

A photograph of a seaplane on the water. The wing is in the upper half of the frame, and the tail is in the lower left. The water is blue with white foam from the plane's movement. The text is overlaid on the right side of the image.

Siting Analysis

# SITKA SEAPLANE BASE

June 2012



DOWL HKM

**SITING ANALYSIS**

**SITKA SEAPLANE BASE**

**SITKA, ALASKA**

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Appendix D.....Sitka Harbor System Master Plan (partial)

### LIST OF ACRONYMS

A29.....	Federal Aviation Administration Identifier for Sitka Seaplane Base
AC.....	Advisory Circular
ADEC.....	State of Alaska Department of Environmental Conservation
ADOL.....	State of Alaska Department of Labor
ADOT&PF.....	State of Alaska Department of Transportation and Public Facilities
AIP.....	Airport Improvement Program
APDES.....	Alaska Pollutant Discharge Elimination System
CBS.....	City and Borough of Sitka
FAA.....	Federal Aviation Administration
GA.....	general aviation
NPIAS.....	National Program of Integrated Airport System
SEARHC.....	Southeast Alaska Regional Health Consortium
SIT.....	Federal Aviation Administration Identifier for Sitka Rocky Gutierrez Airport
SOA.....	State of Alaska
SPB.....	seaplane base
SSS.....	Sitka Sound Seafoods
TAF.....	Terminal Area Forecast
USEPA.....	United States Environmental Protection Agency

## **1.0 INTRODUCTION**

This report identifies a preferred site for an improved seaplane base (SPB) intended to serve the community of Sitka through the 20-year forecast period and beyond. It documents existing conditions, forecasts future seaplane activity, determines seaplane facility requirements, and recommends a preferred seaplane facility site. It also establishes a purpose and need for the project that will serve as a guide for a future environmental assessment and detailed design investigations.

This document updates and expands upon the “Sitka Seaplane Base Master Plan” that was prepared for the City and Borough of Sitka (CBS) in 2002. It is based upon existing data, findings from field visits, interviews with local officials and seaplane users, public meetings, and input from the Sitka Port and Harbors Commission and the Federal Aviation Administration (FAA).

## **2.0 PURPOSE AND NEED**

The proposed SPB improvements are intended to address the existing facility’s capacity, safety, and operational and condition deficiencies. Capacity concerns are evidenced by the existing SPB’s full occupancy, a previous list of seaplane owners who had been waiting two years or more to rent a slip, expressions of interest from seaplane owners not currently using the SPB, and restrictions limiting commercial use. Safety concerns include concentrations of seabirds in and around the SPB’s operating area, conflicts with boat traffic, lack of adequate taxi lane clearance between the SPB floats and neighboring Sitka Sound Seafoods (SSS) facility, and the submerged rock obstructions adjacent to the floats. Operational concerns include the lack of fueling facilities that requires seaplane operators to carry and dispense fuel from small containers, and inadequate vehicle parking. The existing SPB is also unable to adequately serve commercial traffic because it lacks sufficient vehicle parking, on-site aircraft maintenance, a drive-down ramp to the floats, a passenger shelter, and equipment storage. The existing SPB is 50 years old and is at the end of its useful life. The timber floats are weathered, have lost their preservative treatment, and are losing their floatation capability.

### 3.0 INVENTORY

The existing Sitka SPB (FAA identifier A29) is owned by the CBS. A29 is listed in the FAA 2011-2015 *National Program of Integrated Airport System* (NPIAS) as a general aviation (GA) airport. The NPIAS identifies public-use airports that are significant to national air transportation and, therefore eligible to receive grants under the *FAA Airport Improvement Program*.

The SPBs seaplane water operating area is located in Sitka Channel with an orientation of northwest/southeast between Baranof and Japonski Islands. The Alaska Supplement, a flight information publication issued by the FAA, lists the operating area as 4,000 feet long and 200 feet wide. Shoreline facilities consist of a three-float structure oriented parallel to Sitka Channel that

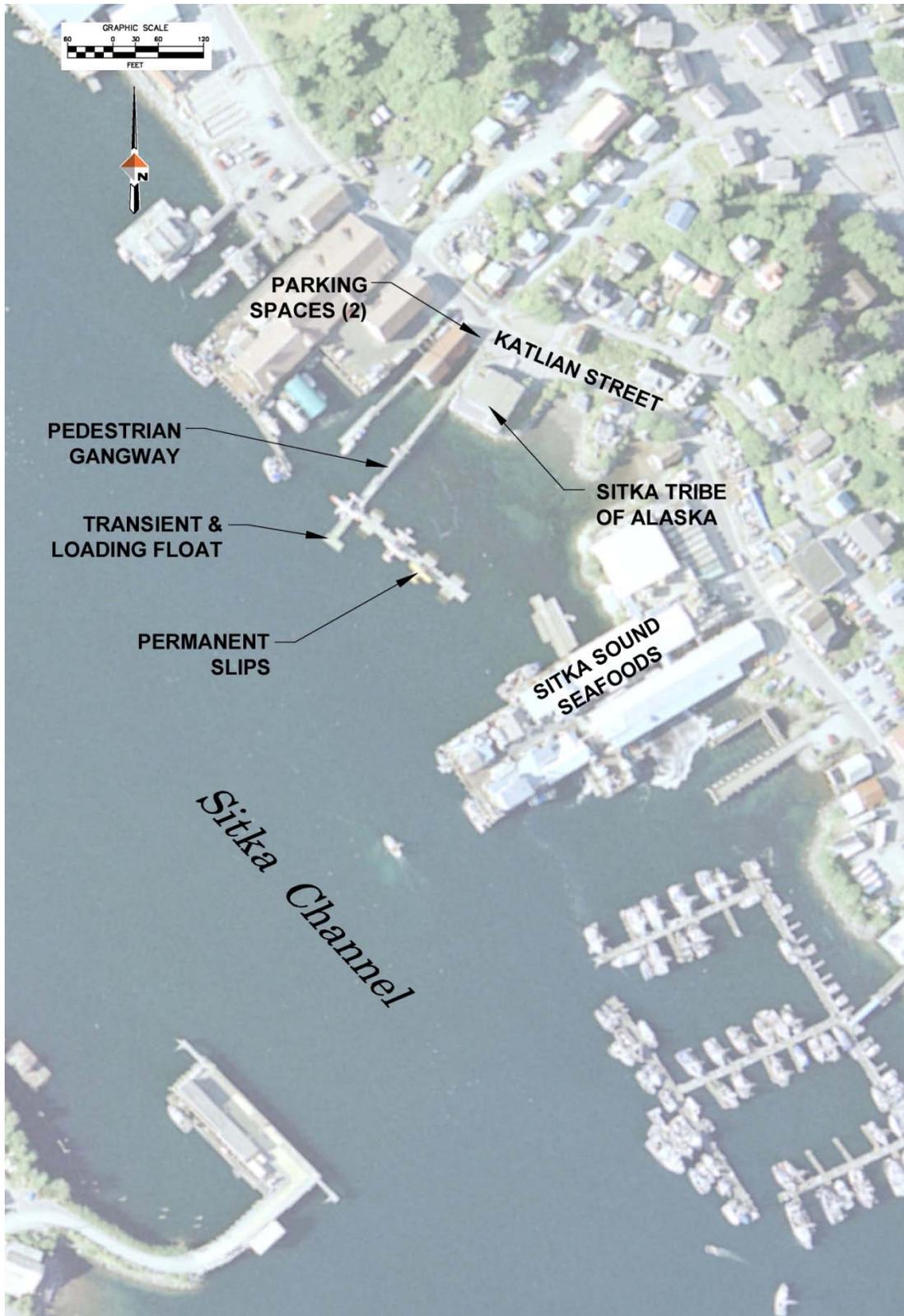


**Figure 1: Existing Sitka SPB Looking North**

accommodates 8 seaplane slips and a small transient dock with space for approximately 3 seaplanes. Access to the floats from Katlian Street is provided by an elevated gangway and ramp. A screened gate on the walkway with a combination lock provides security. Parking space for two vehicles is available on Katlian Street. Electrical power is available on the floats, but there are no on-site fueling facilities, lease lots, storage areas, nor a seaplane take-out ramp.

The SPB is located between a storage building and dock on the north side and the Sitka Sound Seafoods fish-processing facility to the south. The outfall from the processing facility is in the channel. Fish waste in the outfall attracts seagulls which congregate in the channel immediately adjacent to the SPB. Seagulls often roost on the SPB floats and on parked aircraft.

The seabed is rocky with a shallow slope. The Harbormaster's Office reports that slip users prefer slips on the "outside" of the floats (i.e., on the channel side rather than the shore side of the float) because during low tides, maneuvering room on the shore side of the floats is limited by exposed rocks.



**Figure 2: Existing Sitka SPB**

There are no public SPB facilities available in Sitka for the moorage of seaplanes in commercial use with straight (non-amphibious) floats. A 1996 CBS Ordinance 96-1366, Section 13.10.190 *Airplane Float*, prohibited commercial use of the Sitka SPB except for picking up passengers, and only minor aircraft maintenance--work that can be accomplished in less than 24 hours--was allowed. This ordinance was superseded in 2005 by Ordinance 05-18, which allows commercial use of the SPB with the Harbormaster's approval (see Appendix C). Commercial operations are generally not approved due to the space limitations of the existing SPB and demand for slips by non-commercial operators.

A detailed assessment of the existing SPB's condition is beyond the scope of this document. A condition inventory of the facility was completed under separate contract by another consultant as part of the Harbor System Master Plan. The applicable pages from that report are included in Appendix D. A 2002 Conditions and Needs Assessment (by others) provides further details.

#### **4.0 AVIATION FORECAST UPDATE**

This section updates the aviation forecast contained in the 2002 "Sitka Seaplane Base Master Plan". The following analysis is consistent with the process recommended in FAA Advisory Circular 150/5067-6B, a supplemental FAA guidance document titled *Forecasting Aviation Activity by Airport* (2001), and *Airport Aviation Activity Forecasting: A Synthesis of Airport Practice*, published by the Transportation Research Board in 2007.

Information considered in the development of this forecast included the 2002 "Sitka Seaplane Base Master Plan" forecast, interviews with seaplane operators and CBS staff, an examination of local and regional economic and demographic trends, and comparisons with other local and regional aviation forecasts. A summary of these interviews can be found in Appendix B. Forecasts for low, medium, and high activity growth scenarios were developed.

#### **4.1 Historical Aviation Data**

*FAA Terminal Area Forecast (TAF)*: The FAA TAF contains estimates of historical aviation activity data and FAA's forecasts for airports receiving FAA and contract tower services. For non-towered facilities like the Sitka SPB, historical activity data is estimated by FAA staff from

various sources, including information supplied by the airport owner. The TAF is not always accurate or up to date, but for many airports, it is the best information that the FAA has.

As shown in the table below, the TAF shows activity at the seaplane base decreasing slightly over the past five years in terms of based aircraft and annual operations.

**Table 1: FAA TAF for Sitka Seaplane Base**

	2006	2007	2008	2009	2010
Based Aircraft	10	10	9	9	9
Annual Aircraft Operations	5000	5000	4750	4750	4750

Source: FAA Terminal Area Forecast for A29, 2010

#### 4.2 Previous Sitka SPB Forecasts

*Sitka Seaplane Base Master Plan:* The 2002 “Sitka Seaplane Base Master Plan” noted that the CBS SPB was used most heavily in the summer (June to September) and that two local commercial charter operators (Harris Aircraft Services and Air Sitka) used seaplanes, although neither based their operations from the CBS facility. The master plan recommended a facility sized to accommodate a moderate growth scenario including commercial seaplane operations, with a short term (within 5 years) need for 13 slips, and a long-term (20 years) need for 15 slips. Further, the plan recommended the identification of a site with the flexibility to accommodate 20 slips to allow for a potential greater increase in demand.

#### 4.3 Updated Sitka SPB Forecast Data

*Existing Based Aircraft:* FAA Form 5010 shows 9 based aircraft at the SPB (FAA designation A29). Although this number exceeds the number of slips available, it reflects the seasonal nature of activity in Sitka and the City’s practice of “hot berthing” - leasing slips on a temporary or seasonal basis rather than annually. There were only two aircraft berthed in the facility during the consultant’s March 9, 2011, site visit, but the busy summer season starts with commencement of the herring fishery in late March and carries through September. Conversations with CBS staff and local commercial operators indicate that the facility is generally full to capacity in the summer. As of May 2012, all 8 slips were leased. Information offered by local pilots suggested that additional seaplane operators would lease slips at the SPB if additional capacity and/or services were available or if facility maintenance issues could be

addressed. One pilot said that the existing floats tended to submerge under the weight of a deHavilland Beaver.

*Fleet Mix:* Based on telephone interviews with regional commercial seaplane operators located outside Sitka and with local commercial and GA seaplane operators, aircraft operating at the facility are a mix of small single-engine aircraft such as the Cessna 180 and 185 and the deHavilland DHC-2 Beaver. This agrees with the based aircraft assessment in the 2002 Master Plan. During the site visit, anecdotal information was offered that in recent years fewer Beavers have utilized the facility due to a loss of buoyancy on the SPB's floats that makes it difficult to get these larger aircraft out of the water once in the slip.

#### **4.4 Updated Socioeconomic Data**

Sitka is the third largest community in Southeast Alaska. It enjoys one of the most diversified economies in the entire State of Alaska (SOA), composed of commercial fishing and fish processing, health care, cruise ship and independent tourism, education, and government. Sitka has two hospitals (Sitka Community and Sitka SEARHC). Cruise ships bring over 100,000 visitors annually, down from over 280,000 just 5 years ago. In 2009, 572 residents held commercial fishing permits, and fish processors were major employers. State and federal government agencies, such as the United States Forest Service, maintain offices in Sitka. Coast Guard Air Station Sitka, located just west of the city center on Japonski Island, is manned by 20 officers and 100 enlisted personnel.

The State-owned Rocky Gutierrez Airport on Japonski Island has a 6,500-foot-long by 150-foot-wide paved and lighted runway. In addition to daily jet service, several scheduled air taxis, air charters, and helicopters routinely operate there. A seaplane takeout ramp for moving seaplanes from the water to land is available to facilitate maintenance and float-wheel changeovers. One fixed base operator (Harris Air) with amphibious float-equipped aircraft (DHC-2 Beaver and Cessna 185) is located on the airport. Although not its primary use, the Harris Air Beaver is equipped to perform as an air ambulance.

The CBS operates five small boat harbors with 1,325 boat stalls and the SPB and other facilities. There is a breakwater float at Thomsen Harbor that provides transient moorage space. Boat launch, haul-out, boat repairs, and other services are offered in Sitka. Cruise ships anchor in

Crescent Bay and lighter visitors to shore. However, a privately-owned deep draft dock was recently completed in 2010. The Alaska Marine Highway System (state ferry) has a docking facility. The ferry serves Sitka several times a week with a 6-hour run to Juneau by fast ferry and 12-hour run by regular ferry. Freight arrives by barge and cargo plane.

According to the Alaska Department of Labor (ADOL) *Alaska Population Projections 2010 - 2034*, Alaska's statewide population is projected to continue increasing, although as Alaska's population ages in the coming years, annual growth is expected to slow. This general growth trend is anticipated for all of Alaska's regions except Southeast. All of the boroughs/census areas of the Southeast Region are expected to experience net outmigration strong enough to limit any population growth.

According to the 2010 U.S. Census, the population of the CBS was estimated to be 8,881. According to the ADOL mid-range forecast, this figure will decline to 8,215 by 2029, although their report acknowledges that "users of this data should be aware that there is a high degree of uncertainty regarding the future of these area populations. Countless factors could sway many of these populations dramatically."

#### **4.5 Forecast Methods**

While there are several techniques described in the FAA AC that are acceptable for forecasting aviation activity at a specific airport or seaplane facility, forecasts at larger busy airports use mathematical techniques such as regression or share analysis that rely heavily on a baseline of historical statistical data that is not available for the Sitka SPB. This analysis will rely on comparisons with statewide, local and regional aviation forecasts, with special emphasis upon interviews with regional and local seaplane operators.

##### **4.5.1 Comparisons With Other Local and Regional Aviation Forecasts**

Four relatively recent aviation activity forecasts contain data for the Sitka area - the *Alaska Aviation System Plan Forecasts* (State of Alaska Department of Transportation and Public Facilities [ADOT&PF], 2011), the *Sitka Rocky Gutierrez Airport Final Environmental Impact Statement* (FAA, 2009), the *Southeast Region Aviation System Plan* (ADOT&PF, 2008), and the *FAA TAF 2010 Scenario* (FAA, 2006). None of the forecasts listed below provide an in-depth view of the Sitka SPB, but together they identify trends that help build a reasonable forecast for

future activity at the facility. It should be noted, however, that in most cases the forecasts rely on historical activity data for the SPB to establish trends for the future. Since the capacity of the SPB has been constrained for many years by a lack of space and restrictions on commercial activities, historical data probably does not accurately reflect actual demand.

*Alaska Aviation System Plan Forecasts:* The *Alaska Aviation System Plan Forecasts* predict a slight decrease in the total number of GA aircraft based at all airport facilities in the Sitka Borough during the forecast period (2008-2030) from 39 to 37. Conversely, the number of GA operations expected to occur in the borough is expected to increase from 10,875 to 13,325. This trend is consistent with an FAA national forecast that anticipates an increase in aircraft utilization (i.e., more flights per aircraft). As a result of the increased numbers of operations per aircraft, the number of operations forecasted increases despite the decrease in the based aircraft forecast. Based aircraft at the SPB are expected to decrease by one over the same time period; from 9 to 8. Annual GA operations at the SPB are predicted to be nearly unchanged; 750 in 2008, and 746 in 2030.

*Sitka Rocky Gutierrez Airport Final Environmental Impact Statement:* The 2006-2025 forecast developed by the FAA TAF in 2007 for this airport was used in the 2009 Environmental Impact Statement for the purpose of assessing impacts. The 2006 TAF predicted very slow growth in passenger enplanements and air carrier operations (less than .04%/year) during the forecast period with no growth for air taxi, GA, or military operations. The Environmental Impact Statement acknowledged, however, that the TAF was based upon estimated historical operations for the airport since accurate statistical information was not available. Further, it noted that the aviation industry was undergoing significant structural and economic changes and that, therefore, actual activity levels might vary from the consistent growth trend predicted by the TAF.

*Southeast Region Aviation System Plan:* According to this regional plan, the Sitka SPB is one of 41 registered SPBs in Southeast Alaska and is likely one of the top five busiest in terms of operations. This includes both public and privately-owned facilities. There are a number of other unregistered seaplane landing areas in Southeast that receive charter and scheduled air service, including numerous lodges and logging and mining camps. The *Regional Plan* anticipated that although scheduled aviation activity at Sitka Rocky Gutierrez Airport and

elsewhere in the region was expected to be stagnant or show a slight decline in response to increased fuel prices, a lackluster regional economy, and population outmigration, activity at the Sitka SPB was likely to increase by an unspecified amount as air taxi activity grows to take up some of the demand previously served by scheduled carriers.

FAA TAF 2010 Scenario for A29 (Sitka SPB): The 2010-2030 forecast developed by the TAF for the Sitka SPB shows no growth throughout the forecast period. Activity is estimated to level out at 4,750 annual operations at the existing facility.

#### 4.5.2 User Input and Comparison with Other Communities

The forecasts in Section 4.5.1 indicate that future activity is expected to change little from existing levels. These forecasts are heavily influenced by trends established through historical usage. Historical usage for the Sitka SPB has been flat (no growth) because usage has been constrained by a lack of SPB facilities. In these cases where usage trends have been influenced by supply constraints (i.e. a lack of, or a shortage of, SPB facilities) the forecasts cannot be expected to accurately describe the activity (demand) that might occur if those supply constraints did not exist. In order to determine whether an unmet demand for SPB exists in Sitka, interviews were conducted with pilots operating seaplanes locally and in the Southeast Alaska Region.

Pilot Surveys: Local and regional commercial aircraft operators indicate that based commercial and medevac seaplane operations occur in Sitka almost exclusively from the State-owned Sitka Rocky Gutierrez Airport (FAA identifier SIT). Seaplane operators at Sitka Rocky Gutierrez Airport use amphibious floats and, despite the payload penalty that amphibious floats impose, prefer the State airport because lease lots are available for the storage and maintenance of their mixed fleet of aircraft (wheel- and float-equipped aircraft) and for office facilities. In the past, based seaplane operations have also been conducted by Air Sitka from their private float facility just north of the CBS SPB, but the operator has curtailed operations in recent years and is currently offering the property for sale. Operators indicated that their seaplane operations are in decline due to the national economic decline, rising fuel prices, and as communities in the region gradually acquire land-based airport facilities. For the Sitka Rocky Gutierrez Airport-based seaplane operator, rather than being a mainstay for their businesses, commercial seaplane operations in support of lodges, fish hatcheries, and tourism are becoming a fill-in activity when

operations with wheeled aircraft do not demand their full attention and resources. Regardless, these same operators felt that there are opportunities for small “one-pilot” commercial operators to come into the local market to serve seasonal surges in demand, and that these enterprises would be less likely to require extensive upland support facilities.

A telephone survey was conducted among a sample of local pilots. Several long-time pilots indicated an interest in basing Part 91 or 135 commercial operations at the CBS SPB if adequate support facilities were available. They defined “adequate support facilities” as vehicle parking, a fueling system, a ramp from shore to the seaplane float capable of supporting a small truck or van, storage for small equipment and supplies, fresh water for washing aircraft, electricity, and a passenger shelter. Most were satisfied with aircraft maintenance and storage facilities available at the State-owned Sitka airport or elsewhere in the region.

#### **4.6 Sitka Seaplane-Based Aircraft Forecast**

Low, moderate, and high growth forecasts were estimated for the demand for slips at Sitka SPB using trend-line analysis adjusted to reflect a conservative estimate of unmet demand. Growth indicators came from the population, socio-economic, and aviation forecasts summarized in the previous paragraphs. The following table shows the low, moderate, and high forecasts for the Sitka SPB from the 2009 base year, the last year for which historical data is available, through 2031.

Initial demand for non-commercial slips is anticipated to be the same as it was in spring 2011; 6 occupied slips and 4 operators on the waiting list for a slip, or 10 slips. The demand for an additional 2 non-commercial slips is assumed to exist, either for deHavilland Beaver type aircraft that presently do not use the facility due to flotation issues with the existing slips, or for operators that otherwise would have otherwise chosen not to wait two years or more for a vacant slip to become available. Based on interviews with pilots in the Sitka area who have expressed an interest in starting a commercial operation at the SPB, two additional slips are assumed to be needed to accommodate facility-based commercial traffic. The total current demand for seaplane slips is therefore assumed to be 14 slips, a 75% increase in the available supply of slips.

The rate of change anticipated by the low growth scenario is generally consistent with the annual rates used in ADOL’s 2010-2034 population forecast for Sitka (-.25%/year) and DOT&PF’s

forecast for Sitka-based aircraft (-.30%/year). The 2006 TAF used for the *Final Environmental Impact Statement Rocky Gutierrez Airport* and the 2010 TAF both anticipated a flat-line (no growth/no decline) trend. However, the *Southeast Region Aviation System Plan* anticipates an unspecified amount of growth in air taxi activity at Sitka SPB as scheduled activity at Sitka Rocky Gutierrez Airport declines. Local private and commercial operators confirmed this view during the on-site visit, public meetings, and telephone interviews. It is therefore recommended that planning for improvements be conducted in accordance with the moderate scenario, with consideration given to maintaining flexibility to accommodate unanticipated future increases in demand.

**Table 2: Low, Medium, and High Aircraft Activity Forecast**

<b>Aircraft Operations</b>	<b>% Annual Growth</b>	<b>2009 (Base)</b>	<b>2012</b>	<b>2016</b>	<b>2021</b>	<b>2031</b>
Low Forecast	1.02%	4,750	4,897	5,925	6,233	6,899
Moderate Forecast	1.05%	4,750	4,901	5,936	6,254	6,943
High Forecast	1.07%	4,750	4,904	5,944	6,269	6,973
<b>Based Aircraft</b>	<b>% Annual Growth</b>	<b>2009 (Base)</b>	<b>2012</b>	<b>2016</b>	<b>2021</b>	<b>2031</b>
Low Forecast	-0.30%	8	14	14	14	13
Moderate Forecast	0.50%	8	14	14	15	15
High Forecast	1.00%	8	14	14	15	17

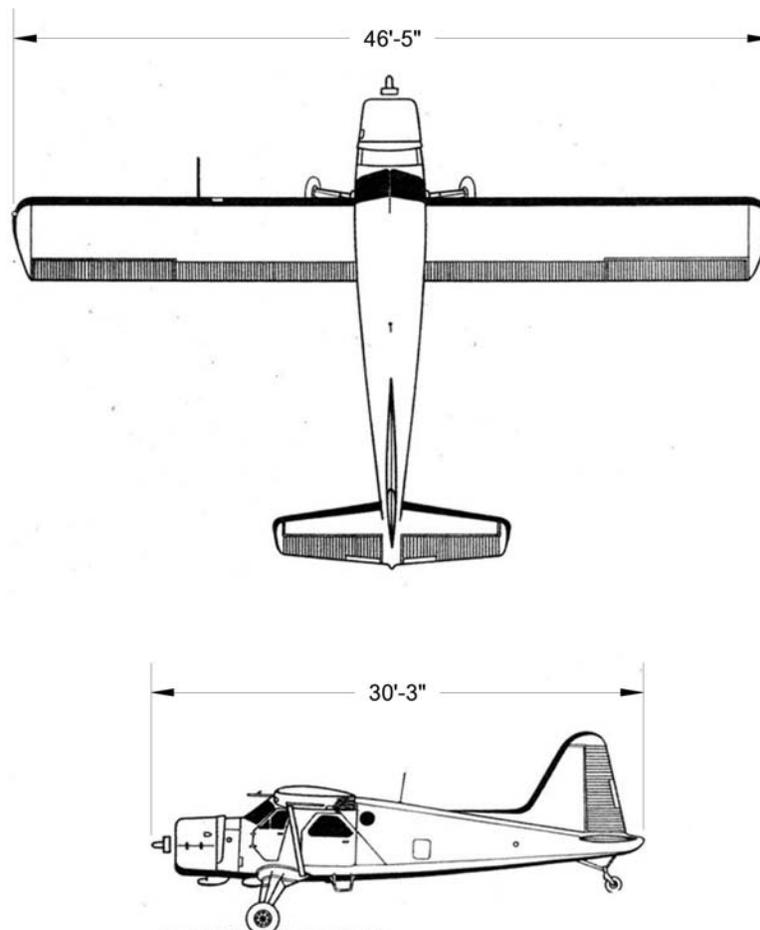
## 5.0 FACILITY REQUIREMENTS

This section identifies a set of SPB requirements that must be satisfied to meet anticipated demand during the 20-year planning period. These requirements are based upon the planning criteria in FAA Advisory Circular AC 150/5395-1 “Seaplane Bases.” These criteria can be grouped into the following three categories - each designed with a “Critical Aircraft” in mind:

- Water Operating Area
- Seaplane Docks
- Landside Facilities

Interviews with local pilots also emphasized that to successfully accommodate commercial seaplane traffic, the SPB design should incorporate adequate parking, a fueling system, a drive-down ramp, and facilitates for on-site aircraft maintenance.

**Critical Aircraft:** A Critical Aircraft, also known as the Design Aircraft, serves as the basis for project design. The Critical Aircraft is defined as the most demanding aircraft expected to use the facility on a regular basis, although smaller aircraft may also operate there. Although the largest commercial seaplane to use Sitka Channel in recent times was the deHavilland DHC-6 Twin Otter, this occurs infrequently. The largest aircraft currently operating at the SPB is the deHavilland DHC-2 Beaver, although traffic more frequently consists of Cessna 206 (C-206) and 185 (C-185) type aircraft. This project's Critical Aircraft is the DHC-2 Beaver, although the SPB's design should accommodate a mix of DHC-2, C-206, and C-185 type aircraft. In accordance with the moderate forecast, the SPB should provide 14 parking positions for based aircraft to serve demand today through 2016. Positions for 3 to 5 transient aircraft should also be provided. The layout of the facility should also be designed to accommodate commercial aircraft use and allow future expansion.



**Figure 3: deHavilland DHC-2 Beaver Dimensions**

**Water Operating Area:** The water operating area consists of that part of the SPB used for landings, takeoffs, taxiing, and turning aircraft on the water. Approaches to and departures from the water operating area should be away from established shipping and boating lanes whenever possible. The approach and departure pathways should avoid populated areas and structures along the shore. Obstructions to air navigation should be removed or marked in accordance with FAA standards and procedures.

The location of areas that attract birds should be noted and avoided when possible. According to AC 150/5200-33B Hazardous Wildlife Attractants On or Near Airports, the FAA recommends a separation distance of 5,000 feet between airports serving primarily piston-powered aircraft and hazardous wildlife attractants such as waste management or disposal facilities.

Landing and takeoff areas should be located where water currents do not exceed 3.5 miles per hour. Water surface conditions should be moderately disturbed (i.e., not “glassy”), but areas where large swells exist should be avoided. Areas where floating debris could be encountered should also be avoided.

A water operating area of at least 2,500 feet by 200 feet is recommended, oriented to maximize wind coverage. A depth of 6 feet is recommended, although a minimum depth of 3 feet is adequate for single-engine operations. A taxi channel providing direct access to the seaplane dock should be at least 125 feet wide, although 150 feet or more is desirable. A minimum of 50 feet should be provided between the side of the channel and the nearest obstruction. A turning basin should be located at each end of the water operating area. A minimum of 50 feet should be provided between the side of the basin and the nearest obstruction. The 4,000-foot-by-200-foot water operating area described in FAA’s Alaska Supplement for the Sitka SPB meets all of these dimensional criteria and its larger size is appropriate given the types of aircraft operating there. However, the water operating area must be used with due consideration of the boat traffic and wildlife hazards (seagulls) that also exist in the channel.

**Seaplane Docks:** A seaplane dock is required to allow aircraft to be serviced, loaded and unloaded, and moored without removing the aircraft from the water and to allow seaplanes to be removed from the water for long-term parking and storage, washing, and maintenance. The dimensions of the docks should be suitable for 14 aircraft with wingspans of up to 48 feet and

wingtip to wingtip separations of 10 feet. The slips should be designed with ramps that allow the seaplane floats to be brought completely out of the water to reduce saltwater corrosion and facilitate wash-downs and inspections. Fresh water for aircraft wash-downs and electricity for heat and light should also be available. A transient dock should be provided to accommodate up to 5 additional aircraft. The design aircraft length (48 feet) plus 20 feet both fore and aft (88 feet) is recommended for each position where transient aircraft are to be moored parallel to the dock.

Gangways should connect the dock to a pier or the shore. Gangways should be designed at least 6 to 8 feet wide to enable baggage carts or other freight and equipment to pass. Single-lane vehicular or “drive-down” ramps should be 10 feet to 12 feet wide, but may be 18 feet wide if they incorporate a pedestrian walkway. Depending on the distance between the floats and shore, vehicular gangways may be desirable to facilitate the transfer of passengers, baggage, equipment, and freight. Handrails should be provided on both sides. A slope of 2.75:1 is typical. Where vehicular gangways are not practical, pedestrian gangways should be designed to satisfy requirements of the Americans with Disabilities Act. Provisions for fueling should be included in the facility’s design. A haul-out ramp should be provided to facilitate removal of seaplanes from the water to land for maintenance and storage, if site conditions allow.

***Landside Facilities:*** Local pilots have indicated that on-site aircraft maintenance facilities would be desirable to serve commercial seaplane traffic. The size of the service apron and tie down area are determined based on forecasted need, but a minimal service apron/tie down area would require at least one-half acre. The availability of uplands for an apron and tie-downs at the three alternative SPB sites under consideration is severely constrained by existing development or topographic challenges. These same functions could be served by floating hangars.

Initial parking for 12 vehicles and long-term parking for up to 15 vehicles should be provided on the side of the access roadway or in a dedicated parking lot. A 9-foot-by-18.5-foot parking area should be provided for each vehicle. According to FAA design guidelines, the number of parking spaces required should be approximately equal to the number of peak hour passengers multiplied by 1.5. Estimating the number of peak hour passengers 20 years in the future for a facility that does not currently accommodate commercial seaplane operations is difficult.

However, the SPB at Kodiak Trident Basin, which serves commercial traffic, had 5,732 operations in 2005 and 8 average peak hour enplanements. Sitka SPB is forecast to host 6,943 operations in 2031. Using the Kodiak Trident Basin ratio for peak hour enplanements to operations ( $8/5,732$  or  $.0014$ ), Sitka SPB should have about 10-peak-hour enplanements in 2031. Using the FAA parking space guideline, Sitka SPB would need 10 times 1.5 or 15 parking spaces to accommodate the need in that year. For sites where space is not available for this number of spaces, the demand for parking spaces could be managed through the sale of parking permits and/or a requirement for commercial users to shuttle passengers to the SPB from other staging locations.

A fuel storage facility and a piped delivery system should be provided. Alternately, a local vender might use the drive-down ramp to deliver fuel to the floats by truck.



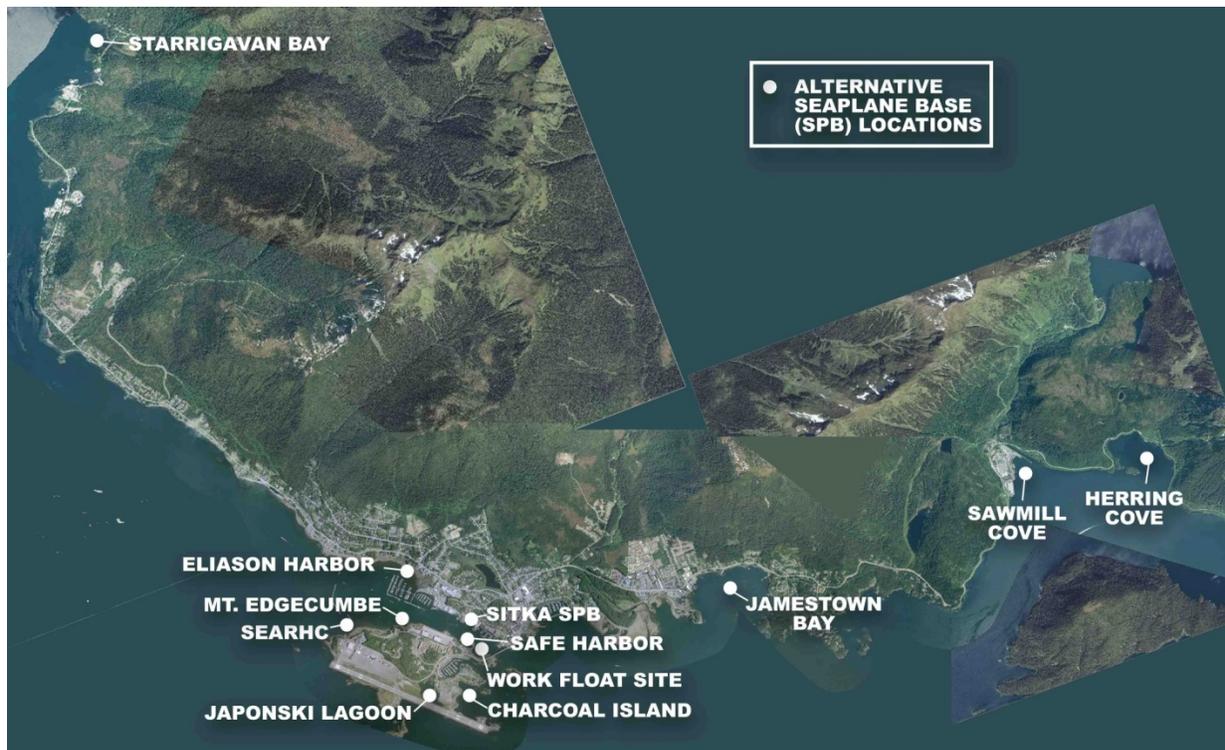
**Figure 4: Floating Hangar - Petersburg**

## **6.0 ALTERNATIVE SITES**

### **6.1 Previous Study**

As explained previously, the evaluation of sites builds upon the siting analyses presented in the “Sitka Seaplane Base Master Plan” (HDR, 2002). The 2002 plan evaluated twelve alternative sites for their ability to safely accommodate anticipated demand and resolve deficiencies at the existing SPB. The sites considered were:

- Charcoal Island
- Jamestown Bay
- Sawmill Cove
- Herring Cove
- Starrigavan Bay
- Thomsen Harbor/Turnaround area
- Sitka Rocky Gutierrez Airport lagoon
- Former Safe Harbor site next to Japonski Island
- Work float site to Japonski Island
- Site near Mount Edgecumbe High School on Japonski Island
- Site west of Southeast Alaska Regional Health Consortium (SEARHC) on Japonski Island
- Existing SPB site in Sitka Channel



**Figure 5: Previously Evaluated Sites**

Sites determined by that study to have fatal flaws were eliminated from further consideration. Although “fatal flaws” included characteristics that made the site unworkable from an environmental or capacity perspective, most sites were eliminated because they could not provide a safe operating or docking environment.

Three sites were selected for further evaluation:

- Former Safe Harbor site on Japonski Island
- Site near Mount Edgecumbe High School on Japonski Island
- Site west of SEARHC on Japonski Island

Ultimately, the 2002 study recommended the site west of SEARHC on Japonski Island for further environmental and design investigations, citing several advantages over the other sites evaluated including the potential that the new site could result in decreased aircraft noise along the most heavily developed stretch of the channel. However, two concerns with this site were identified: a potential increase in aircraft noise and vehicular activity in the immediate area, and

it was not clear that alternate access to the site through the United States Coast Guard property could be acquired.

## 6.2 Current Study

The purpose of the current study was to re-evaluate three potential seaplane base sites and recommend a preferred site for more detailed design and environmental investigations. Sites evaluated during the 2002 study were visited and key seaplane operators, staff from the CBS and FAA, the Sitka Port and Harbors



**Figure 6: Re-evaluated Sites**

Commission, and other individuals identified by CBS were interviewed. It was agreed that the previous study was justified in removing potential SPB sites outside the Sitka Channel from further consideration. The current study focused on the re-evaluation of three potential SPB sites in Sitka Channel, referred to here as:

1. The Existing SPB site
2. The Eliason Harbor Site
3. The Japonski Island Site

Conceptual layouts were developed for each site based upon the facility requirements identified in Section 5.0. For each of the three sites, the layout that best met the project's purpose and need was selected for a comparison evaluation against alternatives from the other sites. The objective of this comparison was to identify a preferred site as the basis for further more detailed analysis. It is anticipated that further refinements will be made to the conceptual layouts recommended for the site during the project's environmental and design phases.

At each site, the goal of the conceptual layout was to provide the following features:

- 12 vehicle parking spaces
- Fuel storage and distribution system
- On-site aircraft maintenance capability

- A drive-down ramp to the SPB floats
- Electricity and potable water
- Parking slips for 14 based aircraft and positions for 3 to 5 transient aircraft
- Safe access between the parking positions and the water operating area
- Minimize environmental impacts
- Accommodate future growth

### 6.2.1 Existing Seaplane Base Site

The existing SPB site is severely constrained by adjacent development, a fact which initially caused CBS to eliminate this site for new development. Due to interest in the site expressed by local pilots, a considerable effort was made to find a conceptual layout in this location that would address the project's purpose and need. Four layout alternatives (Layouts 1A through 1D) were developed and evaluated for this site. However, SSS provided a letter to CBS citing objections to the noise and traffic generated by the existing SPB and any proposed expansion of the facility (Appendix B).

*Alternative Layout 1A:* This alternative (Figure 7) is an attempt to meet the SPB requirements within the CBS-owned property footprint of the existing SPB. CBS property at the existing site is limited, consisting of two vehicle parking spaces on Katlian Street and a 10-foot to 12-foot-wide corridor for the walkway leading from the street to the SPB floats. Because of the lack of upland property, the conceptual layout for this alternative does not include additional parking spaces, a fuel storage or distribution system, an on-site maintenance facility, or a drive-down ramp. Electricity and potable water is included. Because of the proximity of adjacent buildings and docks, only enough parking slips and positions for 10 based aircraft and two transients could be accommodated. Access to the slips nearest to the shore is constrained by a taxi lane that is only 68 feet wide nearest to the SSS plant, far below the FAA recommended 225-foot minimum. This would reduce wingtip clearances for a taxiing Beaver to about 10 feet. This site is well protected from wind and wave action. Dredging would be required to provide adequate depth for the floats and for maneuvering the seaplanes. Conflicts with the movement of large boats loading/offloading at the SSS plant would continue. The distance between the SPB and the focus

of seabird activity at the SSS outfall would be unchanged. This layout could not be easily expanded to accommodate future growth. This alternative is estimated to cost \$4.6 million. Detailed cost estimates for each alternative can be found in Appendix A.

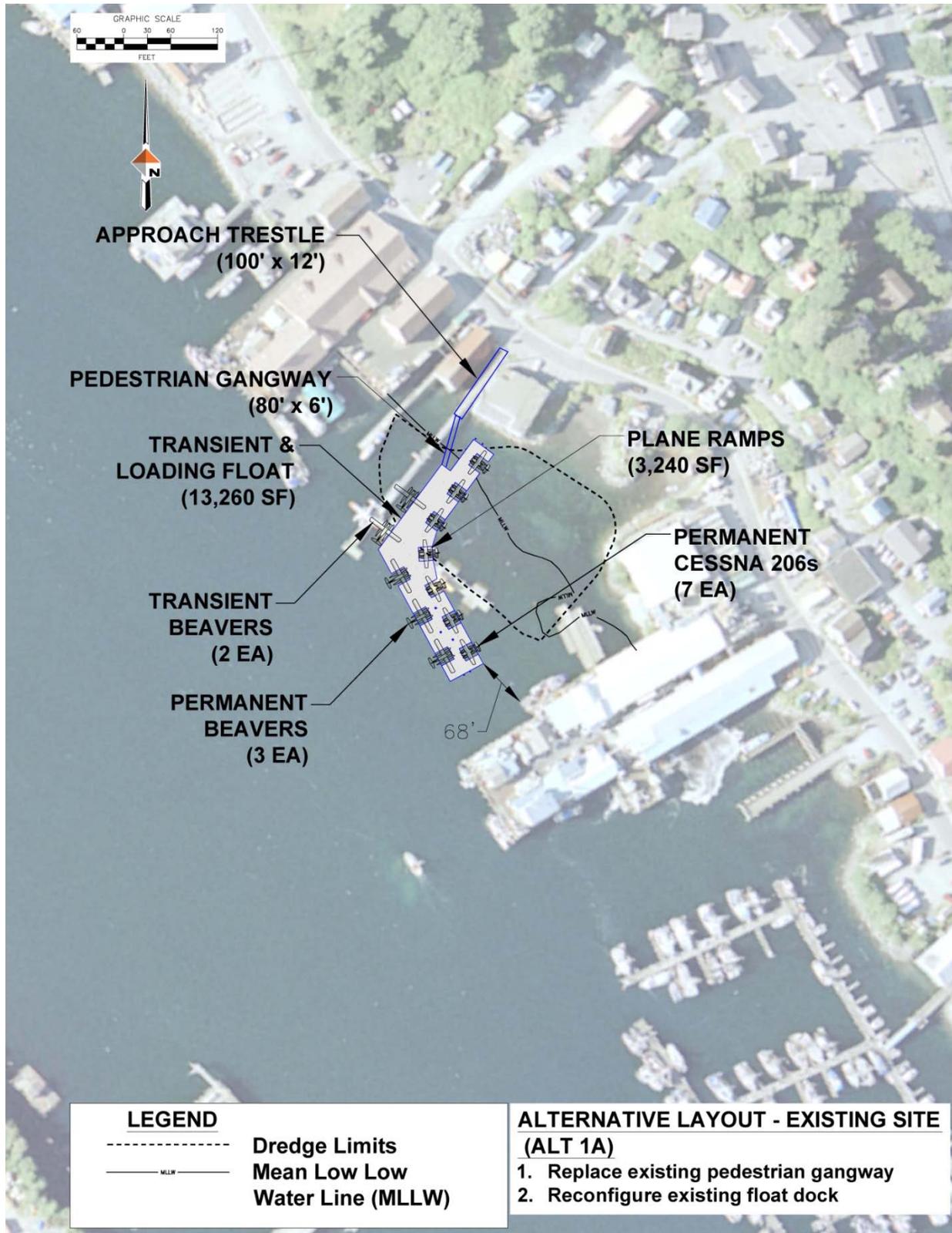


Figure 7: Alternative Layout 1A - Existing Site

*Alternative Layout 1B:* This alternative (Figure 8) would require the purchase of additional property at the existing SPB site. The specific parcels acquired to provide 12 parking spaces, a fuel storage or distribution system, and a drive-down ramp could vary depending upon the SPB's final design and the availability of willing sellers. Figure 8 shows a building immediately north of the approach trestle as acquired to provide parking, fuel storage, and a drive-down ramp. Alternately, lots on the north side of Katlian Street could be acquired for parking and/or a lot on the south side of the Sitka Tribes of Alaska building could be acquired for fuel storage, parking, and a drive-down ramp. Electricity and potable water is included. Because of the proximity of adjacent buildings and docks, only enough parking slips and positions for 10 based aircraft and 2 transients could be accommodated and facilities for on-site aircraft maintenance were not included. Access to the slips nearest to the shore is constrained by a taxi lane that is only 68 feet wide nearest to the SSS plant, far below the FAA recommended 225-foot minimum for safe maneuvering. This would reduce wingtip clearances for a taxiing Beaver to about 10 feet. This site is well protected from wind and wave action. Dredging would be required to provide adequate depth for the floats and for maneuvering the seaplanes. Conflicts with the movement of large boats loading/offloading at the SSS plant would continue. The distance between the SPB and the focus of seabird activity at the SSS outfall would be unchanged and this layout could not be easily expanded to accommodate future growth. This alternative is estimated to cost \$5.1 million.

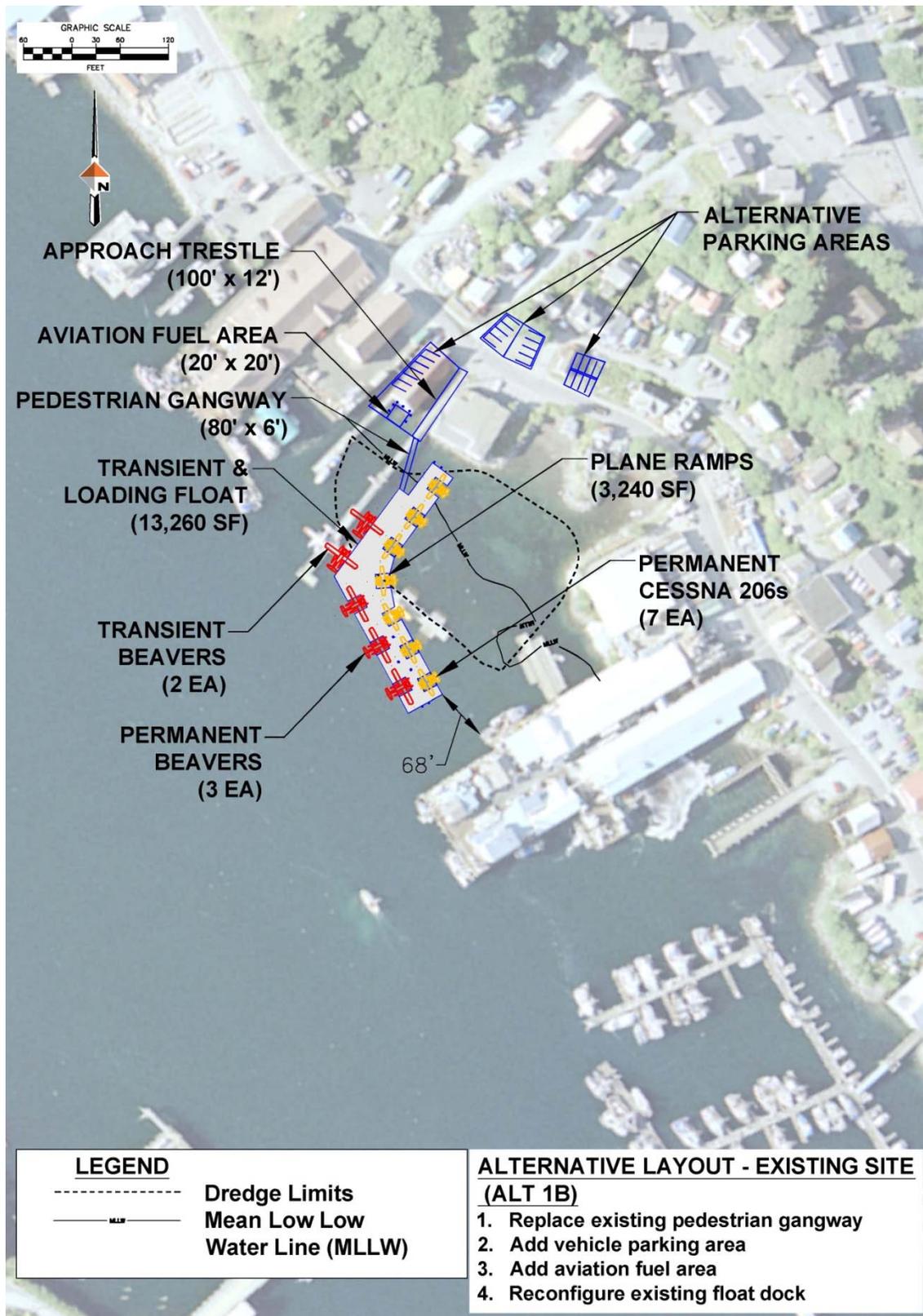


Figure 8: Alternative Layout 1B - Existing Site

*Alternative Layout 1C:* This alternative (Figure 9) was developed in response to a request from local pilots who requested the evaluation of an H-shaped float layout. This alternative would require the purchase of additional property at the existing SPB site. The specific parcels acquired to provide 12 parking spaces, a fuel storage or distribution system, and a drive-down ramp could vary depending upon the SPB's final design and the availability of willing sellers. Figure 9 shows several possible acquisition scenarios. Electricity and potable water is included. Because of the proximity of adjacent buildings and docks, only enough parking slips and positions for 13 based aircraft and two transients could be accommodated and facilities for on-site aircraft maintenance were not included. Access to the slips nearest to SSS is constrained by a taxi lane that is 96 feet to 59 feet wide, far below the FAA recommended 225-foot minimum for safe maneuvering. This would reduce wingtip clearances for a taxiing Beaver to about 5 feet at the narrowest point. Access to the slips on the interior of the facility is via a taxi lane that is 84 feet wide, also far below the FAA recommended minimum. Such a taxi lane would provide a clearance of about 18 feet between the wingtip of a taxiing Beaver and the tails of parked aircraft. This site is well protected from wind and wave action. Dredging would be required to provide adequate depth for the floats and for maneuvering the seaplanes. Conflicts with the movement of large boats loading/offloading at the SSS plant would increase and boat moorage on the north side of SSS may be severely restricted. The distance between the SPB and the focus of seabird activity at the SSS outfall would be unchanged. This layout could not easily be expanded to accommodate future growth. Since it is doubtful that access to/from any of the slips could be accomplished in a consistently safe manner, and boat access to the SSS plant is restricted, a cost estimate was not developed for this alternative.

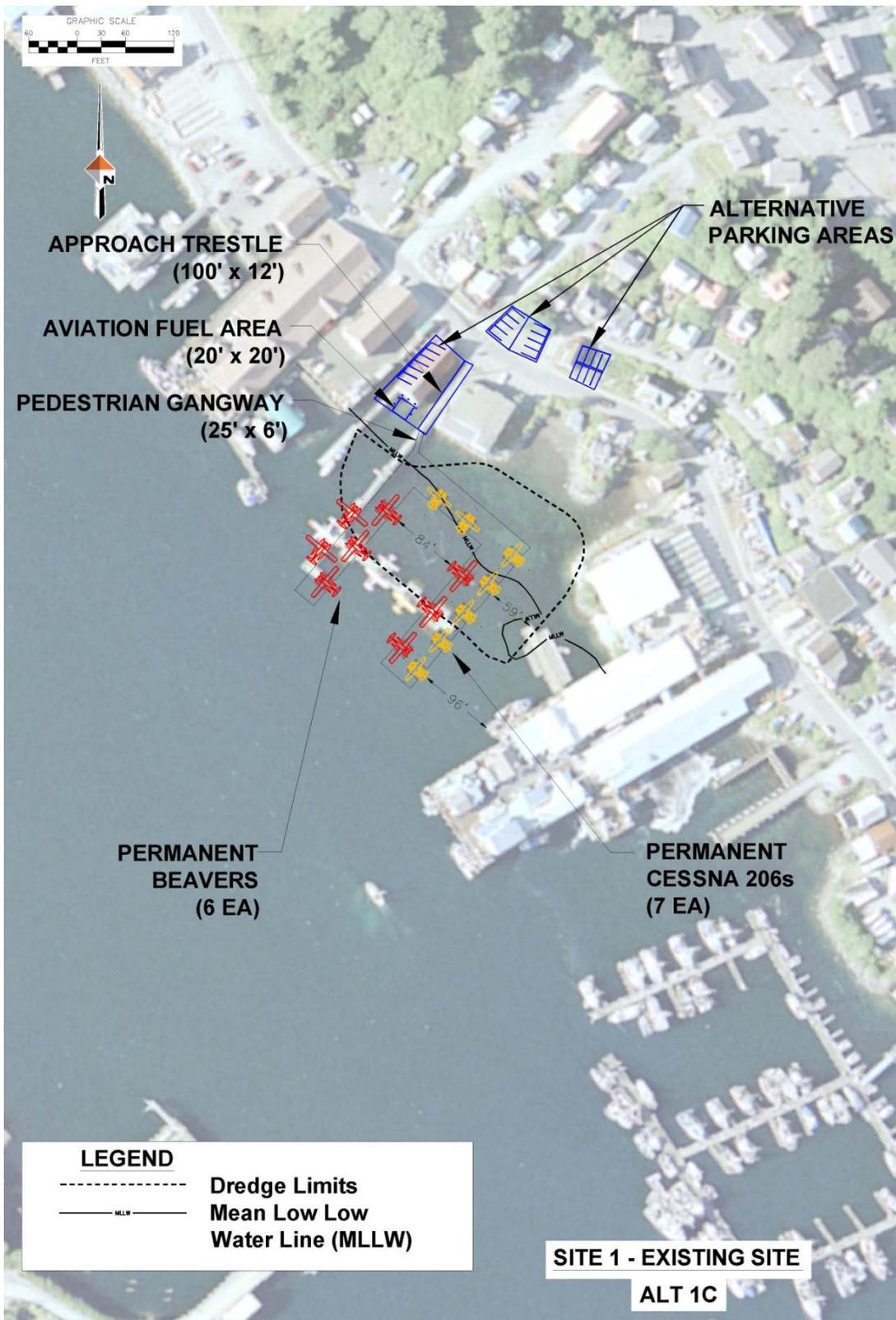


Figure 9: Alternative Layout 1C - Existing Site

*Alternative Layout 1D:* This alternative (Figure 10) was also developed in response to a request from local pilots who requested the evaluation of an H-shaped float layout. Alternative Layout 1D is very similar to Alternative 1C. Alternative 1D would require the purchase of additional property at the existing SPB site. The specific parcels acquired to provide 12 parking spaces, a fuel storage or distribution system, and a drive-down ramp could vary depending upon the SPB's final design and the availability of willing sellers. Figure 10 shows one possible acquisition scenario. Electricity and potable water is included. The interior taxi lane has been expanded to 150 feet to make the slips on the inside of the floats more accessible and increase the total number of slips for based aircraft to 14. Because of space constraints, facilities for on-site aircraft maintenance were not included. Access to the slips nearest to SSS is rendered impossible by a taxi lane that is 31 feet wide at its widest, effectively reducing the SPBs capacity to 9 based aircraft and two transients. Access to the slips on the interior of the facility is via a taxi lane that is 150 feet wide, still below the FAA recommended minimum but providing wingtip clearances for a Beaver of about 51 feet. This site is well protected from wind and wave action. Dredging would be required to provide adequate depth for the floats and for maneuvering the seaplanes. The distance between the SPB and the focus of seabird activity at the SSS outfall would be unchanged. Boat access to the north side of the SSS facility would be eliminated. This layout could not be easily expanded to accommodate future growth. Since this alternative does not meet the project's capacity goal and eliminates boat access to part of the SSS plant, a cost estimate was not developed.

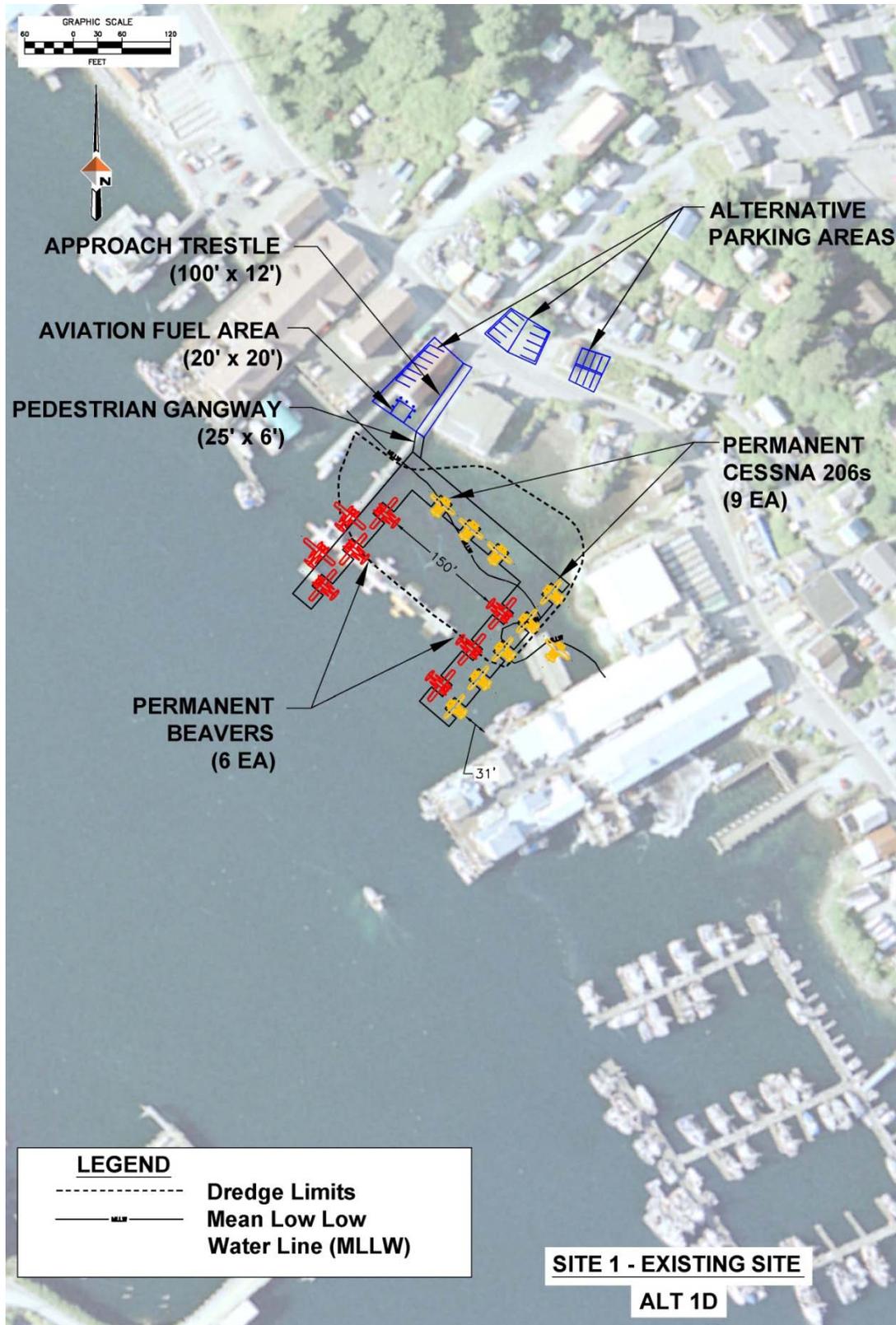


Figure 10: Alternative Layout 1D - Existing Site

Table 3 compares the four layouts at the existing SPB site. Although none of the four alternative layouts for the existing SPB met all of the facilities' requirements, Alternative Layout 1B was carried forward to be compared to alternative layouts from the other two potential sites.

**Table 3: Comparison of Existing SPB Layout Alternatives**

<b>Design Criteria</b>	<b>Alternative 1A</b>	<b>Alternative 1B</b>	<b>Alternative 1C</b>	<b>Alternative 1D</b>
12 parking spaces	No	Yes	Yes	Yes
Fuel storage & distribution system	No	Yes	Yes	Yes
On-site maintenance facility	No	No	No	No
Drive-down ramp	No	Yes	Yes	Yes
Electricity & potable water	Yes	Yes	Yes	Yes
14 based aircraft slips, 3-5 transient positions	No	No	No	No
Safe access/maneuvering to slips	Poor	Poor	Unworkable	Unworkable
Protected from wind and waves	Yes	Yes	Yes	Yes
Allows for future expansion	No	No	No	No
Minimal environmental impacts	No	No	No	No

### 6.2.2 Eliason Harbor Alternative

This alternative (Figure 12) is an attempt to meet the SPB requirements using CBS-owned property at Eliason Harbor. The conceptual layout for this site includes parking spaces, a fuel storage and distribution system, an on-site maintenance facility (two optional floating hangars), and a drive-down ramp. Electricity, a potable water distribution system, and seaplane parking slips and positions for 14 based aircraft and three transients are included. The floats are arranged in a linear fashion with seaplane parking positions on the east side to separate boat and seaplane traffic. Access to the slips is by a taxi lane that approximates the FAA recommended 225-foot minimum width. Extensive dredging would be required to provide adequate depth for the floats and for maneuvering the seaplanes. Some conflicts with the movement of boats moving to/from the harbor could be expected, but at a reduced level compared to the existing SPB. Water discharging from Turnaround Creek could be expected to freeze and render this site at least partially unusable during some winter months. Protection from easterly winds would be somewhat less than that experienced at the existing SPB site. The distance between the SPB and the focus of seabird activity at the SSS outfall would be increased by approximately 3,000 feet. Aircraft-generated noise from this facility may impact nearby structures. This layout is

estimated to cost \$13.2 million without the floating aircraft maintenance hangars and \$15.6 million with the floating hangars.

Note that the SPB floats shown in Figure 12 generally follow the alignment of the existing pilings that are positioned in the water just beyond the shoreline in Figure 11. Turnaround Creek is just outside the frame to the right.



**Figure 11: Eliason Harbor site at Low Tide**

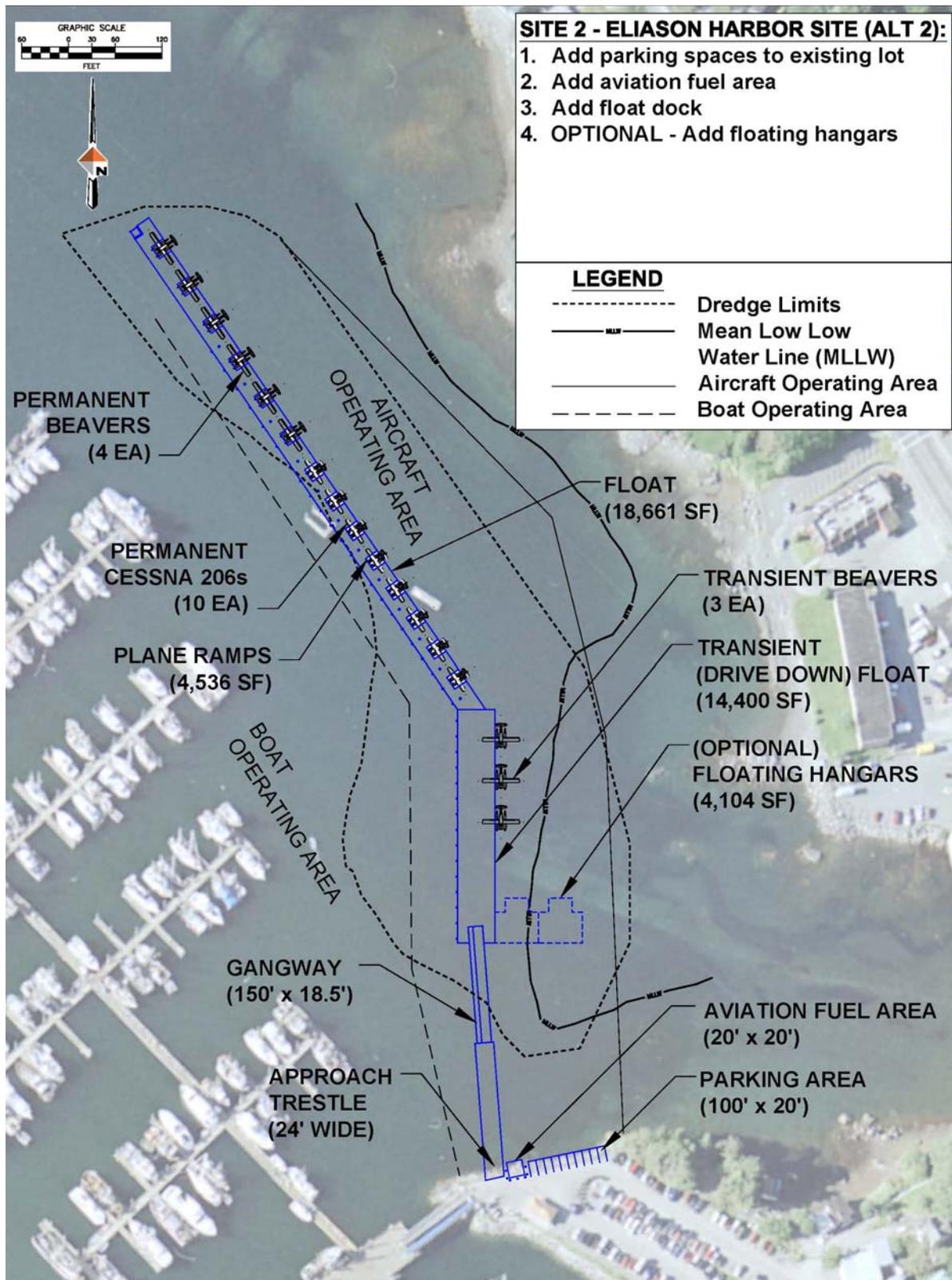


Figure 12: Alternative Layout 2 - Eliason Harbor Site

### 6.2.3 Japonski Island Alternative

*Alternative Layout 3A:* This alternative (Figure 13) is an attempt to meet the SPB requirements at a site at the north end of Seward Avenue on Japonski Island. The conceptual layout for this site includes 12 vehicle parking spaces, a fuel storage and distribution system, and a drive-down ramp. Although not shown in the figure, an on-site maintenance facility (an on-shore facility or two optional floating hangars) could be accommodated at this site. Electricity, a potable water distribution system, and seaplane parking slips and positions for 14 based aircraft and 5 transients are included. The floats are arranged to align all slips with the prevailing wind. This location is removed from areas of concentrated boat traffic and access to the slips is unrestricted. Dredging would not be required to provide adequate depth for the floats and for maneuvering the seaplanes. Protection from easterly winds would be somewhat less than that experienced at the existing SPB site and long period swells may penetrate the nearby breakwaters to reach the floats. The distance between the SPB and the focus of seabird activity at the SSS outfall would be increased by approximately 4,300 feet. Aircraft-generated noise from this facility may impact nearby structures, although a SPB at this location may also reduce noise in the channel by moving the water operating area further to the north. This layout is estimated to cost \$9.3 million without the floating aircraft maintenance hangars and \$11.7 million with floating hangars.

The SPB would be located on state-owned tidelands. Uplands owned by the State of Alaska Department of Education and Early Development would likely be required for access to the SPB, however, a final access location has not been determined.

Mount Edgecumbe High School provided two letters (Appendix B) expressing a lack of support for a SPB at this location, citing the agency's interest in using the property for other unspecified purposes in the future, possible impacts to nearby structures, increased vehicular traffic, and other concerns.

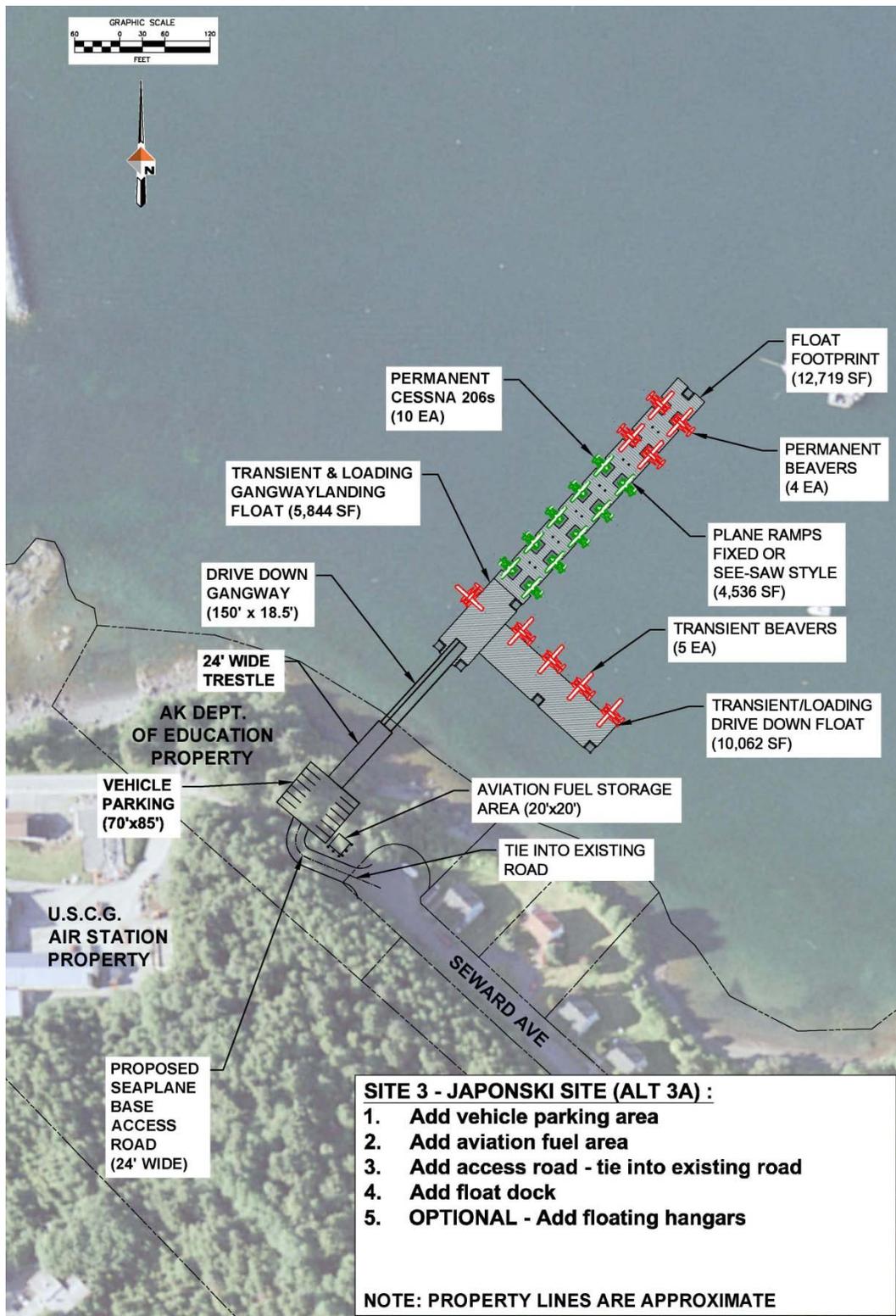


Figure 13: Alternative Layout 3A - Japonski Site

#### 6.2.4 Evaluation of Alternative Layouts

A set of evaluation criteria was developed to assist in the selection of a recommended alternative. The alternatives were given a rating for each criterion and the ratings were summed for an overall score. The summed scores were discussed during workshops with seaplane pilots and several other local residents and, where necessary, adjustments were made to reflect local knowledge and experience.

The ratings or values assigned for each criterion were arrived at through a process of comparing the alternatives--a “beauty contest” so to speak --where the “best” alternative for a given criterion was given the highest rating, and the “worst” alternative the lowest rating. No weightings were used to assign greater importance to any of the criterion.

The criteria used in evaluating alternatives are listed below, grouped by category:

##### Facility Requirements

- Wind protection: degree to which aircraft and SPB floats will be protected from wind
- Wave protection: degree to which aircraft and SPB floats will be protected from waves
- Icing: degree to which the site is exposed to icing in the winter
- Capacity: degree to which the layout meets the initial capacity goal of 14 based seaplane slips and 3 to 5 transient positions.
- Room for growth: degree to which the site could accommodate future growth in demand
- Aircraft maneuvering room: degree to which aircraft have space to maneuver to/from parking spaces in less than ideal conditions (wind, waves, currents)
- Taxi distance: distance between the SPB facility and designated water lane for takeoffs and landings
- Vehicle parking: provides 12 vehicle parking spaces
- Fueling facilities: provides storage space for fueling system
- Drive-down ramp: provides drive-down ramp to facilitate movement of passengers and equipment to the aircraft parking positions by car, truck, or van
- On-site aircraft maintenance: provides option to locate floating or onshore aircraft maintenance facilities

#### Safety Concerns

- Wildlife hazards: Degree to which the site is protected from wildlife hazards (mainly birds)
- Potential conflicts with boat traffic: degree to which taxiing aircraft may encounter boat traffic

#### Environmental Concerns

- Dredging or rock removal: degree to which dredging/rock removal is required
- Adjacent land uses: degree to which SPB operation is consistent with adjacent land uses

#### Cost and Feasibility Concerns

- Capital cost
- Property acquisition: degree to which property must be acquired to construct the SPB
- Operating and maintenance cost: how much it may cost to operate and maintain the facility
- Revenue generating potential: degree to which the facility can be expected to generate revenue to cover its operating and maintenance costs

Each alternative was rated on these criteria. The results of this evaluation, summed by criteria category, follow in Table 4.

**Table 4: Sitka Seaplane Base Siting Study and Conceptual Design  
 Draft Evaluation Criteria**

Scoring Range 1 - 3 (worst - best); 0 = non-responsive  
 Unweighted criteria

Notes	SPB Site Selection Criteria	Alternatives		
		Eliason Harbor	Japonski Island	Existing SPB ALT 1B
<b>Facility Requirements</b>				
1	Wind protection	2	1	3
2	Wave protection	2	1	3
3	Icing	1	3	3
4	Capacity	3	3	1
5	Accommodate future growth	2	3	0
6	Aircraft maneuvering room	2	3	1
7	Taxi distance to takeoff area	3	3	2
8	Vehicle parking	3	3	3
9	Fueling facilities	3	3	3
10	Drive-down ramp to floats	3	3	1
11	On-site aircraft maintenance	3	3	0
Category Score Total		27	29	20
Category Rank		2nd Best	Best	3rd Best
<b>Safety Concerns</b>				
12	Wildlife hazards	2	3	1
13	Potential conflicts with boat traffic	1	3	1
Category Score Total		3	6	2
Category Rank		2nd Best	Best	3rd Best
<b>Environmental Concerns</b>				
14	Dredging and/or rock removal	1	3	2
15	Adjacent land uses	1	1	3
Category Score Total		2	4	5
Category Rank		3rd Best	2nd Best	Best
<b>Cost and Feasibility Concerns</b>				
16	Property acquisition	3	1	1
17	Capital cost	1	2	3
18	Operating and maintenance cost	1	2	3
19	Revenue generation potential	3	3	1
Category Score Total		8	8	8
Category Rank		Tie	Tie	Tie
<b>Cumulative Scores</b>		40	47	35
<b>Overall Ranking</b>		2nd Best	Best	3rd Best

**Table 5: Explanatory Notes for Table 4**

Notes	
1	Japonski is exposed to southeast winds in summer and east winds in winter. Eliason is exposed to east winds in winter. Existing SPB sites are sheltered by adjacent development.
2	Japonski is partially exposed to swells due to the gap in the breakwater and to chop from the east and south. Eliason has less exposure to long period waves. Existing SPB receives some chop from the south.
3	Icing occurs seasonally at the outfall of Turnaround Creek close to the site of the proposed SPB.
4	The capacity objective is 12 to 14 slips for based aircraft and 3 to 5 positions available for transient aircraft. The Eliason and Japonski sites meet this objective. At the existing SPB site, 1B provides slips for 10 based aircraft and 2 transients.
5	The ability of the existing SPB alternative to be expanded is constrained by adjacent development. Eliason can be extended in a linear configuration, but the long narrow pier may create logistical problems for users, require more dredging, and may increase boat conflicts. Japonski can be expanded in various configurations.
6	Japonski is open with minimal boat traffic; Eliason is near boat harbor; Existing SPB taxi lanes do not meet FAA guidelines and conflict with the SSS plant.
7	Measured from the site to the north end of the designated water lane in Sitka Channel. Eliason = .8 mile; Japonski = .4 mile; Existing SPB Alternatives = .5 mile
8	All sites can accommodate 12 vehicle parking spaces.
9	All sites can accommodate fuel storage and distribution systems.
10	Existing SPB Alt 1B may not provide a drive-down ramp because of space constraints.
11	Existing SPB Alt 1B does not provide floating hangars or upland facilities because of space constraints.
12	The main wildlife hazard consists of birds attracted by the outfall from fish processing plants just south of the existing SPB. Although it is anticipated that this will diminish within the next few years because of stricter EPA/ADEC permitting requirements, a lower level of bird activity associated with the fish processing facilities may remain. Eliason is 3,000 feet from the fish processing plants, Japonski about 4,300 feet, and the existing SPB alternatives about 350 feet away.
13	Eliason is immediately adjacent to Eliason Harbor. Existing SPB site is in a busy area of the Sitka Channel. Japonski is away from most boat traffic.
14	Japonski does not require dredging or rock removal. Eliason requires significant dredging and rock removal at the outfall of Indian Creek. Alt 1B requires limited rock removal and some dredging.
15	Land use at Eliason harbor is C-1 (Commercial), Japonski is P (Public Lands District), existing SPB is W (Waterfront District). SPB is a permitted use in W and conditional use in P and C-1. However, R (Residential) land uses are less than .5 mile from Eliason and the existing SPB sites. Mount Edgecumbe High School and SEARHC are less than .5 mile from the Japonski site.
16	Eliason does not require the acquisition of additional property - site is owned by CBS.
17	Eliason = \$13.2 to \$15.6 million; Japonski = \$9.3 to \$11.7 million; Existing SPB Alt 1B = \$5.1 million
18	Eliason = \$8,868/year; Japonski = \$4,836/year; Existing SPB Alt 1B = \$2,820/year
19	Revenue estimate based entirely on number of seaplane slips.

## **7.0 RECOMMENDED SITE**

Based upon the analysis described in this report and input received from local officials, residents and pilots, this study recommends carrying the Japonski Island site forward for further environmental investigations and design. None of the alternative sites studied in this or the 2002 study are perfectly suited for the development of a seaplane base. Topography and existing development limit the choices available. However, of all the potential sites evaluated, the Japonski site has the most positive attributes and least negative attributes.

Although the construction of a new SPB at the existing site would be less expensive than at the other two sites because it would be smaller, a SPB at this site could not be designed to meet the project's capacity goal of 14 slips for based aircraft and 3 to 5 transient positions, provide on-site maintenance facilities, and safe access to/from the slips from the water operating area. Existing adjacent development would make right-of-way acquisition for vehicle parking, fuel storage, and a drive-down ramp very difficult and expensive. This site also could not accommodate future growth. An expanded SPB at the existing site would increase boat conflicts, particularly with boat traffic to SSS. SSS has also objected to the continued operation or expansion of the existing SPB.

The Eliason Harbor site would be the most expensive to develop. Extensive dredging required for the project would result in impacts to a sensitive near-shore tidal area and would very likely not make it through the permitting process. Although this site could accommodate the project's initial capacity goal, on-site maintenance facilities could be provided, and a taxi lane of adequate width would safe access to/from the slips from the water operating area, future expansion of the facility would create logistical challenges for users. Although the floats could be designed to segregate boat and seaplane traffic, occasional boat/seaplane conflicts at the northern entrance to the SPB could be expected. This site is away from the concentration of seabirds near the fish processing plants, but freezing fresh water from nearby Turnaround Creek would make the facility unusable during some winter months. Aircraft-generated noise could adversely impact nearby residences and businesses.

The Japonski Island site has a mid-range cost, can meet the project's capacity goal, can accommodate on-site maintenance, and can easily be expanded in the future to accommodate

growth. Access between the slips and the water operating area is open water free of obstructions. The site is removed from most boat traffic and away from the concentration of seabirds near the fish processing plants. Property may have to be acquired from the State of Alaska Department of Education and Early Development, however, access could be provided through Coast Guard or SEARHC property. Aircraft-generated noise from the SPB may increase for nearby residences and businesses, but it may also reduce noise in the Channel overall by moving the water operating area further to the north. This site was preferred by local seaplane pilots.

It is anticipated that this project would be eligible for environmental, design, and construction funding through the FAA's Airport Improvement Program (AIP). AIP funding would pay 93.75% of eligible project costs. The SOA typically provides half of the required match funding, or 3.125%. The CBS would be expected to provide the remainder. Based upon the preliminary cost estimate of \$11,700,000 for the Japonski Island Alternative with floating hangars, funding for the project would be as follows:

- \$10,968,750 - AIP
- \$365,625 - SOA
- \$365,625 - CBS

The Japonski Island Alternative layout and costs presented in this report will be further refined during the project's design and environmental phases.

## **8.0 PUBLIC INVOLVEMENT**

Appendix B contains a summary of public involvement efforts conducted during the preparation of this report, including personal and telephone interviews, correspondence, and meetings with user groups, the general public, and the CBS Port and Harbor Commission. On April 17, 2012, the Port and Harbor Commission issued a memorandum supporting the Japonski Island Alternative for further study.

## **9.0 REFERENCES**

Alaska Department of Labor and Workforce Development, Alaska Populations Projections 2010-2034, February 2011

DOT&PF, Alaska Aviation System Plan Forecasts, June 2011

DOT&PF, Southeast Region Aviation System Plan, September 2008

FAA, APO Terminal Area Forecast Report: Forecast Issued December 2010, for A29, downloaded 4/1/2011; <http://aspm.faa.gov/main/taf.asp>

FAA, National Plan of Integrated Airport Systems (NPIAS) Reports, downloaded 4/1/2011; [http://www.faa.gov/airports/planning\\_capacity/npias/reports/](http://www.faa.gov/airports/planning_capacity/npias/reports/)

HDR, Sitka Seaplane Base Master Plan, August 2002

US DOT, Federal Aviation Administration, Final Environmental Impact Statement for Sitka Rocky Gutierrez Airport, Sitka Alaska, May 2009

## **APPENDIX A**

### **Cost Estimates**

SITKA SEAPLANE BASE

PRELIMINARY COST SUMMARY FOR ALTERNATIVES 1A, 1B, 2, AND 3

	ALT 1A Existing Site (w/out landside property acquisition)	ALT 1B Existing Site (w/landside property acquisition)	ALT 2 Eliason Site	ALT 3 Japonski Site
Landside Costs	\$0	\$164,920	\$164,920	\$217,840
Waterside Costs	\$4,569,110	\$4,569,110	\$11,706,923	\$8,798,010
Property Acquisition	\$0	\$296,856	\$55,944	\$323,316
Mitigation	\$80,000	\$80,000	\$1,340,000	\$0
<b>TOTAL</b>	<b>\$4,649,110</b>	<b>\$5,110,886</b>	<b>\$13,267,787</b>	<b>\$9,339,166</b>
Optional (Float Plane Maintenance Area)	\$0	\$0	\$2,340,000	\$2,340,000
<b>TOTAL + Optional</b>	<b>\$4,649,110</b>	<b>\$5,110,886</b>	<b>\$15,607,787</b>	<b>\$11,679,166</b>

NOTE:

1. Design, environmental, relocation, and construction administration costs are not included in this estimate.

## Cost Estimate - Alternative 1A - (Existing Site w/out Property Acquisition)

Existing Site - Alt 1A (w/out Property Acquisition)

	Pay Unit	Quantity	Unit Price	Total Amount
<b><u>Landside Costs</u></b>				
1.	LS	0	\$0	\$0
				Subtotal: \$0
				(30%) Contingency: \$0
				(10%) Mob & Demob: \$0
<b>Landside Costs Total:</b>				<b>\$0</b>
<b><u>Waterside Costs</u></b>				
1. Mobilization	LS	1	\$300,000	\$300,000
2. Demo Existing Float System	LS	1	\$150,000	\$150,000
3. Dredging (rock removal)	LS	1	\$50,000	\$50,000
4. Trestle	SF	1,200	\$200	\$240,000
5. Gangway 6' wide	SF	480	\$150	\$72,000
6. Floats (includes piling)	SF	16,500	\$135	\$2,227,500
7. Piling socket 24-Inch	EA	15	\$15,000	\$225,000
8. Water System	LS	1	\$40,200	\$40,200
9. Fuel System	LS	1	\$50,000	\$50,000
10. Lighting & Electrical System	LS	1	\$100,000	\$100,000
11. Cathodic Protection System	LS	1	\$60,000	\$60,000
				Subtotal: \$3,514,700
				(30%) Contingency: \$1,054,410
<b>Waterside Costs Total:</b>				<b>\$4,569,110</b>
				Property Acquisition: \$0
				Mitigation: \$80,000
<b>ALT 1A TOTAL:</b>				<b>\$4,649,110</b>
XX. Optional (Float Plane Maintenance Area)	LS	0	\$0	\$0
				(30%) Contingency: \$0
				Optional Total: \$0
<b>ALT 1A TOTAL + Optional:</b>				<b>\$4,649,110</b>

## NOTE:

1. Design, environmental, relocation, and construction administration costs are not included in this estimate.

Cost Estimate - Alternative 1B - (Existing Site w/Property Acquisition)

Existing Site - Alt 1B (w/Property Acquisition)

	Pay Unit	Quantity	Unit Price	Total Amount
<b>Landside Costs</b>				
1. Vehicle Parking	LS	1	\$117,800	\$117,800
<i>Parking Lot (14 spaces + AST area)</i>	<i>SF</i>	<i>10,600</i>		
	<i>SF</i>	<i>10,600</i>		
<i>Construction</i>	<i>SY</i>	<i>1,178</i>	<i>\$100</i>	
<i>Property Acquisition (moved to summary sheet)</i>	<i>LS</i>			

Subtotal:	\$117,800
(30%) Contingency:	\$35,340
(10%) Mob & Demob:	\$11,780
<b>Landside Costs Total:</b>	<b>\$164,920</b>

**Waterside Costs**

1. Mobilization	LS	1	\$300,000	\$300,000
2. Demo Existing Float System	LS	1	\$150,000	\$150,000
3. Dredging (rock removal)	LS	1	\$50,000	\$50,000
4. Trestle	SF	1,200	\$200	\$240,000
5. Gangway 6' wide	SF	480	\$150	\$72,000
6. Floats (includes piling)	SF	16,500	\$135	\$2,227,500
7. Piling socket 24-Inch	EA	15	\$15,000	\$225,000
8. Water System	LS	1	\$40,200	\$40,200
9. Fuel System	LS	1	\$50,000	\$50,000
10. Lighting & Electrical System	LS	1	\$100,000	\$100,000
11. Cathodic Protection System	LS	1	\$60,000	\$60,000

Subtotal:	\$3,514,700
(30%) Contingency:	\$1,054,410
<b>Waterside Costs Total:</b>	<b>\$4,569,110</b>

Property Acquisition:	\$296,856
Mitigation:	\$80,000
<b>ALT 1B TOTAL:</b>	<b>\$5,110,886</b>

XX. Optional (Float Plane Maintenance Area)	LS	0	\$0	\$0
			(30%) Contingency:	\$0
			Optional Total:	\$0

<b>ALT 1B TOTAL + Optional:</b>	<b>\$5,110,886</b>
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NOTE:

1. Design, environmental, relocation, and construction administration costs are not included in this estimate.

## Cost Estimate - Alternative 2 - Eliason Site (w/Property Acquisition)

Eliason Site - (w/Property Acquisition)

	Pay Unit	Quantity	Unit Price	Total Amount
<b>Landside Costs</b>				
1. Vehicle Parking	LS	1	\$117,800	\$117,800
<i>Parking Lot (14 spaces + AST area)</i>	<i>SF</i>	<i>10,600</i>		
	<i>SF</i>	<i>10,600</i>		
<i>Construction</i>	<i>SY</i>	<i>1,178</i>	<i>\$100</i>	
<i>Property Acquisition (moved to summary sheet)</i>	<i>LS</i>			

Subtotal:	\$117,800
(30%) Contingency:	\$35,340
(10%) Mob & Demob:	\$11,780
<b>Landside Costs Total:</b>	<b>\$164,920</b>

**Waterside Costs**

1. Mobilization	LS	1	\$300,000	\$300,000
3. Dredging	CY	10,000	\$40	\$400,000
3. Trestle	SF	4,200	\$200	\$840,000
4. Gangway 18.5' wide	SF	2,775	\$300	\$832,500
5. Floats Transient	SF	14,400	\$225	\$3,240,000
6. Floats (including piling)	SF	23,197	\$125	\$2,899,625
7. Piling socket 24-Inch	EA	30	\$7,500	\$225,000
8. Water System	LS	1	\$58,200	\$58,200
9. Fuel System	LS	1	\$50,000	\$50,000
10. Lighting & Electrical System	LS	1	\$100,000	\$100,000
11. Cathodic Protection System	LS	1	\$60,000	\$60,000

Subtotal:	\$9,005,325
(30%) Contingency:	\$2,701,598
<b>Waterside Costs Total:</b>	<b>\$11,706,923</b>

Property Acquisition:	\$55,944
Mitigation:	\$1,340,000
<b>ALT 2 TOTAL:</b>	<b>\$13,267,787</b>

XX. Optional (Float Plane Maintenance Area)	LS	2	\$900,000	\$1,800,000
			(30%) Contingency:	\$540,000
			Optional Total:	\$2,340,000

<b>ALT 2 TOTAL + Optional:</b>	<b>\$15,607,787</b>
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## NOTE:

1. Design, environmental, relocation, and construction administration costs are not included in this estimate.

SITKA SEAPLANE BASE  
Cost Estimate - Alternative 3 - Japonski Site (w/Property Acquisition)

Japonski Site - (w/Property Acquisition)

	Pay Unit	Quantity	Unit Price	Total Amount
<b><u>Landside Costs</u></b>				
1. Vehicle Parking	LS	1	\$117,800	\$117,800
<i>Parking Lot (14 spaces + AST area)</i>	SF	10,600		
	SF	10,600		
<i>Construction</i>	SY	1,178	\$100	
<i>Property Acquisition (moved to summary sheet)</i>	LS			
2. Access Road	LS	1	\$37,800	\$37,800
<i>Seward Avenue Access Road Tie-in</i>	LF	200		
<i>Construction-access road</i>	LF	200	\$189	
<i>Property Acquisition</i>	SY			
Subtotal:				\$155,600
(30%) Contingency:				\$46,680
(10%) Mob & Demob:				\$15,560
<b>Landside Costs Total:</b>				<b>\$217,840</b>

<b><u>Waterside Costs</u></b>				
1. Mobilization	LS	1	\$300,000	\$300,000
2. Site Preparation	LS	1	\$25,000	\$25,000
3. Trestle	SF	2,400	\$200	\$480,000
4. Gangway 18.5' wide	SF	2,775	\$300	\$832,500
5. Floats Transient	SF	10,400	\$225	\$2,340,000
6. Floats, Type A (including piling)	SF	18,064	\$125	\$2,258,000
7. Piling socket 24-Inch	EA	16	\$15,000	\$240,000
8. Water System	LS	1	\$82,200	\$82,200
9. Fuel System	LS	1	\$50,000	\$50,000
10. Lighting & Electrical System	LS	1	\$100,000	\$100,000
11. Cathodic Protection System	LS	1	\$60,000	\$60,000
Subtotal:				\$6,767,700
(30%) Contingency:				\$2,030,310
<b>Waterside Costs Total:</b>				<b>\$8,798,010</b>
Property Acquisition:				\$323,316
Mitigation:				\$0
<b>ALT 3 TOTAL:</b>				<b>\$9,339,166</b>

XX. Optional (Float Plane Maintenance Area)	LS	2	\$900,000	\$1,800,000
(30%) Contingency:				\$540,000
Optional Total:				\$2,340,000

**ALT 3 TOTAL + Optional: \$11,679,166**

NOTE:

1. Design, environmental, relocation, and construction administration costs are not included in this estimate.

## APPENDIX B

### Public Involvement

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Sitka SPB Siting Study  
 Summary of Telephone and Personal Interviews, e-mail

<u>Date</u>	<u>Name</u>	<u>Phone #</u>	<u>Representing</u>	<u>Comments</u>
15-Feb	Mike Bills	738-8023	CAP	CAP no longer keeps seaplane in Sitka. CAP seaplane on amphib floats kept in Juneau. CAP member Bill Lance has personal seaplane (C-180). Also Ron Handerson.
2-Mar	Scott Harris	966-3050	Harris Air	Has Beaver and C-185 on State airport. Both on amphib floats. Uses them for tourism (including cruise ships), to support area lodges (6) and air ambulance (Beaver). Doesn't use CBS SPB because no upland facilities for maintenance and tie-downs. State seaplane ramp inadequate (tides, need escort on arpt). At CBS SPB poor fueling situation - jerry cans. "Used to be more seaplane traffic 20-30 years ago." With econ downturn, traffic moved to JNU; Forest Service activity reduced because no logging in Tongass.
24-Feb	George Burnstein	966-8965	Mt. Edgecumbe Hospital (IHS)	He's Chief Flight Nurse. The seaplanes (SPs) they use are on amphib floats from State airport. Some patients come in by charter (Harris Air or Sitka Air) or by USCG helicopter. SPs come to Sitka from Angoon, Pelican, Tenakee Springs. Total transport via SP about 40/year.
24-Feb	Dave Gordon	747-6688	ADF&G Sitka	ADF&G rents slip at SPB for Super Cub. Busy season June - August. Fly 4-5 days/week, about 38 flights/summer. He also "hot berths" his own plane (C-180) in the CAP slip. Problems at SPB: no electricity, slippery surface (guano), poor fueling situation, very little parking. Manuvering aircraft in SPB difficult due to narrow clearances. Need to get SP out of the water to reduce corrosion. State SP ramp "horrible" for maintenance. Eliason Harbor protected like existing site but more taxiing. Boat-aircraft conflicts rare. Boaters accept plane traffic.
2-Mar	Karen Fredrickson	966-2411	SEARHC	She is Travel Coordinator for SEARHC. All or almost all patient travel by SP is through the State airport. They use Air Sitka, Wings, and Harris Air. About 400 patients/year come by SP.
7-Mar	Doug Riemer	772-3535	Nordic Air	He won't be at 3/9 meeting but will be in Sitka for herring opening. He flies SPs to State airport or Ken Bellows (Air Sitka). CBS SPB is "inadaquate" - congested, poor condition. He would need upland lease lot for aircraft maintenance and tie down. He has not used State SP haul out. He 22 years in business. Flies C-185 on amphib floats.
7-Mar	Cole Rhoden	772-4258	Pacific Wing	Flies C-185 on amphib floats, Beaver on straight floats. When in Sitka uses Ken Bellows' float or Forest Service float (location?). No maintnenace available at CBS SPB.
7-Mar	Dave Galla	874-2319	Sunrise Aviation	Doesn't operate on floats in Sitka. Only on wheels - gets fuel at State airport.
7-Mar	Randy Kiesel	789-9150	Ward Air	They use the Forest Service float when in Sitka. City SPB too tight (lacks manuvering room). Eliason site "great idea" - away from Japonski Island. They get fuel near the High School (on channel via truck). They fly many aircraft from Cessnas to turban Otter on straight and amphib floats. At new SPB would like fueling and pay phone.
7-Mar	Name?	518-0600	Kupreanof Flying Service	Flies C-180 on straight floats. Eliason site bad - potential conflicts with boats. Existing SPB needs fueling facility.
8-Mar	Dwayne Lambeth	747-5660	Dove Island Lodge	Operates Beaver on floats out of Jamestown Bay. CBS SPB inadequate - weight of Beaver sinks the float. No security. Fuel is stolen. Location convenient, however. He used CBS float for one summer. Eliason Harbor site has good access and parking but potential conflicts with boats and wind. Historically many seaplane facilities were located in Jamestown Bay but this location no longer popular (residential development).

10-Mar	Ken Bellows	747-7920 (land) 738-2363 (Cell)	Air Sitka	Flies, fuels, does maintenance from his own float on channel. Both Eliason and SEARHC site are exposed to winds, especially in winter. Eliason too shallow and freezes (fresh water outfall). Best site is existing site, protected from wind but needs parking.
30-Mar	Mark Shimshimer	771-3066	AIDEA	Proposal to AIDEA by SMOG LLC turned down by AIDEA Board. Proposal would have implemented re-processing of fish processor waste into marketable by-products, reducing bird hazard for existing SPB.
4-Apr	Shawn Stokes	269-7504	ADEC Permits	Fish processor permits expired but still in effect.
13-Apr	Randy Hawk	966-3201	Mt. Edgecumbe High School	HS has no plans for property at end of Seward Avenue.
13-Apr	Sam Kito III	465-6906	ADOE	ADOE has no plans for "SEARHC Site". Will confirm by letter. Site might be acquired by CBS in exchange for service.
18-Apr	Chris Foley	269-4632	ADEC Compliance	New permits required w/in 12-24 months. Processors expected to barge fish waste 3+ miles to sea and dump.
26-Apr	Mike Edleman & John Lovett	271-5026	FAA Airports Division	FAA requires (it is one of the AIP grant assurances) that the airport owner/operator take steps to make the airport (or in this case the seaplane base) as self sustaining as possible. If it is too expensive to construct upland facilities, lease lots, etc, the report should show the costs and summarize why they were not built.
27-Apr	William Lantz	738-3075	Himself	Eliason Harbor site bad - too shallow, too little room to maneuver, potential conflicts with boats. SEARHC site good for vehicle parking and access by fuel trucks but lacks wind protection. Existing SPB site is protected from wind but needs parking and fuel - also has bird problem. If more slips available might have flight school and more use by transients. Should have 12-15 slips with flexibility for future growth. Design should include fueling, vehicle parking, bird deterrant (overhangs to keep bird guano off aircraft). Should also use Bellow's see-saw ramp design to get aircraft up out of the water. Need fresh water to wash down aircraft and floats. Electricity not essential except for lighting. Limited storage desirable for oil and float pumps. Drive down ramps desirable. He keeps a seaplane at CBS SPB in CAP slip.
27-Apr	Francois Bakkes	351-7483	Himself & wife (both pilots)	Existing SPB site is best, most practical. Eliason too shallow, with wind there is no room to maneuver, and the fresh water from creek freezes. SEARHC - he has no strong opinion, but concerned about lack of wind protection. Vehicle ramp to SPB desirable but not essential. He doesn't use existing SPB, but SPB needs fuel. They have C-172 on wheels at State airport. Would like to acquire 185 on amphib floats so can keep aircraft out of the water when not in use. See-saw ramp design good idea - saw in use at Bellows and Ketchikan. He will probably not use CBS facility if he gets seaplane - won't leave aircraft in the water because of corrosion. He has access to hanger on State airport. 12-15 slips at a new facility would be about right. Need transient float that can accommodate 2-3 planes at a time like Angoon, Tanakee Springs, or JNU. Fuel should be available at transient ramp, also fresh water for wash-down of aircraft. Electricity not necessary except for lights - maintenance would be done on land elsewhere.

27-Apr	Kevin Mulligan	480-225-2217	himself	He wants a sse facility and one where he can get fuel. Would be good to acquire Henry Jimmy property to add to existing SPB. Need a drive down ramp to floats for handicapped people and fuel (delivery truck). Eliason is not a good site - problems with tides and boats. He lives in Port Alexander and flies to Sitka, sometimes carrying sick or injured people (pro bono). Waves at SEARHC site a concern - need breakwater, maybe floating breakwater, but that site would require long taxi. 12-15 slips reasonable for new site. Vehicle parking would be enforcement problem (keeping abandoned cars and non-SPB users out). He has stall at CBS SPB (C-185). His maintenance is done in Wrangell. New SPB need electricity to heat aircraft in winter.
28-Apr	David Gordon	<a href="mailto:dave.gordon@alaska.gov">dave.gordon@alaska.gov</a>	Self	Existing site provides best protection from winds but vehicle parking space is limited; need parking for 3-4 vehicles; new facility should provide 8 to 10 SP slips; fueling not necessary but desirable; need electrical service; ramps should get floats out of the water; he owns a SP and leases a slip at the CBS SPB.
2-May	Jim Edson	723-2137	self	Likes where the SPB is because of wind/water protection, but too small and "insane" guano problem. Eliason site gets wind from Indian River Valley, also too much boat traffic. SEARHC site better but ocean swells a problem, also strong N winds in winter. Facility needs wider float (like Petersburg) to allow nose to nose parking and walk-around pre-flight inspection. See-saw ramps good but a possible maintenance problem. He does not want to start a Part 135 operation - he flies for recreation and to support his non-aviation business. He flies a C-180 on straight floats. New facility would need 20 slips.
2-May	Ron Handerson	747-1077	self	Likes Eliason Harbor site. Existing site - no fuel, no vehicle parking. Cant use existing SPB at extreme low tide because of rocks (two); one just landside of stall #5 and the other under the floats (causes tilting). He has 3 float planes (C-185, Taylorcraft, PA-12). He is interested in starting Part 135 operation. SPB would need a drive-down ramp to floats. 12 to 16 slips would be adequate with space for 2-3 transients. Air Sitka facility will soon not be available (fueling, etc.) - what to do then? New (commercial) facility will need fresh water, electricity, small storage, small office or waiting room.
2-May	Kevin Mulligan	568-2399	self	Would be interested in starting Part 135 operation if economy gets better. His lodge business is booming (2011 50% increase over 2010), but economy in general not strong. Would like to be able to do maintenance at SPB. Says Harris Air too busy to do maintenance for him. SPB at Craig is very "super nice" (model?).
2-May	Tor Svendson	738-6130	self	Pilot for ADF&G stream surveys. Flies Super Cub on straight floats. For past three years has berthed plane in ADF&G slip at CBS SPB. Has flown in Sitka area for 22 years. Existing site not good - birds. Likes Eliason site - parking and fuel better than existing. SEARHC not protected enough from wind/waves. He would be interested in starting Part 135 business. Sitka worst SPB in SE AK for straight floats. New facility would need vehicle ramp, local FBO to provide fuel by card lock system, water, electricity, and equipment storage. He flies C-185, C-206 now. Might buy Beaver later if economy gets better. Comfortable doing aircraft maintenance and storage at State airport
2-May	Francois Bakkes	351-7483	self & wife	Not interested in doing Part 135 operation.

2-May Ron Salmon	738-2288	self	<p>He prefers the Japonski site (SEARHC) - better for fuel and parking. Also closer to where old sea land was. He landed here often and had no problem with sea states. Existing site has no parking - Aero Services probably would not deliver fuel there. Eliason site would conflict with boat traffic and require significant dredging. He would be interested in Sitka Part 135 operation - he moved his operation from Sitka to Wrangell because of competition in Sitka. New facility would need fuel, drive down ramp, electricity, fresh water, and equipment storage. Part 135 operation would be pick-up, drop-off. Little or no need for landside office. Ketchikan and Hoonah are model facilities. He flies a Beaver on straight floats</p>
2-May William Lantz	738-3075	Himself	<p>He would be interested in starting a Part 91 commercial operation for sight seeing tours. Need drive down ramp, lighting, and passenger shelter.</p>

**SITKA SEAPLANE BASE SITING STUDY  
SUMMARY OF MEETINGS HELD IN SITKA AT CENTENNIAL HALL  
MARCH 9, 2011**

Port and Harbor Commission (6:00 to 6:30 p.m.)

Mark Mayo and Brian Hanson (DOWL HKM) gave a PowerPoint presentation to the Commission. The presentation described the current project, past efforts, next steps, as well as local and DOWL HKM points of contact. At the conclusion of the presentation, a Commission member noted that provisions should be made at the new Seaplane Base for fuel services, vehicle parking, and lease lots for commercial buildings.

Public Meeting (7:00 to 8:30 p.m.)

This meeting was public noticed in the local paper and via e-mail. Following an introduction by the City and Borough of Sitka (CBS) Public Works Director Michael Harmon, Brian Hanson delivered a similar presentation to the public. Questions and comments were then invited from those in attendance.

An individual stated that, in winter, both the Eliason Harbor and Japonski Island alternative sites would be subject to 75 mile per hour winds in the winter, and suggested that the CBS would be liable for resulting damages to aircraft using seaplane base (SPB) facilities in those locations. Further, he said that the Eliason site would occasionally freeze in winter due to the fresh water outfall just east of the site, and that it would be “high and dry” during a minus tide. He said that the second best site was the Japonski Island site, but that the best site was where the existing SPB was located because it is sheltered from the wind. He said that aircraft parked at that facility had sustained no wind damage. The only collision related damage to aircraft was due to boats that had come loose from their moorings and drifted into parked aircraft. He recognized, however, that the existing site is in need of parking and better access to fuel.

The existing site was mentioned by more than one person as the optimal location. Suggestions were offered for improving the float configuration and regarding the purchase of upland and adjacent dock property to provide space for vehicle parking and services.

CBS Public Works Director Michael Harmon asked if everyone was comfortable with the Japonski Island site. He also noted that CBS wanted to avoid condemning property.

An individual who had participated in the 2002 SPB study said that the earlier study was done with the assumption that using the existing site was not an option. He said that the Indian Valley winds would damage aircraft parked at the Eliason Harbor site, especially if they were parked as shown on the preliminary drawings with their tails to the east. He claimed direct personal knowledge of this since his fishing boat is moored in the harbor close to this location. He also said that Eliason Harbor would interfere with boats using the designated boat loading area.

Another person suggested that the Eliason Harbor alternative would require dredging in an area where Eel Grass grows – a potential environmental concern and permitting challenge.

Someone suggested that it might be possible to acquire property just north of the existing SPB for vehicle parking and expansion of the SPB float system.

Someone noted that relatively little commercial seaplane activity in the winter (November - March).

Another person noted that there was no surplus vehicle parking space available to Eliason Harbor, that a new parking area would need to be constructed, and that this alternative allowed little room to maneuver seaplanes near the float.

Summary of follow up meeting with CBS Public Works Director Michael Harmon (1:00 p.m., March 10, 2010)

CBS is willing to consider a project alternative at the site of the existing SPB. The facility's upland configuration could be made more workable through the acquisition of an adjacent dock and uplands. Economic conditions since the 2002 study may result in reduced forecasted use and smaller SPB facility size. It would be reasonable to expect reduction in bird conflicts when seafood outfalls are prohibited in near future.

Attachments: Ports and Harbor PowerPoint Presentation  
Sitka Port and Harbors Commission Agenda  
Public Meeting Notice  
Public Meeting PowerPoint Presentation  
Public Meeting Attendance List  
Comment Form

D60581.Mtg 1 Notes.MM.031611.mas

Final Siting Analysis, Planning and Concept  
Design, and NEPA and Permitting Processes

# NEW SITKA SEAPLANE BASE

Port & Harbors Commission  
March 9, 2011

DOWL HKM



## **Project Goals**

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- Evaluate Eliason Harbor site for SPB
- Complete final evaluation of up to two SPB alternatives
- Identify preferred SPB alternative for NEPA document
- Engage the public in the planning process



# SPB Site Study Process

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## 1. Inventory, Forecast, Facility Requirements

- Data collection
- Site visit & public meeting
- Mapping
- Update seaplane activity forecast
- Identify design standards, guidelines, evaluation criteria

## 2. Alternatives Identification and Evaluation

- Evaluate Eliason Harbor alternative; prepare environmental overview
- Compare Eliason Harbor alt with preferred alt from 2002 study (USCG/SEARCH site)
- Recommend a preferred alternative for NEPA analysis

## 3. Final Report



# **Purpose of this Meeting**

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- **Project goals, issues, and schedule**
- **Public involvement opportunities**
- **Questions and suggestions**



# Project Schedule

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- Inventory, Forecast, Requirements ..... Feb-March, 2011
- Site Visit ..... March 9-10, 2011
- Public Meeting 1 ..... March 9, 2011
- Alternatives ..... Feb-April, 2011
- Public Meeting 2 ..... April, 2011
- Final Report..... June, 2011



## **Existing SPB: Known Issues**

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- **Insufficient capacity; no room for expansion**
- **Safety concerns**
  - Bird hazards
  - Potential conflicts with boat traffic
  - Ramp/float design
- **Operational concerns**
  - Restricted maneuvering area for aircraft
  - Lack of fueling facilities
  - No vehicle parking
- **Land use conflicts**



## **Sites Evaluated but Dismissed**

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- **Safe Harbor: Bird hazards, boat traffic**
- **MEHS/SEARHC: Wave action, land use conflicts**
- **Work Float: Wind, boat traffic, no uplands**
- **Charcoal Island: Waves & wind, long taxi**
- **Japonski Lagoon: Boat traffic, birds, AMP**
- **Jamestown Bay: Waves/wind, downwind take-offs**
- **Sawmill Cove: Waves/wind, distance from town**
- **Herring Cove: Waves/wind, distance from town**
- **Starigavan Bay: Waves/wind, dist. fm town, wakes**



# Sites Previously Evaluated (2002 SPB Master Plan)



# Site for Further Evaluation – First of Two Sites (Preliminary Concept)

- Eliason Harbor: Protected from wind & waves, close to town, CBS-owned land/tidelands, higher boat traffic







# Site Evaluation Criteria

## Sitka SPB Siting Study and Conceptual Design

Alternatives for further evaluation

SPB Site Selection Criteria	Elision Harbor	Alternatives USCG/SEARCH (HDR Site 3)
Ramps/floats protected from wind	Well protected	Moderately well protected. North and west winds are a concern.
Ramps/floats protected from waves	Well protected	Significant wave and sea swell energy.
Tideland Ownership	City & Borough of Sitka	State of Alaska, Department of Natural Resources
Upland Ownership	City & Borough of Sitka	Department of Education, U.S. Coast Guard, DOT&PF
Land Use	Institutional - parking for Eliason & Thompson Harbors	Institutional - adjacent to SEARHC facilities and Coast Guard Air Station. Also near to day care and residential medical treatment programs.
Bird Hazard	3,000 feet from the primary hazard source	3,500 feet from the primary hazard source
Access	Via Katlian & Siginaka	Via new road from Airport through U.S. Coast Guard property or via Seward Avenue
Distance from City Center (Castle Hill)	.9 miles	1.3 miles
Operations	Significant boat traffic	Minor boat traffic, increased flexibility for operating

Further information required:

- Seaplane activity data (# flights, types of aircraft, origins/destinations)
- Importance of seaplane activity to community/region
- Compatibility of potential SPB sites with adjacent land & water uses
- Construction/operation feasibility & cost at Eliason Harbor site
- Desired upland development & support services
- Environmental concerns at Eliason Harbor site
- Community development plans



## **Next Steps**

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- **Preliminary Engineering**
- **Environmental Assessment**
- **Permitting**
- **Design**
- **Construction**



# Public Involvement Opportunities

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- **Contact CBS and/or DOWL HKM Project Managers**
  - By telephone, e-mail, mail, or fax
- **Public meetings**
- **Comment forms**



# Contact Information

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- **CBS Project Manager**

Michael Harmon, Director  
Department of Public Works

100 Lincoln Street

Sitka, Alaska 99835T

Telephone: (907) 747-1823 Fax: (907) 747-3158

Email: [michael@cityofsitka.com](mailto:michael@cityofsitka.com)

- **DOWL HKM Project Manager**

Mark Mayo

4041 B Street

Anchorage, AK 99503

Telephone: (907) 562-2000 Fax: (907) 563-3953

Email: [mmayo@DOWLHKM.com](mailto:mmayo@DOWLHKM.com)



# Questions / Comments?



Thank you!

## **Sitka Port and Harbors Commission Agenda**

**Wednesday, March 9, 2011  
Harrigan Centennial Hall  
6:00 p.m.**

- I. Call to Order**
- II. Roll Call**
- III. Approval of Minutes from the February 9, 2011 Port and Harbors Commission meeting**
- IV. Approval of Agenda**
- V. Correspondence**
- VI. Persons to be Heard**
- VII. Reports**
  - i. Harbormaster
    - I. Wi-Fi
    - II.
  - ii. City Staff
  - iii. Chair
  - iv. Others
- VIII. New Business**
  - i. Float Plane Analysis
  - ii.
- IX. Unfinished Business**
  - i. 2<sup>nd</sup> boat moorage
  - ii. Ordinance Text Amendments (electrical)
- X. General Discussion**
- XI. Closing**
  - i. Agenda
  - ii. Next meeting date
  - iii. Adjournment

# CITY & BOROUGH OF SITKA

## PUBLIC NOTICE INVITATION TO BID

### MARINE SERVICE CENTER DOCK LEVELERS REPLACEMENT

The City and Borough of Sitka will receive sealed bids no later than 2:00 p.m. local time, Tuesday, March 15, 2011 at the office of the Municipal Clerk, 100 Lincoln Street, Sitka, Alaska 99835, where the bids will be publicly opened. Bids stamped later than 2:00 p.m. will be rejected.

This project consists of providing all materials, equipment, transportation, and labor to replace the Marine Service Center Dock Levelers.

All bidders are strongly encouraged to attend the pre-bid meeting scheduled for 2:00 p.m. on Wednesday March 9, 2011 (at the Marine Service Center).

Bid documents are available at the office of the Director of Public Works, 100 Lincoln Street, Room 201, Sitka, Alaska 99835; (907)747-1804(phone) for a non-refundable fee of \$25.00 per set if to be mailed first class. Bid documents may also be downloaded from the web:

A Bid Bond in the amount of 5 percent of the total bid price must accompany each bid that exceeds \$50,000. The Bid Bond may be in the form of a certified check made payable to the City and Borough of Sitka or a Bid Bond issued by a surety licensed to do business in Alaska.

This contract is subject to the provisions of State of Alaska, Title 36, Minimum Wage Rates. The contract will require certificates of insurance and performance and payment bonds.

The City and Borough of Sitka reserves the right to reject any and all bids and to waive informalities.

### WASTEWATER TREATMENT PLANT SUPPLY FAN REPLACEMENT

The City and Borough of Sitka will receive sealed bids no later than 2:00 p.m. local time, Tuesday, March 15, 2011 at the office of the Municipal Clerk, 100 Lincoln Street, Sitka, Alaska 99835, where the bids will be publicly opened. Bids stamped later than 2:00 p.m. will be rejected.

This project consists of providing all materials, equipment, transportation, and labor to replace the Supply Fan SF-4 at the City and Borough of Sitka (CBS) Wastewater Treatment Plant.

All bidders are strongly encouraged to attend the pre-bid meeting scheduled for 2:00 p.m. on Tuesday March 8, 2011, at the project site. (Clarifier Building).

Bid documents are available at the office of the Director of Public Works, 100 Lincoln Street, Room 201, Sitka, Alaska 99835; (907)747-1804(phone) for a non-refundable fee of \$25.00 per set plus tax if picked up, and \$30.00 per set if to be mailed first class. Bid documents may also be downloaded from the web:

[www.cityofsitka.com](http://www.cityofsitka.com)  
(Click on the Bids & RFP link)

A Bid Bond in the amount of 5 percent of the total bid price must accompany each bid that exceeds \$50,000. The Bid Bond may be in the form of a certified check made payable to the City and Borough of Sitka or a Bid Bond issued by a surety licensed to do business in Alaska.

This contract is subject to the provisions of State of Alaska, Title 36, Minimum Wage Rates. The contract will require certificates of insurance and performance and payment bonds.

The City and Borough of Sitka reserves the right to reject any and all bids and to waive informalities.

CITY AND BOROUGH OF SITKA

By: Chris Wilbur  
Facilities Manager

Published: March 2, 4, 7, 2011

## PUBLIC NOTICE NOTICE TO INTERESTED PERSONS PUBLIC MEETING

### SITKA SEAPLANE BASE FINAL SITING PROJECT KICK-OFF MEETING

Dowl HKM consultants will hold a kick-off meeting Wednesday, March 9, at 7:00 p.m. in Centennial Hall's Rousseau Room to discuss the City and Borough of Sitka's Seaplane Base Final Siting Project.

Pilots and other interested persons are invited to attend.

For any questions please call the Public Works Department at 747-1804.  
Published: March 7, 2011

# NEW SITKA SEAPLANE BASE

## PROGRESS MEETING

SIGN-IN-SHEET • MARCH 9, 2011

NAME	ADDRESS	E-MAIL	TELEPHONE
JACK HARVEASTUE	P.O. BOX 855, SITKA	TRADER@JACK5000@GMAIL.COM	907-627-270
JIM EDSON	PO BOX 2383 SITKA	Jim.m.edson@gmail.com	747-5615
LEA BELLOWES	Box 210 SITKA	KEHU.FLYIN.FISHING@GMAIL.COM	738-2303
RON HANDERSON	165 PRICE ST	RHANDERSON@CITYOF SITKA.COM	747-1077
STEPHEN WEAVERMAN	CBS	STEPHW@CITYOF SITKA.COM	747-4042
KEVIN KOOX	625 DEBARGE	Kevin@bivestee.com	738-4664
JENNIE FRANK	116 D HARVEST WAY	JENNIEFRANK@SALADCAPLET.COM	738-1029
William Lantz	105 KASIA HEAN CIR	WILL LANTZ@MSN.COM	738-5075
Linda Spoorstra	P.O. Box 16	Linda.Spoorstra@USACE.Army.Mil	7-4658
Alvin Key	PO 37643	ALVIN@NOVA.COM	723-4927
FRANCIS ISAACRES	BOX 6237, SITKA.	Francis@balekess.com	351-7483
ANDY COYRENDALL	407 VERSTELA SITKA	BLASTINATOR@HOTMAIL.COM	738-4796
1st Lt. Mike Bills	415 Arrowhead St, Sitka	corp.mcbills@comcast.com	738-8023
Kimberly Merris	808 Box 6237, Sitka	Kimberlymerris@hotmail.com	738 1312.
Sari Lundgren	2702 Sawmill Creek Rd Sitka	coastal.vintages@yahoo.com	738-2087

**Project Comments** - Please provide any comments on the project below.

Would like to see fresh water, electricity, be able to use commercially, Maintenance hangar on shore Road access to Airport for hangar storage. Fuel facility, Put docks into Prevailing winds, parking area for commercial customers

Please indicate your preferred alternative:  1A  1B  2  3

To receive project information, please provide your name and an e-mail or postal address:

Name: Ron Handerson

Address: 165 Price St. Sitka AK 99835

E-mail: rhandersonsr@yahoo.com

Telephone: 907-747-1077

To submit comments or contact the project team:

CBS Project Manager  
 Michael Harmon, Director  
 Department of Public Works  
 100 Lincoln Street  
 Sitka, Alaska 99835T  
 Telephone: (907) 747-1823  
 Fax: (907) 747-3158  
 E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
 Tom Middendorf  
 4041 B Street  
 Anchorage, Alaska 99503  
 Telephone: (907) 562-2000  
 Fax: (907) 563-3953  
 E-mail: tmiddendorf@dowlhkm.com

**Project Comments** - Please provide any comments on the project below.

FUEL, Fresh WATER, access to hangers

Please indicate your preferred alternative:  1A  1B  2  3

To receive project information, please provide your name and an e-mail or postal address:

Name: Shane Snyder

Address: 118 Lincoln

E-mail: AKSLumord@Hotmail.com

Telephone: 907 738 3288

To submit comments or contact the project team:

CBS Project Manager  
Michael Harmon, Director  
Department of Public Works  
100 Lincoln Street  
Sitka, Alaska 99835T  
Telephone: (907) 747-1823  
Fax: (907) 747-3158  
E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
Tom Middendorf  
4041 B Street  
Anchorage, Alaska 99503  
Telephone: (907) 562-2000  
Fax: (907) 563-3953  
E-mail: tmiddendorf@dowlhkm.com

**Project Comments** - Please provide any comments on the project below.

- Wind only deficit
- Allows for expansion
- potential hangar
- easy fuel
- easier commercial and transient use
- parking

Please indicate your preferred alternative:

1A

1B

2

3

To receive project information, please provide your name and an e-mail or postal address:

Name: Kari Lundgren

Address: 2702 Sawmill Creek Rd, Sitka, 99835

E-mail: coastal-rentals@yahoo.com

Telephone: 907-738-2089

To submit comments or contact the project team:

CBS Project Manager  
 Michael Harmon, Director  
 Department of Public Works  
 100 Lincoln Street  
 Sitka, Alaska 99835T  
 Telephone: (907) 747-1823  
 Fax: (907) 747-3158  
 E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
 Tom Middendorf  
 4041 B Street  
 Anchorage, Alaska 99503  
 Telephone: (907) 562-2000  
 Fax: (907) 563-3953  
 E-mail: tmiddendorf@dowlhkm.com

**Project Comments** - Please provide any comments on the project below.

Would like to see Comercial Operation facility for my business, possible hanger for maintance, Fuel.

Put docks into prevailing winds.

by Phone 10/25/11 Ron Handerson

Please indicate your preferred alternative:  1A  1B  2  3

To receive project information, please provide your name and an e-mail or postal address:

Name: Tom Swenson

Address: Sitka Ak.

E-mail: \_\_\_\_\_

Telephone: 907 738 6130

To submit comments or contact the project team:

CBS Project Manager  
Michael Harmon, Director  
Department of Public Works  
100 Lincoln Street  
Sitka, Alaska 99835T  
Telephone: (907) 747-1823  
Fax: (907) 747-3158  
E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
Tom Middendorf  
4041 B Street  
Anchorage, Alaska 99503  
Telephone: (907) 562-2000  
Fax: (907) 563-3953  
E-mail: tmiddendorf@dowlhkm.com

**Project Comments** - Please provide any comments on the project below.

Fueling, Comercial Operation, onland  
work Hanger, Road Access to Airport

IF Sitka doseint want this send it  
Pelican;

by Phone 11/25/11 Ron Handerson

Please indicate your preferred alternative:  1A  1B  2  3

To receive project information, please provide your name and an e-mail or postal address:

Name: RON SALMON

Address: PO 1264 Petersburg 99833

E-mail: rsalmon@GCI.net

Telephone: 907-738 2288

To submit comments or contact the project team:

CBS Project Manager  
Michael Harmon, Director  
Department of Public Works  
100 Lincoln Street  
Sitka, Alaska 99835T  
Telephone: (907) 747-1823  
Fax: (907) 747-3158  
E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
Tom Middendorf  
4041 B Street  
Anchorage, Alaska 99503  
Telephone: (907) 562-2000  
Fax: (907) 563-3953  
E-mail: tmiddendorf@dowlhkm.com

**Project Comments** - Please provide any comments on the project below.

Im out of area for now but have  
needed a better float base dock for long time.

Would be nice to HAVE fresh water, power, & be  
Able to work commercially from facility.

Access to Airport for Maintenance & potential  
hanger storage during winter mo.

by Phone Ron Handerson  
10/10/2011

Please indicate your preferred alternative:  1A  1B  2  3

To receive project information, please provide your name and an e-mail or postal address:

Name: Bill Salt

Address: Honolulu HI

E-mail:

Telephone: 808-381-9578

To submit comments or contact the project team:

CBS Project Manager  
Michael Harmon, Director  
Department of Public Works  
100 Lincoln Street  
Sitka, Alaska 99835T  
Telephone: (907) 747-1823  
Fax: (907) 747-3158  
E-mail: michael@cityofsitka.com

DOWL HKM Project Manager  
Tom Middendorf  
4041 B Street  
Anchorage, Alaska 99503  
Telephone: (907) 562-2000  
Fax: (907) 563-3953  
E-mail: tmiddendorf@dowlhkm.com

# STATE OF ALASKA

**SEAN PARNELL, GOVERNOR**

## **DEPARTMENT OF EDUCATION AND EARLY DEVELOPMENT**

*MT. EDGE CUMBE HIGH SCHOOL*

1330 SEWARD AVENUE  
SITKA, ALASKA 99835-9438  
PHONE: 907-966-3200  
FAX: 907-966-2442

April 26, 2011

Mark D. Mayo  
Transportation Planner  
4041 B Street  
Anchorage AK 99503

**RECEIVED**

**APR 29 2011**

**DOWL HKM**

Mr. Mayo:

I am responding to your inquiry regarding the interest that the City and Borough of Sitka has expressed in relocating their seaplane base. Currently I have discussed the issue with the Mount Edgecumbe Building Maintenance Manager, Stan Johnson, and Facilities Engineer, Sam Kito, with the Department of Education and Early Development (Department). At this time the Department does not support locating the seaplane base on the Japonski Island side of the harbor. The location of the access road for the proposed facility eliminates the ability for the Department to utilize the property in the future. Attached is a copy of the plat that identifies the property location (Lot 15A).

The Department is also concerned that the proposed use will have a detrimental effect on the Mt. Edgecumbe High School (MEHS) residence located near the proposed facility. Additionally we have concerns about the increased noise impacting the MEHS students and their activities in the school. Finally, we are concerned about increased traffic in that area which could result if a seaplane base were located on the island.

Please feel free to contact me if you have further questions regarding the Department's position on the seaplane base location.

Best regards,



Randy Hawk  
Superintendent

cc: Les Morse, Deputy Commissioner







## Sitka Seaplane Base Siting Study

### 10/5/11 User Group Meeting Summary

7 pm to 9 pm in the Maksoutoff Room at Centennial Hall, Sitka

CBS staff – Michael Harmon

DOWL HKM staff – Tom Middendorf and Mark Mayo

Attendance list attached

The purpose of the meeting was to introduce conceptual float layouts for the three sites and solicit comments from potential users in the hopes of narrowing down the number of potential sites to one preferred site. The meeting began with a PowerPoint presentation (attached) and was then opened for general questions and discussion.

User group comments:

#### Japonski Site

- Exposure to wind is a concern.
- Based aircraft slips should be aligned with the prevailing wind (S or SE) and tidal currents. Flip the arrangement of based and transient floats to achieve this
- The floating hangers on the end of the based float not a good idea. Better to put the hangers on the beach.
- Ocean swell not much of a problem at this site – it is shielded by the island
- Uniform agreement that this site is worthy of further consideration

#### Existing Site

- Birds at this site are severe maintenance problem for parked aircraft. Guano is more corrosive than salt.
- A drive down ramp would be needed for ambulance service and loading supplies and baggage. Also would eliminate need for on-site fuel storage since fuel could be dispensed from a truck.
- Explore potential to buy property from Harry Jimmy and Sitka Sound Seafood to better access and vehicle parking. Perhaps tidelands could be exchanged for property from Harry Jimmy.
- Evaluate an “H” (maybe better described as a C) configuration float layout
- Sitka Sound Seafood should be invited to future meetings
- Development at this site may block or impede access to Sitka Channel by adjacent properties on the shoreline

### Eliaison Site

- Freezing fresh water will constrain use of this site frequently in winter
- Maneuvering space will be very limited even at high tide
- Too exposed to wind and the slips can't be aligned with prevailing wind
- Houses nearby will experience noise impacts
- Uniform agreement from attendees that Eliaison site will not work and is "off the table".

### Miscellaneous

- A lot of swell are anticipated at the new State SP pullout. This makes a pullout at the CBS facility even more desirable.

Conclusions: The Eliaison site and Alternatives 1 and 1A will not be carried forward. The Japonski site will be carried forward. Evaluate the "H" (or C) layout at the existing site together with potential land acquisitions. Bring new layout and evaluation back to a future User Group meeting prior to going before opening the planning process to wider public participation.



email dated: 10/15/11  
from J. Baird (Sitka Sound Seafoods)  
to M. Harmon (CBS)

To: Michael Harmon  
Fr: John Baird

Dear Michael,

I caught wind of a meeting that you have had with local airplane pilots on October 6<sup>th</sup> in regards to finding a float dock area suitable for expanding opportunities for more commercial float planes than currently exist. I have only seen generalized concepts of the three areas that are being thought of but not knowing all of the particulars of each area I will speak to the one I do know, that being the current float dock area next to Sitka Sound Seafoods.

Foremost, I would like to say that I fully support float plane pilots and their leisure and business aspirations. The Sitka area is indeed a float plane and boating paradise, albeit a wet one at times! From a commercial fishing stand point, they are often very helpful during the herring and salmon fisheries, as well as Civil Air Patrol. Certainly they are a wonderful way to introduce folks from other parts of the Country to our beautiful area. Having said that, I have serious concerns about the current location of the float plane dock, and even greater concerns for its' possible expansion.

In its current form it is an extreme noise hazard. When the aircraft return from their flight, they have to rev the engine to get up on the float and this creates a noise decimal level far in excess of what is safe for our staff at the plant. In addition, we cannot carry on normal business inside the office as the noise level is tremendous. This is but one problem but it is a severe one. This does not even take into consideration the unbelievable decimals created by aircraft taking off right in front of our dock, which needs to stop. With the possible expansion of the dock, we will have the same problems only magnified 4-5 times in frequency and noise level. Water traffic wise we already have a very tight space for both vessels and aircraft transiting each dock. The addition of 4-5 time of commercial plane operations in what is already a very small area will cause major disruption to our vessels coming and going to our dock and a tremendous safety issue and liability for plane, boat, City and State.

Other issues of concern, for this area, would be an additional fueling station over water, a tremendous increase in the number of people needing parking in an already very congested area for traffic and lack of parking on Katlian.

Michael, I have to travel out of town tomorrow but I would appreciate the opportunity to discuss further with you and others these points expressed and concerns, and be kept advised of future meetings in advance so we can be present.

To summarize I will say that North Pacific Seafoods (i.e. Sitka Sound Seafoods) is definitely against the expansion of the current Seaplane float in its current location, and in addition, feel the current dock needs to be moved for the aforementioned comments. While I am gone Tim Ryan can certainly speak to this issue to clarify or give feedback to any questions you may have.

With Regards,

John Baird  
General Manager  
Sitka Sound Seafoods

## **Sitka Seaplane Base Siting Study**

### **12/15/11 User Group Meeting Summary**

7 pm at Centennial Hall, Sitka

CBS staff – Michael Harmon, Marlene Campbell, Stephen Weatherman

DOWL HKM staff – Tom Middendorf and Mark Mayo (by telephone)

#### ***Attendance list attached***

The purpose of the meeting was to review action items from the October 5 User Group meeting and obtain input for the SPB site selection process.

A PowerPoint presentation (attached) was delivered to the group by Michael Harmon, Tom Middendorf and Mark Mayo. The meeting was then opened for questions and discussion.

**Question:** What if an agreement can't be reached with the Coast Guard and AK Department of education to acquire/develop the Japonski site?

**Answer:** The previous (2002) and current site studies have thoroughly evaluated all the potentially feasible sites. The Japonski site was recommended in the 2002 study and this selection appears to have been confirmed by the current study as the only feasible site. In the absence of an agreement, CBS would have no alternative but to continue operating the current SPB facility.

**Question:** Why did the high school oppose the Japonski site?

**Answer:** The school has identified concerns about noise. In an April 26, 2011 letter we received from Superintendent Randy Hawk, he states that the Department of Education does not support the selection of this site because it would preclude their ability to use the property in the future, would increase aircraft noise levels near the high school, and would increase vehicular traffic in the area. We have not met with them to discuss property acquisition. Before we could move ahead with acquisition, the site would have to go through detailed environmental process (NEPA) and design. However, at the current time it appears that the Japonski site could actually decrease noise impacting the school by moving the area where aircraft start their take off run further to the north in the channel.

**Comment:** Noise levels generated by SPs now is significantly lower than in the 1970s and 1980s when the regional economy was much stronger and there was more SP traffic.

**Question:** With regard to protecting the Japonski site from waves, what plans exist to connect the gaps in the breakwater?

**Answer:** This was studied by the Corps of Engineers but due to the high cost (\$23M) of closing the gaps and environmental concerns, they have elected to not move ahead with the proposal.

**Question:** Could a floating breakwater help?

**Answer:** This has not been considered to date. The focus of wave investigations has been the main entrance to the channel. It may be that putting a SPB at this location would make a floating breakwater in the near shore area more viable from a cost/benefit perspective.

**Straw Poll:** Unanimous support among those in meeting for the Japonski site, Alternative 3A.

**Suggestions:**

- For the upcoming public meetings, bring photos of SPB facilities in Petersburg, Juneau, Tenakee Springs, and Ketchikan to compare with the existing facility in Sitka.
- Emphasize the impact of SP traffic within the local economy.
- Move gangway (?) to accommodate more aircraft on shore side of transient float

**Question:** What will happen to the existing SPB site?

**Answer:** It would probably be re-purposed by CBS for harbor-related use. Insurance and administrative issues would preclude operation of two SPB site. FAA has also indicated that they would not favor two SPB's.

**Next step:** A draft report will be issued and CBS will arrange a public meeting on site selection.



# City and Borough of Sitka

## DEPARTMENT OF PUBLIC WORKS

100 Lincoln Street, Sitka, Alaska 99835  
 (907) 747-1804 • Fax (907) 747-3158

PROJECT \_\_\_\_\_

LOCATION \_\_\_\_\_

DATE \_\_\_\_\_ BY \_\_\_\_\_

SCALE \_\_\_\_\_ SHEET \_\_\_\_\_ OF \_\_\_\_\_

SEA PLANE BASE		12/15/11			
NAME	PHONE		EMAIL		
John Baird	738-1270		JBaird@npsi.us	Sitka Sound	
Dave Gordon	747-3724		dave.gordon@alaska.gov	Seafoods	
RON HANDERSON	747-1077		rhandersonsr@yahoo.com		
Kari Lundgren	738-2089		coastal.rentals@yahoo.com		
Jeanie Frank	738-1029		JeanieM@acsaalaska.net		
Ken Bellows	738-2363		ken@FLINFISHING.COM		
Martine Campbell	747-1855		campbell@cityofsitka.com		
STAN ELIASON	747-3439		STAN@CITYOF SITKA.COM		
DAN TADIC	747-1807		dantadic@cityofsitka.com		
KEVIN KNOX	738-4664		kevin@bluesteel.org		

Final Siting Analysis, Planning and Concept  
Design, and NEPA and Permitting Processes

# SITKA SEAPLANE BASE

December 15, 2011  
Project Status Update  
Alternative Site Evaluation



DOWL HKM



# Purpose of tonight's meeting

- ▶ Review action items from the October 5 SPB user meeting
- ▶ Provide a project update and obtain input on the SPB site selection process



# Project scope

- ▶ Evaluate three alternative SPB sites to determine which site shall be carried forward for detailed planning and further review in a NEPA document before moving on to design and construction.



# Alternate SPB Sites



# Facility Requirements

## General requirements:

- ▶ 14 based SP slips, expandable in future
- ▶ 3-5 transient SP positions
- ▶ Room for future growth

## Critical for commercial use:

- ▶ Fuel, fresh water, electricity on float(s)
- ▶ Vehicle parking
- ▶ Drive-down ramp to float(s)
- ▶ Aircraft maintenance capability on-site
- ▶ Passenger shelter
- ▶ Equipment storage



# Design Aircraft

- ▶ Also known as “Critical Aircraft”
- ▶ FAA-funded projects must identify a critical aircraft as the basis for project design
- ▶ FAA definition: The most demanding aircraft expected to use the facility
- ▶ Smaller aircraft may also use the facility
- ▶ Sitka SPB Design Aircraft
  - de Havilland DHC-2 Beaver
    - Wingspan: 48 feet 0 inches
    - Length: 30 feet 3 inches



# Summary of comment sheets received following October 5 meeting

## 1 preferred existing SPB site

- ▶ ... but float layout presented at meeting won't work - needs to be revised
- ▶ Existing SPB site
  - most economical, even with purchase of property
  - offers best protection for aircraft from wind & waves

## 6 preferred Japonski site

- ▶ Revise the float layout to align slips with wind
- ▶ Put maintenance hanger on shore
- ▶ Site offers:
  - easy road access to airport for hanger storage
  - is the best site for commercial use
  - is expandable
- ▶ ... but is also more exposed to wind

# Results of October 5 meeting

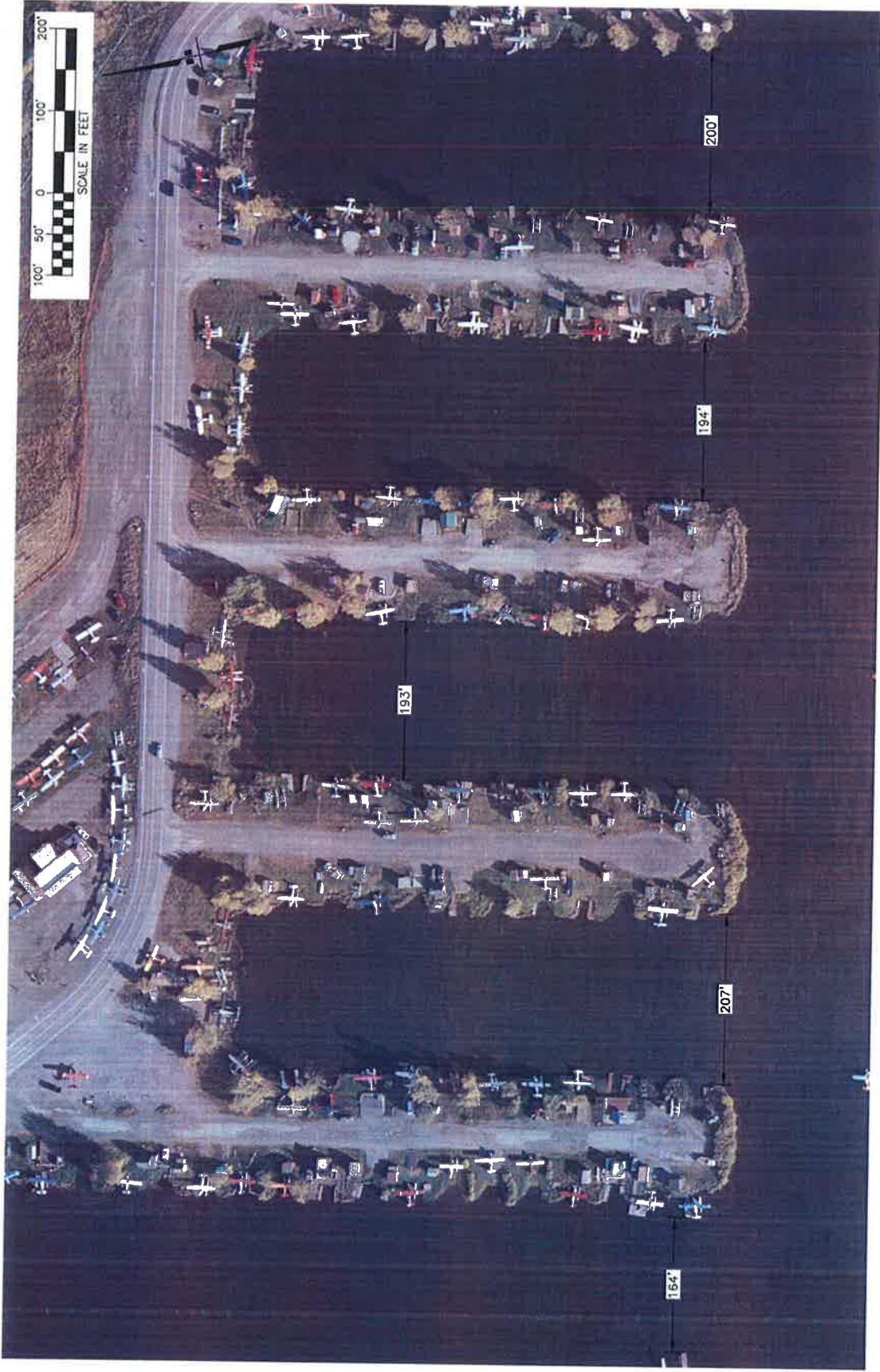
- ▶ Eliason Harbor alternative site eliminated
  - Significant dredging required
  - Freezing fresh water restricts access in winter
  - Maneuvering space very limited even at high tide
  - Too exposed to wind; slips can't be aligned with prevailing wind
- ▶ New “H” float layout requested for existing SPB site
- ▶ New float configuration requested for Japonski Island site



# FAA SPB Design Guidelines

- ▶ FAA recommends a minimum SPB taxi lane width of 225' between obstacles to ensure adequate maneuvering room in less than ideal conditions
- ▶ For a DHC-2 Beaver, a 225' taxi lane would provide 88' from a Beavers wingtip to the tail of parked seaplanes on either side
- ▶ Some Alaskan SPBs have somewhat smaller taxi lanes





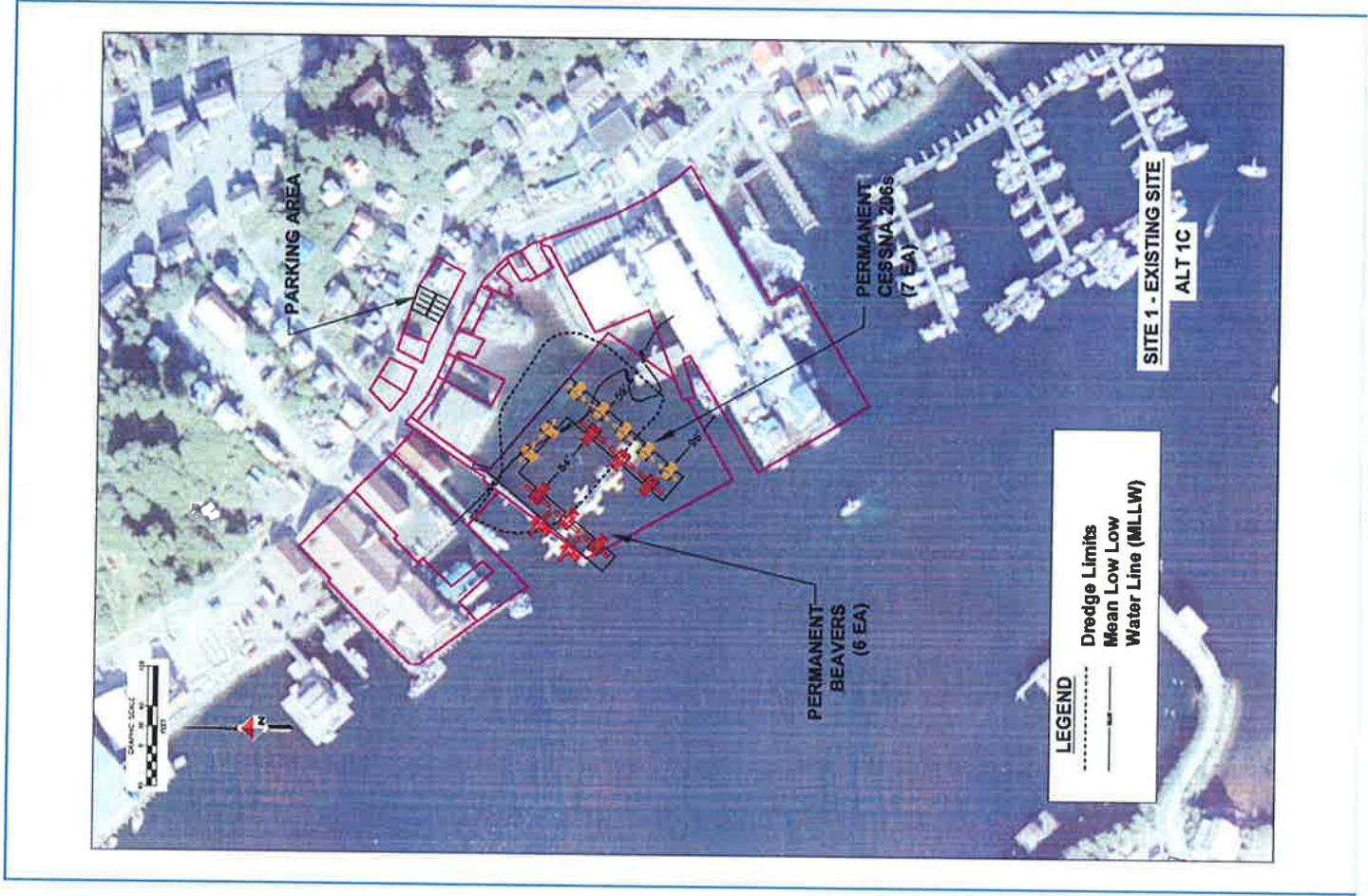
**PALH - Lake Hood**  
**FAA recommends 225' wide taxi lane**  
**Lake Hood taxi lanes 193' to 207' wide**



**T44 – Trident Basin  
FAA recommends 225' wide taxi lane  
Trident Basin taxi lanes 200' wide**

## Revised Float Layout Alt 1C

- Southern float no closer to SSS than end of existing float
- Interior taxi lane: 84' wide, allows 18' between Beaver's wing and tail of parked seaplanes
- SPB/SSS Taxi lane: 96' to 59' wide, Beaver wingtip clearances of 24'-12'
- Capacity: 13 based aircraft, 2 transients



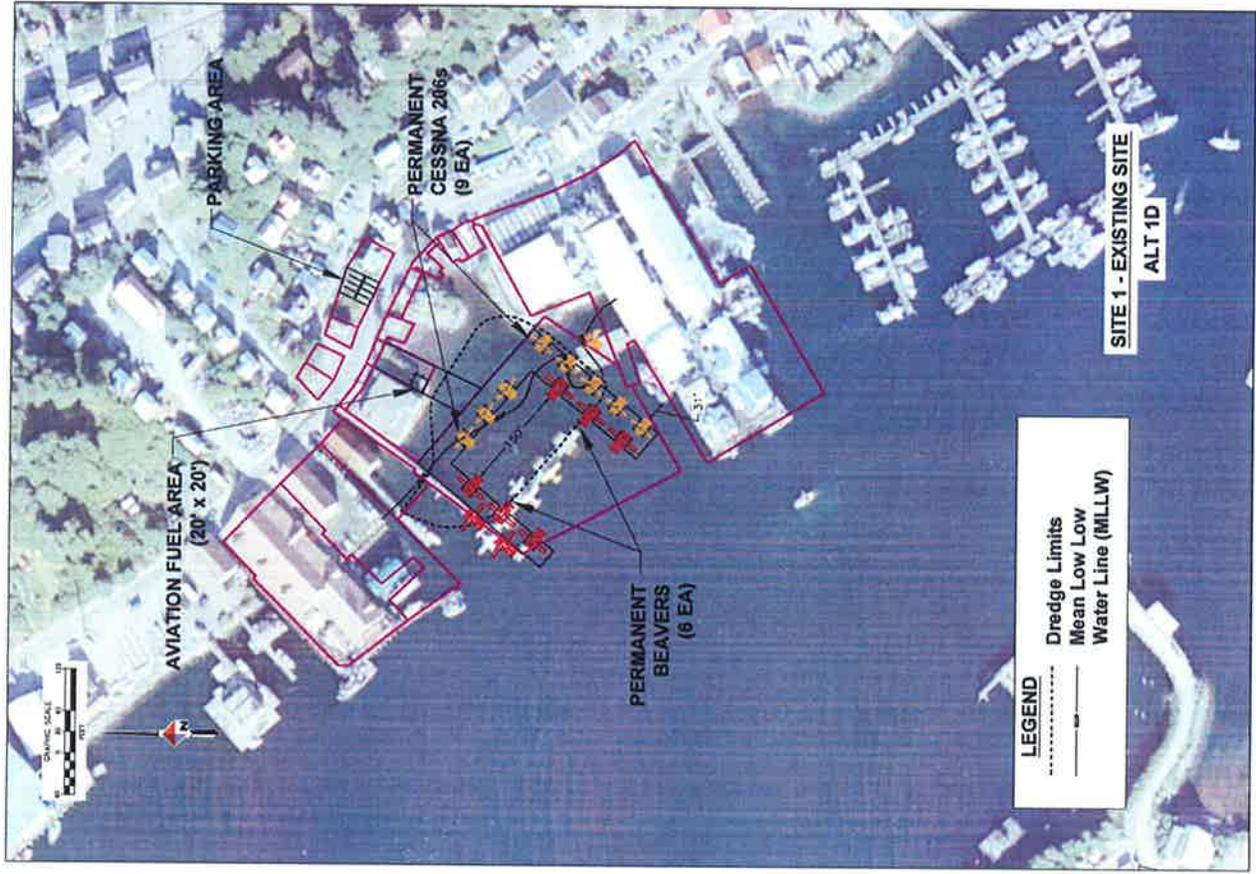
# Existing SPB Alt 1C - Analysis

- ▶ Does not provide for safe maneuvering to slips
- ▶ Does not meet the projects initial capacity goal
- ▶ Significant dredging required
- ▶ Does not allow for future growth
- ▶ Departs significantly from the funding agency's (FAA) design standards
- ▶ Opposed by the SSS fish plant
- ▶ Not recommended by DOWL HKM



## Revised Float Layout Alt 1D

- Wider interior taxi lane than Alt 1C for greater maneuverability/safety
- Interior taxi lane: 150' wide, 51' between Beaver's wing and tail of parked seaplanes
- SPB/SSS Taxi lane: Impassible
- Capacity: Designed for 14 permanent positions and 3-5 transient positions but 5 slips not accessible



# Existing SPB Alt 1D - Analysis

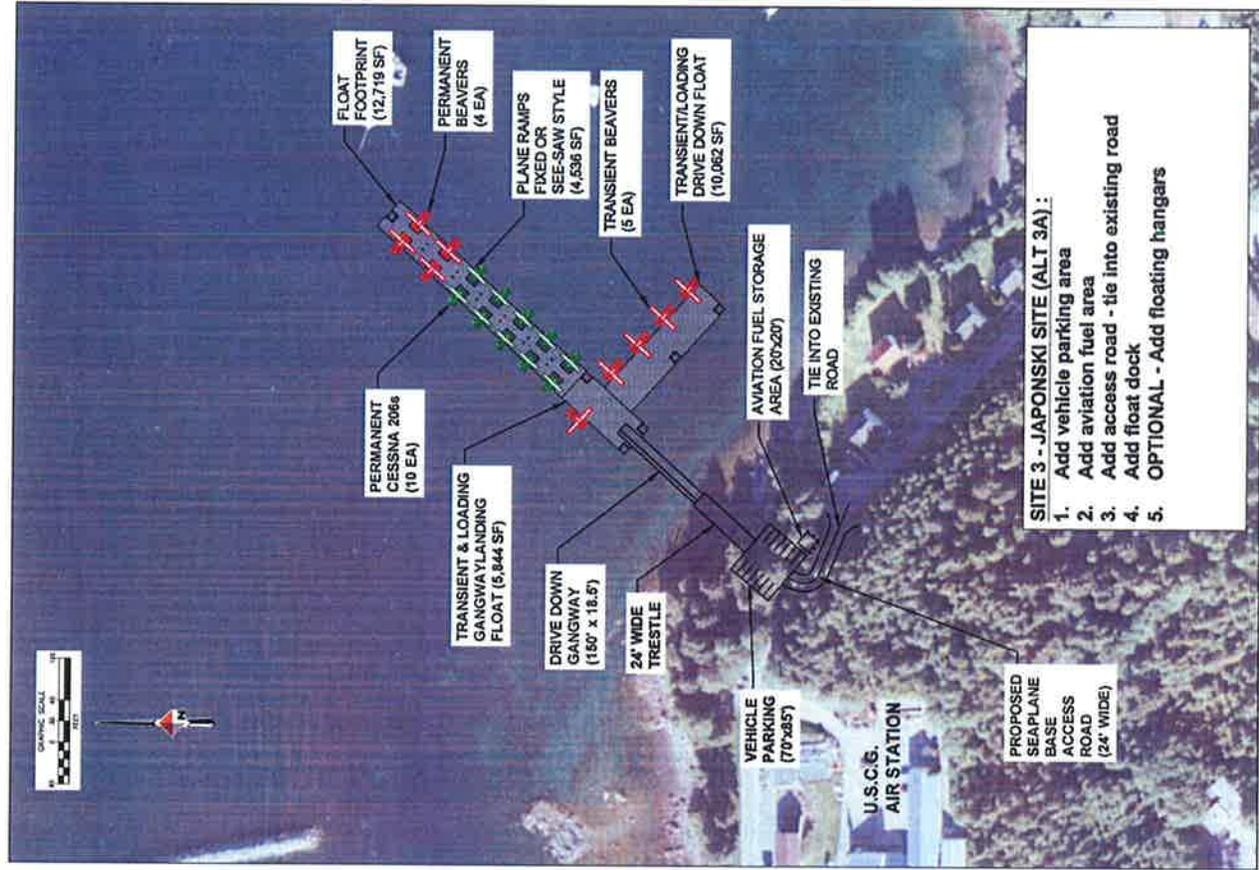
- ▶ May provide for safe maneuvering to slips on the inside of the floats
- ▶ Does not meet the project's initial capacity goal
- ▶ Significant dredging required
- ▶ Does not allow for future growth
- ▶ Departs significantly from the funding agency's (FAA) design standards
- ▶ Opposed by the adjacent SSS fish plant operator
- ▶ Not recommended by DOWL HKM

# Japonski Island Revised Float Layout Alt 3A

Permanent slips oriented  
with wind; transient  
positions oriented  
crosswind

## Preliminary Cost Estimate

**\$8,900,000**

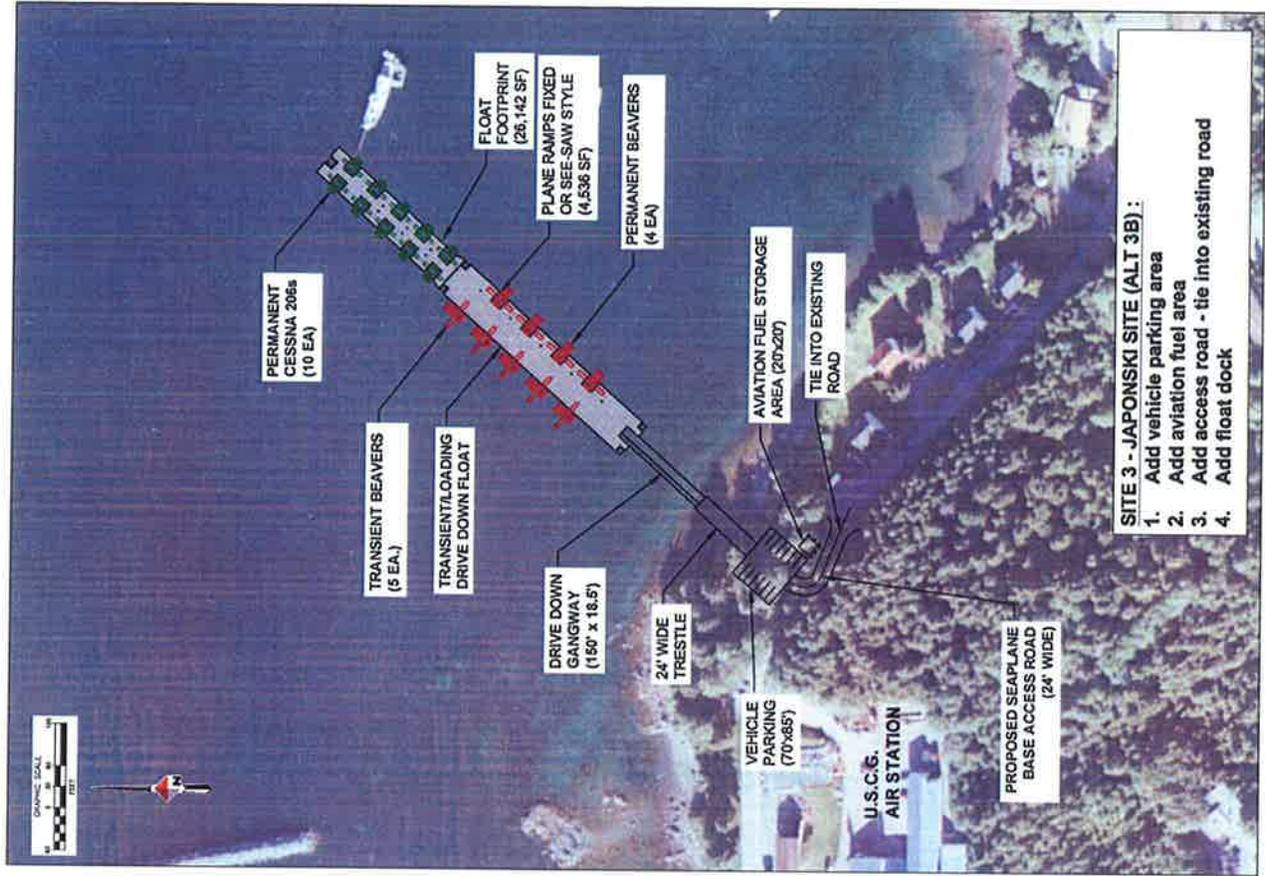


# Japonski Island Revised Float Layout Alt 3B

Permanent and transient  
slips oriented with  
prevailing wind

Preliminary Cost Estimate

\$8,900,000



# Japonski Island Alts 3A & B Analysis

- ▶ Provides for safe maneuvering to slips
- ▶ Meets the project's initial capacity goal
- ▶ Allows for future growth
- ▶ Conforms to the funding agency's (FAA) design guidance
- ▶ Potential noise impacts to MEHS & SEARHC
- ▶ Recommended by DOWL HKM for site selection and further design refinement



# Next Steps

- 2012
  - Draft Report
  - Public meeting in Sitka on site selection
  - CBS Assembly review of recommended site
  - Preferred site – Conceptual plan
  - Concept Layout
  - ROW requirements
  - Environmental
  - Further user & public involvement
  - Final review/approval by FAA & CBS Assembly
- 2013+
  - Design, ROW acquisition & construction

# Comments and/or Questions ?



**Sitka Seaplane Base Siting Study**  
**Summary**  
**4/11/12 Ports and Harbors Commission Meeting**

CBS Staff – Dan Tadic, Stan Eliason, Michael Harmon, Stephen Weatherman  
DOWL HKM Staff – Tom Middendorf

A PowerPoint presentation (attached) was delivered to the Commission. The following is a summary of comments or questions received from commission members together with responses from project staff.

Comment: Aircraft noise at Japonski may be less noticeable due to presence of existing background noise from the Sitka Airport and Coast Guard helicopter operations nearby.

Comment: There is also existing noise from seaplane operations in Sitka Channel that could go down when fewer aircraft will operate from this narrower area.

Comment: You could consider options to reduce noise from aircraft powering up to load onto the ramp by investigating mechanical systems to assist aircraft in getting onto the ramp.

Response: We will look into this.

Comment: Has the presence of swell been considered?

Response: Yes. This was considered by our float designer and the pilots and while we expect to see swell at this site, it can be handled by float design and layout.

Comment: Can you shift the float within the site, if needed?

Response: There are some limited options to shift it on the site, but the Coast Guard is on one side and residential and clinic properties on the other side.

Comment: Can you consider anchoring systems instead of pile systems to keep the float in place? Piles would probably not be as effective with swell, would cost more, and could be more complicated with airplane wings to avoid.

Response: Yes we will look at that during more detailed conceptual design.

Comment: Who will control what kind of vehicles will use the drive down ramp?

Response: The harbormaster.

Comment: If you have the correct fuel piping system going down to the float you will not need to have access for a fuel truck on the float.

Response: We will look into fueling options.

Comment: Why was Jamestown Bay eliminated as an option?

Response: Primarily because of residential development in the area, turbulent wind conditions, exposure to swells, and boat traffic.

The Ports and Harbors Commission approved the recommended Japonski site for further studies.

## MEMORANDUM

---

To: Jim Dinley, Administrator 

From: Grant Miller, Port and Harbor Commission

Date: April 17<sup>th</sup> 2012

Subject: Seaplane base

---

The consultant team and Public Works Staff presented the results of the Seaplane Base Siting Analysis to the Port and Harbor Commission on April 11, 2012. The Commission members voted unanimously to approve the recommended site for further study.

Grant Miller, Chairman



Final Siting Analysis, Planning and Concept Design, and NEPA and Permitting Processes

# SITKA SEAPLANE BASE

April 11, 2012  
Presentation of SPB Siting  
Recommendations



# Purpose of Study

- ▶ **Project Goal**
  - Recommend a seaplane base (SPB) site that will address existing deficiencies, serve existing and future demand, and contribute to the local economy
  
- ▶ **Project Scope**
  - Evaluate three alternative SPB sites to determine which site shall be carried forward for detailed planning and further review in a NEPA document before moving on to design and construction



# Existing Sitka SPB – Known Issues



Narrow float, limited walking/working space



Aging timbers, inadequate flotation



Congested site: SSS plant, private dock

# Existing Sitka SPB – Known Issues

- ▶ Insufficient capacity; no room for expansion



# Existing Sitka SPB – Known Issues

- ▶ Safety concerns
  - Bird hazards
  - Potential conflicts with boats
  - Ramp/float design
  - 5 years safe/usable service life remaining



# Existing Sitka SPB – Known Issues

- ▶ **Operational concerns**
  - Shallow rocky basin restricts aircraft maneuvering
  - No fueling facilities
  - No vehicle parking
  - Commercial use not practical



# **An Improved SPB Would Support the Local Economy by**

- ▶ **Providing a base of operations for recreational and commercial seaplane operators.**
- ▶ **Providing access to national parks, State recreation sites, lodges, remote cabins, and fish hatcheries**
- ▶ **Providing support for commercial fishing industry**
- ▶ **Providing employment for tour operators, flight instructors, aircraft mechanics, and concessionaires**
- ▶ **Serving as a transportation hub for nearby villages**

**Example:**

# Kodiak Trident Basin SPB

- ▶ 18 slips plus significant transient capacity
- ▶ Replaced an 8 slip SPB in Inner Harbor, due to boat conflicts and expansion constraints
- ▶ Pull out ramp
- ▶ On-shore lease areas/passenger terminals
- ▶ Fueling
- ▶ 3-4 primary commercial users



# Kodiak Trident Basin SPB

“15 years ago there was not a bear viewing program for tourists. Now its one of the primary floatplane activities in Kodiak and its directly related to investment in SPB infrastructure.”

“If you come up to visit from Iowa do you want to fly on the same wheeled airplane you fly on in Iowa or do you want to fly in a floatplane, unique to Alaska?”

“In 2 out of 3 of the water accidents we have had this past year, lives were saved because floatplanes were able to quickly respond to accidents. Floatplanes were on site before the Coast Guard could arrive. You’re dead in 20 minutes without quick response.”

**Bob Stanford, owner of Island Air**

# Kodiak Trident Basin SPB

**“When the rebuilding of the facility was first completed I got a lot of compliments on the facility....After talking with the different users of the facility now I think they are pleased with what they have and truly understand we could never have gotten here without the FAA funding support and the State match.”**

**Mark Kozak, City of Kodiak Public Works Director**



**Example:**  
**Petersburg SPB**



Float system and floating hanger  
Fuel and freight storage available  
2 floating aircraft maintenance hangers



Floating hanger

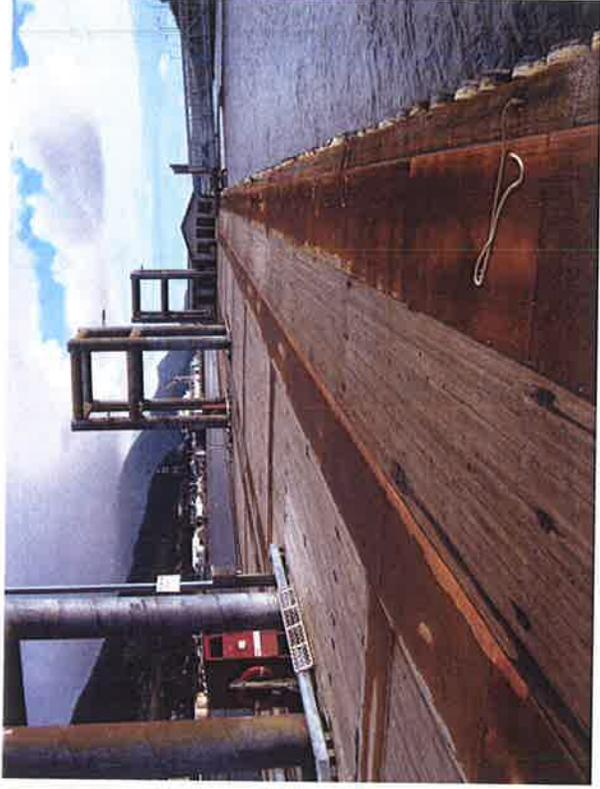
Tie downs



**Example:**  
**Ketchikan SPB**



**Pull out ramp  
23 slips/parking positions**



**Transient Loading Area**



**Seaplane Slips**

**Example:**

# **Juneau SPB**

- ▶ 69 slips plus significant transient capacity
- ▶ 2 pull out ramps
- ▶ Commercial float w 3-5 primary users



# Juneau SPB

- ▶ **“We have a pretty healthy use of the pond by Wings Airways, Ward Air and Alaska Seaplanes due to the influx of cruise passengers and summer visitors.”**

**Jeannie Johnson, Airport Manager, Juneau International Airport**



# Sitka SPB Facility Requirements

## General requirements:

- ▶ 14 based SP slips, expandable in future
- ▶ 3-5 transient SP positions
- ▶ Room for future growth

## Important for commercial use:

- ▶ Fuel, fresh water, electricity on float(s)
- ▶ Vehicle parking
- ▶ Drive-down ramp to float(s)
- ▶ Aircraft maintenance capability on-site
- ▶ Passenger shelter
- ▶ Equipment storage



# Sites Considered (2002 study)



# Sites Dismissed (2002 study)

- ▶ **Starrigavan Bay**
- ▶ **Mt. Edgecumbe**
- ▶ **Safe Harbor**
- ▶ **Work Float**
- ▶ **Japonski Lagoon**
- ▶ **Charcoal Island**
- ▶ **Jamestown Bay**
- ▶ **Sawmill Cove**
- ▶ **Herring Cove**



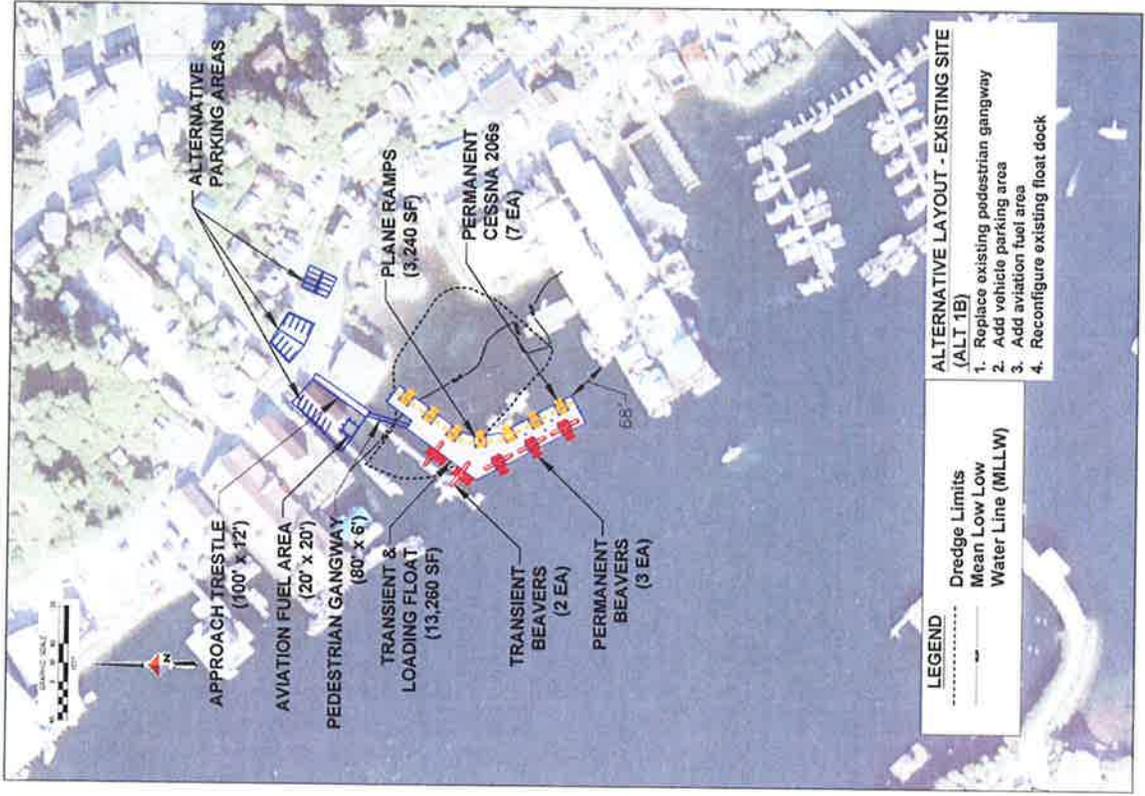
# Proposed Sites Carried Forward (current study)



# Proposed Existing SPB Site Re-Development

- Slips for 12 based aircraft
- Positions for 2 transient aircraft
- Vehicle parking
- Fuel, water, electrical systems

Construction cost estimate: \$5.1 M



# Results of Analysis & User Input

- ▶ Existing SPB site eliminated
  - Can't accommodate existing or future demand
  - Requires dredging
  - Increased conflicts with boat traffic
  - Restricted wingtip clearances – does not comply with FAA design guidance
  - Bird hazard
  - Neighbors object to current and expanded use





# Results of Analysis & User Input

- ▶ **Eliason Harbor alternative site eliminated**
  - Highest construction cost of all alternatives
  - Conflicts with boat traffic
  - Significant dredging required
  - Limited future expansion potential
  - Freezing fresh water restricts access in winter
  - Maneuvering space very limited even at high tide
  - Nearby structures exposed to aircraft noise
  - Exposed to wind; slips can't be aligned with prevailing wind





# Results of Analysis & User Input

- ▶ **Japonski Island site – Recommended site**
  - Mid-range construction cost
  - Meets project’s capacity goal; can be expanded further
  - No dredging required
  - Accommodates commercial use (hanger, vehicle parking)
  - Away from boat movements
  - Away from seabird concentration
  - Provides for safe seaplane maneuvering to slips
  - Conforms to the funding agency’s (FAA) design guidance
- ▶ **AK DOEED (land owner) expressed concern with development at this site - increased vehicular traffic and noise for nearby structures**

# Cost to Construct

	Base Facility	w Floating Hangers & Pull out Ramp
Total Cost	\$9,300,000	\$11,700,000
Federal Share (FAA) 95%	\$8,835,000	\$11,115,000
State Share 2.5%	\$232,500	\$292,500
CBS Share 2.5%	\$232,500	\$292,500

Estimate above does not include design, environmental, and construction administration costs



# Next Steps

- 2012
  - Ports & Harbors Commission and Public Meeting - Site Selection (TODAY)
  - Preferred site
  - Assembly approval
  - Further user and public involvement (ongoing)
  - Final Conceptual Plan - preferred site
  - Property investigation
  - Environmental Assessment
  - Assembly approval
- 2013+
  - Design
  - Property acquisition
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**Sitka Seaplane Base Siting Study**  
**Summary**  
**4/11/12 Public Meeting**

CBS Staff – Dan Tadik, Michael Harmon, Steve Weatherman  
DOWL HKM Staff – Tom Middendorf

A PowerPoint presentation (attached) was delivered to those attending the meeting. The following is a summary of comments or questions received from members of the public together with responses from project staff.

Comment: A meeting attendee reported operating a glass bottom tour boat along the shoreline in the area and at the site of the seaplane float. The tour boat views the ocean bottom in the near shore area and turns around once it approaches the breakwater. It also covers other areas with the tour, but the Japonski site is good for bottom viewing. He noted support for a seaplane base but wondered if other sites were dismissed without full consideration.

Response: The attendee was asked to document his concerns on a comment sheet and to show the areas he uses for his business on the sheet.

Comment: The same person asked why Herring Cove was dismissed.

Response: A pilot in the room reported Herring Cove is a very windy area – a blow hole – that would be unsuitable for floatplanes. He reported it freezes in winter. The prior study also eliminated this site because it has:

- Long fetch with direct access to open ocean (i.e., waves & swell)
- Large chop from prevailing winds
- Strong turbulent winds from Blue Lake
- Limiting topography during cloudy/foggy conditions
- Too far from town

Comment: The same person also asked whether Whiting Harbor would work.

Response: The pilot in the audience commented that Whiting Harbor was exposed to waves and rough water and access to the site was restricted by the airport and FAA.

Comment: The same person asked if there was wind data available for each site.

Response: No, wind information is not available for each site, and wind information was based on local knowledge.

Comment: Is the Department of Education in the driver's seat on this project because of land acquisition?

Response: We will work with the Department of Education on land acquisition. Our chances of success will be greater if it is clear the community considers the seaplane base at this site is the best option. There may be ways to configure the seaplane base to minimize affects on Department of Education property. SEARHC also has property along Seward Avenue that might be investigated for parking.

Comment: I don't think there are any other reasonable options. This is the best site.

Comment: This is the perfect location. It is good for establishing commercial operations. I am personally interested in starting commercial operations if this is built.

Comment: This sounds like a great idea.

Comment: I can't imagine why the community would turn down the opportunity to have this project built with 97.5% federal and state funding.

Comment: The fees for use of the facility need to be reasonable. It is expensive to own and operate seaplanes and we already pay fees and property taxes.

Comment: This seems like a small facility when compared to the extent of boat harbor facilities that have been built in Sitka. Other smaller communities like Kodiak and Petersburg have bigger and better seaplane bases.

Comment: There may be potential for aircraft using the seaplane base to carry medical patients from villages to SEARHC.

Comment: You should consider including a seaplane pullout at this site, connected by road to the airport and its hangars. Then the State would not need to build its pullout area, which is proposed in a much less favorable site.

Response: We will look at this during the more detailed design. It is possible if funding is an issue that this could be a later phase, unless the State builds it's haulout first.

Comment: Tsunami warning noise is perhaps more annoying than seaplane operations noise.

Comment: The CBS Assembly needs to understand the extent of study – 2 studies over 10 years – that has gone into this project and that both studies recommended the same site.





## Purpose of Study

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### Proposed Eliason Harbor Site Development

- Slips for 14 based aircraft
- Positions for 3-5 transients
- Vehicle parking
- Fuel, water, electrical systems
- Drive-down ramp
- Optional floating hangers (2)

Construction cost estimate: \$13.2 to \$15.6 M



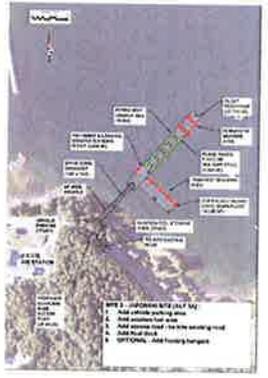
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  - Exposed to wind; slips can't be aligned with prevailing wind

### Proposed Japonski Island Site Development

- Slips for 14 based aircraft
- Positions for 5 transients
- Vehicle parking
- Fuel, water, electrical systems
- Drive-down ramp
- Optional floating hangers (2)

Construction cost estimate: \$9.3 to \$11.7 M



### Results of Analysis & User Input

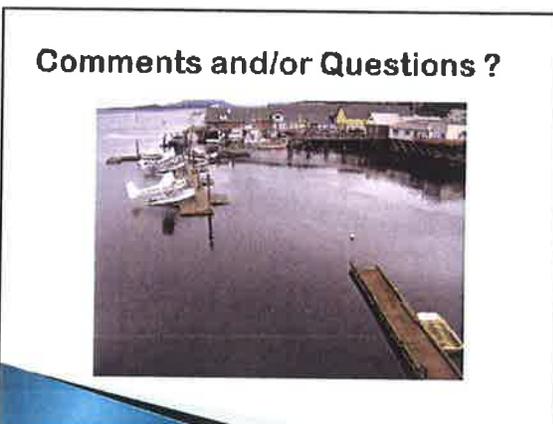
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    - Environmental Assessment
    - Assembly approval
  - 2013+
    - Design
    - Property acquisition
    - Construction



**Mayo, Mark**

---

**From:** Jim Edson [jim.m.edson@gmail.com]  
**Sent:** Tuesday, April 17, 2012 5:00 PM  
**To:** Mayo, Mark  
**Subject:** Re: Sitka Seaplane Base Siting Study - final recommendations

Mark, Good work! Although I've given up on Sitka and moved to Petersburg I'm in total agreement on where the new base should be. Thanks, Jim

On Mon, Apr 16, 2012 at 11:38 AM, Mayo, Mark <[MMayo@dowlhkm.com](mailto:MMayo@dowlhkm.com)> wrote:

Attached you will find a copy of the PowerPoint presentation delivered at the April 11, 2012 public meeting in Sitka. The presentation reviews the need for seaplane base (SPB) improvements in Sitka, summarizes the SPB site selection process, and recommends a preferred site for detailed planning and environmental review prior to design and construction.

Please review the presentation and provide us with your email comments by April 30, 2012.

Questions about the project should be directed to CBS Project Manager Dan Tadic ([907-747-1807](tel:907-747-1807) or [dantadic@cityofsitka.com](mailto:dantadic@cityofsitka.com)) or DOWL HKM Project Manager Tom Middendorf ([907-562-2000](tel:907-562-2000) or [tmiddendorf@dowlhkm.com](mailto:tmiddendorf@dowlhkm.com)).

Thanks in advance for your participation.

**Mark D. Mayo**  
Transportation Planner



(907) 562-2000 | Fax (907) 563-3953 | 4041 B Street | Anchorage, Alaska 99503 | [www.dowlhkm.com](http://www.dowlhkm.com)

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# STATE OF ALASKA

**SEAN PARNELL, GOVERNOR**

## **DEPARTMENT OF EDUCATION AND EARLY DEVELOPMENT**

*MT. EDGE CUMBE HIGH SCHOOL*

1330 SEWARD AVENUE  
SITKA, ALASKA 99835-9438  
PHONE: 907-966-3200  
FAX: 907-966-2442

April 23, 2012

Mark D. Mayo  
Transportation Planner  
4041 B Street  
Anchorage AK 99503

Mr. Mayo:

I received your email pertaining to the Sitka Seaplane Base Study – Final Recommendations sent on April 16, 2012. In it, it asks for comments pertaining to the final recommendations to be sent to you by April 30<sup>th</sup>. Please consider this letter as comments from Mt. Edgecumbe High School (MEHS) related to the final recommendations.

In our view, the Final Recommendations should be rejected and sent back for further study. As you know, MEHS commented on this proposal in the letter we sent to you a year ago, dated April 26, 2011. The concerns we raised in that letter have not been addressed, and we incorporate them by reference into this letter.

Specific reasons to reject this study include:

- The study fails to take into account the wishes of the property owner. Neither MEHS nor the Alaska Department of Education and Early Development are interested in this site being utilized as a seaplane base.
- The study fails to take in to account the legal impediments to development of the site as a seaplane base. MEHS is not expert in NEPA or FAA requirements, but this site would almost certainly have great difficulty in obtaining federal administrative approval.
- The study does not take into account that under FAA guidelines the proposed seaplane base will have a decibel level of greater than 65 and is incompatible with operation of MEHS as school. That incompatibility is magnified here because MEHS is a boarding school.
- The study does not take into account the historic/archeological value of the site.
- The study does not take into account other impacts on the continued use of MEHS as a school, including that the increased traffic would be a detriment to our students, especially when the new pool gets built. (Tongass Avenue would be the direct route for our students to walk to the pool. They would have to cross over Tongass Avenue

to access the pool.) In addition, the increase of industrial traffic (fuel trucks, etc.) on Tongass Avenue due to the seaplane base would create an undesirable impact on the campus and a hazard for our students.

- The study fails to take into account local land use and the potential impact on property value. The proposed seaplane base is located in a residential neighborhood and it would dramatically change the activity of that neighborhood.

As you can see from the comments listed above, our concerns are many. We strongly urge that additional study be conducted and that alternatives be considered that do not have the same impacts and barriers to development. Please feel free to contact me if you have further questions regarding the Department's position on the seaplane base location.

Best regards,



Randy Hawk  
Superintendent

cc: Les Morse, Deputy Commissioner

**Mayo, Mark**

---

**From:** Dan Tadic [dantadic@cityofsitka.com]  
**Sent:** Monday, April 30, 2012 9:01 AM  
**To:** Middendorf, Thomas  
**Cc:** Mayo, Mark  
**Subject:** FW: Seaplane Base

Good morning,

Please see email below from Ken Rear – the owner of the glass bottom boat tour who came to our public meeting earlier this month.

Thanks,

**Dan Tadic, P.E.**  
Senior Engineer  
City and Borough of Sitka  
Department of Public Works  
100 Lincoln Street  
Sitka, AK 99835  
P (907) 747-1807  
F (907) 747-3158

---

**From:** [sldt@ak.net](mailto:sldt@ak.net) [<mailto:sldt@ak.net>] **On Behalf Of** Kenneth Rear  
**Sent:** Sunday, April 29, 2012 12:57 PM  
**To:** [dantadic@cityofsitka.com](mailto:dantadic@cityofsitka.com)  
**Subject:** Seaplane Base

Hello Dan

We spoke at the public information meeting about the proposed seaplane base at Japonski Island where I raised concerns about the potential negative impact that the base would have on the underwater viewing tour that I now operate at the proposed location. While these concerns remain I am not interested in standing in the way of the proposed seaplane base. With the decline in the number of summer visitors to Sitka the future of Sea Life Discovery Tours in Sitka is uncertain. So it would not be right for me to raise opposition and raise costs associated with the design and construction and then move the Sea Life Discovery to another port. For planning my business operations it would be helpful if you would keep me informed of your plans especially construction dates.

Best Regards  
Kenneth J Rear  
Sea Life Discovery Tours

## **APPENDIX C**

### **CBS Seaplane Base Ordinances**

Sponsor: Administrator

CITY AND BOROUGH OF SITKA

ORDINANCE NO. 2005-18

AN ORDINANCE OF THE CITY AND BOROUGH OF SITKA, ALASKA AMENDING TITLE 13, PORTS AND HARBORS, OF THE SITKA GENERAL CODE BY AMENDING SECTION 13.10.190, AIRPLANE FLOAT, TO ALLOW COMMERCIAL OPERATIONS AT THE AIRPLANE FLOAT UNTIL THE NEW FLOAT PLANE FACILITY IS CONSTRUCTED OR DECEMBER 31, 2006, WHICHEVER IS SOONER

1. **CLASSIFICATION.** This ordinance is of a permanent nature and is intended to become a part of the Sitka General Code.

2. **SEVERABILITY.** If any provision of this ordinance or any application thereof to any person or circumstance is held invalid, the remainder of this ordinance and application thereof to any person or circumstances shall not be affected thereby.

3. **PURPOSE.** Currently there is no location within the harbor system for commercial float planes to operate. Other privately owned facilities are no longer available, leaving the very small commercial floatplane industry in Sitka no place to stage. This ordinance would allow commercial operations at the City and Borough-owned airplane float facility until December 31, 2006 or until the new floatplane facility is built, whichever comes sooner.

4. **ENACTMENT.** NOW, THEREFORE, BE IT ENACTED by the Assembly of the City and Borough of Sitka that Section 13.10.190, Airplane float, is hereby amended to read as follows:

**13.10.190 Airplane float.**

The municipal airplane float shall be administered and enforced by the harbormaster but subject to:

- A. Commercial operations shall be allowed at the municipal airplane float with the Harbormaster's approval and proper permitting in place until such time as a new floatplane facility is constructed or December 31, 2006, whichever is earlier. Such operations shall be charged an appropriate user fee.
- B. (No change.)
- C. (No change.)
- D. (No change.)

5. **EFFECTIVE DATE.** This ordinance shall become effective on the day after the date of its passage.

**Ordinance 2005-18**  
**Page 2**

**PASSED, APPROVED, AND ADOPTED** by the Assembly of the City and Borough of Sitka, Alaska this 26th day of April, 2005.

  
\_\_\_\_\_  
Marko Dapceovich, Mayor

**ATTEST:**

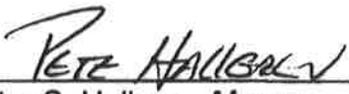
  
\_\_\_\_\_  
April Jensen  
Deputy Municipal Clerk

**ORDINANCE 96-1366**

**AN ORDINANCE OF THE CITY AND BOROUGH OF SITKA  
ADOPTING THE NEW HARBOR ORDINANCE REVISING TITLE 13  
OF THE SITKA GENERAL CODE**

1. **CLASSIFICATION.** This ordinance is of a permanent nature and is intended to become a part of the Sitka General Code.
2. **SEVERABILITY.** If any provision of this ordinance or any application thereof to any person or circumstance is held invalid, the remainder of this ordinance and application thereof to any person or circumstances shall not be affected thereby.
3. **PURPOSE.** Over the past year, the Ports and Harbor Commission has been reviewing and revising Title 13, The Harbor Ordinance. This ordinance adopts the new Title 13.
4. **ENACTMENT.** Now, Therefore, be it enacted by the Assembly of the City and Borough of Sitka that Title 13 of the Sitka General Code is hereby repealed and reenacted as set forth in Exhibit A. which is attached hereto and incorporated herein by reference.
5. **EFFECTIVE DATE.** This ordinance shall become effective on the day after the date of its passage.

**PASSED, APPROVED, AND ADOPTED** by the Assembly of the City and Borough of Sitka, Alaska this 28th day of May, 1996.

  
\_\_\_\_\_  
Peter S. Hallgren, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Rita Heathman  
Acting Municipal Clerk

**TITLE 13  
PORT AND HARBORS**

**CHAPTERS:**

- 13.02. GENERAL PROVISIONS**
- 13.04. DEFINITIONS**
- 13.06. CHARGES / FEES**
- 13.08. RESERVED MOORAGE**
- 13.10. FLOAT REGULATIONS**
- 13.12. ENFORCEMENT**

**CHAPTER 13.02 GENERAL PROVISIONS**

- 13.02.010 PURPOSE** - The purpose of these regulations is to provide for orderly development, management, protection, safety and efficient use of all harbor spaces and port facilities within the municipal harbor system by commercial vessels, government vessels, pleasure vessel and the boating public. By the mooring of any vessel within the harbor system, the owner of all said vessels agrees to follow the rules and requirements of all the provisions within this title.
- 13.02.020 HARBORMASTER** - There is hereby created a Ports and Harbors Department which will be operated under a Harbormaster and staff. The Harbormaster will have supervision responsibility and authority to administer all City and Borough owned or operated floats, harbor spaces and port facilities, subject to supervision by the City and Borough Administrator. The Harbormaster will have the powers to assign to all vessels, aircraft and other waterborne structures; places for docking, berthing, mooring and anchoring within the floats and docks and within all water area in the designated harbor system and to reassign any such stall or space should condition warrant the same. The Harbormaster will have the municipal police powers in the enforcement of the Harbor Ordinance and places within the harbor system but the use of said power is limited to the harbor system unless specifically designated and authorized by the Chief of Police. It is illegal to moor, dock or anchor in any area within Harbor jurisdiction unless specifically authorized by the Harbormaster. The Harbormaster will have the authority to issue harbor tickets and to impound or seize any vessel within

- 13.10.160 GRID-** No boat more than thirty-five (35) tons per bent, will be allowed on the south Grid. No boat more than six (6) tons per bent, will be allowed on the north end grid. Persons wishing to exceed the above limits wish to use the grid, they must contact the Harbormaster for special consideration. Maximum time on grid is ninety-six (96) hours.
- 13.10.170 GEAR/CARGO LOADING FLOAT -** The time limit on the loading float is two hours, unless other arrangements with the Harbor Department have been made. Improper use of this float is unlawful.
- 13.10.180 WORK FLOAT -** A year round work float is available for use and located on Sitka Channel across from ANB harbor. The intent for this work float is gear work only. This float is equipped with water and electricity. No overnight moorage is permitted without the Harbormaster's permission. No storage of any gear, nets, or materials is permitted without the Harbormaster's permission and only in case of an emergency. The Crescent Harbor, Float 4 work float is available for temporary winter moorage from Sept. 15 till April 15.
- 13.10.190 AIRPLANE FLOAT -** The municipal airplane float shall be administered and enforced by the harbormaster but subject to the following:
- A) There shall be no commercial operation based at the floats, except pick-ups;
  - B) The municipal plane floats are for the use of active planes;
  - C) Only repair and maintenance work of a minor nature shall be allowed on the float, which is defined as that work which would ordinarily be completed in one twenty-four hour period. The Harbormaster shall have discretion in enforcing this provision.
  - D) It is unlawful for the owner or person in charge of any boat to moor it at any municipal plane float. (S.C.C. §3-5-45.)
- 13.10.195 AIRPLANES OPERATING WITHIN THE SITKA HARBOR SYSTEM SHALL -**
- A. Follow international navigation rules while operating as a vessel (i.e. on the water).

## **APPENDIX D**

### **Sitka Harbor System Master Plan (partial)**

## **SEAPLANE FLOAT**

The seaplane float was originally designed by the State of Alaska, Department of Transportation in 1962.

Access to the seaplane float is provided by a 6-ft x 150-ft long timber approach trestle that intersects with Katlian Street. The approach trestle supports a 6-ft x 50-ft long steel gangway that lands on a 10-ft wide x 110-ft long main float. The main float provides transient moorage for approximately three seaplanes. Perpendicular to the main float is a 10-ft wide x 200-ft long float that provides moorage landings for up to eight seaplanes.

### **Observations**

#### *Approach Dock:*

The timber approach dock is weathered and at 50 years old and has exceeded its life expectancy.

#### *Gangway:*

The gangway is of lightweight construction and its length is short, however its components are in fair condition. The primary concern regarding the gangway is its length. 50-ft gangways are no longer permitted in new construction due to the steep gradient that is created during low tides. 80-ft minimum length gangways are required to meet current American Disabilities Act (ADA) standards.

#### *Floats:*

In general the timber floats are weathered and shows signs of age. There is no remaining preservative treatment visible on the timbers. The float freeboard is approximately 8-in. The galvanized coatings of the steel pipe piles above the tidal level are beginning to disappear and surface rust on the piles was observed.

### **Conclusions**

In general, the current overall condition of the seaplane float is fair to poor. The facility shows signs of age and is nearing the end of its useful design life. The seaplane float has an estimated remaining safe and usable service life of approximately 5 years.

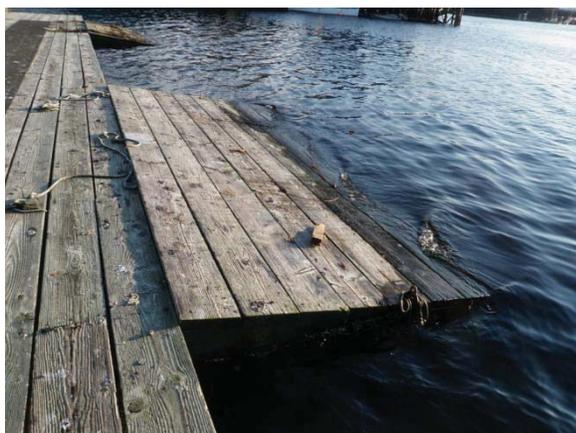
SEAPLANE FLOAT PHOTOGRAPH LOG



Seaplane Float



Landing



Landing



Seaplane Float



TIDAL DATA	
EHW	14.6'
EHT	12.7'
MHHW	9.9'
MHW	9.1'
MLLW	0.0'
ELW	-4.0'

**SITKA, ALASKA  
SITKA HARBOR SYSTEM  
MASTER PLAN**

PROJECT TITLE: SEAPLANE FLOAT  
 UTM PROJECT NO.: 112070.01 | UTM FILE: 1 OF 1

DATE: FEB. 2012

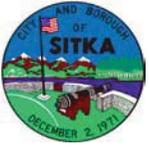
9340 Glacier Highway Ste 100  
 Juneau, Alaska 99801  
 Phone: 907-586-2093  
 Fax: 907-586-2099  
 www.pnd-inc.com

**PND** | **EN** | **D**  
**ENGINEERS, INC.**

DESIGN: PND, CHECKED: CRS, APPROVED: CRS  
 SCALE: SCALE IN FEET 0 40 80 FT.

**REVISIONS**

REV.	DATE	DESCRIPTION	DWN.	CRD.	APP.



**16 SEAPLANE FLOAT**  
**IN KIND REPLACEMENT BUDGETARY ESTIMATE**  
**Prepared By: PND Engineers, Inc., February 2012**

<b>Item</b>	<b>Item Description</b>	<b>Units</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Amount</b>
1	Seaplane Facility	LS	All Req'd	\$11,200,000	\$11,200,000

Cost estimate provided by DOWL, HKM for proposed Seaplane Replacement Facility.

