economic impact analysis.

The feasibility study will also identify, primarily through the surveys and interviews, what uplands facilities might complement the moorage facilities.

Task 2. Vessel Haul-out Feasibility Study

The comprehensive vessel haul-out feasibility study will expand on the screening-level analysis from Phase 2A to include a more in-depth analysis of demand for haul-outs; the size and frequency of vessel haul-outs; lift options and infrastructure required; revenue generation potential; and capital, operating, and maintenance costs. The feasibility study will include an analysis of projected revenues for different sizes of lifts, which will aid in the decision-making process. The team has found that communities often purchase lifts sized larger than what is deemed feasible in an initial analysis. Working with the vessel data will allow for an informed decision about the risks and opportunities.

Once the team has developed an understanding of the financial aspects of the proposed haul-out facility, it will:

- Evaluate funding and financing options
- Discuss the effect of various ownership and management options (including mixes of public and private involvement)
- Comment on the facility's competitive position, with respect to capacities, rates, and other terms, with other haul-out facilities in the region
- Evaluate the broader economic impacts associated with hauling out vessels at Sawmill Cove, including the effects on local businesses

Haul-out facilities are rarely profitable for a municipality to own. However, they provide access for vessel owners to work on their vessels and engage local businesses to perform services and provide

goods. While the immediate financial evaluation will look at the ability of projected revenues to cover the haul-out facility's costs, a broader evaluation will also be included to look at money spent in the community as a result of a vessel being lifted out of the water.

This analysis of broader economic impacts will consider information gathered from vessel owner surveys (including not only frequency of lifts but also what level of spending on goods and services is associated with the lift), anticipated lift revenues, information collected from interviews with business owners, and multiplier effects as modeled by the IMPLAN™. As with the moorage feasibility study, the team will consider all of the effects, positive and negative, in its economic impact analysis. The team will not only consider positive impacts of complementary business development in the local area (and attracting new businesses), but it will consider negative impacts to local businesses which would consider this facility as competition as well.

The feasibility study will also identify, primarily through the surveys and interviews, what uplands facilities might be required to maximize the haul-out facility's potential, including wash down pads and work areas, warehouses, storage space, and offices and work areas in which service businesses can operate.

Task 3. Deepwater Dock Feasibility Study

The comprehensive deepwater dock feasibility study will expand on the screening-level analysis from Phases 2A/B to include a more in-depth analysis of demand for dock space; the types, frequency, and quantity of usage; revenue generation potential; and capital, operating, and maintenance costs. The feasibility study will analyze projected revenues from the market opportunities deemed appropriate, based on the findings from Phases 2A/B and the SCIP Board of Directors' decision. As part of that analysis, the team will consider the dock's competitive environment, including a review of fees and policies at competing ports as well as the value proposition for users to call at the Sawmill Cove dock versus other locations. There may be tie-ins with Prince Rupert and Panama Canal upgrades, so the consulting team will cast a wide net to understand the competitive environment both today and in the future.

Once the team has developed an understanding of the financial and operational aspects of the proposed dock, it will:

- Evaluate funding and financing options
- Discuss the effect of various ownership and management options (including mixes of public and private involvement)
- Comment on the facility's competitive position, with respect to fees, services, and policies, with similar facilities in the region
- Evaluate the broader economic impacts associated with a deepwater dock at Sawmill Cove, including the effects on local businesses and industries

This analysis of broader economic impacts will consider information gathered from interviews with users, anticipated revenues, information collected from interviews with business owners, and multiplier effects as modeled by the IMPLAN™. The team will consider both positive and negative effects in its analysis.

The feasibility study will also identify what uplands facilities might be required to maximize the dock's potential, including land and/or tankage required, as well as cranes, piping, conveyors, and other equipment that might be required.

Task 4. Presentation to SCIP Board of Directors

At the conclusion of the feasibility studies, the consulting team will travel to Sitka to present its findings to the SCIP Board of Directors.

Decision Point

Following the Phase 3 presentation, the SCIP Board of Directors and/or CBS will direct the consulting team about which market opportunities it should include in the implementation and business planning phase.

Task 5. Development of Phase 4 Scope and Fee

Once the consulting team has received direction from CBS, it will develop a scope and fee for the final Phase 4 activities.

Phase 3 will conclude upon the acceptance of the Phase 4 scope and fee.

2.5 Phase 4: Implementation and Business Planning

The consulting team will conclude its efforts in Phase 4, during which the team will create a final feasibility study report, consolidate its findings into a comprehensive business plan, and develop a marketing plan for Sawmill Cove. The consulting team proposes the following tasks with the understanding that the scope and effort involved in these tasks will be determined at the conclusion of Phase 3.

Task 1. Final Feasibility Study Report

The final feasibility study report will combine the work done in Phase 3 and integrate each of the proposed infrastructure improvements and market opportunities into a comprehensive study. The team will then add in its final ownership and management recommendations, construction schedule recommendations and options, environmental regulation considerations, and recommended best management practices.

Task 2. Business Plan

Team members will draft business plans for those projects that appear feasible and likely to succeed, estimated at no more three plans at this time. Business plan content varies widely, depending on whether the firm is a start-up, expansion, or possibly an enterprise fund operating under the CBJ.

Generally speaking, business plans start with a solid market analysis that further defines the business; next, financial data provide the underpinning of the proposed business; and, third, supporting documents are appended. Typical appendices include legal descriptions, resumes, pro forma cash flows, construction and marketing schedules, personal and corporate financial statements, income tax filings, and appraisals. Management and operations plans will be included in a business plan, as well as an outline of best management practices.

Team members anticipate coordination of these three plans with SEDA, especially with those areas that they have reviewed, as part of the organizations on-going economic development activities.

Task 3. Marketing Plan

A sound marketing effort includes the research, focus, and careful monitoring of the firm's customers or potential customers, whether the firm is public or private. Business plans contain marketing sections that address such questions as:

1. What business is the firm in?
2. What are its products and services?
3. Who are current or potential customers?
4. Who are competitors and what are market shares?
5. What are the firm's strengths and weaknesses, and how do you address them?

The following Marketing Plan outline proves a simple but effective listing of topics and questions for the selected three businesses.

A. Mission statement, with attention to main markets, products, and services;

B. Marketing objectives for this and the next three years;

C. Sales and profit goals for this and the next three years;

D. Product and services sold, including likely changes, market shifts;

E. Target Markets;

F. Market Potential;

G. Marketing Specifics:

   a. Overall strategy

   b. Competitive strategies

   c. Promotion strategies

   d. Pricing, place, sales practices

   e. Marketing and advertising budgets;

H. Potential problems;

I. Metrics on implementation and measurement of milestones;

J. Review and evaluation schedules.

In the case of these planned developments, it is potential users, and users of similar services that will be targeted with promotion strategies. Surveys of vessel owners and other potential users developed earlier in this study will enlighten the consulting team about why choices are made to use particular services in particular locations, which will help to focus a marketing plan. In addition, our surveys will ask where potential customers get information about availability of such services. Responses to that question will help to focus a promotion strategy using methods most likely to be noticed by potential users.

Task 4. Presentation to SCIP Board of Directors (optional)

As a final, optional task, the consulting team can give a presentation about the comprehensive feasibility study, business plan, and marketing plan to the SCIP Board of Directors.

3 Proposed Fee for Phases 1 and 2A

We will complete this work on a time and materials basis with a not-to-exceed amount by phase. Labor rates are the most recently available audited rates for the staff members anticipated to work on this project. If other staff members are required, their labor cost will be billed at their audited rates. Expenses are presented as estimates and will be billed at actual cost.

Table 1 presents a summary of the proposed fees for Phases 1 and 2A.

Table 1. Summary of Proposed Fees

Phase and Option	Estimated Cost ($)
Phase 1	37,901.89
Phase 2A	135,423.70

Table 2, located on page 19, provides a detailed breakdown of labor costs and expenses by firm for Phase 1. Table 3, located on page 20, provides a detailed breakdown of labor costs and expenses by firm for Phase 2A.

Due to the uncertainty of what work might be included in Phases 2B, 3, and 4, we have not included cost estimated for those phases.

Table 2. Phase 1 Detailed Budget

	Hours by Staff Member											
	Northern Economics							PND Engineers				Southeast Strategies
Task	Cal	Diane	Marcus	Mike	Michelle	Pat	Terri	Senior Engineer VII	Senior Engineer V	Admin Tech IV	CAD Designer V	Linda Snow
Principal Oversight and Administration		1.00			2.00	1.00						
Task 1. Kick-off Meeting, Site Visit, and Public Meeting												
Prep work for trip	8.00			8.00		2.00	8.00	4.00	12.00	2.00	8.00	6.00
Trip to Sitka	32.00			24.00				20.00				27.00
Post-trip communication	2.00			2.00				8.00				8.00
Task 2. Development of Phase 2 Scope and Fee												
Revise scope and fee estimates for Phase 2	8.00		4.00	8.00		1.00		8.00		2.00		8.00
Total Hours	**50.00**	**1.00**	**4.00**	**42.00**	**2.00**	**4.00**	**8.00**	**40.00**	**12.00**	**4.00**	**8.00**	**49.00**
Direct Labor Rate ($/hour)	45.19	35.55	58.20	39.08	21.00	69.68	24.79	60.00	34.00	29.75	35.00	45.08
Standard Audited Overhead Rate / Indirect Costs (%)	237.50	237.50	237.50	237.50	237.50	237.50	237.50	173.60	173.60	173.60	173.60	142.00
Profit on Direct Labor (%)	-	-	-	-	-	-	-	12.50	12.50	12.50	12.50	-
Profit on Indirect Costs (%)	-	-	-	-	-	-	-	15.00	15.00	15.00	15.00	-
Labor Rate, Direct and Indirect ($/hour)	152.52	119.98	196.43	131.90	70.88	235.17	83.67	180.66	102.37	89.58	105.39	109.09
Fee (on Direct and Indirect Labor Cost) (%)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	-	-	-	-	10.00
Fully Burdened Labor Rate ($/hour)	**175.39**	**137.98**	**225.89**	**151.68**	**81.51**	**270.45**	**96.22**	**180.66**	**102.37**	**89.58**	**105.39**	**120.00**
Fully Burdened Labor Cost ($)	**8,769.68**	**137.98**	**903.56**	**6,370.53**	**163.01**	**1,081.78**	**769.73**	**7,226.40**	**1,228.49**	**358.31**	**843.08**	**5,880.15**
Expenses												
Travel Expenses for Kick-off Meeting and Site Visit	1,490.00			970.00				672.00				970.00
Markup on Expenses (%)	-			-				10.00				-
Total Expenses	**1,490.00**	**-**	**-**	**970.00**	**-**		**-**	**739.20**	**-**	**-**	**-**	**970.00**
Project Cost												
Northern Economics												20,656.27
PND Engineers												10,395.48
Southeast Strategies												6,850.15
Total Project Cost												**37,901.89**

Table 3. Phase 2A Detailed Budget

	Hours by Staff Member												
	Northern Economics						PND Engineers						Southeast Strategies
Task	Cal	Diane	Michelle	Mike	Pat	Terri	Senior Engineer VII	Senior Engineer VI	Senior Engineer I	Staff Engineer V	Admin Tech IV	CAD Designer V	Linda Snow
Principal Oversight and Administration		1.00	4.00		1.00								
Task 1. Haul-out and Moorage Facility Overview													16.00
Task 2. Vessel Owner Survey				32.00	2.00								60.00
Task 4. Base Map Preparation							2.00			24.00		8.00	
Task 6. Preliminary Site Recommendations							12.00	8.00	16.00				
Task 7. Preliminary Infrastructure and Equipment…							12.00	12.00	16.00				
Task 8. Preliminary Conceptual Designs							32.00	32.00	60.00	12.00		36.00	
Task 9. Screening Assessment of Moorage				40.00	2.00								16.00
Task 10. Screening Assessment of Haul-out Facility				40.00	2.00								16.00
Task 15. Screening Assessment of Cargo Handling	16.00				1.00								8.00
Task 16. Screening Assessment of Deepwater Dock	56.00				2.00								8.00
Task 17. Documentation and Recommendations	12.00			32.00	4.00	12.00	12.00			24.00			4.00
Task 18. Presentation and Meetings	34.00			38.00	2.00	4.00	40.00			32.00	2.00	8.00	19.00
Task 19. Development of Phase 3 Scope and Fee	4.00			8.00	2.00		8.00				2.00		8.00
Total Hours	**122.00**	**1.00**	**4.00**	**190.00**	**18.00**	**16.00**	**118.00**	**52.00**	**92.00**	**92.00**	**4.00**	**52.00**	**155.00**
Direct Labor Rate ($/hour)	45.19	35.55	21.00	39.08	69.68	24.79	60.00	55.00	36.75	34.00	29.75	35.00	45.08
Standard Audited Overhead Rate / Indirect Costs (%)	237.50	237.50	237.50	237.50	237.50	237.50	173.60	173.60	173.60	173.60	173.60	173.60	142.00
Profit on Direct Labor (%)	-	-	-	-	-	-	12.50	12.50	12.50	12.50	12.50	12.50	-
Profit on Indirect Costs (%)	-	-	-	-	-	-	15.00	15.00	15.00	15.00	15.00	15.00	-
Labor Rate, Direct and Indirect ($/hour)	152.52	119.98	70.88	131.90	235.17	83.67	180.66	165.61	110.65	102.37	89.58	105.39	109.09
Fee (on Direct and Indirect Labor Cost) (%)	15.00	15.00	15.00	15.00	15.00	15.00	-	-	-	-	-	-	10.00
Fully Burdened Labor Rate ($/hour)	**175.39**	**137.98**	**81.51**	**151.68**	**270.45**	**96.22**	**180.66**	**165.61**	**110.65**	**102.37**	**89.58**	**105.39**	**120.00**
Fully Burdened Labor Cost ($)	**21,398.03**	**137.98**	**326.03**	**28,819.06**	**4,868.02**	**1,539.46**	**21,317.88**	**8,611.46**	**10,180.19**	**9,418.41**	**358.31**	**5,480.02**	**18,600.46**
Expenses													
Travel Expenses for Presentation	1,070.00			1,070.00			1,344.00						750.00
Markup on Expenses (%)	-			-			10.00						-
Total Expenses	**1,070.00**	**-**	**-**	**1,070.00**	**-**	**-**	**1,478.40**	**-**	**-**	**-**	**-**	**-**	**750.00**
Project Cost													
Northern Economics													59,228.57
PND Engineers													56,844.67
Southeast Strategies													19,350.46
Total Project Cost													**135,423.70**