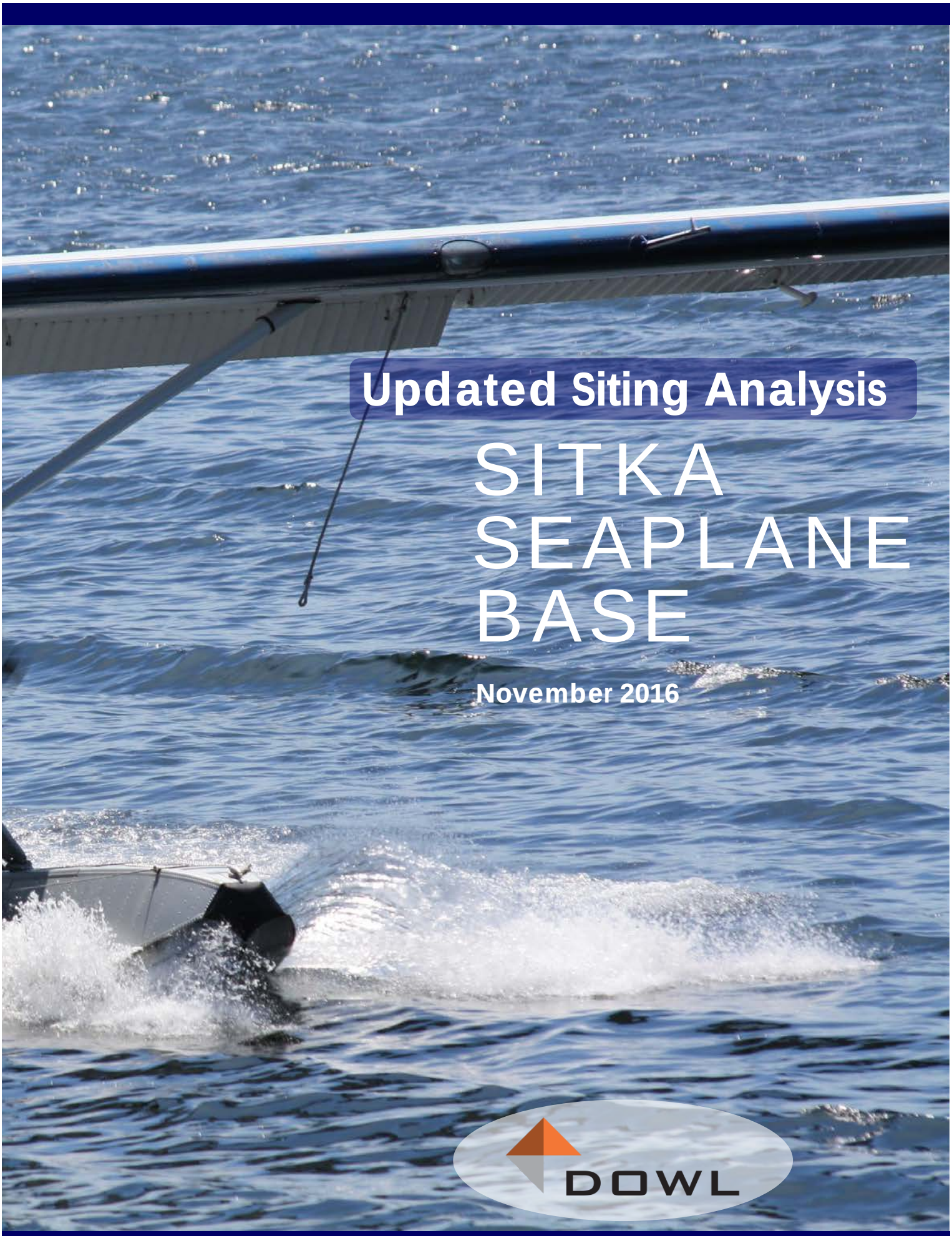


Updated Siting Analysis

SITKA SEAPLANE BASE

November 2016

DOWL

UPDATED SITING ANALYSIS
SITKA SEAPLANE BASE
SITKA, ALASKA

Prepared for:

City and Borough of Sitka
100 Lincoln Street
Sitka, Alaska 99835

Prepared by:

DOWL
4041 B Street
Anchorage, Alaska 99503
(907) 562-2000

W.O. 62147

November 2016

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (cont)

FIGURES

TABLES

APPENDICES

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 Plan of Integrated Airport Systems
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

THIS PAGE INTENTIONALLY BLANK

1.0 INTRODUCTION

This report evaluates sites for a new seaplane base (SPB) 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 and a subsequent update in 2012. 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 seaplane base's (FAA identifier A29) capacity, safety, and operational and condition deficiencies. Capacity concerns are evidenced by A29's recent full occupancy, a waiting list of seaplane owners who had been waiting two years or more to rent a slip, and interviews of seaplane pilots and businesses wanting to use a public seaplane base in Sitka. Safety concerns include concentrations of seabirds in and around A29'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. A29 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. A29 has been operating at its current site for 65 years 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. In January, 2016 the facility was temporarily closed because one pile supporting the transient float collapsed, damaging the transient float. A dive inspection showed significant pile section loss for another 3 piles. CBS expended approximately $165,000 to repair and reopen A29 in Fall 2016. The repairs included sleeving the

piles with larger diameter piles, structural float repairs, and additional floatation for the floats. The repairs restored all of the 8 existing seaplane slips and they are available for lease and transient use.

3.0 INVENTORY

A29 is owned by the CBS. In 2015, A29 was listed in the FAA 2011-2015 *National Plan of Integrated Airport Systems* (NPIAS) as a general aviation (GA) Unclassified Airport because of a reduction in the number of based aircraft using A29. CBS has requested that A29's classification be upgraded to a higher NPIAS classification to increase its potential to receive FAA Airport Improvement Program Funding (see Appendix D).

A29's 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 accommodates 8 seaplane slips. A small transient dock with space for approximately 3 seaplanes was recently damaged when a support pile collapsed, and the transient dock was removed. 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.

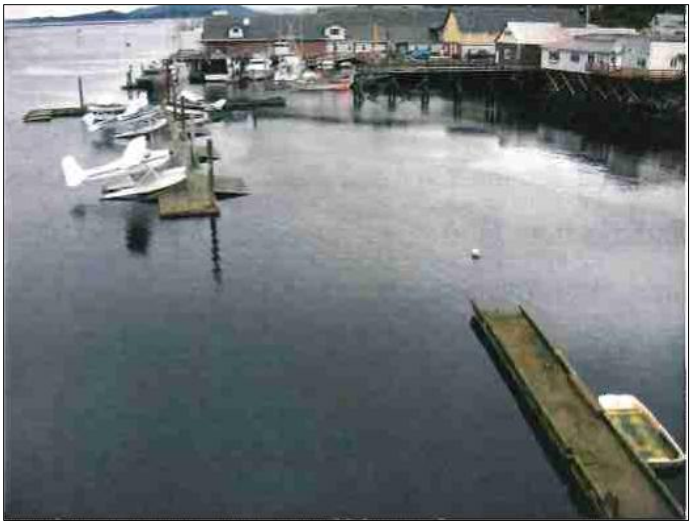


Figure 1: Existing Sitka SPB Looking North

The SPB is located between a storage building and dock on the north side and the SSS 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.

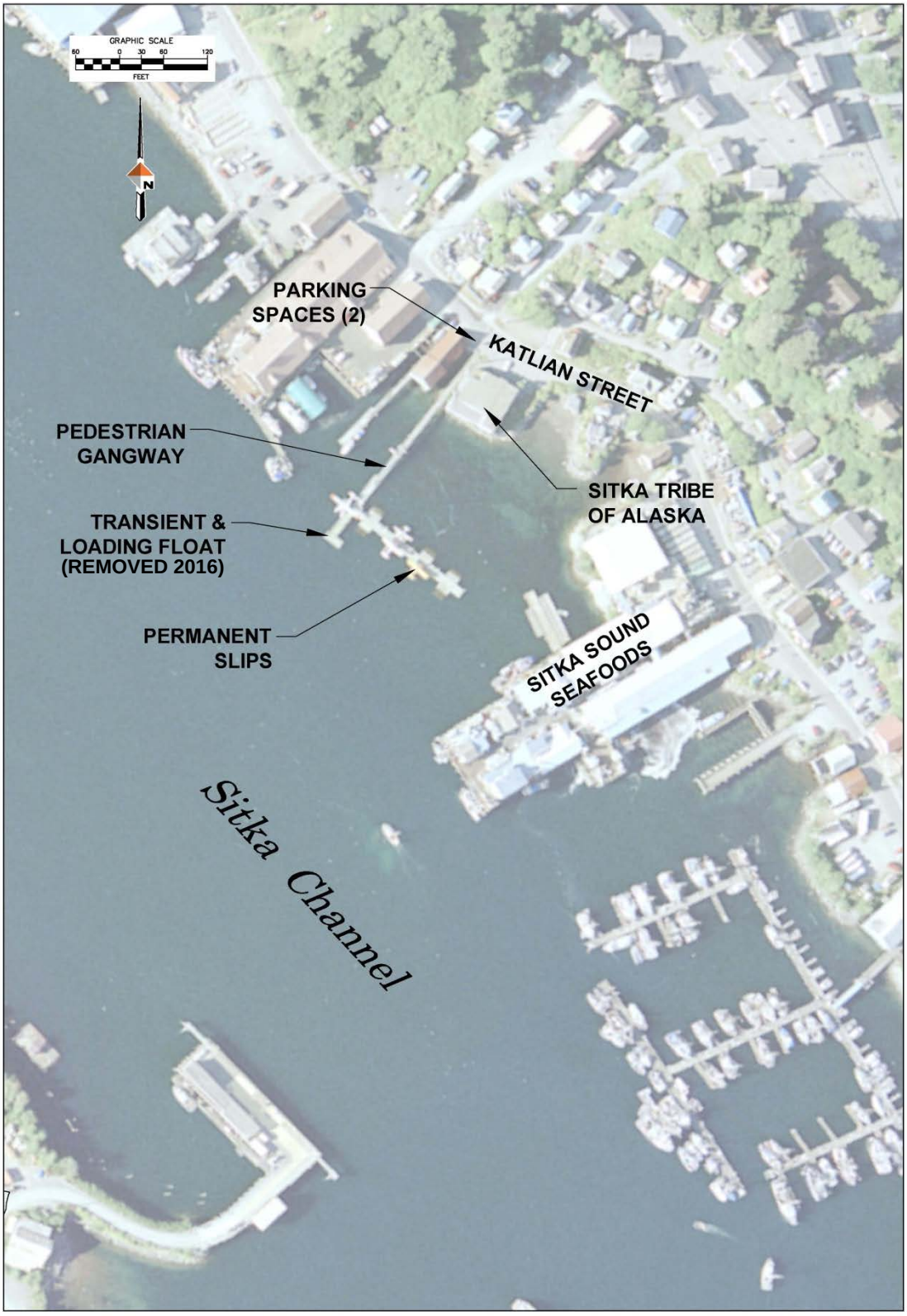


Figure 2: Existing Sitka SPB (A29)

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 A29 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 have generally not been approved due to the space limitations of A29 and high demand for slips by non-commercial operators.

4.0 AVIATION FORECAST UPDATE

This section updates the aviation forecast contained in the 2012 "Siting Analysis - Sitka Seaplane Base". 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 for this update includes the forecasts from the 2002 "Sitka Seaplane Base Master Plan" and the 2012 “Siting Analysis – Sitka Seaplane Base” report, 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 are shown in Section 4.6.

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 A29, historical activity data is estimated by FAA staff from various sources, including information supplied by the airport owner. The TAF is often not accurate or up to date for small lower activity airports but, for many airports, it is the only airport use data that the FAA has.

As shown in the table below, the TAF shows operations at the seaplane base have remained steady over the past five years while based aircraft have declined. As discussed elsewhere, the recent decline in based aircraft is largely due to the poor condition and lack of amenities at the 38-year-old facility.

Table 1: FAA TAF for Sitka Seaplane Base

	2010	2011	2012	2013	2014
Based Aircraft	9	9	9	6	6
Annual Aircraft Operations	4750	4750	4750	4750	4750

Source: FAA Terminal Forecast for A29, 2016

4.2 Previous Sitka SPB Forecasts

Sitka Seaplane Base Master Plan: The 2002 "Sitka Seaplane Base Master Plan" noted that A29 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. In 2002, the existing 8 slips were fully leased and there were 7 people on the waiting list. 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.

Siting Analysis – Sitka Seaplane Base: The 2012 report forecasted growth in seaplane commercial activity based on a healthy local economy, particularly the fishery and tourism sectors, the existing seaplane base waiting list, and user interviews indicating unmet demand for private and commercial seaplane parking. In 2012, the existing 8 slips continued to be leased and there still was a waiting list. Users reported that a new facility in better condition, in a better location, with more amenities like parking and fuel, and with more seaplane parking would see significantly more use. The Siting Analysis recommended a location sized to accommodate 14 parking positions for based aircraft and 3 to 5 transient positions through 2016, with the flexibility to accommodate an additional 5 slips for based aircraft in the long term.

4.3 Updated Sitka SPB Forecast Data

Existing Based Aircraft: While three years ago all eight aircraft parking slips were occupied, by 2015 based seaplanes had declined to six aircraft and in January, 2016 the facility was temporarily closed due to damage to the floats. Interviews with local pilots indicate that concerns about the condition of the facility and the potential for damage to based aircraft have been a concern for over 10 years, leading to decreased use of the facility. Pilots also suggest that additional seaplane operators would lease slips at A29 if additional capacity and services were available, and if operational issues with rocks, birds, and boat conflicts were addressed.

Fleet Mix: Based on telephone interviews with regional commercial seaplane operators located within and outside Sitka and with local recreational GA seaplane operators, aircraft operating at A29 prior to its closure were primarily a mix of small single-engine aircraft such as the Cessna 180/185/206 and the deHavilland DHC-2 Beaver. This agrees with the based aircraft assessments in the 2002 Master Plan and the 2012 Siting Study. During the site visits, anecdotal information was offered that in recent years fewer Beavers utilized the facility due to a loss of buoyancy on the SPB's floats that made it difficult to get these larger aircraft out of the water once in the slip. There was also support among local pilots for designing a facility to accommodate some commercial use by the deHavilland DHC-3 Otter.

4.4 Updated Socioeconomic Data

Sitka is the third largest community in Southeast Alaska. It enjoys one of the most diversified economies in Alaska, 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). 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 Sitka Rocky Gutierrez Airport (SIT) 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. However, aircraft operators expressed reservations about using the takeout ramp

because of tidal constraints and because it required taxiing in the open ocean, and arranged escorts through the Aircraft Operating Area of SIT. 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 marine facilities. There is a breakwater float adjacent to Thomsen Harbor that provides transient moorage space. Boat launch, haul-out, boat repairs, and other services are offered in Sitka. Some cruise ships anchor in Crescent Bay and lighter visitors to shore. However, a privately-owned deep draft dock was completed in 2010 and now receives the majority of cruise ships. 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 primarily by barge and cargo plane.

Table 2 shows the recent performance of several indicators of the health of Sitka's economy.

Table 2: Sitka Economic Indicators 2010-2014

	2010	**2014**	**Change 2010-14**
Population	8881	9061	2%
Total Seafood Employment	421	648	54%
Total Seafood Employment Earnings	$15,943,670	$29,910,590	88%
Other Maritime Wages	$7,074,209	$14,000,979	98%
Construction Employment	196	286	46%
Construction Wages	$12,620,024	$21,927,256	74%
Total Visitor Industry Employment	530	670	26%
Total Visitor Industry Wages	**$12,422,985**	**$18,283,024**	**47%**

Source: Rain Coast Data, 2015

Seafood, construction, and the visitor industry are healthy and growing sectors of Sitka's economy that depend on the aviation industry to move tourists, construction workers, fishermen, year-round residents, and freight to remote locations. Many of the remote locations are lodges, construction sites, fishing boats, canneries, and hatcheries that are only accessible by seaplanes or boats.

The Alaska Department of Commerce, Community, and Economic Development (DCCED) report *Alaska Visitor Statistics Program VI, Interim Visitor Volume Report, Summer 2015* found that on a statewide basis, visitor volume was up by 7 percent in 2015 due to increases in air and cruise ship travel. Domestic airline passengers exiting Alaska through Sitka Rocky Gutierrez Airport increased by 16% between the 2014 and 2015 summer tourist seasons. Cruise ship passenger counts have increased every year since 2010 and are expected to top the 1 million mark statewide in 2016. The Alaska Travel Industry Association predicts tourism will continue to grow in 2016. According to Cruise Line Agencies of Alaska, the number of cruise ship passengers traveling through Sitka is expected to increase to about 158,000 in 2017, which represents a 76% increase in three years (Alaska Public Media, September 16, 2016). They also said that there are not enough seaplane operators in Sitka to serve the current demand for flightseeing.

According to the Alaska Department of Labor (ADOL) *Alaska Population Projections 2012 - 2042,* 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 ADOL 2012 to 2042 population forecast, the population of the CBS will experience a slight decline to 8,724 by 2032, although the 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."

According to the FAA, Sitka has the fourth largest number of general aviation aircraft and pilots in Southeast Alaska; only Juneau, Haines, and Ketchikan have more aircraft and pilots. In 2015 Sitka had 54 planes and 49 certified pilots. Many of Sitka’s pilots are floatplane rated.

Interviews with local pilots, business owners and staff at CBS and the SEARHC Hospital, indicate that throughout the year, traffic using A29 came from dozens of communities and lodges and a network of other SPBs on Baranof, Chichagof, and Catherine Islands. Communities served by seaplanes that are nearest to Sitka include Angoon, Pelican, Tenakee Springs, and Port Alexander. Other communities outside the immediate area are also served from Sitka. In all,

there are 41 registered seaplane bases in Southeast Alaska, most which receive some floatplane service from Sitka. Some are owned by the Alaska Department of Transportation and Public Facilities while others are owned by local governments, federal agencies, and a logging company.

According to the Sitka Flight Service web site "There are 14 public use seaplane bases, in the Sitka flight plan area, not to mention the thousands of picturesque bays, coves, and lakes that are frequented by float plane pilots."

A list of SPBs within 100 miles of Sitka follows. Also shown are those seaplane bases that have air service from carriers receiving an Essential Air Services program subsidy.

Table 3: Seaplane Bases Within 100 Miles of Sitka

SPB Name	NPIAS?	Distance to Sitka	Essential Air Service Subsidy?
Angoon SPB	NPIAS	43	Yes
Baranof Warm Springs SPB	NPIAS	20	
Elfin Cove SPB	NPIAS	88	Yes
Excursion Inlet SPB	NPIAS	95	Yes
False Island SPB	non-NPIAS	33	
Funter Bay SPB	NPIAS	82	Yes
Hawk Inlet SPB	non-NPIAS	78	
Kake SPB	non-NPIAS	53	Yes
Pelican SPB	NPIAS	70	Yes
Port Alexander SPB	NPIAS	63	Yes
Port Armstrong SPB	non-NPIAS	59	
Port Walter SPB	non-NPIAS	54	
Saganaw Bay SPB	non-NPIAS	46	
Taku Harbor SPB	non-NPIAS	82	
Tenakee SPB	NPIAS	50	Yes

The listed facilities are located in small remote communities. While many of the communities in the northern part of Southeast Alaska have land runways and seaplane bases many more small communities in the southern part of Southeast Alaska only have seaplane bases. Within this sub-regional network of airports, A29 has served as a hub facility offering access to hospitals, retail outlets, and a connection to the statewide aviation system through Sitka Rocky Gutierrez Airport.

In addition, A29 serves commercial and private seaplane aircraft that are transiting from the continental United States or Southeast Alaska to Southcentral and Western Alaska, particularly during the summer months.

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 A29. This analysis will consider local socioeconomic conditions and comparisons with other forecasts, with special emphasis given to interviews with regional and local seaplane operators.

4.5.1 Comparisons With Other Local and Regional Aviation Forecasts

Two aviation activity forecasts contain aviation forecast data for the Sitka area - the *Southeast Region Aviation System Plan* (ADOT&PF, 2008), and the *FAA TAF 2010 Scenario* (FAA, 2006). Neither provide an in-depth view of A29, but their findings have been considered. These 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 does not accurately reflect actual demand.

Southeast Region Aviation System Plan: According to this *2008 Regional Plan*, A29 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 other airports 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 A29 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. However, as mentioned in Section 4.4, more recent assessments of economic conditions, population growth, and aviation activity for the area are considerably more optimistic. For example, as noted in the DCCED report, rather than

decreasing, passenger traffic through the Sitka Rocky Gutierrez Airport increased by 16% between the 2014 and 2015.

FAA TAF 2010 Scenario for A29: The 2015-2040 forecast developed by the TAF for A29 shows no growth throughout the forecast period. Activity is estimated to level out at 4,750 annual operations at the existing facility.

These prior forecasts do not offer strong insights into future activity levels. These forecasts are dated and are heavily influenced by trends and assumptions established through historical performance. The regional economy has rebounded from lows experienced in 2007-2008. As shown in Section 4.4, the visitor, fisheries, and construction industries in particular are very strong and growing in Sitka, showing double digit growth over the last four years. According to the International Air Transport Association (IATA), the recent sharp drop in oil prices and robust demand for travel are expected to boost demand for air travel, with growth of 6.9 percent expected next year, the best since 2010 and well above the 5.5 percent trend of the past 20 years.

Furthermore, historical usage for the A29 has been flat (no growth) because usage has been constrained by a lack of SPB facilities, lack of amenities like fuel and parking, and the poor condition and location of the SPB. In cases where usage trends have been influenced by supply constraints (i.e. a lack of, or a shortage of, SPB facilities) and condition constraints, the forecasts cannot be expected to accurately describe the activity (demand) that might occur if those supply and condition constraints did not exist.

4.5.2 User Interviews

In order to determine the level of demand for a new Sitka SPB, interviews were conducted with pilots operating seaplanes locally and in the Southeast Alaska Region. In January and February 2016, 38 seaplane pilots and seaplane businesses were contacted to learn more about why the current facility was seeing declining use, whether seaplane operators would use a new facility, and to determine what amenities would be needed in a new seaplane base. While many of the pilots and businesses interviewed were located in Sitka, others were in Juneau and Ketchikan and at remote lodges in the region that depend on seaplane facilities to access Sitka. A copy of the interview results can be found in Appendix B.

The first question asked of those interviewed was, if a new seaplane base was built by 2020, would you use it? If so, what type of use and number of aircraft? Of the 38 pilots and businesses interviewed, 33 said they would use a new seaplane base in 2020, 1 said maybe, and 4 said they would not use the seaplane base.

Of the 33 who said they would use the new seaplane base, 19 said they would base aircraft at the new seaplane base and 15 said they would operate on a transient basis. Some said they would operate both based and transient aircraft. Those who said they would base aircraft at the facility indicated that they would operate 25 - 30 aircraft at the new SPB. 25 of the 38 interviewed said they had previously used A29. The table below recaps the results of the interviews.

Table 4: Sitka Seaplane Base Interviews Summary of 2020 Demand

	Based	**Transient**
Commercial	4	9
Commercial & Recreation	5	2
Recreation	9	2
Government	1	2
Total	**19**	**15**
Number of Aircraft	**25 - 30**	**16**

Potential commercial users indicated that basing commercial aircraft at the SPB would be highly dependent on the extent to which amenities like vehicle parking, fuel, fresh water, and space for aircraft maintenance are provided. Only fresh water is currently available at A29. Aircraft maintenance and fueling is available at the nearby SIT, but the use of that facility requires operating with amphibious floats or landing in the open ocean. Ocean landings are only possible at limited times during favorable winds and tidal conditions. Floatplanes must also navigate a rocky area to access a seaplane haulout and arrange an escort by the Alaska DOT&PF to cross the SIT runway and access an aircraft parking apron. Commercial users indicate this unreliable and time-consuming access to SIT is not practical for commercial seaplane operations.

A few commercial seaplane operators who currently operate at SIT with amphibious floats indicate that they would switch to straight floats and move their floatplane operations to the new Sitka seaplane base. The opportunity to switch to straight floats is attractive to commercial operators because aircraft fitted with heavy amphibious floats burn more fuel, are slower, and

can carry less payload than aircraft flying with straight floats. This is why over 75% of all private seaplanes in Alaska are on straight floats. The reduced takeoff performance with amphibious gear also prevents access to many lakes local pilots access from Sitka. Many of the smaller aircraft have such a small useful load on amphibious gear so as to make it impossible to carry an adult passenger with enough fuel for a typical flight.

Most of those surveyed had used A29 in 2015 or sometime during the past 10 years. Former seaplane base users who left A29 reported that they:

1. Bought amphibious floats and based their aircraft on the nearby Sitka Airport
2. Moved their aircraft to Juneau or other less convenient seaplane bases outside of Sitka
3. Operated with wheeled aircraft in Sitka
4. Operated on a limited transient basis from the private seaplane float (which may not be available in the future as that property is for sale)
5. Sold their floatplanes

Most former A29 users and waitlisted slip applicants said they would use the new SPB if it was built. Some indicated they would convert from amphibious floats back to straight floats because of the higher costs of owning and operating amphibious aircraft. Former A29 users who moved their floatplanes to Juneau said they would move them back to Sitka, closer to where they live and fly. Several who are now operating on wheels or no longer own floatplanes said they would convert back to floats or buy a floatplane. Transient users, several who currently use the private seaplane dock, noted that the private dock was for sale and its future availability was uncertain.

Not all potential seaplane base users were able to be contacted for this study. Other potential users who operate floatplanes in the region - government agencies such as the US Fish and Wildlife Service and Alaska State Troopers, some of the floatplane businesses and lodges in the region who were not contacted, and some private wheeled and floatplane owners in Sitka who were not available for interviews - would also likely be interested in basing floatplanes at a new seaplane facility or for transient use.

4.6 Sitka Seaplane-Based Aircraft Forecast

Sitka's seaplanes are very important to the social and economic fabric of this coastal region's remote communities, lodges, recreation areas, hatcheries, and fishing fleets. Primary uses of seaplanes are for:

- **Community access** to small outlying communities that depend on seaplane access to Sitka for medical services, shopping and to access the paved SIT. As noted above, many of these communities have subsidized Essential Air Service.
- **Government agencies** such as the US Forest Service, US Fish and Wildlife Service, Alaska Department of Fish and Game, Alaska State Troopers, and the Civil Air Patrol require seaplanes to access remote communities and resources. Aircraft of these agencies generally operate or prefer to operate from straight floats (versus amphibious gear) because:

    1. many of their aircraft can only be configured with floats;
    2. they need the efficiency, performance, and payload capability of operating with straight floats;
    3. they need to reach remote locations only accessible by water; and
    4. seaplanes with straight floats operate better at low altitudes around terrain and meandering rivers and coastlines. These straight float aircraft must park on water at a float, preferably on a SPB with fuel available.

        - The **US Forest Service** has contract seaplanes in Sitka every summer. There currently is no seaplane float for them to dock that is designed for seaplanes of their size. They use a Forest Service boat float as an interim solution, but it is only available for seaplanes when there are no boats and it does not have aviation fuel. Their contractors would use a new Sitka SPB on a transient basis and/or a Sitka based contractor could base his seaplane at the new SPB instead of a Juneau contractor at a more distant and less efficient base 80 miles away in Juneau.

- The **US Fish and Wildlife Service** contractors fly biologists along Southeast Alaska coastal areas to conduct annual marine mammal surveys. They also use the Forest Service boat float when it's available. Because there is no fuel they must adjust their operations and fly to Juneau or other locations for fuel. Like the Forest Service, their contractors would likely use the new Sitka SPB with transient and/or based aircraft, especially if fuel were available.
- The **Alaska Department of Fish and Game** contractors have rented space at A29 for over 2 decades. They must operate from straight floats (not amphibious gear) so that they can carry sufficient fuel for the distances flown and so they can fly at low altitudes to conduct stream surveys. They fly stream surveys 3 – 4 times per week during pink and chum salmon runs. Their findings are used to determine the number of fish that are reaching spawning areas, and consequently when fishing periods should be opened or closed. These fisheries could not be authorized without their fish surveys.
- The **Alaska State Troopers** fly seaplanes with straight floats from Hoonah, covering a large geographic area. They would likely use a new Sitka SPB on a transient basis to refuel their aircraft instead of having to transport and reposition fuel into remote areas.
- The **Civil Air Patrol** operates a straight De Havilland DHC-3 Beaver in Sitka from A29 when conducting search missions for downed aircraft.

- **Sitka's large fishing industry** (1,300 boat slips in Sitka) is supported by seaplanes that are used to spot fish, deliver employees and materials to remote marine locations, serve fish hatcheries, and provide emergency rescue. Aviation support for the fishing industry is vital to Sitka, because of fisheries' large and growing importance to the Sitka economy.
- **Tourists** accessing lodges or flightseeing, hunting, fishing, and hiking. Similar to fishing, tourism is a major growing employer in Sitka and visitor employment has grown by 26% over the last 4 years while wages have grown by 47% to over $18 million per year.
- **Medical** evacuations and transport of medical personnel to remote communities and other marine locations. According to the Chief Flight Nurse for Mt. Edgecumbe Hospital,

approximately 40 seaplane medevac operations per year come to the hospital. Currently these are primarily handled by amphibious aircraft from the Sitka Airport but a new Sitka SPB would be more attractive for medivacs to communities like Angoon, Pelican, Port Alexander, and Elfin Cove that are only accessible by seaplanes. As noted earlier a seaplane operating with straight floats from a new Sitka SPB would be faster, more efficient, and less expensive compared to flying with amphibious gear from the Sitka Airport.

- **Regional aviation services** are provided in Sitka for seaplanes that are transiting between the Lower 48 states and other seaplane hubs in Southeast Alaska, Anchorage, and Interior Alaska. Sitka's geographical position and regional services makes it an attractive refueling and service hub for transiting seaplanes.
- **Recreational flying** by private seaplane pilots, both local and from outside the region. Sitka resident pilots want to access the unique fresh and saltwater recreation areas that surround them. Sitka has the fourth largest number of general aviation aircraft and pilots in Southeast Alaska.

Table 5 shows Low, Medium, and High growth forecasts for SPB activity for the 2016 – 2036 planning period. The 12 based aircraft demand in 2016 reflects the 8 slips that were leased in 2012, plus 4 seaplanes that were on a waiting list. This 2016 forecast is unconstrained by facility limitations and represents expected demand if there were enough parking spots at the existing SPB. This may underrepresent actual demand, since interviews with seaplane operators indicated that, due to the deteriorated condition of the nearly 40 year old facility, some had already moved operations from A29 or were otherwise disinclined to apply for the waiting list. A29 is also not well suited to the needs of commercial operations due to its small size and poor condition, lack of uplands for fuel facilities, maintenance and vehicle parking, and conflicts with adjacent land uses, boats and birds, etc.

The Low Growth forecast assumes current demand remains relatively unchanged, only growing at the 1% forecasted rate of 2012-2042 statewide population growth. It does not consider the growth in SPB demand expressed by existing and potential users and others in the interviews.

The Medium and High forecasts are primarily based upon interviews of local residents, regional seaplane operators, cruise ship interests, and other stakeholders. The Medium forecast assumes that the low range of based aircraft demand expressed in the interviews is accomplished by the year 2036 when 25 seaplanes would be based at a new SPB. The High forecast assumes that the high range of based aircraft demand expressed in the interviews is accomplished by the year 2036 when 30 seaplanes would be based at a new SPB. While the interviews indicated this level of based aircraft would be expected by 2020, this forecast takes a more conservative approach, and estimates that level of demand by 2036.

In both the Medium and High forecasts it is assumed that growth would be greatest in the early years, after a new SPB is built with more amenities and seaplane parking. It also assumes some of the commercial use would take longer to implement than was expressed in the surveys due to the lead times required to start up new businesses, move assets (aircraft, maintenance equipment, etc.) from other markets, or to obtain financing to acquire aircraft and/or construct hangars, storage, or office facilities.

Table 5: Low, Medium, and High Aircraft Activity Forecasts

Aircraft Operations	% Annual Growth	2015 (Base)	2016	2021	2026	2031	2036
Low Forecast	1.00%	4,750	11,400	11,982	12,593	13,235	13,910
Medium Forecast		4,750	11,400	19,000	20,900	22,800	23,750
High Forecast		4,750	11,400	20,900	23,750	26,600	28,500

Based Aircraft	% Annual Growth	2015 (Base)	2016**	2021	2026	2031	2036
Low Forecast	1.00%	5	12	13	13	14	15
Medium Forecast		5	12	20	22	24	25
High Forecast		5	12	22	25	28	30

** 2016 forecast assumes no constraints due to facility limitations and represents expected demand if there were enough parking spots at the existing SPB.

The following is a discussion of factors that were considered that would influence seaplane base demand in either a positive way or negative way.

Factors That Could Increase Seaplane Base Demand:

- As the State of Alaska reduces ferry service, primarily because of budget constraints, some existing ferry users may instead fly from SIT or the new seaplane base.
- The oil price drop between 2014 and 2015 will moderate some in later years, but is still expected to be negative in terms of real (inflation-adjusted) dollars in the long term. Low fuel costs positively impact air carriers in the region, and the lower costs may result in decreased air fares, which would tend to increase the demand for air travel. In addition, as fuel costs in rural Alaska fall, more disposable income will be available to rural residents that can be used for travel.
- The worldwide economy is improving, although slowly, but is still susceptible to shock and changes in direction.
- Concerns about the safety of international destinations have increased travel to destinations like Alaska that are considered safer.
- The ecotourism and outdoor recreation sector in Alaska has been growing. As the national economy improves, recreational trips increase. Air activity associated with ecotours, recreational fishing and hunting, and remote lodge and cabin visits increase. Cruise ship travel is increasing, and local representatives of the cruise ship industry indicate that the demand for flightseeing opportunities based in Sitka currently outstrips the ability of local operators to provide services.
- As noted in Table 2, the fishing industry is strong and growing in its importance, creating disposable income for seaplane flying as well as creating demand for commercial flights to remote hatcheries, fishing boats, and processors.
- Developing aviation technology is allowing flight in weather and light conditions that have in the past been marginal.
- Government use of seaplanes for fisheries, wildlife management, forestry, law enforcement, and health care will likely continue and may expand in the future.
- The extent to which the new SPB has facilities important to commercial SPB users: fresh water, electricity, vehicle parking, transient aircraft parking, aircraft maintenance, and a haul-out ramp, will greatly influence the amount of future demand by commercial users.

Factors That Could Decrease Seaplane Base Demand:

- Continued tightness of the Federal and State government budgets may mean less funding and services flowing to rural areas.
- Mineral exploration activity in Alaska will slow with lower metal prices. Some of that activity takes place in Southeast Alaska.
- According to an annual survey of General Aviation (GA) and air taxi operators performed by the Federal Aviation Administration, the number of active GA and AT aircraft in Alaska has declined over time, as has the average number of hours flown by those aircraft.
- Many of the aircraft used in Alaska for air taxi and GA operations are old, and no longer manufactured. Replacement aircraft are much more expensive, and parts for the older aircraft are getting scarce. This will increase the cost of operating GA and air taxi aircraft in the future.
- The number of certified pilots in Alaska has declined in recent years.

5.0 FACILITY REQUIREMENTS

This section identifies a set of SPB requirements will 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

To provide reasonable assurance that future needs can be accommodated without initially committing financial resources to a full build-out, it is recommended that a combination of the low and medium growth forecast be used, with initial construction of seaplane float slips for 14 based seaplanes, 3 to 5 transient seaplanes on the float, and parking for 2 land-based seaplanes to be built by 2021. Much of this demand will depend on the ability to provide amenities needed by

commercial users. Float designs should allow for phased expansion, perhaps at 5-year intervals, as demand materializes and future needs can be more accurately assessed. The facility should be designed to allow for future expansion for up to 25 based aircraft over the 20 year planning period.

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-3 Single Otter, this currently occurs infrequently. The largest aircraft recently 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 with the ability to handle several DHC-3 Single Otters by commercial users.

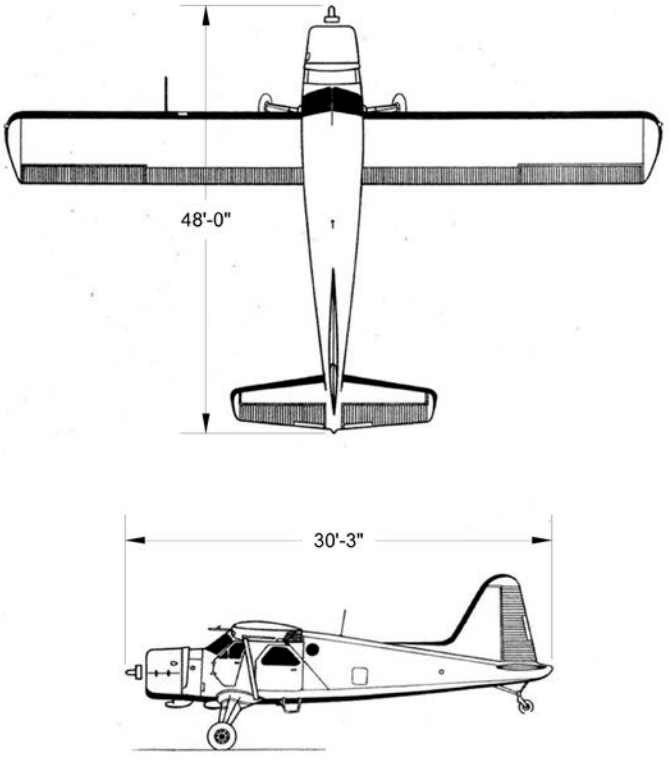


Figure 3: deHavilland DHC-2 Beaver Dimensions

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 3,500 feet by 300 feet with 40:1 departure approaches is recommended for seaplane bases with limited commercial operations. For extensive commercial operations, a 5000 feet by 500 feet water operating area with a 40:1 approach is recommended. The water operating area should be 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 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 A29 meets the length criteria but not the width criteria for seaplane bases with limited commercial operations. 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.

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 object.

Seaplane Docks: A seaplane dock is required to allow transient seaplanes to be serviced, loaded, unloaded, and moored without removing the aircraft from the water and to allow based 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 13 Cessna 206 and Beaver sized seaplanes with wingspans up to 36 feet and 48 feet, respectively and 1 single Otter with a wingspan of 42 feet. Parked aircraft should have wingtip to wingtip separations of 10 feet. The slips should be designed with tilt ramps that allow the seaplane floats to be brought completely out of the water to reduce saltwater corrosion and facilitate wash-downs and inspections.

A transient dock for 1 Single Otter aircraft and 4 Beavers should also be provided with a design length of 42 feet for the Otter, 30 feet for the Beaver plus 20 feet both fore and aft 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. Commercial users and some non-commercial users prefer vehicular gangways for 4 wheelers or preferably for trucks 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. If vehicular gangways are not practical, pedestrian gangways should be designed to satisfy requirements of the Americans with Disabilities Act.

Fresh water, electricity, lighting, and fueling should be included in the seaplane dock design.

Landside Facilities: Commercial seaplane operators have indicated that on-site aircraft maintenance facilities would be needed if the facility is to serve commercial seaplane traffic, particularly for those businesses with more frequent operations and a frequent need for servicing aircraft. Hauling out seaplanes at the Sitka Airport is not dependable enough because it is located in unprotected ocean, is only available in certain tidal conditions, and it requires an escort by Sitka Airport staff to cross the Sitka Airport runway with a trailered seaplane. A haul-out ramp should be provided at the seaplane base to facilitate removal of seaplanes from the water to land for maintenance and storage, if site conditions allow. A service apron with space for tie downs and lease lots would require at least ½ acre to 2 acres. The availability of uplands for an apron

and tie-downs at the three alternative SPB sites under consideration is constrained by existing development or topographic challenges. Floating hangars are another less desirable option that could be considered. Parking of at least 2 based seaplanes on landside property is assumed, most likely for commercial use.

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.

A fuel storage facility and a piped delivery system should be provided as well as the ability for a local vender to deliver fuel by truck.

Figure 4: Floating Hangar - Petersburg

6.0 ALTERNATIVE SITES

6.1 2002 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 safety accommodate anticipated demand and resolve deficiencies at A29. 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
- A29 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 access to the site through the United States Coast Guard property could be acquired.

6.2 2012 Study

The purpose of the 2012 study was to reevaluate 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 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 2012 study focused on the re-evaluation of three potential SPB sites in Sitka Channel, referred to here as:

Figure 6: Re-evaluated Sites

1. The Existing SPB site (A29)
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
- Float slips for 14 based seaplanes and positions for 3 to 5 transient seaplanes
- 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, A29, 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 A29 and any proposed expansion of the facility (Appendix B).

Alternative Layout 1A: This alternative (Figure 7) was an attempt to meet the SPB requirements within the CBS-owned property footprint of A29. CBS property at A29 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 A29 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 in 2012 dollars. Detailed cost estimates for each alternative can be found in Appendix A.

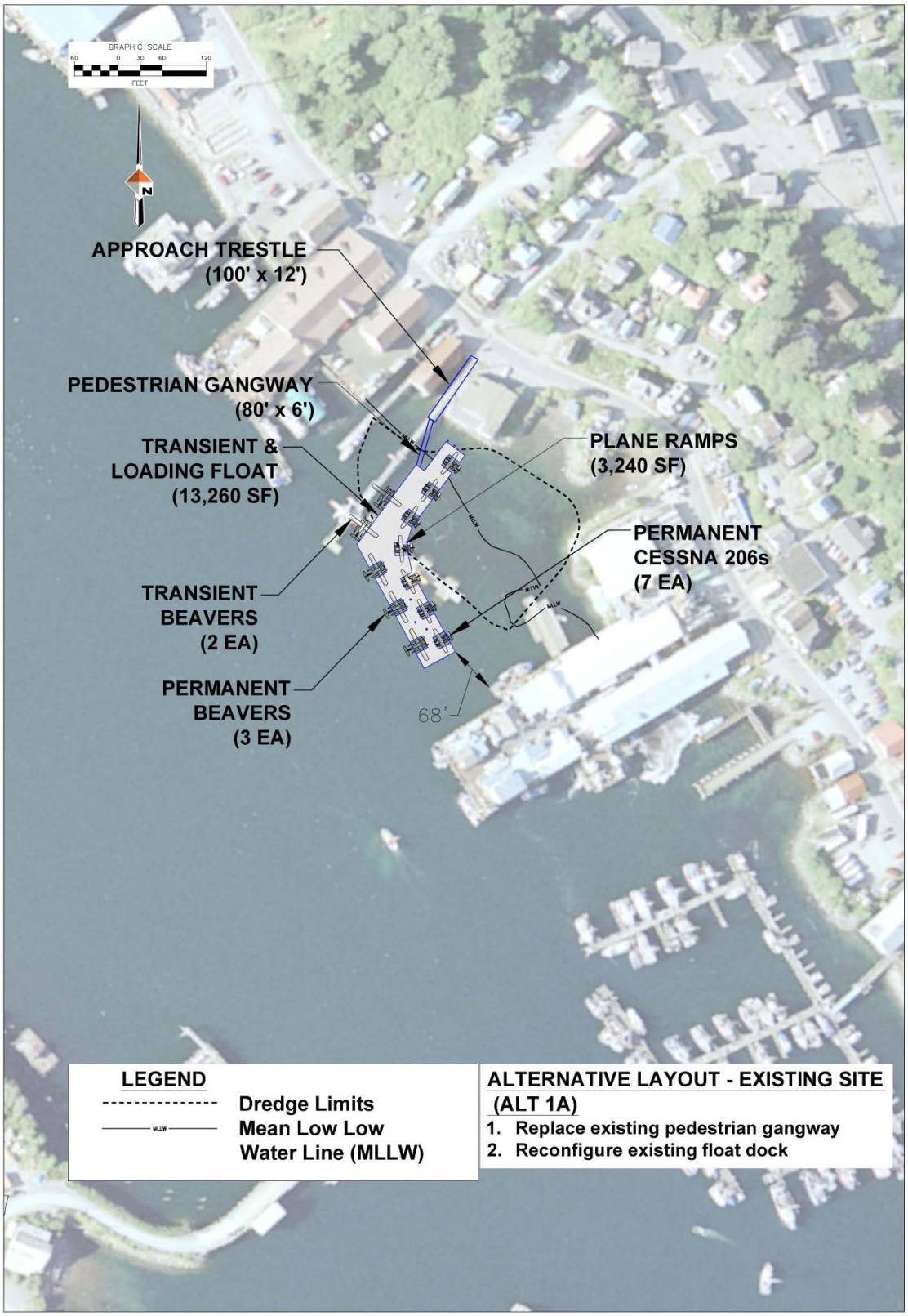


Figure 7: Alternative Layout 1A – Existing Site (A29)

Alternative Layout 1B: This alternative (Figure 8) would require the purchase of additional property at A29. 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 A29 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 in 2012 dollars.

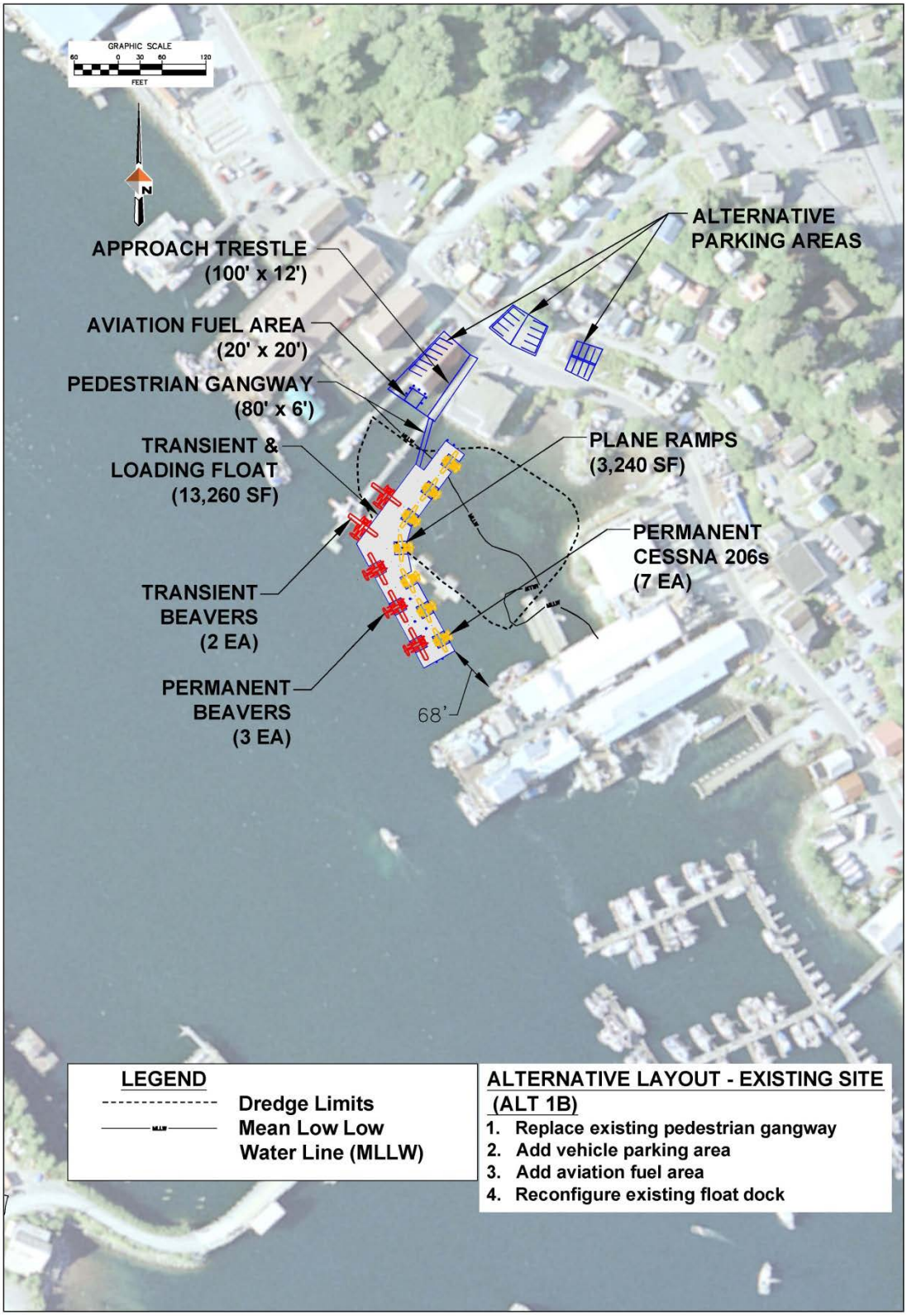


Figure 8: Alternative Layout 1B – Existing Site (A29)

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 A29. 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 A29 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.

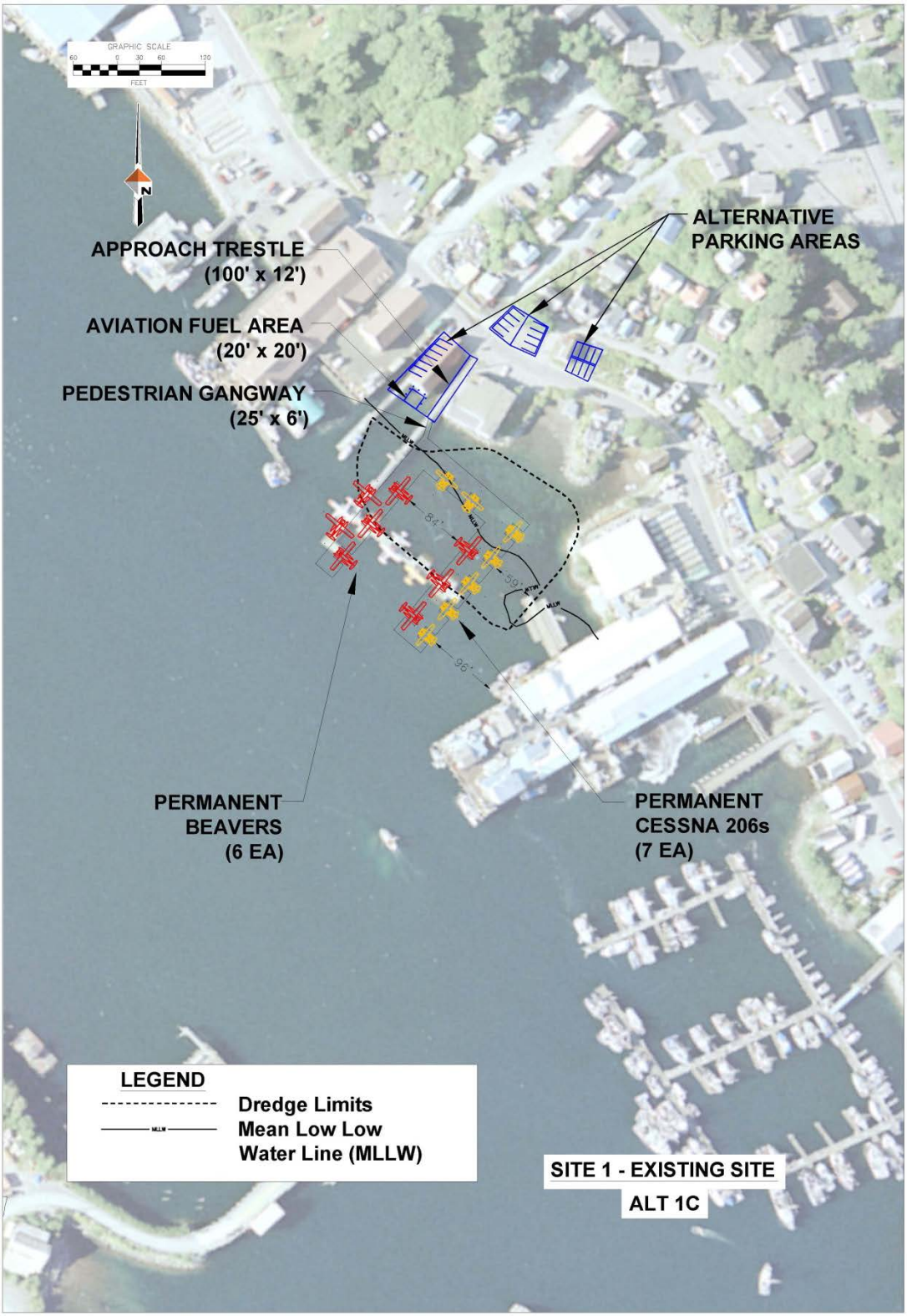


Figure 9: Alternative Layout 1C – Existing Site (A29)

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 A29. 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 A29's 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 A29 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.

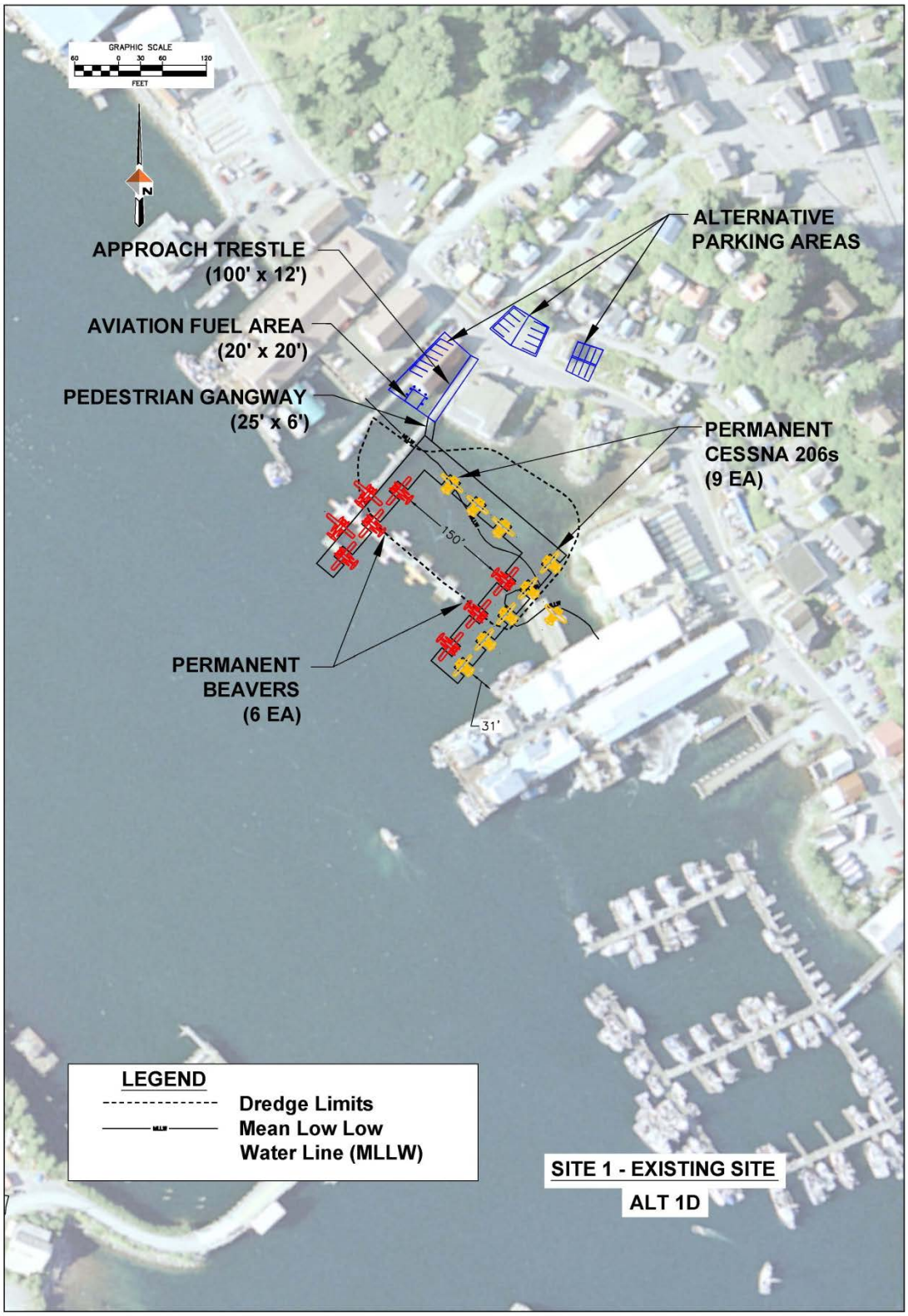


Figure 10: Alternative Layout 1D – Existing Site (A29)

Table 3 compares the four layouts at the A29 site. Although none of the four alternative layouts for A29 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 6: Comparison of Existing SPB Layout Alternatives

Design Criteria	Alternative 1A	Alternative 1B	Alternative 1C	Alternative 1D
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) was 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 A29. 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 A29 site. The distance between the SPB and the focus of seabird activity at the SSS outfall would be increased to approximately 3,000 feet. Aircraft-generated

noise from this facility may impact nearby structures. This layout is estimated to cost $13.2 million in 2012 dollars without the floating aircraft maintenance hangars and $15.6 million in 2012 dollars 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.

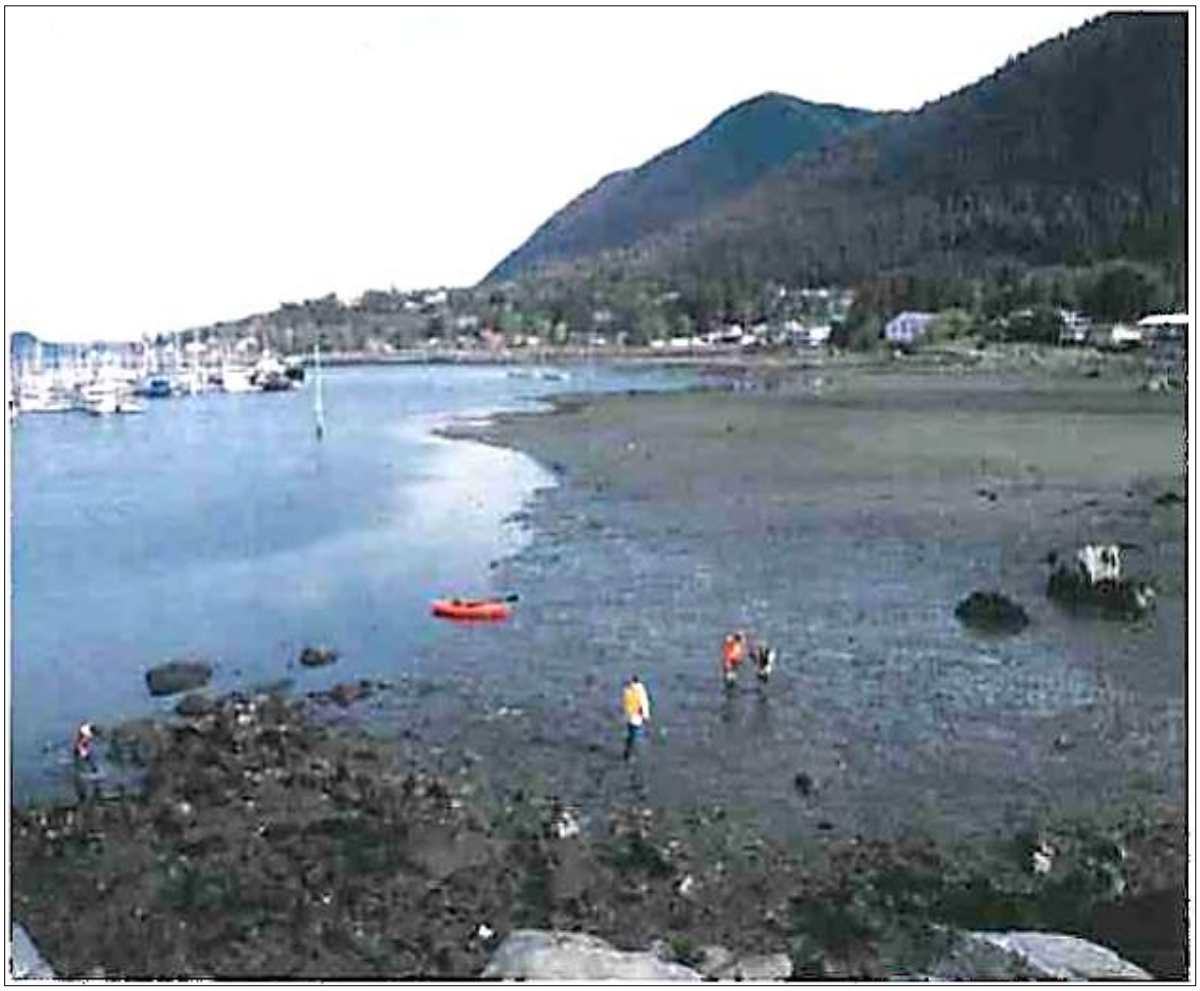


Figure 11: Eliason Harbor Site at Low Tide

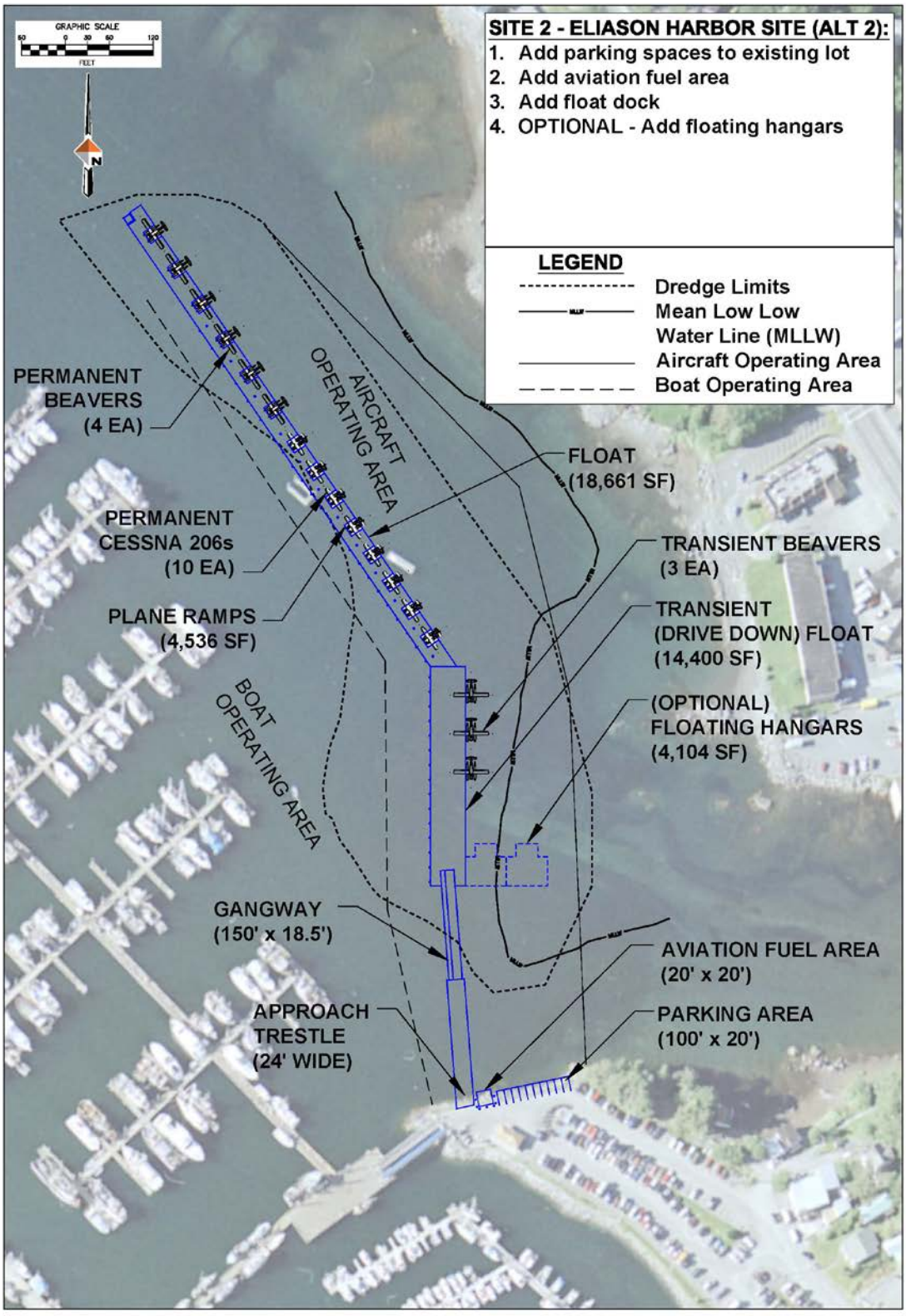


Figure 12: Alternative Layout 2 – Eliason Harbor Site

6.2.3 Japonski Island Alternative

Alternative Layout 3A: This alternative (Figure 13) was 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 gangway. Although not shown in Figure 13, 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 14 seaplane parking float slips, 5 transient float parking spots, and positions for 2 shore-based based aircraft are included. Depending on final property acquisition and design, a haul out ramp with lease lots could be provided. 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 A29 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 to 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 in 2012 dollars without the floating aircraft maintenance hangars and $11.7 million in 2012 dollars with floating hangars.

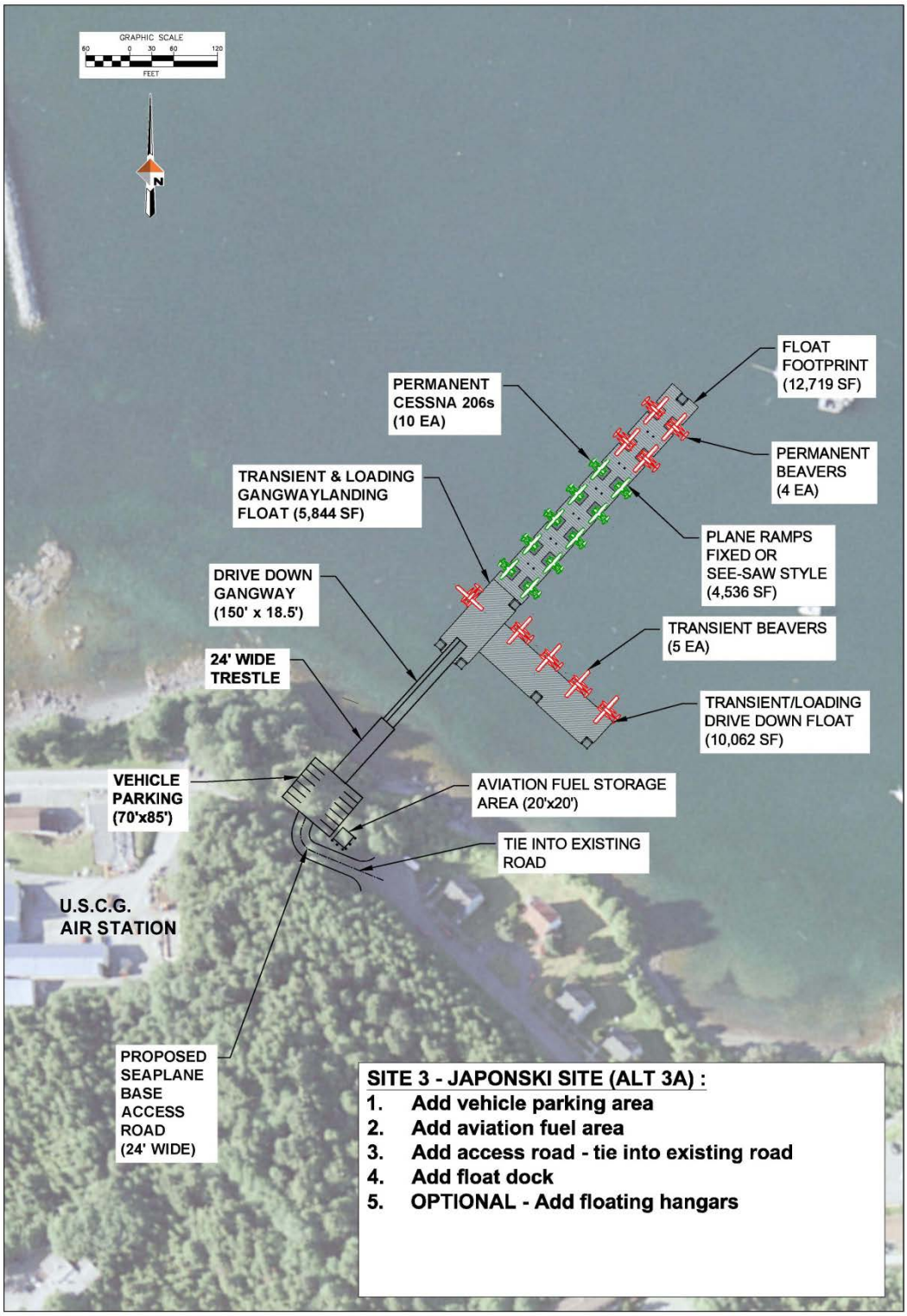


Figure 13: Alternative Layout 3A – Japonski Site

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 the SPB at this location. Mount Edgecumbe High School provided two letters (Appendix B) expressing a lack of support for a SPB at this location, siting 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. That position has softened however, based on more recent discussions.

While this specific location was used for the 2012 siting analysis, it is possible that another location along the adjacent 1000 feet of shoreline on Japonski Island could be more readily available and suitable or a combination of sites along this shoreline could be developed (see Figure 14). This entire 1000 feet of shoreline has similar siting conditions.

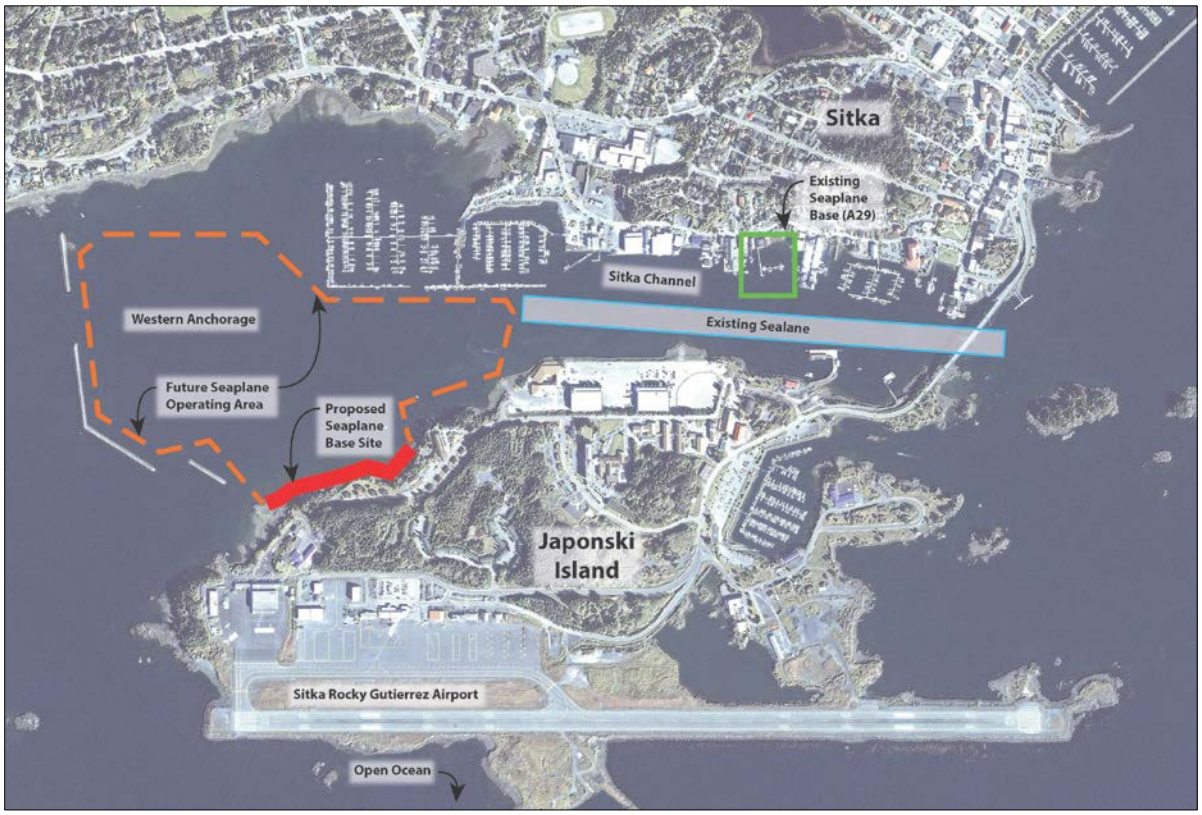


Figure 14: Japonski Island Site and Operating Area

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 7.

Table 7: 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
	Facility Requirements			
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
	Safety Concerns			
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
	Environmental Concerns			
14	Dredging and/or rock removal	1	3	2
15	Adjacent land uses	1	1	1
	Category Score Total	2	4	3
	Category Rank	3rd Best	Best	2nd Best
	Cost and Feasibility Concerns			
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
	Cumulative Scores	40	47	33
	Overall Rankin	2nd Best	Best	3rd Best

Table 8: Explanatory Notes for Table 7

Note	Description
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
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
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 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, but there are conflicts with the seafood plant and other users. R (Residential) land uses are less than .5 mile from Eliason and the existing SPB sites. Mount Edgecumbe High School and
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 113 = $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 a site on Japonski Island be carried forward for further site analysis, discussions with property owners, environmental investigations, and design. None of the alternative sites studied in this or the 2002 or 2012 studies 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, a 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 for based aircraft and positions, provide on-site maintenance facilities, and safe access to/from the slips from the water operating area. Commercial operations at this site would likely be limited. 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. 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. However, 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.

A 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 or others. 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 CBS would be expected to provide the remainder. Based upon the preliminary cost estimate of $11,700,000 in 2012 dollars for the Japonski Island Alternative with floating hangars, funding for the project would be as follows:

Table 9: Cost

Cost	Source
$10,968,750	FAA AIP
$731,250	CBS
$11,700,000	

The Japonski Island Alternative final layout, property requirements 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 ECONOMIC IMPACT OF A NEW SEAPLANE FACILITY AT SITKA

Economic impacts of the new expanded seaplane facility were estimated under a separate report "Economic Impact of a New Public Seaplane Facility at Sitka" in July, 2016, found in Appendix E. The study interviewed Sitka's commercial flying community and agencies and businesses that depend on them, regional air carriers, lodges, government agencies, and other businesses not based in Sitka that use seaplane transportation to and from Sitka. The study considered the economic importance of the existing seaplane base and the additional benefits expected from an new expanded facility. The study estimates how much of the benefits stay in Sitka versus how much ends up outside the local Sitka economy.

The study first estimated the economic impacts of the first year of development and operations, which are expected to be heightened by the benefits from expected initial private investment at the new seaplane base.

First Year Benefits of a New Public Seaplane Base

- **Total Earnings by Sitka Businesses** - $1,606,444 in total direct impacts and multiplier affects (indirect and induced impacts) from Sitka-based aviation businesses and visitor spending. Just 39.3% of that money stays in Sitka.
- **Earnings Staying in Sitka -** $631,788 in business revenue (direct and multiplier impacts) from Sitka seaplane activity is spent in Sitka. This includes:
  - $397,675 in wages and salaries paid and proprietors' income;
  - $123,147 in rents, royalties and dividends paid (mostly to private industry);
  - $110,966 in local fees and taxes paid (mostly to government); and
  - 10.9 full-time-equivalent jobs created in Sitka.

The study estimated the economic benefits of the following years after the initial construction is completed.

Recurring Annual Economic Impacts of a New Public Seaplane Base

- **Total Earnings by Sitka Businesses** - $815,755 in total direct impacts and multiplier affects (indirect and induced impacts) from Sitka-based aviation businesses and visitor spending. Just 44.6% of that money stays in Sitka.
- **Earnings Staying in Sitka -** $364,159 in business revenue (direct and multiplier impacts) from Sitka seaplane activity is spent in Sitka. This includes:
  - $235,071 in wages and salaries paid and proprietors' income;
  - $72,025 in rents, royalties and dividends paid (mostly to private industry);
  - $57,063 in local fees and taxes paid (mostly to government); and
  - 5.8 full-time-equivalent jobs created in Sitka.

The dollar value of impacts presented in the study should be considered conservative, and a minimum expected impact, as it does not address some benefits that could not be quantified, namely:

- Construction of a new facility.
- Maintenance and operation of a new facility.
- Impacts to air carriers not based in Sitka from seaplane aviation activity in Sitka.
- Spending in Sitka by GA seaplane operators for non-aviation goods and services.
- Spending in Sitka by air carriers not based in Sitka for non-aviation goods and services.
- Spending in Sitka by lodges using seaplanes at Sitka for non-aviation goods and services.
- Possible lower seat fares and freight costs for seaplane transportation throughout the region.
- Sales taxes from seaplane-related activity and spending by visitors using seaplanes in Sitka.
- Impacts from the repurposed use of the site.

- Possible increases in business investment and earnings in Sitka as seaplane activity grows several years after the facility is built.

The study also recaps "qualitative" statements from seaplane operators about the economic importance of a new Sitka Seaplane Base.

10.0 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/tafasp

FAA, National Plan of Integrated Airport Systems (NPIAS) Reports, downloaded 4/1/2011; http://vvww.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 (2012)

THIS PAGE INTENTIONALLY BLANK

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
TOTAL	**$4,649,110**	**$5,110,886**	**$13,267,787**	**$9,339,166**
Optional (Float Plane Maintenance Area)	$0	$0	$2,340,000	$2,340,000
TOTAL + Optional	**$4,649,110**	**$5,110,886**	**$15,607,787**	**$11,679,166**

NOTE:
1. Design, environmental, relocation, and construction adminstration costs are not included in this estimate.

SITKA SEAPLANE BASE

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
Landside Costs				
1.	LS	0	$0	$0
			Subtotal:	$0
			(30%) Contingency:	$0
			(10%) Mob & Demob:	$0
			Landside Costs Total:	**$0**
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
			Waterside Costs Total:	**$4,569,110**
			Property Acquisition:	$0
			Mitigation:	$80,000
			ALT 1A TOTAL:	**$4,649,110**
XX. Optional (Float Plane Maintenance Area)	LS	0	$0	$0
			(30%) Contingency:	$0
			Optional Total:	$0
			ALT 1A TOTAL + Optional:	**$4,649,110**

NOTE:

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

SITKA SEAPLANE BASE

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

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

	Pay Unit	Quantity	Unit Price	Total Amount
Landside Costs				
1. Vehicle Parking	LS	1	$117,800	$117,800
Parking Lot (14 spaces + AST area)	*SF*	*10,600*		
	SF	*10,600*		
Construction	*SY*	*1,178*	*$100*	
Property Acquisition (moved to summary sheet)	*LS*			
			Subtotal:	$117,800
			(30%) Contingency:	$35,340
			(10%) Mob & Demob:	$11,780
			Landside Costs Total:	**$164,920**
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
			Waterside Costs Total:	**$4,569,110**
			Property Acquisition:	$296,856
			Mitigation:	$80,000
			ALT 1B TOTAL:	**$5,110,886**
XX. Optional (Float Plane Maintenance Area)	LS	0	$0	$0
			(30%) Contingency:	$0
			Optional Total:	$0
			ALT 1B TOTAL + Optional:	**$5,110,886**

NOTE:

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

SITKA SEAPLANE BASE

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

Eliason Site - (w/Property Acquisition)

	Pay Unit	Quantity	Unit Price	Total Amount
Landside Costs				
1. Vehicle Parking	LS	1	$117,800	$117,800
Parking Lot (14 spaces + AST area)	*SF*	*10,600*		
	SF	*10,600*		
Construction	*SY*	*1,178*	*$100*	
Property Acquisition (moved to summary sheet)	*LS*			
			Subtotal:	$117,800
			(30%) Contingency:	$35,340
			(10%) Mob & Demob:	$11,780
			Landside Costs Total:	**$164,920**
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
			Waterside Costs Total:	**$11,706,923**
			Property Acquisition:	$55,944
			Mitigation:	$1,340,000
			ALT 2 TOTAL:	**$13,267,787**
XX. Optional (Float Plane Maintenance Area)	LS	2	$900,000	$1,800,000
			(30%) Contingency:	$540,000
			Optional Total:	$2,340,000
			ALT 2 TOTAL + Optional:	**$15,607,787**

NOTE:

1. Design, environmental, relocation, and construction adminstration 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
Landside Costs				
1. Vehicle Parking	LS	1	$117,800	$117,800
Parking Lot (14 spaces + AST area)	*SF*	*10,600*		
	SF	*10,600*		
Construction	*SY*	*1,178*	*$100*	
Property Acquisition (moved to summary sheet)	*LS*			
2. Access Road	LS	1	$37,800	$37,800
Seward Avenue Access Road Tie-in	*LF*	*200*		
Construction-access road	LF	*200*	*$189*	
Property Acquisition	*SY*			
			Subtotal:	$155,600
			(30%) Contingency:	$46,680
			(10%) Mob & Demob:	$15,560
			Landside Costs Total:	**$217,840**
Waterside Costs				
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
			Waterside Costs Total:	**$8,798,010**
			Property Acquisition:	$323,316
			Mitigation:	$0
			ALT 3 TOTAL:	**$9,339,166**
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 adminstration costs are not included in this estimate.

THIS PAGE INTENTIONALLY BLANK

APPENDIX B

Public Involvement

THIS PAGE INTENTIONALLY BLANK

Sitka SPB Siting Study, 2011
Summary of Telephone and Personal Interviews, e-mail

Date	Name	Phone #	Representing	Comments
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 inadaquate (tides, need escourt 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 inadaquate - 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 manuever, 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 desireable for oil and float pumps. Drive down ramps desireable. 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 manuever, and the fresh water from creek freezes. SEARHC - he has no strong opinion, but concerned about lack of wind protection. Vehicle ramp to SPB desireable 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 accomodate 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 ssfe 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 fluel (delivery truck). Eliason is not a good site - problems with tides and boats. He lives in Port ALexander and flies to Sitka, sometimes carying 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	dave.gordon@alaska.gov	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 desireable; 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. Facilty 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 adaquate 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	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
2-May William Lantz	738-3075	Himself	He would be interested in starting a Part 91 commercial operation for sight seeing tours. Need drive down ramp, lighting, and passenger shelter.

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

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

Would like to see fresh water, electricity, be able to use Comercially, Maintance hanger on shore Road access to Airport for hanger storage. Fuel facility, Put docks into Prevaling Winds, parking area for comercial 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: Tor Svenson

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 dosen't 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 Pelersburg 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 floatp lane dock for long time.

Would be nice to have fresh water, power, + be Able to work comercially from facility. Access to Airport for Maintance + 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: Honalulu 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. EDGECUMBE 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

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.

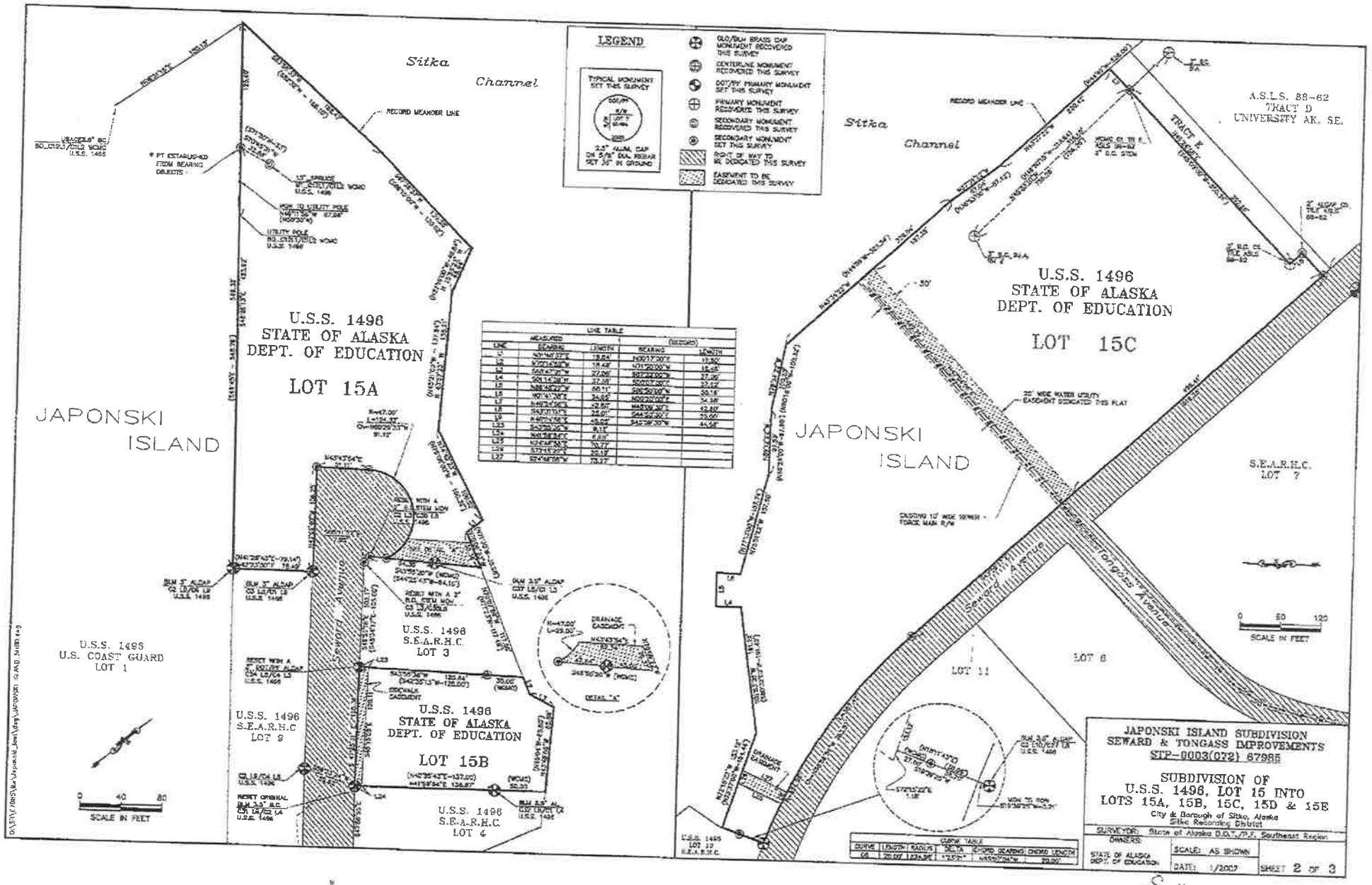
Please feel free to contact me if you have further questions regarding the Department's position on the seaplane base location.

Best regards,

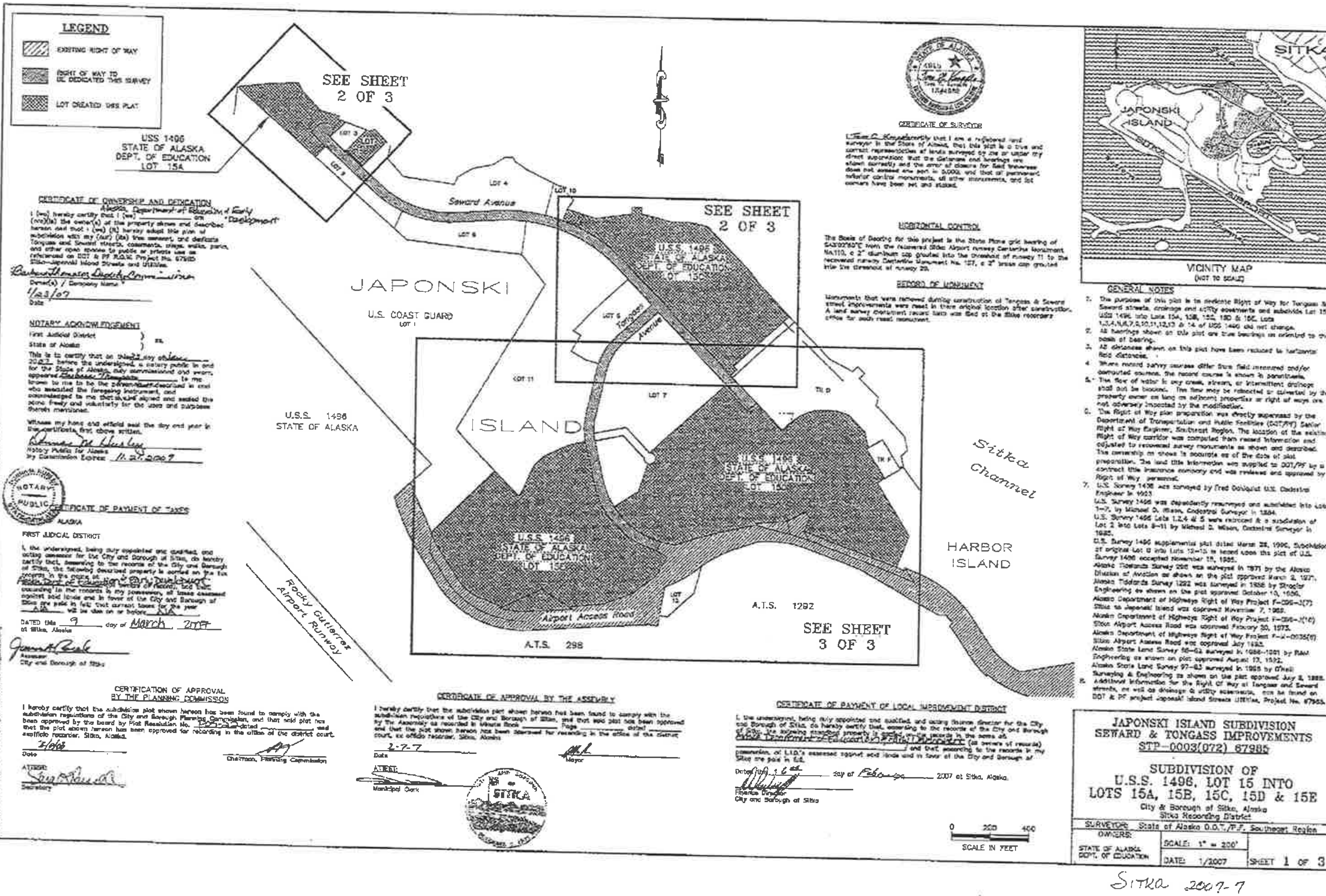
Randy Hawk

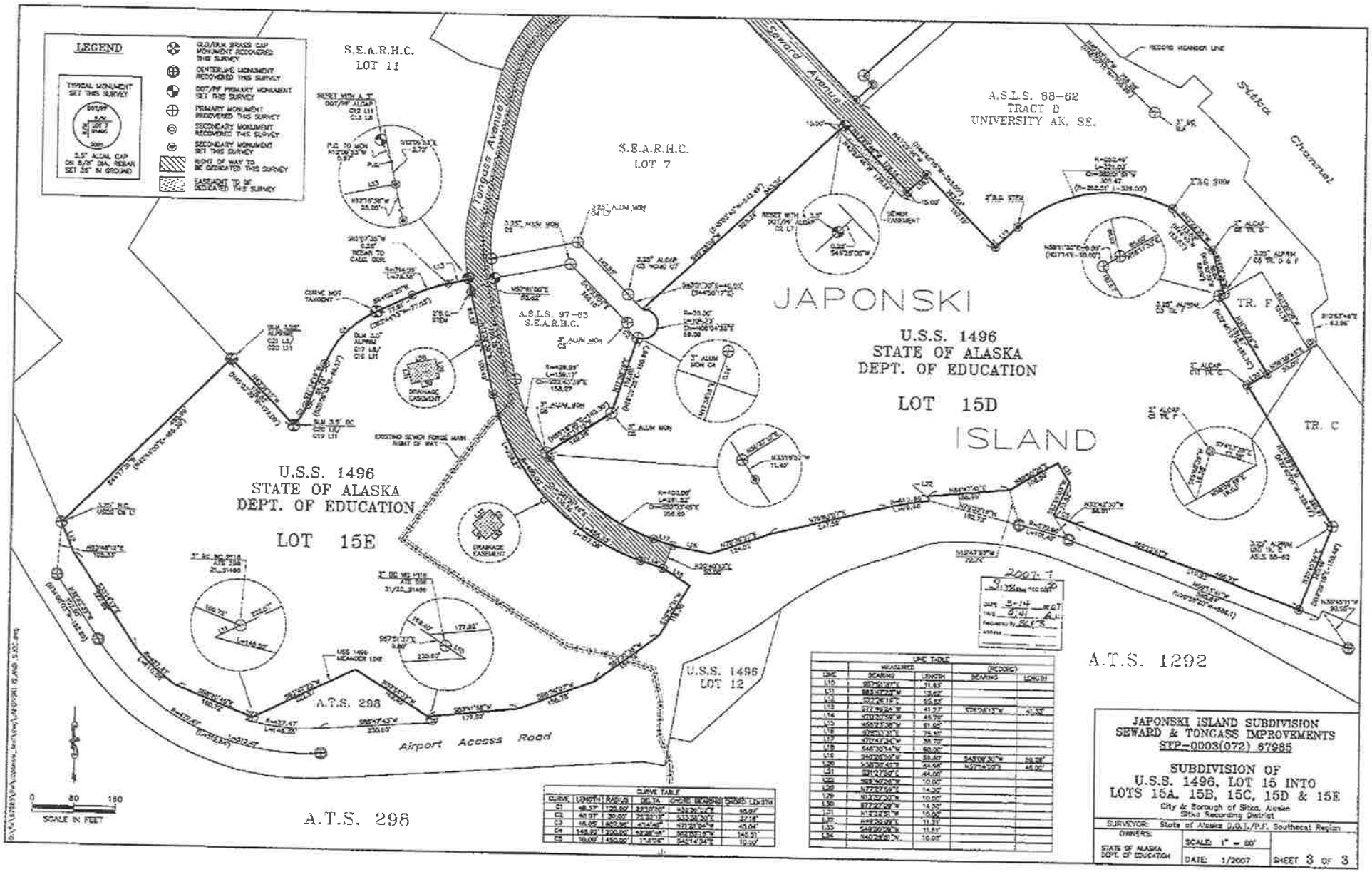
Randy Hawk
Superintendent

cc: Les Morse, Deputy Commissioner


LEGEND
TYPICAL MONUMENT SET THIS SURVEY
2.5" ALUM. CAP ON 5/8" DIA. REBAR SET 30" IN GROUND
GLO/BLM BRASS CAP MONUMENT RECOVERED THIS SURVEY
CENTERLINE MONUMENT RECOVERED THIS SURVEY
DOT/PF PRIMARY MONUMENT SET THIS SURVEY
PRIMARY MONUMENT RECOVERED THIS SURVEY
SECONDARY MONUMENT RECOVERED THIS SURVEY
SECONDARY MONUMENT SET THIS SURVEY
RIGHT OF WAY TO BE DEDICATED THIS SURVEY
EASEMENT TO BE DEDICATED THIS SURVEY
Sitka Channel
RECORD MEANDER LINE
U.S.S. 1496
STATE OF ALASKA
DEPT. OF EDUCATION
LOT 15A
JAPONSKI ISLAND
U.S.S. 1496
U.S. COAST GUARD
LOT 1
U.S.S. 1496
S.E.A.R.H.C
LOT 9
U.S.S. 1496
S.E.A.R.H.C.
LOT 3
U.S.S. 1496
STATE OF ALASKA
DEPT. OF EDUCATION
LOT 15B
U.S.S. 1496
S.E.A.R.H.C.
LOT 4
Seward Avenue
DRAINAGE EASEMENT
DETAIL "A"
SCALE IN FEET
LINE TABLE
CURVE TABLE
A.S.L.S. 88-62
TRACT D
UNIVERSITY AK. SE.
TRACT E
U.S.S. 1496
STATE OF ALASKA
DEPT. OF EDUCATION
LOT 15C
20' WIDE WATER UTILITY EASEMENT DEDICATED THIS PLAT
EXISTING 10' WIDE SEWER FORCE MAIN R/W
S.E.A.R.H.C.
LOT 7
Tongass Avenue
LOT 11
LOT 6
JAPONSKI ISLAND SUBDIVISION
SEWARD & TONGASS IMPROVEMENTS
STP-0003(072) 67985
SUBDIVISION OF
U.S.S. 1496, LOT 15 INTO
LOTS 15A, 15B, 15C, 15D & 15E
City & Borough of Sitka, Alaska
Sitka Recording District
SURVEYOR: State of Alaska D.O.T./P.F. Southeast Region
OWNERS: STATE OF ALASKA DEPT. OF EDUCATION
SCALE: AS SHOWN
DATE: 1/2007
SHEET 2 OF 3

Sitka 2007-7


LEGEND
EXISTING RIGHT OF WAY
RIGHT OF WAY TO BE DEDICATED THIS SURVEY
LOT CREATED THIS PLAT
SEE SHEET 2 OF 3
USS 1496 STATE OF ALASKA DEPT. OF EDUCATION LOT 15A
LOT 4
Seward Avenue
LOT 10
SEE SHEET 2 OF 3
JAPONSKI
U.S. COAST GUARD
ISLAND
U.S.S. 1496 STATE OF ALASKA
LOT 11
LOT 7
Tongass Avenue
U.S.S. 1496 STATE OF ALASKA DEPT. OF EDUCATION LOT 15C
U.S.S. 1496 STATE OF ALASKA DEPT. OF EDUCATION
Rocky Gutierrez Airport Runway
Airport Access Road
A.T.S. 298
A.T.S. 1292
SEE SHEET 3 OF 3
Sitka Channel
HARBOR ISLAND
SCALE IN FEET
CERTIFICATE OF SURVEYOR
HORIZONTAL CONTROL
RECORD OF MONUMENT
VICINITY MAP (NOT TO SCALE)
JAPONSKI ISLAND
SITKA
GENERAL NOTES
CERTIFICATE OF OWNERSHIP AND DEDICATION
NOTARY ACKNOWLEDGEMENT
CERTIFICATE OF PAYMENT OF TAXES
CERTIFICATION OF APPROVAL BY THE PLANNING COMMISSION
CERTIFICATE OF APPROVAL BY THE ASSEMBLY
CERTIFICATE OF PAYMENT OF LOCAL IMPROVEMENT DISTRICT
JAPONSKI ISLAND SUBDIVISION
SEWARD & TONGASS IMPROVEMENTS
STP-0003(072) 67985
SUBDIVISION OF
U.S.S. 1496, LOT 15 INTO
LOTS 15A, 15B, 15C, 15D & 15E
City & Borough of Sitka, Alaska
Sitka Recording District
SURVEYOR: State of Alaska D.O.T./P.F. Southeast Region
OWNERS: STATE OF ALASKA DEPT. OF EDUCATION
SCALE: 1" = 200'
DATE: 1/2007
SHEET 1 OF 3
Sitka 2007-7


LEGEND
S.E.A.R.H.C.
LOT 11
S.E.A.R.H.C.
LOT 7
A.S.L.S. 98-62
TRACT D
UNIVERSITY AK. SE.
Sitka Channel
Seward Avenue
Tongass Avenue
A.S.L.S. 97-63
S.E.A.R.H.C.
JAPONSKI
U.S.S. 1496
STATE OF ALASKA
DEPT. OF EDUCATION
LOT 15D
ISLAND
TR. F
TR. C
U.S.S. 1496
STATE OF ALASKA
DEPT. OF EDUCATION
LOT 15E
U.S.S. 1496
LOT 12
A.T.S. 1292
A.T.S. 298
A.T.S. 298
Airport Access Road
DRAINAGE EASEMENT
DRAINAGE EASEMENT
EXISTING SEWER FORCE MAIN RIGHT OF WAY
SEWER EASEMENT
RECORD MEANDER LINE
USS 1496 MEANDER LINE
SCALE IN FEET
JAPONSKI ISLAND SUBDIVISION
SEWARD & TONGASS IMPROVEMENTS
STP-0003(072) 67985
SUBDIVISION OF
U.S.S. 1496, LOT 15 INTO
LOTS 15A, 15B, 15C, 15D & 15E
City & Borough of Sitka, Alaska
Sitka Recording District
SURVEYOR: State of Alaska D.O.T./P.F. Southeast Region
OWNERS: STATE OF ALASKA DEPT. OF EDUCATION
SCALE: 1" = 60'
DATE: 1/2007
SHEET 3 OF 3

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

Eliason 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 Eliason 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 Eliason 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.

NEW SITKA SEAPLANE BASE

PROGRESS MEETING

SIGN-IN-SHEET • October 5, 2011

NAME	ADDRESS	E-MAIL	TELEPHONE
Kari Lundgren	2702 SMC, Sitka, 99835	coastal.rentals@yahoo	907-738-2089
Ron Henderson	2702 SMC, Sitka	rhendersonsr@yahoo	907 747 1077 wrk
Dave Gordon	717 Lake St Sitka	dave.gordon@alaska.gov	747-3724
Scott Saline	434 BACK ST @Bx 3183	s4saline@gci.net	7-7889
Ken Burrows	485 KATLIAN ST SITKA	Ken@FlyingFishInn.com	738-2363
Kim [illegible]	#Breathless Lane Port Alexander	[illegible]@aol.com	907-568-2399
Sonny Crumley	236 LINCOLN ST., STE 103	SonnyCrumley@GMAIL.Com	738-3535
David Roberts	301 Marine St		752-0964

DOWL HKM • 4041 B Street • Anchorage, Alaska 99503 • 562-2000

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 6th in regards to finding a float dock area suitable for expanding opportunities for more commercial float planes then 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 Superintendant 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 must 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 Seafoods
Dave Gordon	747-3724	dave.gordon@alaska.gov	
RON HANDERSON	747-1077	rhandersonsr@yahoo.com	
Kari Lundgren	738-2089	coastal.rentals@yahoo.com	
Jeannie Frank	738-1029	Jeanniem@acsalaska.net	
KEM BELLOWS	738-2363	KEM@FLYINFISHINN.COM	
Marlene Campbell	747-1865	campbell@cityofsitka.com	
STAN ELIASON	747-3439	STAN@cityofSITKA.COM	
DAN TADIC	747-1807	dantadic@cityofsitka.com	
KEVIN KNOX	738-4664	kevin@bluesteel.org	

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 17th 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

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.

SITKA SEAPLANE BASE

PUBLIC MEETING

SIGN-IN-SHEET • April 24, 2012

NAME	ADDRESS	E-MAIL	TELEPHONE
Tom Middendorf	4161 Tahoe Dr ANC 99502	tmiddendorf@dowlhkm.com	562-2000
KEN REAR	118 DARRIN DR. SITKA AK	KEN@SLSTOURS.COM	(907)738-3301
Kari Lundgren	2702 SMC Sitka, AK	coastal-rentals@yahoo.com	735-2089
Jeannie Frank	116 D. Harvest Way Sitka	jeannie.m@acsalaska.net	738-1029
RON HANDERSON	165 Price St Sitka	rhandersonsr@yahoo.com	747-1077
Bill LANTZ	105 KAASDA HEEN CIR	WMLANTZ@MSN.COM	738-3075

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> 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 or dantadic@cityofsitka.com) or DOWL HKM Project Manager Tom Middendorf (907-562-2000 or tmiddendorf@dowlhkm.com).

Thanks in advance for your participation.

Mark D. Mayo
Transportation Planner

DOWL HKM

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

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPARTMENT OF EDUCATION AND EARLY DEVELOPMENT

MT. EDGECUMBE 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 30th. 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

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] **On Behalf Of** Kenneth Rear
Sent: Sunday, April 29, 2012 12:57 PM
To: 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

Sitka SPB Interviews Results – February, 2016

- 38 pilots and companies interviewed
- 24 have used the existing Sitka Seaplane Base

Demand

- 33 of the 38 interviewed indicated they would use the new SPB if built by 2020; 1 maybe; 4 no
- 19 users said they would base aircraft at the new SPB
- 15 users said they would use the new SPB on a transient basis
- Pilots and companies interviewed would base 25 - 30 aircraft at the new SPB or would operate 16 aircraft on a transient basis

	Based	**Transient**
Commercial	4	9
Commercial & Recreation	5	2
Recreation	9	2
Government	1	2
Total	**19**	**15**
Number of Aircraft	**25- 30**	**16**

Amenities

- Nearly all prefer tilt ramp
- Nearly all want fresh water on floats
- About half want electricity, others felt it was optional
- Most want overhead lighting
- Most prefer vehicle access to the float, though some think its optional or that 4 wheeler access is more affordable
- All want transient parking
- Nearly all want on-land vehicle parking
- Nearly all felt that fuel delivered from a hose on the dock is critical; some preference for an on-land tank but many supported either an on-land tank or truck delivery
- Mixed opinions on need for an on-land office. Many supported it being built by a commercial user, if needed.
- Mixed opinions on the need for an on-land or floating hangar. Some concerns about costs and extent of use. Ability to use existing hangars on Sitka Airport.
- Other amenities included toilet, bird control, storage area, security, waiting room, loading dock, pull out ramp, scale, winter aircraft storage, protected water, freight staging area, and facilities to support commercial operations
- General support for Cessna 180/185/206 for most parking with some Beaver and turbine Otter parking for commercial use.

Sitka Seaplane Base Interviews - Verbal Pilot Comments

There is no other public seaplane base in Sitka. Without a public seaplane base, we will not have floatplane operations in Sitka, except by expensive amphibious aircraft. Not everyone can afford amphibious aircraft. If we don't build a public seaplane base, floatplanes will go away altogether. Floatplanes are a part of our economy. If the boat harbor fell apart, would we send the boats away?

Having a Sitka SPB is crucial to the health of this part of SE AK. Seaplanes are a traditional mode of transportation across the region. The use of the current SPB does not show a realistic view of demand, given its current condition and lack of fuel. A new seaplane base could be used year-round.

If you build a new, nice, large facility, many more planes will show up. A similar situation occurred in Kodiak. There were 4-6 planes based at the old facility, after the new facility was built at Trident Basin, we have seen 12-14 planes based there.

Please consider the existing site with reconfiguration as already submitted. It consisted of two wings oriented perpendicular to the channel with room for 3 planes apiece. A small dock on the first wing.

We have a private dock that serves a lot of transient aircraft. This may not be available in the future. This is where much of the traffic has gone since the existing facility has fallen into disrepair.

Adding a hangar and using it with the University and SEARHC as a vocational program for training mechanics would be ideal.

The existing facility drove the airplanes away. It is a shame. There is a demand. People moved to amphib floats or got rid of their airplanes due to the condition of the existing float. The new SPB would open up competition. It would allow small Part 135 operators doing flight seeing and other services. This would open up the country to more people.

We normally take our wheel Caravans to Sitka so the facility would not be of much use to us, but I still think the project is well worth it, and is needed in Sitka.

There have been up to eight regular users of the existing facility. The state of the existing facility discouraged pilots. There was such a poor situation there; no parking, no access to fuel, inside four ramps unusable at low tides, inadequate maintenance for at least the last 10 years. Pilots have had damage to their planes by boats and due to the close proximity of other ramps. There are rock piles.

Also consider similar situation like in Kodiak where seaplane activity grew after and SPB was built.

Sitka and most other SE communities should have a public seaplane facility for local and transient use.

There is a lot of demand for a floatplane facility. I can't believe we have gotten by so long with so little. A lot more floatplanes would be here if we had places to park more floatplanes. The City charges property taxes for our planes, and we don't get anything for it. They need to spend some tax money for floatplane parking.

The current facility is between 2 seafood processors with a lot of boat traffic coming and going. That plus the hundreds of seagulls makes the current site unsafe.

A new seaplane base is needed to get to remote areas in Sitka. The City of Sitka is missing out on a significant amount of tourism economic benefits and taxation, by not having a good seaplane base. Most communities try to take advantage of economic opportunities like this.

There used to be 10 – 14 operators at the Sitka Seaplane Base. Floatplane owners have moved away from Sitka, have moved their floatplanes to other locations, or have had to switch to expensive amphib gear because of lack of floatplane facilities in Sitka. I am frustrated with how long it has taken to make progress on a new Sitka Seaplane Base.

Floatplanes really benefit the Sitka Region. Floatplanes are required to access to Sitka's pristine wilderness. Floatplanes are a low impact form of transportation to the region. A small facility has fewer benefits to residents and visitors than a larger facility. The small size of the current facility has limited the amount of floatplane activity in the region.

I think it is a good idea. I wish you luck.

The Department of Fish and Game has rented a space at the existing facility for decades. The Department has had a contracted plane at the existing facility since the facility was built. The Department requires a specialized plane to monitor pink and chum salmon runs in the Sitka area which is essential to provide commercial pink and chum salmon fishing opportunities to the area. These fisheries could not be authorized without this flying.

A new seaplane base is needed because the existing seaplane base is outdated and there is aviation activity in the region to justify it. Sitka also needs to serve others outside the region who are flying transient to Sitka.

Because of lack of space at the Sitka SPB I bought amphib aircraft and operate from Sitka Airport. I am currently happy with this amphib arrangement.

However, I believe a new SPB is needed and would be used. There are people in Sitka who have not bought floatplanes because there is no place to park them.

Ken Bellows facility is for sale. If it is no longer available for others to use, there will be no floatplane parking in Sitka.

Southeast is a floatplane area. We need a reasonable place to moor floatplanes when we go to Sitka. Out of towners need a place to go. It helps the Sitka economy.

New Sitka Seaplane Base Interview Results - February, 2016

	Interview Questions																		
	Would Use New SPB in 2020?	Recreation, Commercial, Government User	Based or Transient	Number of aircraft	Current/Former User of Existing Seaplane Base	Fixed or Tilt Ramp	Water	Electricity	Lighting	Vehicle Ramp	Transient Pakring	Onland Vehicle Parking	Fuel on Floats	Fuel by Truck or On Land Storage	On Land Office	On Land or Floating Hangar	Other	Design Aircraft	Your Estimate of Number of Based/Transient Aircraft Parking Needed in 2020
1	Yes	Recreation	Based	1 to 2	Yes	Tilt	Yes	Optional	Optional	Optional	Yes	Yes	Yes	On Land	No	No	Security, Bird Control	Beaver, 1 Turbine Otter	6-10 Based 4-6 Transient
2	Yes	Recreation Commercial	Based	1	Yes	Tilt	Yes	Yes	Yes	Optional	Yes	Yes	Yes	Either	No	Yes	Security, Bathroom, Waiting Room	Up to Beaver	3 Commercial 9 Recreational
3	No																		
4	Yes	Recreation	Based	1	Yes	Tilt	Yes	Yes	Yes	No	Yes	Yes	Yes	Either	By Commercial Users	Yes	Storage, Bird Control, Security	Beaver	8-10 Based 4 Transient
5	Yes	Recreation	Based	1	Yes	Tilt	Yes	Optional	Yes	4-wheeler	Yes	Yes	Yes	On Land	Yes	Optional	Commercial User Needs	Supercub, some Beaver or Otter	12 Based 6-8 Transient
6	Yes	Commercial	Based	2	No	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Truck	No	No	Toilet	Up to Otter	3 Based 6 Loading Float
7	Yes	Recreation	Based	1	Yes	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Either	By Commercial Users	Yes	Toilet	Cessna 182, some Beaver	12-16 Based 4-6 transient
8	Yes	Commercial	Transient	1							Yes								
9	Yes	Recreation Commercial	Based	2	Yes	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Truck	No	No	Loading Dock, Pull Out Ramp	Supercub, Single Otter	12 Based 6 Transient
10	Yes	Government	Based	1	Yes	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Either	No	No		Supercub, Beaver, Turbine Otter	8 Based 4 Transient 6 Loading Float
11	Yes	Commercial	Transient	1	Yes					Yes	Yes	Yes	Yes	Either	No	No	Toilet	Up to Otter	4 Based 8 Loading Float
12	Maybe	Recreation	Based	1	Yes	Tilt	Yes	Optional	Yes	Optional	Yes	Yes	Yes	Either	By Commercial Users	Optional	Toilet	Beaver,1 Turbine Otter	8-10 Based 2-3 Transient
13	Yes	Recreation Commercial	Based	1 to 2	Yes	Tilt	Yes	Optional	Optional	Yes	Yes	Yes	Yes	On Land	Yes	On Land		Cessna 185, Some Beaver	10-20 Based 4-6 Transient
14	Yes	Recreation Commercial	Based	2 to 3	Yes	Tilt	Yes	Optoinal	optional	Yes	Yes	Yes	Yes	On Land	By Commercial Users	On Land		Cessna 180/185, seval Beaver and Otter	12 Based 6 Transient
15	Yes	Commercial	Based	4	No	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	On Land	Yes	On Land	Pull Out Ramp	Caravan, Beaver, Cessna 185	26 Based 12 Transient
16	Yes	Commercial	Based	1	Yes	Fixed	Yes	Yes	Yes	No	Yes	Yes	Yes	On Land	Yes	No	Pull Out Ramp	Beaver, Otter	6 Based 6 Transient
17	Yes	Government	Transient	1	Yes					Yes	Yes	Yes	Yes	On Land	No	No	Toilet, Scale	Up to Turbine Otter	4 Based 4 Transient 4 Loading
18	Yes	Commercial	Transient	1	Yes					Yes	Yes	Yes	Yes	Either	No	No	Toilet, Scale	Cessna Caravan	2-4 Transient 8 Loading Float
19	Yes	Commercial Recreation	Transient	1	Yes	Either	No	No	Yes	Yes	Yes	Yes	Yes	Either	No	Pull Out Ramp		Up to Otter	6 based 2 Transient
20	Yes	Recreation	Based	1	No	Tilt	Yes	Optional	Yes	4-wheeler	Yes	Yes	Yes	Either	Optional	Yes	Security	Beaver, a Few Otter	10-12 Based 4 Transient
21	Yes	Commercial	Transient	1	No	Tilt	Yes	Optional	Optional	Yes	Yes	Yes	Yes	Yes	Yes	Either	Pull Out Ramp, Winter Aircraft Storage	Beaver, Several Otter	20-25 Based 5-6 Transient
22	Yes	Recreation	Based	1 to 2	Yes	Tilt	Yes	Optional	Yes	Yes	Yes	Yes	Yes	Yes	By Commercial Users	Yes	Pull Out Ramp, Storage, Bird Control	Cessna 185, Some Beaver and Otter	10-15 Based 1-2 Transient
23	Yes	Recreation	Transient	1	No	Tilt		Yes		Yes	Yes	Yes	Yes	Either	No	No	Toilet, Waiting Room	Up to Beaver	4-5 Based 3 Transient 5 Loading Float
24	No																		6-10 Based 2 Transient
25	Yes	Commercial	Based	1 to 2	Yes	Tilt	Yes	Yes	Yes	Optional	Yes	Yes	Either	Yes	Optional	Either	Bird control	Cessna 185 to Beaver	12 Based 4 Transient
26	Yes	Commercial	Transient	1	Yes	Tilt				Yes	Yes	Yes	Yes	Truck	No	No	Toilet, Waiting Room	Up to Otter	2 Based 2 Transient 2 Loading Float
27	Yes	Commercial	Transient	1	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Protected Water, Japonski is Good	Supercub, Turbine Otter	on Based 3 Transient 4-5 Loading Float
28	Yes	Commercial	Transient	1	Yes	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes	No	No	Toilet	Up to Turbine Otter	6-8 Based 4 Loading Float
29	Yes	Aircraft Maintenance				Tilt	Yes	Yes		Yes	Yes	Yes		Yes	Yes	Floating Hangar	Toilet, Freight Staging	Up to Beaver	1 Loading Float
30	Yes	Recreation	Transient	1	Yes	Either	Yes	Optional	Yes	Yes	Yes	Yes	Yes	Either	By Commercial Users	By Commercial Users	Security, Tie Downs	Beaver, Some Single Otter	12 Based 3- 4 Transient
31	No				Yes	Tilt	Yes	Optional	Yes	No	Yes	Yes	Yes	Either	By Commercial Users	Optional		Beaver	10 Based 4-5 Transient
32	Yes	Recreation	Based	1	Yes	Either	Yes	Optional	Optional	Optional	Yes	Yes	Vehicle Access	Truck	By Commercial Users		Storage, Pull Out Ramp	Cessna 180/185, Some Beaver	10-12 Based 8 Transient
33	Yes	Commercial Recreation	Based and Transient	2 Based 1 Transient	Yes	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	On Land	Yes	Pull Out Ramp	Avoid wing/piling conflicts	Several Otter	5-6 Based Up to 20 Transient
34	Yes	Recreation	Based	1	Yes	Fixed	Yes	Yes	Yes	Yes	Yes	Yes	Either	Yes	Yes	No	Toilet	Beaver	20 Based 5 Transient 10 Loading
35	Yes	Commercial	Transient	1	Yes					Yes	Yes	Yes	Yes	On Land	No	No	Toilet	Beaver	12 Based 6 Transient
36	No																		
37	Yes	Government	Transient	2	No	Tilt	Yes	Yes	Yes	Yes	Yes	Yes	Yes	On Land	Yes	Yes	Toilet, Baggage Staging	Up to Turbine Otter	3 Transient 5 Loading Float
38	Yes	Commercial	Transient	1	No					Yes		No	Yes	Either	No	No	Toilet, Waiting Room	Up to Beaver	4 Based 2 Transient 4-6 Loading Float
	2020 Demand					Seaplane Base Amenities													

SITKA SEAPLANE BASE SITING ANALYSIS UPDATE

Public Meeting – Sign In Sheet

Wednesday, February 17, 2016

NAME	ADDRESS	EMAIL	TELEPHONE
Sonny Cripley	not needed	only needed if you did not get email	
Ken Bellows		notice of meeting	
Francois Blakiles.			
Scott Harris			
Scott Saline			
Michael Brooks			
Ron Handerson Sr			
Kevin Knox			
Andy Coykendall (C.A.P.)			
Mark Morris			
Stan Eliason			

SITKA SEAPLANE BASE SITING ANALYSIS UPDATE Public Meeting Notes Wednesday, February 17, 2016

CBS Staff – Dan Tadic, Stan Eliason
DOWL Team – Tom Middendorf, Mark Morris
Attendees – 9 pilots, aviation businesses and interested parties

Presentation: Dan and Tom recapped the results of the 2002 and 2012 studies and Dan explained that DOWL was hired to address recent FAA questions about demand. Dan explained that the City has also hired PND to evaluate the problems with the current seaplane base and determine the improvements and costs to make it serviceable until a new seaplane base can be built. Tom presented a recap of the results of the survey of demand and amenities for the new seaplane base and handed out the survey results.

Discussion/Comments:

- DOWL asked whether the survey results are overstating demand. Several commercial and non-commercial pilots responded that the numbers appear to understate the demand.
- Roughly 50 airplanes flying between Seattle and Anchorage use the private seaplane base every summer. This facility formerly had 7 employees during peak years of the 1970's and 80's. The age and condition of the current facility has caused many to avoid Sitka, switch to amphibs or wheels, or base aircraft in other locations.
- The seaplane base needs to service both commercial and non-commercial users, based and transient.
- To make commercial operations viable, the facility needs to provide an aircraft haul-out ramp and space for aircraft maintenance. The current practice of using the minimal DOT&PF ramp on the other side of the Sitka Airport requires careful timing with tides, is not useable in strong wind conditions, and requires airport staff to be available to escort trailered aircraft across the runway. None of this is reliable enough for regular maintenance needs of commercial users. DOWL should ask the airport whether they would support increased escorts if more users needed it.
- The demand numbers appear to be understated. There are various levels and types of potential commercial use of the seaplane base. Guaranteed aircraft parking spots, an aircraft maintenance area and on-site fuel would be critical for commercial use. Many of the users would be seasonal, such as herring spotters. Transient users have avoided the existing facility due to its condition.
- The Department of Education should be encouraged to support an aviation school that would take advantage of the region's use of floatplanes.
- The existing and new seaplane base are critical for outlying communities that are dependent on seaplanes for access. There is a need for space for transient floatplane parking this

summer and until a new facility is built. Consider an expansion to the current Work Float on an interim basis.

- There is private land available next to the current seaplane base that could be sold to Sitka for parking and other uplands uses. Dan Tadic noted that the current site has many other issues besides parking, such as conflicts with boats and birds from the adjacent seafood processor, not enough space to expand the seaplane base, and shallow water.
- Petersburg has a drive down ramp so fuel trucks can deliver fuel plus they have private floating hangars.
- Would city insurance pay for any damage from wind?
- The City could be the fuel provider.
- Ketchikan has a great video showing the economic importance of seaplanes in Ketchikan. We need to do an economic impact study showing what seaplanes can do for Sitka – tourism, taxes, fuel sales, etc.

APPENDIX C

CBS Seaplane Base Ordinances

THS PAGE INTENTIONALLY BLANK

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.

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

Marko Dapcevich, Mayor

ATTEST:

April Jensen
Deputy Municipal Clerk

Sponsor: Port and Harbors Commission

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:

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

the system for improper moorage activities or dead storage. Without any obligation or liability on Harbormaster's part or that of the Municipality for his failure to do so, or duty to do so; The Harbormaster may replace defective mooring lines, pump boats which are found in a dangerous condition, move any boat found endangering other vessels or raise any sunken vessel found to be endangering others. The Harbormaster will have the authority to board, inspect for Title 13 infractions and require compliance prior to the vessel owner continuing the activity that resulted in the infraction. (The responsible boat owner will be billed actual costs associated with any emergency services.)

13.02.030 **PORTS AND HARBOR COMMISSION** - There exists a Ports and Harbor Commission consisting of seven (7) members who act as an advisory body to the assembly on matters concerning the harbor system. Their duties will include; working with the Harbormaster and Administrator planning for new harbors, evaluating needs for harbor services, examining and updating harbor ordinances, review of current harbor operations and annual budgets, recommend priorities, moorage rates and other charges, receive and evaluate formal and informal advice on harbor operations from citizens and will prepare a yearly report to the Assembly on the status of the municipal harbor system. The commission will meet nine times per year with additional meetings as needed at the discretion of the Chairperson.

13.02.040 **JURISDICTION LIMITS** - The geographic boundaries of jurisdiction for the Harbormaster will be: that area seaward of the western shore of Baranof Island from the southern tip of Harris Island southwest to the southern tip of Galankin Island, then north and westerly along the eastern side of Galankin Island to the southern point of the Sitka Airport runway, then continuing north and east along the southerly and easterly shores of Charcoal and Alice Island and continuing northerly and westerly along the easterly shore of Japonski Island to the northwesterly side of the breakwater established in Western Anchorage. Then continuing north and easterly along said breakwater to the westerly shore of

Baranof Island, thence continuing southerly and easterly along the shores of Sitka Channel through Jamestown Bay and back to the point of beginning. This area includes Jamestown Bay, the Eastern anchorage area, Sitka Channel and the Western anchorage area to the breakwater. Within these geographic confines are contained, the municipally owned or operated Crescent Harbor, Sealing Cove Harbor, ANB Harbor, Seaplane Float, Thomsen Harbor, Japonski work float, as well as any and all other public spaces, parking lots, ramps, restrooms, docks or port facilities. (SEE JURISDICTION MAP - EXHIBIT " A ")

CHAPTER 13.04 DEFINITIONS

13.04.010 **ANCHOR** - to secure a vessel to a bed or body of water by dropping a weighted ground line or tackle or by use of a buoy or other means to prevent more than a measurable movement of the vessel.

13.04.020 **CHARTER/VESSELS FOR HIRE** - Any vessel licensed to carry passengers for hire; bare boat - boat rented with or without crew or operator.

13.04.030 **DERELICT** - any vessel which is or reasonably appears to be forsaken, abandoned, deserted, cast off, unsound, unseaworthy or unfit for its use or occupation.

13.04.040 **DINGHY/LIGHTER** - a small vessel normally carried aboard a larger vessel or towed as a life boat or tender.

13.04.050 **DISTRESS** - a state of disability or a present or obvious imminent danger which if unduly prolonged could endanger life or property

13.04.060 **EMERGENCY** - a state of immediate danger to life or property in which time is of the essence.

13.04.070 **HARBOR** - all waters, tidal areas and adjacent uplands areas, together with all facilities of a port or maritime nature publicly owned that are primarily used by or for the service of vessels, including docks, pilings, ramps, hoists, parking areas, leased water areas, concessions and/or service facilities located within.

13.04.080 **HARBORMASTER** - means the individual described in Section 13.02.020 and any Assistant Harbormaster or other person designated to act in the Harbormaster's place.

13.04.090 **HOT BERTH** - the practice of allowing a vessel to temporarily occupy a stall or space not reserved to said vessel.

13.04.100 **LIVEABOARD** - any vessel utilizing the harbor as a primary residence. Any vessel thus used must still comply with all vessel requirements of the harbor system which includes being powered by an engine of sufficient size to propel the vessel at a speed allowing normal steerage and to maneuver out of and into the harbor.

13.04.110 **MOOR**- to secure a vessel by the use of lines to a dock, pier or other object providing a more secure fastening to a particular location than by anchoring.

13.04.120 **NUISANCE OR HAZARDOUS** - a derelict or a vessel which is not kept and regularly pumped free of excess water inside its hull, or is submerged, or which constitutes a fire, health, safety or navigation hazard. A vessel is presumed to constitute a "nuisance" if; the vessel is sunk; in immediate danger of sinking; obstructing a waterway; endangering life or property; vessel has been moored or otherwise left in the harbor and has expired vessel registration numbers; the registered owner no longer resides at the address listed on same registration or other marine documentation papers, or the last known registered owner disclaims ownership and the current owner cannot be determined, or if other means of identification have been obliterated or removed in a manner which precludes identification; or if the vessel does not clear the harbor, under its own power, at least four (4) times per year.

13.04.130 **PERSON** - means any natural person, individual, married couple, partnership, corporation or governmental agency. A corporation and natural person or individual will be considered the same person if the natural person has control over the former.

13.04.140 **QUALIFYING INTEREST** - In a vessel the interest of a person who owns the vessel or under provisions of written charter or lease has exclusive control over the operation and navigation of the vessel. A person who transfers title to a vessel or enters into a charter or lease of the vessel to another, seasonally or permanently, thereby relinquishes exclusive control over the use and operation of said vessel and ceases to have a qualifying interest in a said vessel.

13.04.150 **STALL** - a place to moor individual vessels in the harbor.

13.04.160 **TRANSIENT VESSELS** - any vessel occupying space in the Sitka Harbor System for which a regular reserved stall has not been assigned.

13.04.170 **TRANSFER OF CARGO** - means all types of loading, unloading, transfer and/or containerization of any type of cargo including, but not limited to; fish, shellfish and other seafood products thereof.

13.04.180 **TRAFFIC LANES** - (navigation lanes) those areas specifically set aside for movement to and from other locations and which will be kept open, free of obstructions and not for use for anchoring or mooring.

13.04.190 **VESSEL** - means any ship, boat, skiff, barge, dredge and craft of every kind or description, whether used for commercial or pleasure purposes, which is on the water and is capable of being used as a means of transportation on or through the water, excluding seaplanes.

13.04.200 **VESSEL SEAWORTHINESS** - means a state of readiness or safety which all vessels moored or docked in the Sitka Harbor system must meet including the following criteria:

A) be capable of getting underway under its own power at all times;

B) meet all U.S. Coast Guard Requirements; and;

C) be a watercraft constructed and maintained for the primary purpose of navigating the waterways of Alaska and not solely for the specific purposes of maintaining a stationary place of residence, floating storage, shop, office or other non-navigational purposes.

D) Any vessel found to be in violation of the above requirements shall be given ninety days to comply. Failure to comply will result in the cancellation of reserved moorage.

13.04.210 **VESSEL LENGTH** - The method of determining vessel length within the harbor system. Vessel length will be computed at the actual overall length of any vessel, including bow sprits, outboards or other extensions.

13.04.220 **WATERBORNE STRUCTURES** - means other than a vessel. Examples include but are not limited to barges, float houses, or other, usually unpowered, structures.

CHAPTER 13.06 CHARGES/FEES

13.06.010 **MOORAGE CHARGES** - There is hereby established, determined and levied upon all vessels and waterborne structures moored, tied to, or in any other way, attached by rope, cable, gangplank or other means to any float, piling, dock, mooring buoy or other harbor improvement which is owned, constructed, maintained or operated by the City and Borough of Sitka, a rental charge for the privilege and use of said facilities. The rental charges for each vessel or waterborne structures will be imposed and levied upon and collected from the owners of all such vessels and waterborne structures at the following monthly rates according to the classification set forth in the following schedule:

A) Permanent Moorage - eighty ($0.80) cents per foot, per month (or portion thereof) of overall vessel length, or stall length, whichever is greater or portion thereof, payable in advance for such term quarterly, semiannually or annually, but not to exceed one year.

B) Transient Moorage - Vessels will be charged at a rate of twenty-four ($.24) cents per foot per day, if paid in full, in advance or prior to departure. If billing required, the moorage fee will be forty-eight ($.48) cents per foot per day. In any event, moorage is calculated by overall vessel length.

C) Port Facility Charges - There will be a charge of twenty-four cents ($0.24) per foot, per day, used in the municipal port facility by vessels eighty (80) feet and under. The rate per foot for vessels eighty-one (81) feet to one hundred and fifty (150) feet will be forty cents ($0.40) per foot,

per day. The rate for any vessel greater than one hundred fifty (150) feet will be seventy-five ($0.75) cents per foot, per day.

D) Liveaboard Vessels - will pay the regular monthly mooring fee. In addition, they will pay the minimum residential user's fees for garbage, water and sewer on a monthly basis.

E) Monthly Transient Permit - monthly permit fees will be assessed at a rate of two dollars and twenty-eight ($2.28) cents per foot of overall vessel length and paid in advance. Each additional month of moorage will be collected in advance and will not be refundable should the vessel leave the community prior to the end of the thirty (30) day period.

F) Seasonal Transient Permit Fees - seasonal fees will be assessed at Four Dollars and fifty-six ($4.56) Cents per foot of actual overall length, paid in advance and will allow the permit holder to moorage, as available for any consecutive three (3) months of a specific calendar year and will not be refundable should the vessel leave the community prior to the end of the ninety days.

G) Transient Electricity - the fee for using an electrical meter other than meter in the vessel owner's name will be five dollars ($5) per day.

H) Tourship Lightering Fees - the fee for the use of the lightering floats will be three hundred dollars ($300) per ship, per day for the 1996 season.

A. $425 per ship, per day for the 1997 and 1998 season.

B. $450 per ship per day for the 1999 season.

C. Future lightering fees will be negotiated prior to the year 2000 season.

I) Airplane Float Reserved Mooring - fees will be thirty-five dollars ($35) per month. A transient aircraft fee of five dollars ($5) per day or a thirty-day permit for $100.00 will be assessed. It is unlawful for any boat to moor at, or in any way obstruct the airplane float.

13.06.020 **REVIEW OF CHARGES** - the rates stated in this Title are determined to be fair, just and reasonable rates. All rates charged or assessed by the Harbormaster, will be paid by the owner, master or other person having charge of the vessel. But will be subject to review for fairness, by the municipal Administrator.

13.06.030 **NONPAYMENT** - It is unlawful for any person to moor, berth, tie, attach or in any other manner, connect to any harbor improvement or facility with any vessel or airplane, for a period not to exceed one (I) day, without paying the prescribed rental charges noted above or without causing the Harbormaster to assess a stall as above provided. Any delinquent personal property tax on a vessel will be paid prior to any mooring or being placed on a municipal waiting list. A late or penalty fee will be assessed after thirty (30) days, if in arrears, as prescribed by municipal code.

13.06.040 **UNPAID STALLS** - If the applicable moorage fees have not been paid by the date due, following delinquent notification within 30 days, the Harbormaster may declare the stall released and it may be reassigned to the next person on the waiting list for that appropriate sized boat.

CHAPTER 13.08 RESERVED MOORING STALLS

13.08.010 **REGISTRATION REQUIRED** - every owner, master or managing agent of a vessel using the harbor, even temporarily, will be required to register with the office of the Harbormaster within eight (8) hours of entering the harbor system. Said registration will contain the following information: Owners or managing agents name; address and phone number, the vessels name and home port, official documentation or State I.D. number, color, length, breadth and draft. If a different phone number or contact person is required for an emergency phone number or contact person will also be listed.

13.08.020 **RESERVED MOORAGE** - reserved moorage space may be obtained, as available at locations designated or assigned by the Harbormaster. Reserved space will be assigned based on a waiting list which will be maintained in the Harbor office and will be on a first come-first serve basis determined upon the

date the application was received, the type and size boat space required and the availability of such spaces. Any stall holder is allowed only one reserved stall within the confines of the municipal harbor system except that the Administrator may authorize an additional stall of a vessel of not more than eighteen feet in length.

13.08.030 **NUMBER OF MOORAGE SPACES ALLOWED** - Moorage spaces may only be held in the names of individual persons. Corporations, business's and partnerships may ONLY hold a slip if the chief executive officer or president utilizes his/her own individual name along with the name of the corporation represented. A Partnership must, in fact be a true partnership at the time of requesting a stall with the stall held in the name of both joint partners. The Harbormaster retains the right to review and obtain a copy if necessary of U.S. Coast Guard documentation papers or other registration papers to provide proof of any ownership. Should the partnership dissolve, it will be up to the partner retaining the stall to submit a release from the other partner indicating their agreement to the retention. The stall will then transfer into the individual retaining the stall. Any holder of a reserved mooring stall shall NOT sublease, rent or in any other manner permit or allow any other vessel to occupy said space, unless specifically permitted and approved by the Harbormaster for sufficient reason given.

13.08.040 **WAITING LIST** - There will be a moorage waiting list maintained by the Harbormaster and displayed in said office for public inspection. A listing will be established by receipt of a non-refundable deposit of the first quarter's mooring fee. When a stall is assigned the deposit will be applied to first quarters moorage fee, (based on size of the vessel being placed on said list). All permanent moorage vacancies will be filled by the first person on that list who has a vessel of the required length, beam, electrical needs or other overall factors deemed by the Harbormaster to be most suitable for the empty berth.

13.08.050 **RETENTION OF WAITING LIST PRIORITY** - An applicant who does not respond to a written notice by the Harbormaster, by certified mail, to the last address in the files of the Harbor Department will be removed from the wait list

the first stall assignment, does not immediately lose his/her position on waiting list, however if an applicant refuses for a second time, when offered, the applicant will be removed from the waiting list and the deposit will be forfeited.

13.08.060 **UTILIZING A RESERVED STALL** - The Municipality reserves the right to provide temporary or "Hot Berthing" of another vessel within a reserved mooring space when said space is unoccupied. A holder of a reserved stall or space within the City and Borough of Sitka harbor system should provide a usage plan to the Harbormaster, if he/she knows he/she will be absent for any reasonable extended length of time more than seventy-two (72) hours, giving his/her estimated time of departure and return. The stall holder will NOT have the right to designate any specific vessel to use the stall. Should the reserved stall holder return earlier than expected, the holder will contact the Harbormaster, as early as possible, to facilitate time to remove the temporary vessel from the reserved space. If the Harbormaster is not available, the reserved stall holder will moor at the transient area until he/she can contact the Harbor Department. The Harbormaster will inform temporary users of any absent holder's reserved mooring space that said use will continue only for the duration of the holder's boat absence and that the Harbormaster is authorized to move the temporary vessel to another location upon return of the holder's boat. Any temporary stall user will therefore be required to keep the Harbormaster notified of his/her whereabouts. Any boat owner desiring to moor temporarily in a reserved but vacant stall will apply to the Harbormaster. No such stall or space will be utilized unless authorized and the appropriate fee is paid in advance. The boat owner temporarily assigned to a reserved mooring space, will NOT utilize the utilities which may have been provided for the reserved stall holder unless authorized by the Harbormaster. If electricity is used, a rate of five Dollars ($5.00) per day will be charged and the stall holder will be credited to his current usage for that month. Nothing in this section limits the Harbormaster's authority to move any moored boat to another location in the event of a fire or other emergency requiring such action.

13.08.070 STALL - SALE OF BOAT - when a person sells his/her boat, he/she will notify the Harbormaster within one week of the sale and state whether the stall will be released. A stall is not transferrable by the holder. Persons who sell their boat but intend to purchase another one which is of a proper size to fit into the existing stall, may retain their stall for a period of up to six (6) months. If at the end of that time, they have not obtained ownership of another boat or furnished proof of intent to procure a boat within a reasonable extended period of time as determined by the Harbormaster, the reserved space will be forfeited. Any such person wishing to retain the stall will be responsible for the continued mooring rate fee as established by Chapter 13.06.010. The fee will be based on the length of the stall plus 10 feet.

13.08.080 TRANSFER OF RESERVED MOORING - Any person holding a reserved mooring space or a position on the approved waiting list may NOT transfer such space or list position to any other person except that a preferential annual slip assigned to a vessel may be retained if the transfer is between husband and wife, to a natural or legally adopted son or daughter or is legally inherited by a member of the owner's family and documented as such to the satisfaction of the Harbormaster.

13.08.090 NON-USE OF A STALL - If the owner of a vessel, to which a reserved mooring space is assigned, does not use that space or slip for at least three (3) months of each calendar year, the reserved mooring space will be forfeited and the Harbormaster will notify said owner, in writing. The Harbormaster may waive this requirement, on a case by case basis, under exceptional circumstances such as extended ocean voyages or major vessel repair, provided however, that the waiver does not exceed twelve (12) months.

CHAPTER 13.10 FLOAT REGULATIONS

13.10.010 NOTICE TO OWNERS - By the mooring of any vessel within the Sitka Harbor system, the owner or master of any vessel agrees to all of the provisions contained within this Title.

13.10.020 **DEAD STORAGE** - It is declared that the City and Borough of Sitka owned or operated floats, mooring spaces or other facilities have been installed and are operated for the convenience and use of fishermen and pleasure boat owners and are **NOT** for the purposes of providing source of inexpensive alternative housing or dead storage. Moorage of any type of waterborne structure, houseboat, flatboat or barge is specifically prohibited. This prohibition extends to the entire area of jurisdiction of the Harbor System but will exclude those fishing scows specifically owned or operated by on-shore cold storage plants which are brought into Sitka for maintenance or off-season storage only.

13.10.030 **MAXIMUM LENGTH** - The maximum length of any boat or ship or any other object which moors at any City and Borough of Sitka harbor float, will be based on the length of the stall with a vessel maximum of ten (10) feet in excess of the stall length, unless special exception is granted, after consultation and approval by the Municipality. This size restriction does **NOT** apply to the Municipal Port Development area, Thomsen Harbor floating breakwater or other specific areas where oversize packers, tour vessels or large visiting yachts are specifically permitted.

13.10.040 **VEHICLES AND PARKING** - No vehicle will be allowed or permitted to park on the approach to any float so as to obstruct said approach except as a necessary purpose of discharging passengers or freight.

13.10.045 **VEHICLES PROHIBITED** - It is unlawful for any person to ride a bicycle, motorscooter, motorcycle, skateboard, roller skates or other similar device on any Municipal float.

13.10.050 **GENERAL REQUIREMENTS** - The following rules are intended to minimize adverse effects on neighboring shore side properties adjacent to the harbors.

A) To the extent allowed by safety considerations, harbor lights, all bright lights, including vessel deck lights will be directed away from the shoreline.

B) The use of crab lights (sodium, mercury, crab, flood, etc.) is prohibited within the harbors and between the breakwaters and O'Connell Bridge.

C) The use of any sound system, public address and/or paging systems of any sort will be limited to the hours of 7:00 A.M. and 8:00 P.M. The performance of

any vessel repairs requiring noisy activities, including the revving of vessel engines will be limited to the same hours. In case of emergencies contact the Harbormaster.

13.10.060 HARBOR ELECTRICAL SYSTEM - The following regulations govern the use of electricity within the harbor system:

A) Connections to any vessel moored within the municipal system are under the direction of the Harbormaster and are subject to the following:

1) Use of non-marine battery chargers are strictly prohibited. All chargers used within the system must contain an isolator circuit or be run through an isolator so that no current is discharged into the municipal system.

2) Use of extension cords, plugs, caps and other components between the vessels private system and the municipal shore side system will comply with the electrical code of the City and Borough and be of a specific marine design recognized and approved by the City and Borough of Sitka.

3) Only heating lamps with porcelain type sockets may be used.

4) Any onboard heater capable of causing a fire if overturned, must be equipped with a safety switch which will automatically disconnect the electrical power, if so overturned.

5) Violation of any of the provisions of this section is punishable up to the maximum of five hundred ($500.00) dollars.

B) The Harbormaster will, by permission of vessel owner or agent, have the authority to enter any vessel connected to the municipal electrical system to inspect electrical equipment to assure compliance with this and other applicable codes. If permission is not granted, the Harbormaster may disconnect said shore power from the offending vessel.

C) It is unlawful for any person to interfere, tamper with, or connect any wires, plugs or other devices to any of the electrical wiring or electrical outlets upon any of the docks, floats or gangways maintained, constructed or owned by the City and Borough of Sitka without the permission of the harbormaster.

D) Violation of any of the provisions of this section is punishable up to the maximum of five hundred ($500.00) dollars.

13.10.070 **NOTICES / BILLBOARDS** - It is unlawful for any person, firm or corporation to post any matter upon any bulletin board or to create any writing or printed material and post it to any float, piling, dock or any other portion of the municipal harbor system, except in those areas designated by the Harbormaster. Any unauthorized material will be immediately removed by the Harbormaster and destroyed. All material will be dated and is limited to thirty (30) days.

13.10.080 **DISTRIBUTION OF COMMERCIAL HANDBILL AND LEAFLETS** - Permit required - Distribution of commercial handbills and leaflets is forbidden in harbor facility areas and in the adjacent public parking areas except in those locations designated by the municipality for such distribution.

Persons intending to distribute commercial handbills and leaflets in the harbor area will be required to obtain a permit from the municipality.

A condition for the issuance of such permits shall be that the permittee agree to clean up any discarded handbills and leaflets in the harbor area and adjacent parking lot areas at the end of each day. Failure to properly clean up the area may result in revocation of such permits by the administrator or his/her agent. (Ord. 92-1055 § 4, 1992; Ord. 85-640 § 4, 1985.)

13.10.090 **SKIFFS OR SECOND VESSEL MOORING** - No skiff or other secondary vessel will be separately moored to the municipal harbor system except at a berth specifically assigned for moorage to the owner of that skiff and with appropriate fees paid. No floating skiff will be tied or otherwise moored to any other vessel moored to that berth in any way as to protrude into the passage lane to another berth or in such a way to block passage from any other vessel.

13.10.100 **PETS WITHIN THE HARBOR SYSTEM** - Any dog, cat or other pet living aboard any boat in the Sitka Harbor system, or crossing the floats to a vessel shall be subject to the entirety of the Sitka General Code Title 8 as enforcement guidelines and to include. "Three Strikes and you're Out" rule. Any person who observes an animal defecating, spraying, exhibiting excessive aggressive

behavior or otherwise creating a problem on the floats or another vessel other than where the animal originated which is not immediately corrected by its owner will:

A) Contact the owner of the animal and explain the offense observed AND report the incident to the Office of the Harbormaster, who will prepare a written report, for the record.

B) On the second such incident with the same animal, the Harbormaster will prepare a written warning report which will be sent to the owner stating the pet will be subject to removal from the harbor system if the problem is not corrected.

C) If the same animal is observed for the third time, defecating, spraying, exhibiting excessive behavior or otherwise displaying improper behavior within the Harbor system, a written letter will be sent to the owner declaring the particular animal is barred from the harbor system. The owner will be granted ten (l0) days to remove the animal, if existing on a liveaboard, or be prohibited from accompanying the owner to their vessel through the harbor system floats. Any owner having an animal barred from the harbor system may appeal the harbormaster's decision to the Administrator of the City and Borough of Sitka. If not resolved, an appeal may be presented to the Ports and Harbors Commission, acting as a recommending body for the Assembly. The Assembly may then hear any additional appeal not resolved. As with any other appeal of an administrative decision, this may be appealed to a Court of Competent Jurisdiction.

13.10.110 **DUMPING TRASH INTO HARBOR PROHIBITED** - It is unlawful to:

A) Dump offal, garbage or trash into any boat harbor, harbor uplands or associated tidelands.

B) Abandon or leave old boats, hulks or wrecks within the Sitka Harbor system.

C) Spill, dump, discharge or in any other manner dispose of flammable waste such as gasoline, lubricating oil or other combustible liquids into any boat harbor, uplands, or associated tidelands.

D) Leave or dispose of spoiled fish, bait, or gear on the city floats. Vessel owners will tend to their gear promptly after each commercial opening. Any failure to provide necessary cleanup action will be considered a nuisance.

13.10.120 **FIRES** - A boat owner is strictly liable for the damages caused by a fire originating in his vessel to any municipal floats or structures.

13.10.130 **HOUSEKEEPING IN CRESCENT HARBOR** - It is unlawful to live aboard or conduct housekeeping activities aboard any vessel moored in Crescent Harbor. It is recognized that on an occasional basis, vessels moored in Crescent Harbor may desire to leave very early in the morning due to a fisheries opening. Owners will notify the Harbormaster on those times when they feel they must nap on the boat in preparation for an early departure.

13.10.140 **CLEANING FISH** - It is unlawful to clean fish on any portion of a City and Borough dock or float, except at designated fish cleaning stations. See Exhibit A.

13.10.150 **STORAGE PROHIBITED** - It is unlawful for any person to use any harbor for storage, on any floats, docks or gangways or any other portion of the municipal harbor system, of any pipes, nets, wares, merchandise, or gear of any sort or type without the permission of the Harbormaster. Even when permission is given, it is for a specific short length of time to facilitate gear changing, loading or other necessary activity and not as a convenient place of storage of personal items. Should a skiff or other item having value be found stored on the docks or floats in violation of this section, the Harbormaster will impound said items and dispose of them as follows:

A) They will be stored for thirty (30) days;

B) The owner will be notified, if known, by certified mail, that the items have been impounded and must be reclaimed within the thirty days, after paying reasonable storage and associated costs, or there will be subject to sale at the end of thirty days with the owner responsible for any unrecovered costs. Public and owner notification shall run concurrently.

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).

B. Not taxi on step in the channel except during take-off and landing.

This is to a no wake zone in affect in Sitka Channel from O'Connell Bridge to the rubble mound breakwater north of Thomsen Harbor.

C. Use the take-off and landing corridor located on the southwest side of western anchorage, paralleling Japonski Island, from the government pier (USCG cutter Woodrush), out to the breakwater. Pilots have the option to use other areas when wind and weather conditions require, but must maintain adequate separation from vessel traffic. Approximately 80% of seaplane operations will be conducted in the designated area.

D. Pilots are reminded not to fly within 500 feet of any structures, except as necessary for take-off and landing. This includes the O'Connell Bridge.

13.10.200 **GARBAGE FACILITIES** - Objects too large to fit into the litter container shall be disposed of at the municipal landfill by the owner at his/her expense. (Ord. 84-463 § 4 (part), 1981.)

13.10.210 **CHILDREN** - Unless walking with or otherwise closely accompanied by parents or a responsible adult, it is unlawful for any child under the age of twelve to be on the city and borough owned floats, docks or wharves unless wearing a life preserver. Parents and guardians shall be responsible for compliance with this regulation. (Ord. 81-463 § 4 (part), 1981.)

CHAPTER 13.12 ENFORCEMENT

13.12.010 GENERAL - Violations of any portion of the Harbor Ordinance will be subject to punishment as provided in this Chapter. The Harbormaster hereby is granted the authority to issue citations, impound vessels and remove vessels from the harbor system either temporarily or permanently, under the provisions of this ordinance. The owner of record or the person in charge of will be responsible for any and all infractions charged against his/her vessel.

13.12.020 NEGLIGENT OPERATION - It is unlawful for any person in charge of a vessel to, operate or propel the boat in a negligent manner. A person who operates a vessel in a manner which creates an unjustifiable risk of harm to any person or property and who, as a result of the creation of that risk actually endangers a person or property is guilty of negligent operation. That a defendant actually endangered a person or property is established by showing that, as a result of the defendant action; an accident occurred or evasive action was required or a person was forced to dramatically slow down or stop to avoid an accident or a person or property was otherwise endangered. The offense of negligent operation is a lesser offense than, and is included in the offense of reckless operation.

13.12.030 RECKLESS OPERATION - It is unlawful for any person in charge or operating or propelling any boat within the Sitka Harbor System to do so in a reckless manner. A person who operates a vessel in a manner which creates a substantial and unjustifiable risk of harm to a person or property is guilty of reckless operation. A substantial and unjustifiable risk of harm to a person or property is a risk of such a nature and degree that the conscious disregard of it or a failure to perceive it constitutes a gross deviation from the standards of conduct a reasonable person would observe in the situation. Any damage to other boats moored at floats in the harbor system will be prima facie evidence of reckless operation.

13.12.040 **WRITTEN WARNING** - If, at the discretion of the Harbormaster, an infraction of the rules of the harbor system may be resolved with a written warning to the offending vessel owner, he may do so, with a copy sent to the municipal Administrator and to the Harbor files. Said letter will specifically spell out the infraction and notify the owner that further action will be taken if the offense is repeated or does not cease immediately. Any such letter will be hand delivered or certified mail so proof of delivery is assured.

13.12.050 **FINES** - The maximum penalty will be five hundred ($500.00) dollars. Bail schedule and a standard penalty for violations will be as follows:

A) Negligent Operation of Vessel - Minimum penalty of one hundred ($100) dollars.

B) Reckless Operation of Vessel - Minimum penalty of two hundred ($200) dollars.

C) All other Violations - Minimum Penalty of fifty ($50) dollars.

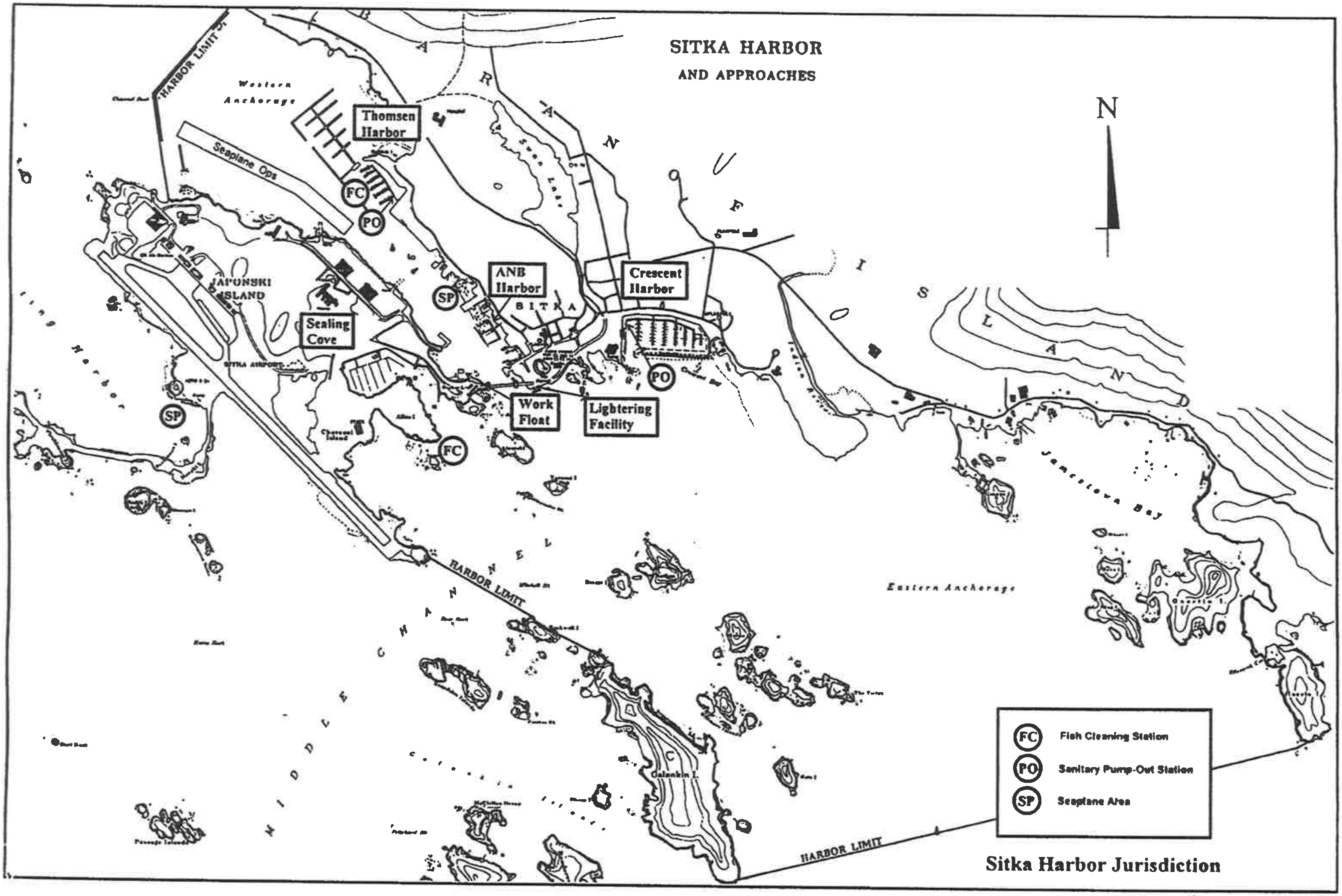
13.12.060 **IMPOUNDMENT** - The Harbormaster is authorized to impound a vessel under any of the following circumstances; the vessel is a derelict, nuisance or abandoned as defined in this ordinance; the moorage or other fees imposed by the municipality are delinquent; the vessel is improperly located in violation of this title or the vessel is improperly or incorrectly identified.

13.12.070 **NOTICE TO OWNER** - The notice will contain; the name and/or official number of the vessel; the name and address, if known, of the owner, operator, master or managing agent; the reason for the impoundment, the actual date of impoundment and the reserved moorage space that will be forfeited when the vessel is impounded. The notice will be hand delivered or mailed, by certified U.S. Mail, return receipt requested, to the last known address. In addition, a copy of the same notice of impoundment, will be physically placed on the subject vessel at the most logically appearing point of entry to the inside of the boat. A third copy will be posted in the Harbormaster's office on a visible bulletin board and a fourth copy in the local Sitka Post Office.

13.12.080 RIGHT TO HEARING - The owner, operator, master or managing agent in lawful possession of a vessel given notice for impoundment has the right to an administrative hearing to determine whether there is just cause to impound the vessel. Any person desiring such an appeal must file a written request with the Municipal Clerk within ten (I0) days after mailing and posting of said notice.

13.12.090 HEARING PROCEDURE - The hearing will be conducted by the Ports and Harbor Commission, acting as a board of inquiry on behalf of the municipality and will be held at their next meeting following receipt of said request. The person will have the right to submit written evidence or provide a list of witnesses or persons who will speak on his or her behalf. The Harbormaster will likewise prepare written material outlining previous steps taken to resolve this issue, earlier correspondence, and reasoning leading up to the impoundment. Following the hearing, the Ports and Harbor Commission will cause to have prepared, a written decision outlining the rational and results of their findings.

13.12.100 ASSEMBLY OVERSIGHT - As with any administrative action, if the owner, operator or master of a said vessel involved in the hearing, still disagrees with the decision to impound, they may file a formal appeal, through the Administrator, to the Assembly of the City and Borough of Sitka. The report or findings, prepared by the Ports and Harbors Commission, along with all written or presented oral or visual testimony, will be forwarded to the Assembly, who, will review the report and uphold or overturn the recommendation.


SITKA HARBOR
AND APPROACHES
N
Western Anchorage
HARBOR LIMIT
Seaplane Ops
Thomsen Harbor
FC
PO
SP
JAPONSKI ISLAND
SITKA AIRPORT
Sealing Cove
ANB Harbor
SITKA
Crescent Harbor
Work Float
Lightering Facility
FC
PO
SP
MIDDLE CHANNEL
HARBOR LIMIT
Eastern Anchorage
Jamestown Bay
Galankin I.
HARBOR LIMIT
FC Fish Cleaning Station
PO Sanitary Pump-Out Station
SP Seaplane Area
Sitka Harbor Jurisdiction

THIS PAGE INTENTIONALLY BLANK

APPENDIX D

Request for Entry into the NPIAS-Sitka Seaplane Base

THIS PAGE INTENTIONALLY BLANK

Request for Entry into the NPIAS
Sitka Seaplane Base (A29)
Sitka, Alaska

On May 23, 2016 the City and Borough of Sitka, Alaska requested that Alaskan Region Airports Division reclassify the Sitka Seaplane Base (A29) in the NPIAS in consideration of the seaplane base's proposed relocation and expansion.

Background:

A29 was originally constructed in 1952 by the Territory of Alaska with funding from the Civil Aeronautics Administration, FAA's predecessor agency. The facility was later improved several times by the State of Alaska and City of Sitka (later the City and Borough of Sitka), acting as co-sponsors. The City and Borough of Sitka (CBS) became sole sponsor of A29 in 1977.

Federal Investments in Support of the Sitka Seaplane Base (A29)

Granting Agency	Facility Sponsor	Grant Year	Grant Amount
Civil Aeronautics Administration	Territory of Alaska	1952	$45,000
Civil Aeronautics Administration	Territory of Alaska/City of Sitka	1957	$9,718
Civil Aeronautics Administration	Territory of Alaska/City of Sitka	1958	$40,112
Federal Aviation Agency	State of Alaska/City of Sitka	1960	$25,374
Federal Aviation Administration	City & Borough of Sitka	1977	$175,121
Federal Aviation Administration	City & Borough of Sitka	2010 (planning grant)	$300,000
Total			**$595,325**

After operating in its current location for nearly 65 years, A29 has reached the end of its useful life. In 2002 the City and Borough of Sitka completed *The Sitka Seaplane Base Master Plan* and in 2003 an ALP was approved. The 2002 Master Plan determined that A29 should be relocated for the following reasons:

- Insufficient capacity at A29 and inadequate space to expand at the current site
- Conflicts with boat traffic and the adjacent Sitka Sound Seafoods dock traffic
- Inability to access some seaplane ramps during low tide due to large rock knobs
- Lack of shoreside space for vehicle parking and for fueling seaplanes from truck or fuel tank
- Congested sea lane with boats and bird hazards

The 2002 Master Plan evaluated demand for a new seaplane base (SPB) and forecasted the need to provide 13 slips within 5 years and 15 slips within 20 years at a site that could accommodate up to 20 slips, should economic conditions change. It noted that A29's 8 existing slips were fully leased in 2001, with 7 names on a waiting list. The 2002 Master Plan identified a tentative preferred site for a relocated SPB near the opening of Sitka Channel on the north end of Japonski Island.

Potential SPB relocation sites identified in the 2002 Master Plan were further evaluated in *Siting Analysis: Sitka Seaplane Base* (2012). In 2012, all 8 slips were leased and there was a waiting list. A copy of the waiting list from 2008 is available. Based on a 2016 survey of recent and potential SPB users, those on the waiting list in 2008 have, since then, either subsequently leased a slip at A29, moved their seaplanes to Juneau but have indicated a preference to move to the new Sitka SPB, are currently rebuilding their seaplane, or have moved their residence and seaplane from Sitka.

During the 2012 Siting Analysis, users raised similar concerns as were discussed in the 2002 Study:

- The facility was showing increasing signs of its age and it needed to be replaced
- The SPBs location in the heart of Sitka Channel adjacent to a seafood processing facility (a bird attractant) caused safety and liability concerns involving seaplanes, boat traffic, and birds. A letter included in the appendix of the 2012 Study from the Manager of the Sitka Sound Seafoods processing facility describes these concerns. The NTSB Brief of Accident for ID SEA89LA063 also documented a nonfatal accident attributed to an encounter between a seaplane operating from A29 and the wake from a large boat.
- Shallow waters and rocks prevent use of 4 of 8 parking spots during low tides (see photo below).

- Conditions at the existing SPB (age, small size, loss of float buoyancy, lack of amenities such as fuel and vehicle parking) discouraged recreational use in general and commercial use in particular.

Pilots indicated in 2012 that additional seaplane operators would lease slips at a new public SPB in Sitka if additional capacity and services were available, and if a new facility was in better operating condition. That study forecasted a demand for 14 slips in the short term and 15 slips in the long term, with additional space for 3 – 5 transient aircraft parking positions. It also reaffirmed selection of a site for a relocated SPB near the opening of Sitka Channel on the north end of Japonski Island.

A small private seaplane float is also available in Sitka, but it has space only for based aircraft operated by the seaplane float owner for his business plus up to 3 transient aircraft. The owner has expressed uncertainty whether it would continue to be available for seaplanes in the future, as it is for sale. In the recent pilot survey for the new Sitka SPB, that owner indicated interest in basing his seaplane at the new Sitka SPB.

Since 2012, the City and Borough of Sitka has continued communications with the FAA on funding the new SPB and continued discussions with property owners about property acquisition, as the City and Borough of Sitka does not own any waterfront property on the north end of Japonski Island. There was little interest in making major investments in the aging A29, given the multiple issues at the current site and plans to replace it with a new facility in a new location. By 2015, the average SPB use had declined to 5 leased slips (including the continued use by the Alaska Department of Fish and Game to monitor Southeast Alaska pink and chum salmon runs, a remote lodge owner, a seaplane repair/restoration business, and several private recreational pilots) plus transient traffic.

In January, 2016 A29 was temporarily closed because one pile supporting the transient float collapsed, damaging the transient float. A dive inspection showed significant pile section loss for another 3 piles. A subsequent assessment of A29 completed in early March indicates that it could cost as much as $170,000 to repair and reopen it, which Sitka plans to do in Summer 2016 while working toward obtaining funds for a new facility. The repairs will include sleeving the piles with larger diameter piles, structural float repairs, and additional floatation for the floats. The repairs will make all of the 8 existing seaplane slips available for lease and transient use.

Nearly 40 pilots and aviation businesses were interviewed in January 2016 to ascertain why A29 had seen reduced use and to determine whether they would use a new SPB. There was unanimous agreement that a new SPB in better condition, with basic amenities, and in a new location would see much greater use than the existing A29.

Most of those surveyed had used A29 in 2015 or sometime during the past 10 years. Former SPB users who left A29 reported that they:

1. Bought amphibious floats and based their aircraft on the nearby Sitka Airport
2. Moved their seaplanes to Juneau or other less convenient SPB outside of Sitka
3. Operated with wheeled aircraft in Sitka
4. Operated on a limited transient basis from the private seaplane float (which may not be available in the future)
5. Sold their seaplanes

Most former A29 users and waitlisted slip applicants said they would use the new SPB if it was built. Some indicated they would convert from amphibious floats back to straight floats because of the higher costs of owning and operating amphibious aircraft. Seaplanes have a significantly reduced useful load when operating with amphibious rather than straight floats. This is why over 75% of all private seaplanes in Alaska are on straight floats. The reduced takeoff performance with amphibious gear also prevents access to many lakes that local pilots access from Sitka.

Many of the smaller aircraft have such a small useful load on amphibious gear so as to make it impossible to carry an adult passenger with enough fuel for a typical flight.

Former A29 users who moved their seaplanes to Juneau said they would move them back to Sitka, closer to where they live and fly. Several who are now operating on wheels or no longer own seaplanes said they would convert back to floats or buy a seaplane. Transient users, several who currently use the private seaplane dock, noted that the private dock was for sale and its future availability was uncertain.

Of the 38 pilots and businesses interviewed, 33 said they would use the new SPB. 19 said they would base seaplanes at a new Sitka SPB and 13 said they would operate from the new Sitka SPB as transient users. This included 13 commercial businesses users, 7 mixed commercial and recreation users, 11 recreation users, and 3 pilots from the US Forest Service and Alaska Department of Fish and Game. When asked how many seaplanes they would base at the facility if it were available in 2020, they indicated they would base 25 to 30 seaplanes at the new Sitka SPB (see table below).

Sitka Seaplane Base Interviews Summary of 2020 Demand

	Based Users	Transient Users
Commercial	4	9
Commercial & Recreation	5	2
Recreation	9	2
Government	1	2
Total Users	**19**	**15**
Number of Aircraft	**25 – 30**	**16**

The attractiveness of the SPB to those interested in basing commercial seaplanes at the SPB would be highly dependent on the extent to which amenities like vehicle parking, fuel, fresh water, and space for aircraft maintenance are provided. Only fresh water is currently available at A29. Aircraft maintenance and fueling is available at the nearby Sitka Rocky Gutierrez (SIT) airport, but the use of that facility requires operating with amphibious gear or landing in the open ocean and is only available at limited times during favorable winds and tidal conditions. Seaplanes must also navigate a rocky area to access a seaplane haulout and arrange an escort by the Alaska DOT&PF to cross the SIT runway and access an aircraft parking apron. Commercial users indicate this unreliable and time-consuming access to SIT is not practical for commercial seaplane operations.

A few commercial seaplane operators who currently operate at SIT with amphibious floats indicate that they would switch to straight floats if a new Sitka SPB were built. The opportunity to switch to straight floats is attractive to commercial operators because aircraft fitted with heavy amphibious floats burn more fuel, are slower, and can carry less payload than aircraft flying with straight floats, as discussed previously.

Not all potential SPB users were able to be contacted for this study. Other potential users who operate seaplanes in the region - government agencies such as the US Fish and Wildlife Service and Alaska State Troopers, some of the seaplane businesses and lodges in the region who were

not contacted, and some private wheeled and seaplane owners in Sitka who were not available for interviews - would also likely be interested in basing seaplanes at a new facility or for transient use.

Justification:

Sitka is located in Southeast Alaska in a region dominated by water, small coastal communities and lodges served by a mix of land airports and SPB's. Access is by air and by sea only. There are no road connections to communities outside Sitka; road access is not feasible because of mountainous terrain and wide expanses of ocean water. Sitka is the hub for the west central part of Southeast Alaska, serving as both a center for transportation, health services and commerce.

Sitka is the third largest community in Southeast Alaska. It enjoys one of the most diversified economies in Alaska, 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 (aka, Mt. Edgecumbe Hospital). SEARHC is a non-profit tribal health consortium of 18 Native communities, which serves the health interests of the Tlingit, Haida, Tsimshian, and other Native people of Southeast Alaska. SEARHC was established in 1975 under the provisions of the Indian Self-Determination Act.

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 table below shows the recent performance of several indicators of the health of Sitka's economy.

Sitka Economic Indicators 2010-2014

	2010	2014	Change 2010-14
Population	8,881	9,061	2%
Total Seafood Employment	421	648	54%
Total Seafood Employment Earnings	$15,943,670	$29,910,590	88%
Other Maritime Wages	$7,074,209	$14,000,979	98%
Construction Employment	196	286	46%
Construction Wages	$12,620,024	$21,927,256	74%
Total Visitor Industry Employment	530	670	26%
Total Visitor Industry Wages	$12,422,985	$18,283,024	47%

Source: Rain Coast Data, 2015

These healthy and growing sectors of Sitka's economy depend on the aviation industry to move tourists, construction workers, fishermen, year-round residents, and freight to remote lodges, construction sites, fishing boats, canneries and hatcheries that are only accessible by seaplanes.

Interviews with local pilots, business owners and staff at CBS and SEARHC Hospital, indicate that traffic using the Sitka SPB came from communities, lodges, and a network of other SPBs on Baranof, Chichagof, and Catherine Islands.

According to the Sitka Flight Service web site "There are 14 public use seaplane bases, in the Sitka flight plan area, not to mention the thousands of picturesque bays, coves and lakes that are frequented by float plane pilots."
http://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/fs/alaskan/alaska/jnu/sit/

A list of SPBs within 90 miles of Sitka follows. Also shown are those SPB's that have air service from carriers receiving an Essential Air Services program subsidy.

SPB Name	NPIAS?	Distance to Sitka	Essential Air Service Subsidy?
Angoon SPB	NPIAS	43	Yes
Baranoff Warm Springs SPB	NPIAS	20	
Elfin Cove SPB	NPIAS	88	Yes
Excursion Inlet SPB	NPIAS	95	Yes
False Island SPB	non-NPIAS	33	
Funter Bay SPB	NPIAS	82	Yes
Hawk Inlet SPB	non-NPIAS	78	
Kake SPB	non-NPIAS	53	Yes
Pelican SPB	NPIAS	70	Yes
Port Alexander SPB	NPIAS	63	Yes
Port Armstrong SPB	non-NPIAS	59	
Port Walter SPB	non-NPIAS	54	
Saganaw Bay SPB	non-NPIAS	46	
Taku Harbor SPB	non-NPIAS	82	
Tenakee SPB	NPIAS	50	Yes
Warm Springs SPB	NPIAS	20	

Sitka's seaplanes are very important to the social and economic fabric of this coastal region's remote communities, lodges, recreation areas, hatcheries, and fishing fleets. Primary uses of seaplanes are for:

- **Community access** to small outlying communities that depend on seaplane access to Sitka for medical services, shopping and to access the paved Sitka Airport. As noted above, many of these communities have subsidized Essential Air Service.
- **Government agencies** such as the **US Forest Service**, **US Fish and Wildlife Service**, **Alaska Department of Fish and Game**, **Alaska State Troopers**, and the **Civil Air Patrol** require seaplanes to access remote communities and resources. Aircraft of these

agencies generally operate or prefer to operate from straight floats (versus amphibious gear) because:
1. many of their aircraft can only be configured with floats;
2. they need the efficiency, performance, and payload capability of operating with straight floats;
3. they need to reach remote locations only accessible by water; and
4. seaplanes with straight floats operate better at low altitudes around terrain and meandering rivers and coastlines. These straight float aircraft must park on water at a float, preferably on a SPB with fuel available.

- The **US Forest Service** has contract seaplanes in Sitka every summer. There currently is no seaplane float for them to dock that is designed for seaplanes of their size. They use a Forest Service boat float as an interim solution, but it is only available for seaplanes when there are no boats and it does not have aviation fuel. Their contractors would use a new Sitka SPB on a transient basis and/or a Sitka based contractor could base his seaplane at the new SPB instead of a Juneau contractor at a more distant and less efficient base 80 miles away in Juneau.
- The **US Fish and Wildlife Service** contractors fly biologists along Southeast Alaska coastal areas to conduct annual marine mammal surveys. They also use the Forest Service boat float when it's available. Because there is no fuel they must adjust their operations and fly to Juneau or other locations for fuel. Like the Forest Service, their contractors would likely use the new Sitka SPB with transient and/or based aircraft, especially if fuel were available.
- The **Alaska Department of Fish and Game** contractors have rented space at A29 for over 2 decades. They must operate from straight floats (not amphibious gear) so that they can carry sufficient fuel for the distances flown and so they can fly at low altitudes to conduct stream surveys. They fly stream surveys 3 – 4 times per week during pink and chum salmon runs. Their findings are used to determine the number of fish that are reaching spawning areas, and consequently when fishing periods should be opened or closed. These fisheries could not be authorized without their fish surveys.
- The **Alaska State Troopers** fly seaplanes with straight floats from Hoonah, covering a large geographic area. They would likely use a new Sitka SPB on a transient basis to refuel their aircraft instead of having to transport and reposition fuel into remote areas.
- The **Civil Air Patrol** operates a straight De Havilland DHC-3 Beaver in Sitka from A29 when conducting search missions for downed aircraft.

- **Sitka's large fishing industry** (1,300 boat slips in Sitka) is supported by seaplanes that are used to spot fish, deliver employees and materials to remote marine locations, serve fish hatcheries, and provide emergency rescue. Aviation support for the fishing industry is vital to Sitka, because of fisheries' large and growing importance to the Sitka economy. Over the last 4 years alone, seafood employment grew by 54% and seafood earnings grew by 88% to nearly $30 million in employment earnings per year. Other maritime wages grew by 98% to over $14 million per year.
- **Tourists** accessing lodges or flightseeing, hunting, fishing, and hiking. Similar to fishing, tourism is a major growing employer in Sitka and visitor employment has grown

by 26% over the last 4 years while wages have grown by 47% to over $18 million per year. Statewide visitor volume was up by 7 percent in 2015 due largely to increases in air and cruise ship travel. Domestic airline passengers exiting Alaska through Sitka Rocky Gutierrez Airport increased by 16% between the 2014 and 2015 summer tourist seasons. According to Cruise Line Agencies of Alaska, the number of cruise ship passengers traveling through Sitka is expected to remain stable over the next few years at about 118,000/year. They also said that there are not enough seaplane operators in Sitka to serve their customers' current demand for flightseeing. One lodge owner who participated in the interviews has their own seaplane on straight floats. They transport their guests to and from Sitka with their seaplane. Because they would not have enough payload capacity if they transfer it to amphibious floats, it would be uneconomical to operate. They will be prevented from operating without A29.

- **Medical** evacuations and transport of medical personnel to remote communities and other marine locations. According to the Chief Flight Nurse for Mt. Edgecumbe Hospital, approximately 40 seaplane medevac operations per year come to the hospital. Currently these are primarily handled by amphibious aircraft from the Sitka Airport but a new Sitka SPB would be more attractive for medivacs to communities like Angoon, Pelican, Port Alexander and Elfin Cove that are only accessible by seaplanes. As noted earlier a seaplane operating with straight floats from a new Sitka SPB would be faster, more efficient, and less expensive compared to flying with amphibious gear from the Sitka Airport.
- **Regional aviation services** are provided in Sitka for seaplanes that are transiting between the Lower 48 states and other seaplane hubs in Southeast Alaska, Anchorage, and Interior Alaska. Sitka's geographical position and regional services makes it an attractive refueling and service hub for transiting seaplanes.
- **Recreational flying** by private seaplane pilots, both local and from outside the region. Sitka resident pilots want to access the unique fresh and saltwater recreation areas that surround them. Sitka has the fourth largest number of general aviation aircraft and pilots in Southeast Alaska; only Juneau, Haines, and Ketchikan have more aircraft and pilots. In 2015 Sitka had 54 planes and 49 certified pilots. Many of Sitka's pilots are seaplane rated.

Airport/Sponsor/Infrastructure Data:

- The new Sitka SPB will be a publicly owned, public use facility.
- Sponsor will be continue to be the City and Borough of Sitka and is an eligible sponsor.
- The new Sitka SPB will utilize a new waterlane west of the existing waterlane published in the Alaska Supplement. The current unmarked 4,000 foot by 200 foot waterlane is within the Sitka Channel, a narrow 400 to 500 foot wide channel shared with a considerable amount of boat traffic accessing boat harbors, fish processing plants, and other public and private facilities. It also crosses beneath the O'Connell Bridge. The new waterlane has not been precisely positioned yet, but will be in the wider, less congested West Anchorage area which will have fewer boat, noise, and bridge conflicts than the current waterlane (see attached map showing existing and proposed water operating areas).
- The existing SPB was constructed with a Civil Aeronautics Authority grant in 1952 and improved with FAAP and ADAP grants in 1961 and 1979 respectively, all totaling $295,325. An AIP grant issued in 2010 for $300,000 funded the 2012 siting analysis which identified

the proposed new SPB site within a 1,000 foot section of shoreline on Japonski Island. Discussions are underway with several government and non-profit property owners to determine the final location within this area. The existing SPB would be decommissioned once the new SPB was built.

- The new SPB will be constructed to meet all current FAA standards.

Entry Criteria:

- The current SPB has 5 based aircraft, and approx. 4,750 yearly operations based on the most recent 5010 Airport Master Record.
- A 2016 forecast completed by the City and Borough of Sitka is based on a recent survey of 38 pilots and businesses. As noted above, of the 38 pilots and businesses interviewed, 33 said they would use the new SPB and 19 said they would base from 25 – 30 commercial, recreational, and government seaplanes at a new Sitka SPB (see attached interview summary).

The table below shows Low, Medium, and High growth forecasts for SPB activity for the 2016 – 2036 planning period. The 12 based aircraft demand in 2016 reflects the 8 slips that were leased in 2012, plus 4 seaplanes that were on a waiting list. This 2016 forecast is unconstrained by facility limitations and represents expected demand if there were enough parking spots at the existing SPB. This may underrepresent actual demand, since interviews with seaplane operators indicated that, due to the deteriorated condition of the nearly 40 year old facility, some had already moved operations from A29 or were otherwise disinclined to apply for the waiting list. A29 is also not well suited to the needs of commercial operations due to its small size and poor condition, lack of uplands for fuel facilities, maintenance and vehicle parking, and conflicts with adjacent land uses, boats and birds, etc.

The Low Growth forecast assumes current demand remains relatively unchanged, only growing at the 1% forecasted rate of 2012-2042 statewide population growth. It does not consider the growth in SPB demand expressed by existing and potential users and others in the interviews.

The Medium and High forecasts are primarily based upon interviews of local residents, regional seaplane operators, cruise ship interests, and other stakeholders. The Medium forecast assumes that the low range of based aircraft demand expressed in the interviews is accomplished by the year 2036 when 25 seaplanes would be based at a new SPB. The High forecast assumes that the high range of based aircraft demand expressed in the interviews is accomplished by the year 2036 when 30 seaplanes would be based at a new SPB. While the interviews indicated this level of based aircraft would be expected by 2020, this forecast takes a more conservative approach, and estimates that level of demand by 2036.

In both the Medium and High forecasts it is assumed that growth would be greatest in the early years, after a new SPB is built with more amenities and seaplane parking. It also assumes some of the commercial use would take longer to implement than was expressed in the surveys due to the lead times required to start up new businesses, move assets (aircraft, maintenance equipment, etc.) from other markets, or to obtain financing to acquire aircraft and/or construct hangars, storage, or office facilities.

Low, Medium, and High Aircraft Activity Forecasts

Aircraft Operations	% Annual Growth	2015 (Base)	2016	2021	2026	2031	2036
Low Forecast	1.00%	4,750	11,400	11,982	12,593	13,235	13,910
Medium Forecast		4,750	11,400	19,000	20,900	22,800	23,750
High Forecast		4,750	11,400	20,900	23,750	26,600	28,500
Based Aircraft	**% Annual Growth**	**2015 (Base)**	**2016****	**2021**	**2026**	**2031**	**2036**
Low Forecast	1.00%	5	12	13	13	14	15
Medium Forecast		5	12	20	22	24	25
High Forecast		5	12	22	25	28	30

** 2016 forecast assumes no constraints due to facility limitations and represents expected demand if there were enough parking spots at the existing SPB.

- Nearby NPIAS airports (within 30 miles) include:
  - Sitka Rocky Gutierrez Airport (SIT), NPIAS 02-0268, Service Level: Primary
    - Distance to proposed airport: 0.667 mile, less than 5 minutes road travel.
  - Baranof Warm Springs SPB (BNF), NPIAS 02-0451, Service Level: General Aviation
    - Distance to proposed airport: 20.11 mile, not on road system, no travel time available.
- The current Sitka SPB is classified in the Alaska State System Plan as a Local NPIAS Lower Activity public use SPB. The new SPB is expected to retain that classification in the short term.
- The new SPB is expected to be a General Aviation airport which will fulfill a Basic airport role under the ASSET criteria.

Financial:

- Based on the 2012 siting study, the new Sitka SPB is estimated to cost $11.7 million. AIP funding required is currently estimated at $10.97 million.
- The City and Borough of Sitka's ability to operate, maintain and develop the new SPB is most readily evidenced by its current management of A29, the over 1,300 boat slips in Sitka, plus other marine facilities, for commercial and recreational use. The Ports and Harbors Department operates these facilities under a self-supporting enterprise Harbor Fund. Through good stewardship, over $6 million in undesignated funds are currently

available within the Harbor Fund. A system of rates and fees generates over $2.5 million per year in revenues that cover operation, maintenance and capital costs. City and Borough general funds are not needed to subsidize the harbor system. Because of the high quality and strategic importance of these facilities, the boat harbor has a 278 vessel waiting list.

- While a 30 year useful life is typically used in other Alaska communities for harbor facilities, Sitka's strong routine maintenance program has extended marine facility life to 40 years in many cases per the 2012 City and Borough of Sitka Harbor System Master Plan. It should be note that A29 is nearly 40 years old and near the very end of its service life. Efforts to develop a replacement SPB in Sitka have been ongoing for nearly two decades during which A29 has continued to age to a point where it will require up to $170,000 in capital expenditures this summer to remain open to the public.
- Sitka is forward looking and proactive in planning for harbor and SPB maintenance and development. In 2012 it adopted a Harbor System Master Plan that includes the SPB. This Plan provides an engineering assessment of the existing condition of municipal harbor and SPB infrastructure, provides budgetary cost estimates for the necessary improvements, and organizes the projects into a Capital Improvement Projects (CIP) Plan. The Master Plan also recommends a moorage rate structure to provide the necessary capital funding to implement the CIP Plan. The City Assembly approved moorage rate increases in each of the past four years and is anticipated to take up the next increase this year (see attached pages from the master plan).
- Seaplane rates/fees have not been adjusted in Sitka along with boat moorage rates, since A29 is at the end of its service life and an increase in rates may only further decrease demand until a new facility can be constructed. However, similar to boat moorage rates, seaplane rates/fees for a new facility will be structured to cover operations, maintenance and replacement costs. SPB revenues are expected from commercial and recreational slip rentals, fees for transient use, and potentially from hangar rental, fuel sales, and ground leases. Sitka's required share of costs under a construction grant will be made from bonding, Harbor Fund reserve working capital, or other municipal sources.

Compliance:

- The new SPB will be in compliance with all grant obligations.

Name of Congressional Contacts (House & Senate) for this airport:

Senator Lisa Murkowski
Senator Dan Sullivan
Representative Don Young

Approval:

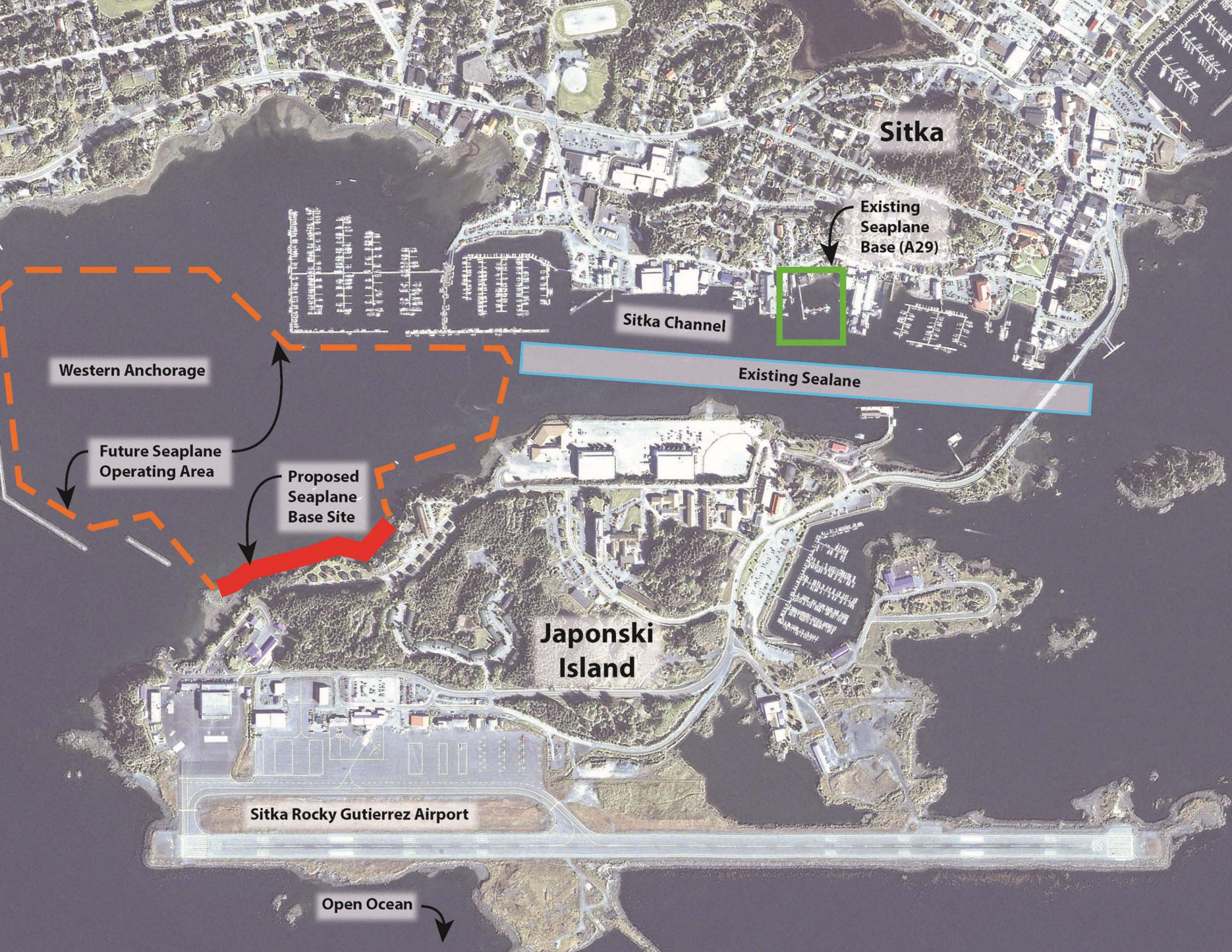
Regional Division Manager: _____ Date: _____

APP-400 Manager: _____ Date: _____

APP-1 Director: _____ Date: _____

Attachments:

Map of existing and proposed SPB's
User interview results
Harbor Master Plan information


Sitka
Existing
Seaplane
Base (A29)
Sitka Channel
Existing Sealane
Western Anchorage
Future Seaplane
Operating Area
Proposed
Seaplane
Base Site
Japonski
Island
Sitka Rocky Gutierrez Airport
Open Ocean

THIS PAGE INTENTIONALLY BLANK

APPENDIX E

Economic Impact Study

THIS PAGE INTENTIONALLY BLANK

Economic Impact of a New Public Seaplane Facility at Sitka

Executive Summary

The public Sitka Seaplane Base (A29) in Sitka Channel closed down temporarily for repairs in January of 2016 after operating for nearly 65 years. In addition to needing substantial repairs, the facility has insufficient capacity and the inability to expand due to the constraints of the current location. The current location also has a congested sealane to take off and land and has conflicts with boat traffic and birds. Because of these multiple issues, A29 has seen less and less use over time. The facility will be repaired and reopened in the fall of 2016 while plans are underway to develop a new facility at a different site.

Interviews of 38 seaplane owners and operators in 2016 documented demand for a facility with 20 permanent slips in 2020, and need for expansion to 25 slips by 2036. A new seaplane base site has been proposed at the north end of Japonski Island to meet current and future commercial and recreational seaplane demand. This economic impact report estimates the economic importance of the new, expanded facility.

To estimate the economic impacts that a new facility will bring to Sitka, members of the commercial Sitka flying community and those agencies and businesses that depend on them were interviewed. Also interviewed were regional air carriers, lodges, government agencies, and other impacted businesses not based in Sitka that use seaplane transportation to and from Sitka. Interviews of local and regional carriers suggest that at least 230 visitors came to Sitka via seaplane charter in 2015, and impacts of their spending is also considered here. This report attempts to estimate the dollar value of the impacts to the Sitka economy of a new seaplane facility with increased capacity by capturing the economic importance of activity at the current A29, combined with increased economic activity created from the new, expanded facility. The economic impacts identified that could be estimated in terms of dollar values include:

- Increased business investment in Sitka by air carriers and aviation support businesses associated with a new seaplane base;
- Revenue earned from use of A29 by Sitka-based aviation-related businesses, and increased revenues earned by those businesses associated with a new public seaplane base; and
- Revenue earned from visitors to Sitka using A29 and increased visitor activity in Sitka associated with a new facility, such as increased spending in hotels, restaurants, shops, and on tours.

In some cases, it was impossible to estimate a dollar value to Sitka of certain economic

impacts, however, those impacts are undeniable, and are discussed in general terms in this report. Positive economic impacts from the following activities are discussed but no dollar estimates were developed:

- Construction of a new facility.
- Maintenance and operation of a new facility.
- Impacts to air carriers not based in Sitka from seaplane aviation activity in Sitka.
- Spending in Sitka by GA seaplane operators for non-aviation goods and services.
- Spending in Sitka by air carriers not based in Sitka for non-aviation goods and services.
- Spending in Sitka by lodges using seaplanes at Sitka for non-aviation goods and services.
- Possible lower seat fares and freight costs for seaplane transportation throughout the region.
- Sales taxes from seaplane-related activity and spending by visitors using seaplanes in Sitka.
- Impacts from the repurposed use of the A29 site.
- Possible increases in business investment and earnings in Sitka as seaplane activity grows several years after the facility is built.

Consequently, the dollar value of impacts presented here should be considered conservative, and a minimum possible impact.

A well-known econometric model (IMPLAN) specific to the Sitka economy was used to calculate impacts to the Sitka economy of seaplane-related activity by aviation industries and industries earning income from visitors using seaplane services at Sitka assuming a new public seaplane base is built to replace A29. Impacts are defined as follows:

- ***Direct impacts*** are economic impacts created from earnings by Sitka businesses related to seaplane activity and spending of visitors using seaplane services.
- ***Indirect impacts*** (multiplier effects) result from additional spending in the Borough by businesses earning revenue directly from seaplane activity and spending of visitors using seaplane services in Sitka.
- ***Induced impacts*** (multiplier effects) result from additional spending in the Borough by households earning income from seaplane activity and spending of visitors using seaplane services in Sitka.

While these impacts are created from activity in Sitka, not all of them result in spending in Sitka. Many businesses purchase goods and services outside of the community where they are located. For this report, in addition to total economic impacts wherever they occur, we report those dollars spent and jobs created within the Sitka economy. These direct and multiplier impacts that remain in the Sitka economy are reported as:

- Wages and Salaries paid (including income to the business owner);
- Rents, Royalties and Dividends paid (generally payments to the private parties);
- Fees and Taxes paid (generally payments to federal, state, and local governments); and
- Jobs created (number of full-time-equivalent jobs).

All of these impacts, wherever they occur, are summarized below. Details about the model and methodology used for this analysis are included at the end of this report.

Table 1 shows estimated economic impacts in the first year of use of a new larger public seaplane base in Sitka. These impacts result from both one-time business investments, and changes in first year business income (revenues minus costs) for affected air carriers and related businesses. In addition to seaplane aviation-related business impacts, visitor spending impacts to the Sitka economy from seaplane activity are also estimated.

Table 1 shows total economic impacts from this activity in Sitka, as well as impacts to areas outside of Sitka, and includes:

- **Total Earnings by Sitka Businesses** - $1,606,444 in total direct impacts and multiplier affects (indirect and induced impacts) from Sitka-based aviation businesses and visitor spending. Just 39.3% of that money stays in Sitka.
- **Earnings Staying in Sitka** - $631,788 in business revenue (direct and multiplier impacts) from Sitka seaplane activity is spent in Sitka. This includes:
    - $397,675 in wages and salaries paid and proprietors' income;
    - $123,147 in rents, royalties and dividends paid (mostly to private industry);
    - $110,966 in local fees and taxes paid (mostly to government); and
    - 10.9 full-time-equivalent jobs created in Sitka.

Table 1
First Year Economic Impacts within the Sitka Borough
of a New Public Seaplane Base

	From Aviation Activity	From Visitor Spending	Total Impacts
Total Earnings by Sitka Businesses	**$1,371,566**	**$234,878**	**$1,606,444**
Direct Impacts	$1,014,396	$168,000	$1,182,396
Indirect Impacts	$256,832	$37,700	$294,533
Induced Impacts	$100,337	$29,178	$129,515
Earnings Staying in Sitka	**$489,778**	**$142,010**	**$631,788**
Payroll and Proprietors' Income	$308,038	$89,637	$397,675
Rent, Royalties and Dividends	$90,802	$32,345	$123,147
Local Fees and Taxes	$90,938	$20,028	$110,966
Jobs Created (Full-time equivalent)	7.0	3.9	10.9
Percent Earnings Staying in Sitka	**35.7%**	**60.5%**	**39.3%**

Source: Southeast Strategies and IMPLAN, 2016.

The impacts shown above emanate only from expenditures by businesses located within the Sitka Borough or visitors to the Borough. However, other *direct* economic impacts of about $256,780 per year were also understood to occur outside of the Sitka Borough from seaplane activity at Sitka. Since those direct impacts do not occur in Sitka, no multiplier affects (indirect

and induced impacts) from that spending occur in Sitka either. No multiplier affects were estimated for out-of-borough areas.

In addition to the initial year impacts, which include one-time business investment such as building a hangar or purchasing aircraft equipment, additional business spending will occur in future years of the facility's operation. Table 2 presents recurring annual economic impacts resulting from a new public seaplane base in Sitka. There is strong potential for even more business investment and growth in business earnings as seaplane activity grows in Sitka over time, however, estimates of longer term economic impacts were not made for this report.

Table 2 presents total economic impacts occurring each year from this activity in Sitka, as well as impacts to areas outside of Sitka, and includes:

- **Total Earnings by Sitka Businesses** - $815,755 in total direct impacts and multiplier affects (indirect and induced impacts) from Sitka-based aviation businesses and visitor spending. Just 44.6% of that money stays in Sitka.
- **Earnings Staying in Sitka** - $364,159 in business revenue (direct and multiplier impacts) from Sitka seaplane activity is spent in Sitka. This includes:
    - $235,071 in wages and salaries paid and proprietors' income;
    - $72,025 in rents, royalties and dividends paid (mostly to private industry);
    - $57,063 in local fees and taxes paid (mostly to government); and
    - 5.8 full-time-equivalent jobs created in Sitka.

Table 2
Recurring Annual Economic Impacts within the Sitka Borough
of a New Public Seaplane Base

	From Aviation Activity	From Visitor Spending	Total Impacts
Total Earnings by Sitka Businesses	**$580,897**	**$234,878**	**$815,775**
Direct Impacts	$429,396	$168,000	$597,396
Indirect Impacts	$103,942	$37,700	$141,642
Induced Impacts	$47,559	$29,178	$76,737
Earnings Staying in Sitka	**$222,149**	**$142,010**	**$364,159**
Payroll and Proprietor's Income	$145,434	$89,637	$235,071
Rent, Royalties and Dividends	$39,680	$32,345	$72,025
Local Fees and Taxes	$37,035	$20,028	$57,063
Jobs (Full-time equivalent)	3.1	2.7	5.8
Percent Earnings Staying in Sitka	**38.2%**	**60.5%**	**44.6%**

Source: Southeast Strategies and IMPLAN, 2016.

The impacts shown above emanate only from expenditures by businesses located within the Sitka Borough, or visitors to the Borough. However, other *direct* economic impacts of about $256,780 per year were also understood to occur outside of the Sitka Borough from seaplane activity at Sitka. Since those direct impacts do not occur in Sitka, no multiplier affects (indirect and induced impacts) from that spending occur in Sitka either. No multiplier affects were estimated for out-of-borough areas.

Introduction

The public Sitka Seaplane Base (A29) in Sitka Channel closed down temporarily for repairs in January of 2016 after operating for nearly 65 years. In addition to needing substantial repairs, the facility has been deemed to have insufficient capacity and the inability to expand due to the constraints of the current location. The space constraints and current location have also given rise to congested sealanes and conflicts with boat traffic and birds, and this facility has seen less and less use over time. The facility will be repaired and reopened in the fall of 2016 while plans are underway to develop a new facility at a different site.

Interviews of 38 seaplane owners and operators (both commercial and general aviation) were completed in early 2016. All those interviewed agreed that if A29 were in better condition, had more room for aircraft, less traffic conflicts, and better access to fuel and other services, it could have substantially more use. The air traffic forecast developed for seaplane activity in Sitka for the *Request for Entry into NPIAS – Sitka Seaplane Base* report (DOWL Engineers, 2016) documented demand for a facility with 20 permanent slips available at opening in 2020, and need for expansion to accommodate 25 based aircraft by 2036.

The preferred new seaplane base site at the north end of Japonski Island will allow sufficient space to meet anticipated future demand for seaplane use and sufficient uplands to support that use. The new facility will be located in an area that has a larger sealane and is far away from fish processing activities, greatly reducing conflicts with boats and birds. With the 2016 summer flying season under way, and fishing and tourism seasons in progress, the flying community of Sitka and those who depend on them are beginning to understand the impacts of the temporary closure of A29, and what a new expanded facility might mean to their business and the community in general. This report attempts to estimate the dollar value of the impacts to the Sitka economy of a new seaplane facility with increased capacity by capturing the economic importance of activity at the current A29, combined with increased economic activity created from the existence of a new, expanded facility.

To estimate the economic impacts that a new facility vs no facility will bring to Sitka, members of the commercial Sitka flying community and those agencies and businesses that depend on them were interviewed. Also interviewed were regional air carriers, lodges, government agencies, and other impacted businesses not based in Sitka that use seaplane transportation to and from Sitka. The economic impacts identified that could be estimated in terms of dollar values include:

- Increased business investment in Sitka by air carriers and aviation support businesses associated with a new seaplane base;
- Revenue earned from use of A29 by Sitka-based aviation-related businesses, and increased revenues earned by those businesses associated with a new public seaplane base; and

- Revenue earned from visitors to Sitka using A29 and increased visitor activity in Sitka associated with a new facility, such as increased spending in hotels, restaurants, shops, and on tours.

In some cases, it was impossible to estimate a dollar value to Sitka of certain impacts, however, those impacts are undeniable, and are discussed in general terms in this report. Impacts from the following activities are discussed but no dollar value estimates were developed:

- Construction of a new facility.
- Maintenance and operation of a new facility.
- Impacts to Air Carriers not based in Sitka from seaplane aviation activity.
- Spending in Sitka by GA seaplane operators.
- Spending in Sitka by air carriers not based in Sitka for non-aviation supplies and services.
- Spending in Sitka by lodges using seaplanes at Sitka for non-aviation supplies and services.
- Possible lower seat fares and freight costs for seaplane transportation throughout the region.
- Impacts from the repurposed use of the A29 site.
- Possible increases in business investment and earnings in Sitka in future years.

The Sitka Economy

The City and Borough of Sitka (2015 population of 8,929) encompasses nearly all of Baranof Island and portions of Chichagof Island, and is accessible only by sea or air transportation. The Second Class City of Port Alexander (2015 population of 62) is located on Baranof Island, but is not part of the Borough. The Sitka Borough has one of the most stable and diverse economies in Alaska. Important economic sectors include tourism, commercial fishing, health care services, military (U.S. Coast Guard Air Station Sitka), and government (Alaska State Trooper Academy, Sitka Tribe of Alaska, Borough government, U.S. Forest Service). Sitka serves as a regional hub for retail goods and services including health care and connections to jet air and public ferry transportation services. The population of Sitka was down slightly (-1.5%) and employment was up slightly (0.7%) between 2014 and 2015. The number of visitors to Sitka has been increasing, as has commercial fish harvest in the area. The following table presents selected economic indicators for Sitka in 2010 and 2014.

Table 3
Sitka Economic Indicators 2010-2014

	2010	2014	Change 2010-14
Population	8,881	9,061	2%
Total Seafood Employment	421	648	54%
Total Seafood Employment Earnings	$15,943,670	$29,910,590	88%
Other Maritime Wages	$7,074,209	$14,000,979	98%
Construction Employment	196	286	46%
Construction Wages	$12,620,024	$21,927,256	74%
Total Visitor Industry Employment	530	670	26%
Total Visitor Industry Wages	$12,422,985	$18,283,024	47%

Source: Rain Coast Data, 2015.

Use of Seaplanes in Sitka

Like many towns in Southeast Alaska, Sitka and the small communities around it are accessed only by air or sea, and many have no runways or airstrips on land. Consequently, air access to many communities, lodges, hatcheries, and remote camps near Sitka is only by seaplane. Many of these communities have little or no ferry access, making seaplane transportation all the more essential. Table 4 describes many of the seaplane bases near Sitka.

Table 4
Seaplane Bases Near Sitka

Facility	Distance to Sitka (Miles)	Essential Air Service Subsidy?	Ferry Service?	Runway on Land?	2014 Estimated Air Taxi Operations
Angoon SPB	43	Yes	Yes	No	1,000
Baranof Warm Springs SPB	20	No	No	No	250
Elfin Cove SPB	88	Yes	No	No	300
Excursion Inlet SPB	95	Yes	No	No	200
False Island SPB	33	No	No	No	600
Kake SPB	53	Yes	Yes	Yes	500
Pelican SPB	70	Yes	Limited	No	300
Port Alexander SPB	63	Yes	No	No	250
Port Walter SPB	54	No	No	No	100
Tenakee Springs SPB	50	Yes	Yes	No	500
Sitka SPB	0	No	Yes	Yes	4,000

Sources: *Sitka Seaplane Base Request for Entry Into NPIAS*, May 2016, DOWL Engineers, 5010 Airport Master Records, AirportIQ, 2016, and Southeast Strategies.

Sitka is a regional hub for goods and services, and supports commercial fishing and visitor industries. Some of the many uses for seaplanes at Sitka include:

- Access to goods and services by residents and businesses from outlying communities;
- Access from outlying communities to direct jet aircraft and ferry transportation services to other parts of Alaska, and beyond;
- Access to the Southeast Alaska Regional Health Consortium Native hospital;
- Access to rural lodges that provide fishing, hunting and wildlife viewing experiences;
- Access to Sitka by visitors to the region, including air tours of the Sitka area;
- Access by businesses and agencies to remote sites, and to monitor fisheries or other activities they are tasked with overseeing.
- Fish spotting for commercial fishers and fish processors; and
- Recreational flying in the community and the region.

Table 4 shows the high level of activity at A29 in 2014, relative to other seaplane bases in the region. Due to its poor condition, space constraints, limited amenities and boat/bird conflicts, A29 has not been able to meet the demand for seaplane access in Sitka. As a consequence, aircraft have been reequipped with wheels or amphibious floats, and aircraft have been sold or moved to other communities (such as Juneau) with better seaplane facilities. With the temporary closure of A29, some seaplanes rent high-cost private slips, or moor to boat docks or buoys, often causing safety and convenience of loading concerns.

Proposed New Seaplane Base

The new Sitka Seaplane Base on the north side of Japonski Island is proposed to have the following configuration upon opening:

- 14 permanent seaplane slips;
- Slip or dock space for 5 transient seaplanes;
- A ramp with the ability to drive a vehicle down it (at least a 4-wheeler, maybe larger);
- Possibility of a floating hangar; and
- Shoreside facilities, including;
    - aviation fuel storage:
    - service apron with tiedowns;
    - parking for 12 to 15 vehicles;
    - room for hangars; and
    - haulout ramp.

Business and Agency Survey

To develop this economic impact estimate, specific groups of businesses and government agencies were surveyed for impacts related to current seaplane use, and changes to activity related to the development of a new Sitka seaplane base. They were asked what new investments in Sitka they might make, and what new revenues they might earn if the seaplane

base is built. They were also asked what losses they might realize from foregone revenues or more costly operations if the facility is not built, and A29 is permanently closed. The groups interviewed are described below.

Local-based Air Carriers

There are two Part 135 (small commuter and charter operations) air carriers based in Sitka. One has a private float in the harbor for their one seaplane. This carrier provides on-demand charter services for flightseeing tours, transportation to lodges and other remote sites, and other purposes as requested. In addition, this carrier sells fuel, and rents parking space to transient aircraft at this dock. An aviation mechanic associated with this carrier provides services to outside customers at the float. The owner of this carrier business is considering retirement, and the facility is for sale. At this time it is not clear whether a new owner would continue to provide aviation facilities or if this business activity and its associated economic benefits would leave Sitka. The current owner has expressed interest in moving to the new public seaplane base.

The second Sitka-based carrier is located at the Sitka Rocky Gutierrez Airport and has two wheeled aircraft and two aircraft equipped with amphibious floats for the ability to land on water or land. The carrier provides scheduled service to outlying communities, and charters to bring patients (often from rural areas) to the Alaska Native hospital in Sitka. They also charter with the several state and federal agencies, and outlying camps, hatcheries, and lodges. This carrier provides maintenance and repair service for their own aircraft, as well as for outside customers. With development of a new SPB, this carrier would be able to change their landing gear on two aircraft from amphibious floats to straight floats (decreasing costs and increasing payload), and move the seaplane portion of the operation from the Sitka Airport to the new public seaplane facility, build a new office and hangar on-shore, and expand their operations.

In addition, one Juneau-based carrier recently started scheduled wheeled-plane service at the Sitka Airport. They currently contract out support for those flights, but may hire Sitka employees in the future. Economic impacts to this carrier of a new Sitka public seaplane base would only occur if this carrier had no wheeled planes available for these flights because of mechanical issues, and would need to bring in aircraft on straight floats for this service.

Two other Sitka-based pilots are considering applying for Part 135 certification to provide charter fishing, flightseeing, and possibly fish spotting services. These pilots currently are concerned that without development of a new seaplane base, they will have no safe place to park their seaplanes in Sitka, and no convenient way to load and unload passengers and cargo. With development of a new public seaplane base, these operators would have a safe place from which to develop their new businesses.

Air Carriers not Based in Sitka

Several Part 135 air carriers based in other Southeast Alaska communities occasionally provide charters with seaplanes to Sitka for a variety of clients for a variety of purposes. Some trip purposes include:

- Bringing yacht passengers to and from their ships;
- Bringing cruise ship passengers not scheduled to travel to Sitka in for day trips;
- Bringing outlying lodge clients to Sitka to access transportation to the lodges;
- Bringing in clients for specialty purposes, such as crews making films or marine pilots accessing their ships;
- Performing contract fish spotting for commercial fishermen, fish processors, or regulatory agencies; and
- Charters to state and federal agencies within the region wishing to access the Sitka area.

While revenue earned by these carriers is generally spent in the community they are based, they do sometimes purchase fuel, pay slip fees, eat at restaurants, and purchase other goods and services at Sitka. Many of the visitors traveling to Sitka via these carriers have high disposable incomes, and tend to spend a substantial amount of money in Sitka. A later section of this report estimates these visitor expenditures, and their impacts to the Sitka economy. These business owners reported that they would likely increase their level of operations at a new public seaplane base in Sitka.

Remote Lodges

There are several remote lodges in the Sitka area. The ones closest to Sitka tend to transport clients by boat to and from town, but use seaplanes to fly clients to remote locations from the lodge. Other lodges out of convenient boat range from Sitka charter with one or both of the Sitka-based Part 135 carriers to transport clients by seaplane to and from the lodge. Impacts to these lodges are estimated under impacts to the carriers that serve them. One lodge located at Port Alexander brings clients in from Sitka via the lodge's own seaplane. The owner exclusively uses A29 for his business, and without this facility or a replacement, he would not be able to keep his lodge open. Lodges outside of the Sitka Borough (such as those in Port Alexander) do not pay taxes in Sitka, however, they often purchase goods and services in Sitka. The direct impacts from lodges outside the Borough are considered in this report, but multiplier effects to the Sitka economy would not occur. With development of this new public facility, lodges using seaplane transportation would have safe transfer facilities for their clients, which would strengthen their businesses.

Agencies

State and Federal regulatory agencies such as the Alaska State Troopers, the Alaska Wildlife Troopers, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and the U.S. Forest Service (some with offices in Sitka) all occasionally travel to and from Sitka to access rural areas with only seaplane access. Agency representatives have expressed concern about the current lack of a safe seaplane facility at Sitka. The Alaska State Troopers have had to tie up to the Sitka Troopers boat dock in Sitka, and cut the trip short because A29 is temporarily closed. The U.S. Forest Service has a boat dock for its own use that can accommodate seaplanes when not used by boats, but the dock has no convenient access to aviation fuel. Several of these agency representatives commented that they

would either be forced to forgoe traveling to Sitka, or would have to pay higher aviation costs to charter aircraft with amphibious floats if A29 was permanently closed and no replacement was built. Most of the impacts to these agencies from seaplane activity are estimated under impacts to the carriers that serve them, and mainly consist of decreased agency costs to access Sitka and its outlying areas.

Fish Spotters

Fish spotting is performed by aircraft operators who charter to fisheries businesses and regulatory agencies during the commercial herring and salmon seasons. Wheeled planes can be used for herring spotting, but are not preferred for the salmon season. Salmon spotting requires low and slow flying, and there is an important safety benefit to having floats for that kind of flying. In addition, salmon spotters must often stop in outlying areas to talk to ground crew, and need float equipped aircraft for that. The commercial salmon season in the Sitka area lasts for about nine weeks, from late June through August. With development of a new seaplane base in Sitka, costs of fish spotting contracts will decrease, and safety of the contractors will increase.

Aircraft Support Services

Several Sitka businesses provide fuel and maintenance services for aircraft in the Borough. These businesses were asked to estimate investment they would undertake and revenues gained from the development of a new seaplane base. In addition, they were asked about lost revenue from not having the base in Sitka. A local fuel seller would invest in a self-serve fuel facility on shore at a new seaplane base and earn additional revenue from increased activity there. Aircraft maintenance businesses anticipate increased revenue from a new seaplane facility. A new seaplane facility would expand aircraft support businesses because their customer base at Sitka would expand.

Visitors

Visitors were not directly surveyed, but the carriers who bring them to and from Sitka estimated the number of visitors using seaplane service at Sitka, and the amount these visitors spend in Sitka.

The visitor industry is an important sector of the Sitka economy, and the following table shows revenues from that sector are increasing. While visitor expenses on seaplane transportation are considered under air carrier impacts, these visitors also contribute to the Sitka economy through local spending that is estimated in Table 6. The most valuable visitors are the independent ones who stay overnight and spend money in hotels, restaurants, gift shops, and on tours and recreation activities such as museums and fishing charters. These are the types of visitors using seaplane services at Sitka. Table 5 presents some bed tax and sales tax revenues earned by the City and Borough of Sitka from visitors and visitor industries between 2011 and 2015. While it is difficult to determine all of the sales taxes paid by visitors to Sitka, the table below gives an indication of the strong growth in some visitor paid taxes, indicating growth in visitor spending

over time. Sitka is a desirable visitor destination, and it is likely that the past growth shown below will continue.

Table 5
Selected City and Borough of Sitka Taxes Collect

Tax	Rate	2011	2012	2013	2014	2015
SALES TAXES - Total	**5%-6%**	$8,516,594	$8,633,514	$8,903,953	$9,584,295	$9,449,766
Charters	**5%-6%**	$101,838	$98,706	$121,417	$136,113	$130,008
Lodges	**5%-6%**	$303,319	$308,592	$445,379	$494,113	$556,965
Percent Lodges/Charters		4.8%	4.7%	6.4%	6.6%	7.3%
BED TAXES - Total	**6%**	$155,980	$323,708	$347,165	$375,181	$411,339
Lodges	**6%**	$101,052	$102,635	$103,501	$110,328	$117,016
Percent Lodges		64.8%	31.7%	29.8%	29.4%	28.4%
FISH BOX TAXES	**$10/box**	$115,140	$102,240	$114,000	$135,450	$128,360
CAR RENTAL TAXES	**4%**	$37,107	$37,109	$40,404	$40,551	$45,615
TOTAL TAX REVENUE		**$8,824,821**	**$9,096,571**	**$9,405,522**	**$10,135,477**	**$10,035,080**
Percent Visitor Taxes		**7.5%**	**7.1%**	**8.8%**	**9.0%**	**9.7%**

Source: City and Borough of Sitka Finance Department and Southeast Strategies.

Representatives of the cruise ship industry in Sitka were asked about the possibility of increased seaplane tours by cruise ship passengers once a new expanded seaplane facility is built. It was felt that the demand for seaplane tours was met adequately by tours in Ketchikan and Juneau. While the carriers surveyed did not specifically mention starting or increasing visitor seaplane tours, it is likely that some increase in tours by seaplanes using Sitka will occur.

In addition, carriers were asked about their passengers, their characteristics, activities and expenditures in the Sitka Borough. From this information we estimated an impact of spending by visitors to Sitka using a public seaplane base. Celebrity and wealthy visitors come to Sitka via seaplane by chartering with regional carriers. Yacht passengers, film crews, marine pilots, small cruise ship passengers on daytrips, lodge clients, and others often charter with air carriers based in Juneau and other regional communities to fly to Sitka. Interviews of local and regional carriers suggest that at least 230 visitors came to Sitka via seaplane charter in 2015. These carriers reported that such visitors tended to spend large amounts of money in Sitka for high end hotels and restaurants, expensive fishing charters, and high cost art and gift items. Table 6 estimates expenditures by these visitors. These estimates could be considered minimum direct impacts occurring from this visitor spending, and do not include multiplier effects of this spending. Multiplier effects are estimated later in this report.

Table 6

Estimated Expenditures by Visitors Arriving in Sitka via Seaplane

	Percent of Cost	2 Nights	1 Night	0 Nights*	Totals
Number		130	40	60	230
$ per stay		$1,000	$500	$300	
Hotels	40%	$52,000	$8,000		$60,000
Restaurant	10%	$13,000	$2,000	$3,600	$18,600
Tours and Recreation	25%	$32,500	$5,000	$7,200	$44,700
Gifts and Other Goods	25%	$32,500	$5,000	$7,200	$44,700
TOTALS		$130,000	$20,000	$18,000	$168,000

Source: Carrier and other business interviews, Southeast Strategies, 2016.

*The percent cost used for day visitors with no overnight stay was 20% spent in restaurants, 40% spent on tours and recreation, and 40% spent on gifts and other goods.

With the development of a new public seaplane facility at Sitka, it is likely that visitors using seaplane transportation will increase visits to and expenditures in Sitka. In addition, it is possible that businesses could develop seaplane tours of the Sitka area that are based from the new facility.

General Aviation Users

GA users, both local and transient, were not surveyed for this report. GA use and the intent to increase use at Sitka with a new seaplane base is well documented in the *Request for Entry into the NPIAS – Sitka Seaplane Base* report (DOWL Engineers, 2016). While these impacts to Sitka's economy are expected to be less than business impacts, they are not easy to estimate. Economic impacts from GA spending on aviation fuel and maintenance services in Sitka have been estimated for this report by the Sitka businesses providing those services.

Economic Impacts

Decreases in capacity and safety, and the temporary closure of A29 has necessitated changes in aviation activities in Sitka by carriers with aircraft on seaplane floats. Owners and operators of aircraft with straight floats wishing to land at Sitka now (with the temporary closure of A29) must rent or borrow space from area carriers or agencies (sometimes at a high cost), or tie up to boat docks or buoys in the Sitka Channel. These options are generally more costly, and less safe than having a designated public seaplane float. In addition, on and offloading of passengers and freight can be problematic with these options. Consequently, carriers have sought other options for their operations at Sitka.

One alternative for these seaplane operators using Sitka is to change their aircraft landing gear from straight floats to amphibious gear, which allows an aircraft to land on either water or land.

Changing landing gear to amphibious floats can increase costs and reduce commercial revenue because:

- ***Amphibious floats cost more than straight floats to purchase and install***. Interviews with aircraft operators and review of seaplane float manufacturers' information indicates that the purchase and installation of amphibious floats can cost from $20,000 to $150,000[1] more that the cost of straight floats per aircraft, depending on the type of aircraft.
- ***Additional weight of amphibious floats reduces revenue potential.*** Amphibious floats weigh more than straight floats (between 200 and 400 lbs more depending on the type of aircraft), so the commercial payload that can be safely carried will be reduced by that weight. With the average passenger weighing 170 lbs (new averages used by the Federal Aviation Administration), this means aircraft with amphibious floats have 1 to 2 passengers less capacity, and less baggage and cargo capacity than aircraft with straight floats, which translates to less revenue for commercial carriers.
- ***Amphibious floats increase the operating costs of aircraft***. The cost of aircraft insurance and maintenance is higher for aircraft equipped with amphibious floats than those equipped with straight floats. In addition, with the higher weight of amphibious floats, fuel consumption for these aircraft is higher.
- ***Additional skills are needed to pilot aircraft with amphibious floats.*** It is reported to be difficult to find pilots with the ability to fly amphibious aircraft, and could increase the operating costs for affected carriers.
- ***Flight flexibility can be reduced with additional weight of amphibious floats.*** GA aircraft are often too small to handle the additional weight of amphibious floats without increases in length needed to land and takeoff, eliminating access to favorite lakes and other areas for these GA fliers.

Because of the increased costs of adding and operating with amphibious floats, it is likely that seat and cargo fares for commercial carriers making this change will increase.

Air carriers and other effected parties were asked what impacts to their business would occur with the loss of the Sitka Seaplane Base, or alternatively, what would change with development of a new public seaplane base. These two occurrences capture the total economic impacts of a new public seaplane base at Sitka. Some air carriers and other related businesses were planning to make additional capital investments of buildings, aircraft and employees at a new facility. With reduced capacity at A29, others had already, or were planning to change their aircraft from straight floats to amphibious floats. Still others were making plans for reduced business activity and revenues from reduced capacity at A29 that would increase again with a new facility. All of

[1] According to the Wipline 8750 Float webpage (http://www.wipaire.com/myaircraft/cessna/208/8750-floats.php#pricing), purchase and installation of amphibious floats for a Cessna 208 can be as much as $148,600 more than the purchase and installation of seaplane floats.

these impacts are considered in this report. To consider the impact of developing this new facility, increased business investment and foregone expenses were combined, and lost revenues from not having the facility were added back into business income. Other economic impacts considered include lost revenue from fuel sales and maintenance services for local and transient seaplanes in Sitka, and lost revenue to Sitka from visitors using seaplanes.

A well-known econometric model (IMPLAN) specific to the Sitka economy was used to calculate impacts to the Sitka economy of seaplane-related earnings by aviation industries and industries earning income from visitors using seaplane services at Sitka in 2016 as follows:

- ***Direct impacts*** are economic impacts created from earnings by Sitka businesses related to aviation and the visitor industry.
- ***Indirect impacts*** (multiplier effects) result from additional spending in the Borough by businesses earning revenue directly from aviation related and visitor businesses in Sitka.
- ***Induced impacts*** (multiplier effects) result from additional spending in the Borough by households earning income from aviation related and visitor businesses in Sitka.

These direct and multiplier impacts that remain in the Sitka economy are reported as:

- Employment (number of full-time equivalent jobs);
- Wages and Salaries paid (including income to the business owner);
- Rents, Royalties and Dividends paid (generally payments to the private parties); and
- Fees and Taxes paid (generally payments to federal, state, and local governments).

All of these impacts, summarized in the following tables, represent money and jobs that stay within the Sitka economy. Details about the model and methodology used for this analysis are included at the end of this report.

Table 7 shows first year economic impacts resulting from a new public seaplane base in Sitka, which includes positive impacts of both the current A29 and the increased seaplane activity from developing a new public seaplane base with more capacity. These impacts result from both one-time business investments, and changes in first year business income (revenues minus costs) for affected air carriers and related businesses. In addition to seaplane aviation-related business impacts, visitor spending impacts to the Sitka economy from seaplane activity are also estimated.

Table 7
First Year Economic Impacts within the Sitka Borough
of a New Public Seaplane Base

	From Aviation Activity	From Visitor Spending	Total Impacts
Total Earnings by Sitka Businesses	**$1,371,566**	**$234,878**	**$1,606,444**
Direct Impacts	$1,014,396	$168,000	$1,182,396
Indirect Impacts	$256,832	$37,700	$294,533
Induced Impacts	$100,337	$29,178	$129,515
Earnings Staying in Sitka	**$489,778**	**$142,010**	**$631,788**
Payroll and Proprietor's Income	$308,038	$89,637	$397,675
Rent, Royalties and Dividends	$90,802	$32,345	$123,147
Local Fees and Taxes	$90,938	$20,028	$110,966
Jobs (Full-time equivalent)	7.0	3.9	10.9
Percent Earnings Staying in Sitka	**35.7%**	**60.5%**	**39.3%**

Source: Southeast Strategies and IMPLAN, 2016.

These impacts only consider expenditures within the Sitka Borough by business located there, or visitors to the Borough. However, other *direct* economic impacts of about $256,780 per year was also understood to occur outside of the Sitka Borough, through indirect and induced impacts were not estimated for out-of-borough areas.

Table 8 presents subsequent year recurring economic impacts resulting from a new public seaplane base in Sitka, which includes positive impacts of both the current A29 and the increased seaplane activity from developing a new public seaplane base with more capacity. Table 2 presents the subsequent year recurring economic impacts of developing a public seaplane base at Sitka. There is strong potential for additional business investment and growth in business earnings from seaplane activity in Sitka, however, estimates of those changes were not made for this report.

Table 8
Recurring Annual Economic Impacts within the Sitka Borough of a New Public Seaplane Base

	From Aviation Activity	From Visitor Spending	Total Impacts
Total Earnings by Sitka Businesses	**$580,897**	**$234,878**	**$815,775**
Direct Impacts	$429,396	$168,000	$597,396
Indirect Impacts	$103,942	$37,700	$141,642
Induced Impacts	$47,559	$29,178	$76,737
Earning Staying in Sitka	**$222,149**	**$142,010**	**$364,159**
Payroll and Proprietor's Income	$145,434	$89,637	$235,071
Rent, Royalties and Dividends	$39,680	$32,345	$72,025
Local Fees and Taxes	$37,035	$20,028	$57,063
Jobs (Full-time equivalent)	3.1	2.7	5.8
Percent Earnings Staying in Sitka	**38.2%**	**60.5%**	**44.6%**

Source: Southeast Strategies and IMPLAN, 2016.

These impacts only consider expenditures within the Sitka Borough by business located there, or visitors to the Borough. However, other *direct* economic impacts of about $256,780 per year was also understood to occur outside of the Sitka Borough, through indirect and induced impacts were not estimated for out-of-borough areas.

Table 2 presents subsequent year recurring economic impacts resulting from a new public seaplane base in Sitka, which includes positive impacts of both the current A29 and the increased seaplane activity from developing a new public seaplane base with more capacity. Table 2 presents the subsequent year recurring economic impacts of developing a public seaplane base at Sitka. There is strong potential for additional business investment and growth in business earnings from seaplane activity in Sitka, however, estimates of those changes were not made for this report.

Unquantified Socioeconomic Impacts from a New Sitka Seaplane Base:
The following impacts will likely accrue to the Sitka economy from seaplane activity and development of a new public seaplane base, but they are difficult to quantify due to unknown factors. They are presented here in qualitative terms.

- ***Construction of a new facility.*** It is most likely that the contractor hired will be located outside of Sitka, and the docks and other facility infrastructure will be purchased outside of Sitka. The project is estimated to cost between $12 and $13 million. A few Sitka residents may be hired, and living accommodations and meals will be purchased by managers and workers brought in to town. In addition, transportation and other services will be used in Sitka for this project. While it is difficult to quantify the economic impact

to Sitka, it is not expected to be substantial. There will be more substantial economic impact to the economies where the contractors are based, and where the docks and other infrastructure are built and purchased. This one-time impact will only occur during the year the facility is built.

- ***Maintenance and operation of a new facility***. This new facility will be owned by CBS and managed by the CBS harbor department. It is anticipated that this work as it will be handled by the existing harbor department staff. Some revenue from slip rental will accrue to CBS, but it will roughly be equal to the costs of seaplane base ownership, maintenance and operation. With development of uplands lease lots belonging to CBS, lease or rental fees could represent additional revenue.
- ***Impacts to air carriers and lodges not based in Sitka from seaplane activity.*** Air taxis, commuter airlines, and contract fish spotters based outside of Sitka will receive benefits from a new Sitka public seaplane base. Dollar values of direct impacts were estimated and presented after the impact tables, but no multiplier impacts were estimated. Nearly $97,000 of direct benefits to air carriers based outside of Sitka will accrue. Another $160,000 in direct benefits will go to lodges outside of the Sitka Borough. Multiplier economic benefits will occur in the communities where these carriers and lodges are located.
- ***Spending in Sitka by GA aircraft operators.*** Spending on aviation fuel and maintenance services by GA pilots is estimated as part of Aviation Activity impacts. However, these pilots may spend money in Sitka for other goods and services that has not been estimated.
- ***Spending in Sitka by air carriers not based in Sitka for non-aviation supplies and services.*** Air carriers not based in Sitka using the new seaplane base may purchase goods and services (not including aviation fuel and maintenance and repair services) in Sitka, such as restaurant meals.
- ***Spending in Sitka by lodge owners for non-aviation supplies and services.*** Some of this spending may be related to impacts from this seaplane base. It is difficult to determine the amount of this impact on Sitka.
- ***Sales taxes from seaplane-related activity and spending by visitors using seaplanes in Sitka***. Most spending in Sitka is subject to sales taxes paid to the Borough Government, and are used for general government expenses in the community.
- ***Impacts from the repurposed use of the A29 location.*** When a new facility is developed, the current location can be used for other purposes, such as a boat dock. This use will likely provide economic impacts to Sitka from rental fees, purchases of goods and services such as fuel, maintenance and repair services, and spending on non-aviation related goods and services in Sitka.
- ***Lower seat air fares and air freight costs throughout the region.*** These fares may be lower because the air carriers will have lower costs, and will pass those on to customers. These benefits will impact Sitka as well as other communities in the region and beyond.

Rural areas around Sitka that rely on seaplane transportation may benefit largely from this change.

- ***Possible increases in business investment and earnings in Sitka in future years.*** Potential growth in activity and earnings by businesses impacted by seaplane activity in Sitka was not estimated, but is likely to occur. Increased air tours by seaplanes may occur in the future. Additional business investment by these industries may occur also.

Community Support

The Sitka Economic Development Association (SEDA) holds an annual Sitka Economic Innovation Forum where development projects are considered. This year, the attendees included members of the public at large, representatives from the non-profit sector, payroll workers from both the private and government sectors, self-employed and business owners, City and Borough of Sitka staff, retired residents, and members of the Sitka Tribe of Alaska. At this forum was held on May 17, 2016.

A summary of development ideas was presented to the attendees, and they were invited to vote for their top priority project(s) to move forward. The Seaplane base project, describes as follows, received the third highest score from participants.

> ***Rebuild Seaplane Base:*** *support and move the expansion of the seaplane base. This could bring in new seaplane operations such as providing access to outlying communities that are dependent on this. Also, regain the transient business and permanent based users back to the facility.*

In addition, the new Sitka Seaplane Base received unanimous support from all businesses and agencies surveyed for this study. A recap of interview comments from additional interviews by DOWL is included as Appendix A to this report.

Methodology

In order to determine the 2016 impact of a new public seaplane facility at Sitka on the economy of Sitka, Southeast Strategies followed the methodology outlined here. Because the new seaplane facility does not yet exist, and the old facility has only been closed a short time and is due to reopen soon, impacts of not having a seaplane base in Sitka are not easy to quantify. Much of the information used for the impact estimates in this report came from those directly impacted, and involved their judgement and informed guesses. Some businesses considered negative impacts to not having a facility, and some addressed positive impacts of the new SPB. In this case, lost income from facility closure and the new income and investment from the development of a new facility with increased safety and capacity combine to estimate impacts of an improved public seaplane facility vs. no facility, or the economic impacts of seaplane activity in total with a new facility.

It is human nature to overestimate harm, and much of the information for these estimates came from business and entities who are being or will be harmed by this closure. While these estimates may be overstated, it is almost certain that some impacts in the community and the region have not been brought to light by this investigation, or have not been fully considered. In addition, other impacts are indicated, but cannot be adequately estimated in this report. Consequently, the impact estimates developed in this report can be considered conservative, and a minimum possible impact.

Some businesses and agencies dependent on seaplane transportation to and from Sitka tend to contract that service with local or regional carriers. In order to not double count impacts, it was assumed that the impacts estimated by the carriers themselves covered impacts to those who contracted with them. That situation would include health care facilities in Sitka that contract local carriers to transport patients into Sitka from communities with only seaplane access, as well as government agencies, lodges, and rural camps and hatcheries using air transportation from Sitka.

Some impacts from seaplane activity with a new public seaplane base at Sitka are unknown, or are known but not easily quantified, including possible growth over time of previously quantified and unquantified impacts. Consequently, the dollar values of impacts presented here are conservative, and should be considered a minimum impact.

Econometric Model

Sitka and regional businesses determined to be directly impacted by seaplane service in Sitka were interviewed about the impact to their businesses of developing a new public seaplane facility at Sitka. These businesses included local and regional air carriers, remote fishing and hunting lodges, government agencies using seaplane services, seaplane support services, and contract fish spotters.

Impacts to business revenue, and additional business investment information were then fed through a well-known economic input/output model (IMPLAN) calibrated to fit the Sitka's economy to determine secondary impacts of initial spending in the Sitka area. The most current full year of information available for all variables considered for these estimates was used to capture as close to current (2016) estimates as possible. The IMPLAN (IMpact Analysis for PLANning) model is a community and regional level input/output model initially developed by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency, and the U.S. Department of the Interior, Bureau of Land Management to assist the Forest Service in land and resource management planning.

The model uses census area level data about employment, income, and other indicators to determine how direct economic impacts will produce multiplier effects (indirect and induced economic impacts) within the Sitka Borough. The most current full year of information available for all variables considered for these estimates was used to capture as close to a current

(2016) estimate as possible. For purposes of this study, indirect and induced economic impacts were only calculated for those direct impacts occurring within the Sitka Borough. Impacts outside of the Borough will have multiplier affects also, but those affects will not accrue to the Sitka economy. These out-of-borough direct impacts were reported in this study.

The IMPLAN model is detailed enough to address industries individually within a local area. Survey responses were compiled by type of industry and that information was run separately through a model specific to that industry within the Sitka Borough. Results for each industry type were then compiled to get the aggregate impacts presented here.

In addition to annual impacts created from businesses related to seaplane service in Sitka, an estimate of annual spending in the Sitka by visitors to using seaplane service was developed from estimated visitor activity given by commercial air carriers in Sitka and the region. The information was also fed through the IMPLAN model to obtain secondary impacts of this spending.

The IMPLAN model calculated direct, indirect, and induced impacts on the Sitka economy of seaplane-related spending of industries surveyed and visitors using seaplane service at Sitka in 2016 in terms of:

- Employment;
- Wages and Salaries;
- Business Revenue;
- Rents, Royalties and Dividends paid; and
- Fees and Taxes paid.

Types of impacts are defined below:

- **Direct** impacts are primary impacts in the Sitka Borough that are a direct result of a new public seaplane facility being developed at Sitka that would not exist in the absence of such a facility. These impacts are to air carrier and related support businesses, and others that depend heavily on these carriers, such as remote lodges and agencies. Direct impacts also include primary impacts created from increased visitor activity at Sitka because of this facility, including impacts to non-aviation related businesses such as hotels, restaurants, gift shops, and tour and recreations businesses. These impacts count money spent in the Sitka economy by residents from outside the economy, or money spent by local residents in the Sitka Borough which would be spent outside the Sitka Borough if this facility did not exist.
- **Indirect** impacts are secondary impacts created by additional spending in the Sitka Borough by **businesses** earning revenue directly from facility construction, aviation activity, or activity of visitors using aviation services at Sitka. These impacts are created from

respending within the local economy (multiplier effect) of money created from direct impacts.

- **Induced** impacts are secondary impacts created by additional spending in the Sitka Borough by **households** who earn income (usually as wages and salaries) directly from facility construction, aviation activity, or activity of visitors using aviation services at Sitka. These impacts are created from respending within the local economy (multiplier effect) of money created from direct impacts.

Author
Linda J. Snow is the owner and principal economist of Southeast Strategies, an economics and planning services firm in Juneau, Alaska. Linda is a lifelong Southeast Alaska resident with an ABT towards a MS in resource economics, and 30 years' professional experience working with the economy in Alaska and the region.

Sitka Seaplane Base Interviews - Verbal Pilot Comments

This section includes comments paraphrased from interviews of past and present Sitka Seaplane Base (A29) users. These interviews were separate from business and agency interviews used for the economic impact analysis, and did not include questions about economic impacts of a new public seaplane base. While these comments cannot help estimate the dollar value of impacts to Sitka, they do indicate intended increased use, which would create impacts, even if they are difficult to quantify.

- There is no other public seaplane base in Sitka. Without a public seaplane base, we will not have floatplane operations in Sitka, except by expensive amphibious aircraft. Not everyone can afford amphibious aircraft. If we don't build a public seaplane base, floatplanes will go away altogether. Floatplanes are a part of our economy. If the boat harbor fell apart, would we send the boats away?
- Having a Sitka SPB is crucial to the health of this part of SE AK. Seaplanes are a traditional mode of transportation across the region. The use of the current SPB does not show a realistic view of demand, given its current condition and lack of fuel. A new seaplane base could be used year-round.
- If you build a new, nice, large facility, many more planes will show up. A similar situation occurred in Kodiak. There were 4-6 planes based at the old facility, after the new facility was built at Trident Basin, we have seen 12-14 planes based there.
- Please consider the existing site with reconfiguration as already submitted. It consisted of two wings oriented perpendicular to the channel with room for 3 planes apiece. A small dock on the first wing. We have a private dock that serves a lot of transient aircraft. This may not be available in the future. This is where much of the traffic has gone since the existing facility has fallen into disrepair. Adding a hangar and using it with the University and SEARHC as a vocational program for training mechanics would be ideal.

- The existing facility drove the airplanes away. It is a shame. There is a demand. People moved to amphib floats or got rid of their airplanes due to the condition of the existing float. The new SPB would open up competition. It would allow small Part 135 operators doing flight seeing and other services. This would open up the country to more people.
- We normally take our wheel Caravans to Sitka so the facility would not be of much use to us, but I still think the project is well worth it, and is needed in Sitka.
- There have been up to eight regular users of the existing facility. The state of the existing facility discouraged pilots. There was such a poor situation there; no parking, no access to fuel, inside four ramps unusable at low tides, inadequate maintenance for at least the last 10 years. Pilots have had damage to their planes by boats and due to the close proximity of other ramps. There are rock piles.
- Also consider similar situation like in Kodiak where seaplane activity grew after and SPB was built.
- Sitka and most other SE communities should have a public seaplane facility for local and transient use.
- There is a lot of demand for a floatplane facility. I can't believe we have gotten by so long with so little. A lot more floatplanes would be here if we had places to park more floatplanes. The City charges property taxes for our planes, and we don't get anything for it. They need to spend some tax money for floatplane parking.
- The current facility is between 2 seafood processors with a lot of boat traffic coming and going. That plus the hundreds of seagulls makes the current site unsafe.
- A new seaplane base is needed to get to remote areas in Sitka. The City of Sitka is missing out on a significant amount of tourism economic benefits and taxation, by not having a good seaplane base. Most communities try to take advantage of economic opportunities like this. There used to be 10 – 14 operators at the Sitka Seaplane Base. Floatplane owners have moved away from Sitka, have moved their floatplanes to other locations, or have had to switch to expensive amphib gear because of lack of floatplane facilities in Sitka. I am frustrated with how long it has taken to make progress on a new Sitka Seaplane Base.
- Floatplanes really benefit the Sitka Region. Floatplanes are required to access to Sitka's pristine wilderness. Floatplanes are a low impact form of transportation to the region. A small facility has fewer benefits to residents and visitors than a larger facility. The small size of the current facility has limited the amount of floatplane activity in the region.
- I think it is a good idea. I wish you luck.
- The Department of Fish and Game has rented a space at the existing facility for decades. The Department has had a contracted plane at the existing facility since the facility was built. The Department requires a specialized plane to monitor pink and chum salmon runs in the Sitka area which is essential to provide commercial pink and chum salmon fishing opportunities to the area. These fisheries could not be authorized without this flying.
- A new seaplane base is needed because the existing seaplane base is outdated and there is aviation activity in the region to justify it. Sitka also needs to serve others outside the region who are flying transient to Sitka.

- Because of lack of space at the Sitka SPB I bought amphib aircraft and operate from Sitka Airport. I am currently happy with this amphib arrangement. However, I believe a new SPB is needed and would be used. There are people in Sitka who have not bought floatplanes because there is no place to park them. Ken Bellows facility is for sale. If it is no longer available for others to use, there will be no floatplane parking in Sitka.
- Southeast is a floatplane area. We need a reasonable place to moor floatplanes when we go to Sitka. Out of towners need a place to go. It helps the Sitka economy.
- From an economic standpoint, a new seaplane base would attract local and transient users and seasonal operators that would generate jobs and tax revenues for Sitka. With a maintenance facility it could generate even greater economic benefits.


DOWL