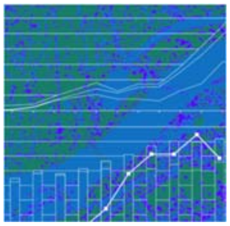

Wrangell Waterfront
Industrial Property Economic Assessment

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BST Associates
Market Research & Strategic Planning

Wrangell Waterfront
Industrial Property Economic Assessment
Report

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Wrangell Waterfront Industrial Property Economic Assessment Report

Executive Summary

BST Associates was retained by Maul Foster & Alongi, Inc. to compile and analyze data on marine sector industries within the region to evaluate market opportunities for potential users of the Silver Bay Waterfront Industrial Property. The purpose of this effort is to provide a regional context of the demand analysis for marine industrial property with a focus on demand potential in Wrangell.

Boatyard

From a demand perspective, there appears to be an opportunity to develop another Boatyard, accompanying storage and a workforce development site at the sawmill property. Wrangell has successfully developed the Boatyard at the downtown site, which is at/near capacity during the peak season (before and after fishing seasons). The CBW should consider development of a 10 to 15 acre boatyard/storage facility at the sawmill site.

Risk factors include:

- High cost of development (around $15 million to build in the existing yard). The CBW has two lifts and the larger one could be transferred to the site but the availability of funding is difficult at this time due to the State's budget deficit and limited federal funds.
- Need for additional building space and equipment. Development of a second Boatyard could tax existing operators if they were to operate split operations (at the existing and new Boatyards) by requiring additional capital outlays for buildings, equipment and other resources.
- Need for additional employees. Likewise, running two Boatyards would require additional employees. Boatyards in Puget Sound are able to attract employees from a larger labor pool (extending into several counties). Development of workforce training and in-migration could alleviate this problem. However, Boatyard operations are seasonal and workers would be looking for full time year round work.

Other Opportunities

There are opportunities to develop small scale forest products at the site.

From a demand perspective, the opportunities appear less favorable for relocation of seafood plants and barge terminals. The existing facilities appear to meet the needs of the operators for both sectors. Activities in each sector are seasonal, require a small footprint and do not exhibit strong growth. Shifting these operations to the sawmill site would likely entail additional transportation/logistics costs as well as capital costs to build new facilities. As a long-term strategy, relocation of the facilities in the downtown area would require significant grant funding.

Cruise and ferry operations are well served at existing facilities in the downtown area and their locations enhance the development of the tourism sector.

Wrangell Waterfront Industrial Property Assessment Report

Economic Trends and Opportunities

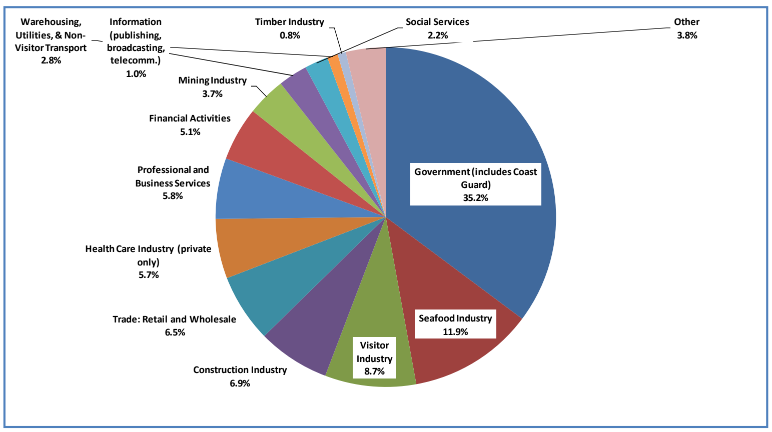
The economic development opportunities at Wrangell are shaped by the forces that impact the State of Alaska, particularly Southeast Alaska. The following section reviews key trends affecting the economy and identification of market opportunities and constraints.

Recent Trends in Southeast Alaska

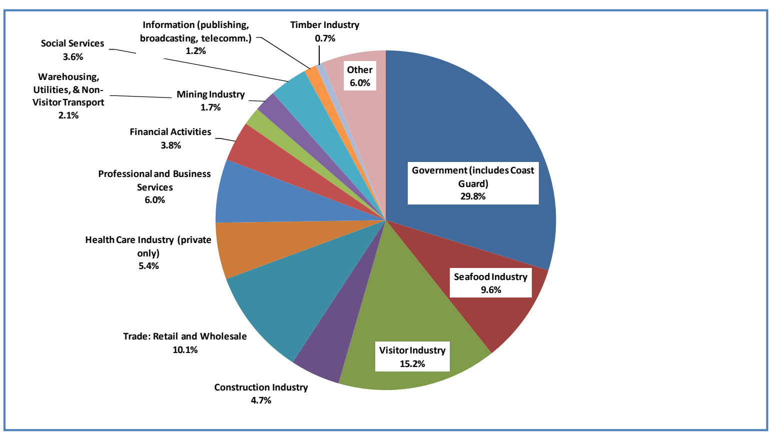
Employment and wage income in Southeast Alaska is dominated by three sectors: the government accounts for 35.2% of wage income and 29.8% of jobs; the seafood industry accounts for 11.9% of wage income and 9.6% of jobs; the visitor industry accounts for 8.7% of wage income and 15.2% of jobs. Combined, these three sectors account for 56% of earnings and 55% of jobs. None of the other sectors accounts for more than 6.9% of wage income or 10.1% of jobs.

Figure 1 – Southeast Alaska Earnings and Jobs by Sector[1]

Employment Related Earnings



Employment



[1] Source: Rain Coast Data, Alaska Department of Labor 2014 Employment & Wage data; 2013 US Census Nonemployer (self-employment) Statistics; 2013 US Coast Guard employment & wage data.

Overall, events during the past five years have been largely positive for the Southeast Alaskan economy:

- Population grew by 2,600 people,
- 1,500 new jobs were added,
- Workforce earnings increased by $275 million, mostly from the private sector,
- New jobs and investments occurred in the areas of seafood, tourism, mining, construction, healthcare, maritime, and energy. Only government experienced a downturn.
- Housing starts tripled.[2]

Impact of Lower Oil Prices

However, the Southeast Alaska economy will likely be impacted in 2016 (and in the longer term) by low oil prices which will negatively impact the state budget deficit. Oil prices are expected to continue to remain at historic lows in the near-term and will experience increased volatility. The Alaska Department of Revenue projects that the Alaska North Slope (ANS) oil price will be approximately $50 per barrel for FY 2016 and about $56 per barrel for FY 2017, which is significantly lower than $100 per barrel recorded in the recent past. This will have a significant impact on the state budget and on state funds for capital projects.

> "General fund unrestricted revenue (GFUR) is now forecast to be $1.3 billion in fiscal year FY2016 and $1.2 billion in FY2017. The revenue forecast is driven by an expectation of oil production of at least 500 thousand barrels per day and an average price of oil remaining between $30 and $40 per barrel for the next 15 months. The FY2016 forecast represents a decrease in expected GFUR of nearly $250 million, or about a 16% decrease, compared to the projection in the Fall 2015 forecast. Commissioner Hoffbeck concluded, 'Both revenue generated from resource development as well as revenue from our investments play a significant role in Alaska's total revenue picture. Unfortunately this is not a good year for either one. Years such as this emphasize the point that we have been making at meetings throughout the State that we need an overall strategy to manage revenue volatility throughout the fiscal system'"[3]

Oil prices are projected to increase to $80 or more within ten years, but this is still substantially lower than in the past (oil prices were over $100 per barrel from April 2011 to July 2014). Production is also expected to decline but the effect of reduced production is not as great as the decline in the price of oil.[4]

Since 75% of the state's unrestricted spending has come from oil taxes and royalties, there is projection of a $7.7 billion budget deficit over the next two years. This situation will require action, including spending cuts and increases in new revenues.

In Southeast Alaska, there is a concern that reduced spending could not only impact government employment, but also operations of the Alaska Marine Highways and funding for state and local capital projects.

[2] Source: Southeast Alaska by the Numbers 2015, Rain Coast Data, September 2015.

[3] Source: Spring 2016 Revenue Forecast Reflects Lower Oil Price, DOR released April 7, 2016.

[4] Source: Alaska Department of Revenue, Revenue Sources Book Fall 2015.

Outlook for Southeast Alaska

The Alaska Department of Labor and Workforce Development[5] estimates that employment in Southeast Alaska will fall by 500 jobs in 2016, which represents a modest decline of -1.4%. Most of the impact is expected to be felt in government which accounts for more than a third of employment in Southeast Alaska. The government sector is expected to lose 450 jobs. Losses are also expected in construction and professional and business services (expected loss of 100 and 50 jobs respectively). These losses will be partially offset by gains in trade, transportation, and utilities, education and health services and leisure and hospitality; with all three sectors expected to add 50 jobs. The Department of Labor reflects on specific sectors as follows.[2]

Government

Southeast has a higher concentration of state government jobs than any other region and will experience the most change in this sector. Cuts are also expected for the University of Alaska Southeast. Local governments will also be impacted but not as much as the state level. The federal government is not expected to experience job losses in 2016.

Manufacturing

Manufacturing in Southeast is dominated by seafood processing, which is characterized by low wages and approximately two-thirds of the employees are nonresident workers. The Alaska Department of Fish and Game forecasts the 2016 Southeast pink salmon run at 34 million, below its 10-year average and the same as the 2015 harvest. Pinks make up over half the salmon poundage caught in Southeast each year, and prices remain low, largely due to a surplus of canned pinks dating back to 2013. Increases in the minimum wage could also cause job losses.

Construction

The construction industry will slow due to a 37 percent decrease in capital budgets.

Tourism

Southeast tourism flourished in 2015, producing job growth for the leisure and hospitality sector. As the U.S. continues to rebound from the effects of the recession, domestic travel is expected to increase. An uptick in cruise traffic is predicted for Southeast in 2016. The Alaska Travel Industry Association predicts tourism will grow by 2 to 3 percent in 2016, and the cruise ship industry projects its passenger count will top the 1 million mark for the first time. Because the vast majority of Southeast's visitors arrive by cruise ship, more visitors and spending can be expected.

Private education and health services

Southeast's private education and health services sector is expected to increase with the expansion of Medicaid. In the long term, Southeast's aging population will increase demand for services related to seniors.

Mining

Mining employment is also expected to remain stable in 2016. Southeast has two operating mines, both within Juneau's city limits. No additional sites are scheduled to open in the near future, but exploration will continue to contribute a few additional jobs. The investment climate remains weak, in part due to low mineral prices.

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[5] Source: Alaska Economic Trends, January 2016.

Maritime Jobs

The Maritime sector is a very important source of jobs in Southeast Alaska. Approximately 22 percent of all Southeast Alaska private sector earnings are directly earned through ocean related employment as compared with 10 percent statewide.[6]

Maritime jobs included 8,200 maritime jobs; of which, 6,700 were within the private sector and 1,500 jobs in the public sector. Most of the public sector jobs are in the US Coast Guard. Combined, these jobs generated $475 million in associated wages.

Jobs in the private sector changed as follows between 2010 and 2013:

- 49% increase in US Coast Guard jobs,
- 24% increase in marine tourism jobs,
- 12% increase in marine transportation jobs,
- 7% increase in seafood sector
- Jobs in the ship building and repair component of this sector fell by two percent between 2010 and 2013.

Overall Business Climate

The 2015 Business Climate Report reveals that most business owners and managers in Southeast Alaska[1] expect a positive outlook for the coming year:

- 38 percent of those surveyed expected the outlook for their business or industry to improve. Those engaged in the visitor, food and beverage industries were the most upbeat.
- 19 percent of those surveyed anticipated the business climate to worsen (particularly in the timber, construction and healthcare industries)

Of particular interest, 48 percent of Wrangell respondents felt things were going to improve. Of the 27 businesses surveyed in Wrangell, 20 of them replied that conditions were good or better.

Business sentiment surveys represent a snap shot in time. It is important to gain an understanding of the key factors affecting future economic and social performance. The SE Conference[7] prepared a SWOT analysis to better understand strengths, weaknesses, opportunities and constraints, see Figure 2.

From an economic perspective, the target industries are quite apparent - seafood and ocean product development, tourism and mining. These economic sectors are also realized as strengths of the region, coupled with Alaska spirit, collaboration and quality of life.

Weaknesses focus on the cost of doing business, particularly transportation and energy costs. Threats primarily include elements that are beyond the regional control.

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[6] Source: The Maritime Economy of Southeast Alaska by the numbers, by Rain Coast Data for the Southeast Conference, March 2015

[7] Source: Southeast Economic Plan Preparing for 2020, Rain Coast Data.

Figure 2 – SE Conference Summary of SWOT Analysis

Rank	Strengths	Rank	Weaknesses
1	People & Southeast Alaskan Spirit	1	Transportation Costs
2	Region Collaboration	2	Energy Costs
3	Seafood Industry	3	Regulations & Overreach of Federal Government
4	Tourism Sector	4	Cost of Living & Doing Business
5	Beauty & Recreation Opportunities	5	Our Geography & Isolation
Rank	**Opportunities**	**Rank**	**Threats**
1	Seafood & Ocean Product Development	1	Federal Regulations & Overreach
2	Tourism	2	Declining oil Prices/ Dependence on State Budget
3	Energy	3	Capital Move & Capital Creep
4	Mining	4	Declining/Aging Population/Loss of Youth/Workforce
5	Promoting Region	5	Natural Disasters/Extreme Weather

Source: Southeast Economic Plan Preparing for 2020, Rain Coast Data

Trends in the City and Borough of Wrangell

Wrangell's economy has gone through a major transformation from a heavy reliance on forest products to a more balanced economy that depends on the maritime sector, government, tourism and other sectors.

Forest products manufacturing was the centerpiece of the economy well into the 1990s with sawmill employment as high as 240 workers with an additional 32 longshoremen loading the ships. By 1990, annual payrolls exceeded $10 million for the sawmill, not counting the tug, timber harvest and longshore operations'.[8] However, after passage of the Tongass Timber Reform Act by Congress in 1990, "mill closures resulted in an immediate loss of 20% of Wrangell's employment and 30% of local employment earnings. Wrangell's population dropped from 2,758 in 1994 to 1,911 in 2006 before a small trend in population increase began."[9]

The City of Wrangell began the process for reengineering its economy in 1986 with a purchase of the sawmill site in downtown Wrangell, which led to several investments:

- Development of flash freezer space and cold storage in a vacant seafood plant, later purchased by Trident Seafood with the goal of enhancing the maritime (fishing and seafood processing) sectors.
- Development of a Boatyard, including a 150-ton and then a 300-ton Travelift haul-out, with repair facilities and boat storage. This yard has been very successful, accommodating 200 to 275 boats per year since development. It has helped to attract other vessels to the area.
- Built a convention and visitors center near the Boatyard, upgraded the cruise ship dock and rebuilt Front Street, with the goal of enhancing the tourism industry.
- Construction of Heritage Harbor in 2010, a new boat basin that can accommodate around 165 boats with 1,500 feet of transient moorage space. The harbor is well utilized.

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[8] Source: Wrangell sawmill's golden years and eventual collapse, by Frank Roppel for the Capital City Weekly, October 26, 2011

[9] Source: Wrangell Timber Industry Plan, Wrangell Economic Development Committee, October 2013

The City is now contemplating development of the Silver Bay sawmill site. The following sections are intended to evaluate the options for development at the Silver Bay site from the demand perspective.

Population

The loss of jobs caused a major decline in the population and economy in Wrangell. Between 1994 and 1997, the population decreased from 2,800 to 2,500, and in 2006, it bottomed out at 2,200. Since then, the city's population has not fully rebound to the highest level reached but it is inching its way back. As shown in Table 1, the population base, labor force and number of employed persons have increased slightly from 2010 to 2015. As a result, the unemployment rate remained at 8.7% in 2010 and 2015. Much of the increase was associated with maritime jobs, as described in greater detail below.

Table 1 – Population and Employment Trends (City and Borough of Wrangell)

Year	Population	Labor Force	Employment	Unemployment	Unemployment Rate
2010	2,369	1,023	941	82	8.71
2011	2,411	1,047	968	79	8.16
2012	2,446	1,027	942	85	9.02
2013	2,455	1,060	975	85	8.72
2014	2,415	1,043	950	93	9.79
2015	2,442	1,048	964	84	8.71

Source: State of Alaska Department of Labor and Workforce Development

The population base in Wrangell is older, with a median age of approximately 47, which is considerably higher than Alaska's median age of 34 years and the United States' median age of 37. This factor impacts the birth rate but most of the growth in population has occurred from in-migration. As a corollary to this point, school enrollment decreased by 24 percent in recent years.

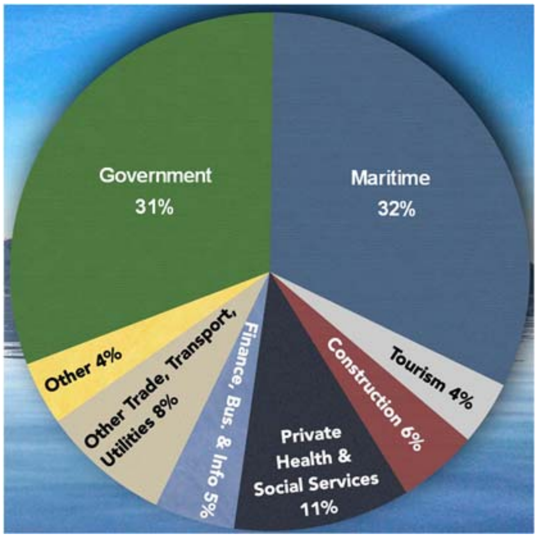
Wrangell's demographic composition also differs from the state as a whole in that is 73 percent white versus 67 percent for Alaska. While Wrangell has a much smaller percentage of blacks, Asians, and Hispanics than Alaska, it has a slightly larger share of Alaska Natives.

Employment, Unemployment and Income

There were an estimated 1,229 jobs in Wrangell in 2013, of which, approximately 70 percent were in covered employment and 30 percent were self-employed. There is a relatively high percent of self-employment in Wrangell, much of which is related to the maritime industry.

The Wrangell economy generated $49 million in wages in 2013. As shown in Figure 3, the maritime sector was the largest sector in the economy, accounting for 32 percent of total wages, followed closely by Government accounting for 31 percent of wages. Together, these two sectors accounted for nearly two-thirds of the wage income in Wrangell.

Figure 3 – Share of Wages by Sector in Wrangell (2013)

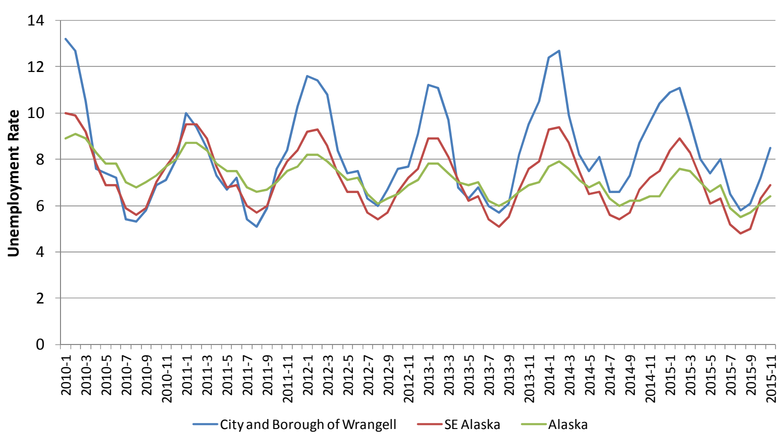


Source: Wrangell Waterfront Master Plan, Corvus Design, Rain Coast Data

Wrangell's average annual covered wages and average personal income are lower than statewide. In 2013, Wrangell's average yearly wage (which doesn't include earning from fishing) was $37,520, and Alaska's was $51,030. [10] Per capita personal income, which encompasses wages plus all other sources of income (including fishing) was $40,089 in 2013 in Wrangell, which is considerably below the statewide average of $50,150.[11]

One of the reasons that Wrangell has a lower average annual wage and per capita income is that many of the jobs are seasonal (fish processing and tourism, among others). As a result, the monthly unemployment rate swings more vigorously in Wrangell than in Southeast Alaska or Alaska overall. Unemployment in Wrangell spikes during the winter months as shown in Figure 4.

Figure 4 – Monthly Unemployment Rate trends in Wrangell



[10] Source: Alaska Department of Labor and Workforce Development, Alaska Economic Trends September 2014.

[11] Source: U.S. Bureau of Economic Analysis (BEA)

Description of Economic Sectors

Maritime

Wrangell is much more dependent on maritime-related employment (which accounts for 47 percent of the private sector employment base in Wrangell) than is Southeast Alaska (at 22 percent) or Alaska (at 11 percent).[12]

There were 315 maritime-related jobs in Wrangell in 2013 in the following sectors:

- Commercial fishing – 57% of the Maritime sector,
- Fish processing – 31% of the Maritime sector,
- Other maritime (industrial & tourism) - 12% of the Maritime sector.

The Petersburg/Wrangell area supports catchable populations of salmon (all five species), halibut, ling-cod, Pacific cod, greenling, herring, and several common species of rockfish as well as shellfish such as Dungeness, Tanner, and king crab, shrimp, scallops, and clams.[13] Commercial fishermen homeported in Wrangell landed 10.6 million pounds of seafood worth approximately $14 million in Wrangell in 2013.[14] There were 205 permit holders in Wrangell for commercial fishing in 2013; of which, 155 were actively fished. The total associated employment was estimated at 362 individuals in 2013 (consisting of skippers who fished plus crew). Approximately 14.7% of the local population was actively involved in commercial fishing in 2013. There were 219 commercial fishing vessels home ported in Wrangell in 2013. [15]

The local catch feeds fish/seafood processing jobs, which make up the majority of manufacturing employment in Wrangell. There were approximately 372 jobs in seafood processing in Wrangell during 2013, with 89 jobs held by Alaskans and 283 by non-residents.[16] Seafood processing is highly seasonal and spikes with the summer salmon season.

Trident Seafoods and Sea Level Seafoods are the two primary commercial seafood processing companies in Wrangell (processing salmon, crab, shrimp, halibut and rockfish). Alaska Specialty SEA Foods processes crab. The Wrangell community has supported infrastructure for the fishermen to support their supply needs as well as the processors for their product and facility expansion efforts.[17] As indicated above, the city purchased a seafood plant and made investments in a flash-freeze facility and cold storage. Trident Seafoods purchased the plant and has undertaken additional improvements. In addition, Sea Level Seafoods (Wrangell's other major seafood processor) has also invested in and expanded its plant.

Fishery business taxes have increased dramatically in Wrangell, which is evidence of the positive impact of Wrangell's maritime infrastructure and services. Wrangell collected $55,483

[12] Ibid

[13] Source: Alaska Department of Fish and Game, Fish species in the Petersburg/Wrangell Area.

[14] Source: Wrangell Waterfront Master Plan, Corvus Design, Rain Coast Data. However, not all of these fish were landed at Wrangell.

[15] Source: United Fishermen of Alaska, Commercial Fishing and Seafood Processing Facts 2014, based on 2013 data.

[16] Source: United Fishermen of Alaska, Commercial Fishing and Seafood Processing Facts 2014, based on 2013 data.

[17] http://www.wrangell.com/economicdevelopment/seafood-harvesting-and-processing

in raw fish taxes in 1990; these tax receipts increased to $329,987 in 2014. From 2010 to 2014, Wrangell has doubled its share of the state's fishery business taxes. See Table 2.

Table 2 – Fishery Business Tax Trends in Wrangell

City/Borough	2010	2011	2012	2013	2014
Wrangell City	$105,537	$265,498	$380,741	$0	$0
Wrangell Borough	$0	$0	$0	$288,004	$329,987
Total	**$105,537**	**$265,498**	**$380,741**	**$288,004**	**$329,987**
% of Alaska	0.6%	1.2%	1.5%	1.2%	1.3%

Source: Alaska Department of Revenue, Tax Division

The City also constructed Heritage Harbor in 2010, with moorage space for around 165 boats and 1,500 feet of transient moorage space. Provision of these facilities as well as other services and facilities (including boat design, repair, fabrication, painting, welding, custom glasswork, hydraulics, and other businesses) helps explain the successful attraction of additional vessels to the area. The Wrangell Boatyard has serviced more than 200 vessels per year since introducing the 150-ton Travelift. The Boatyard generates around 50 jobs (total, not average annual jobs).[18]

Barge services are provided by Alaska Marine Lines (AML) and Samson Tug and Barge.

Government

Government represents 31 percent of Wrangell's employment (including covered jobs and self-employed persons). Local government includes the City and Borough of Wrangell, the school district and the Wrangell Medical Center. Federal employment is focused at the U.S. Forest Service. State jobs are centered at the Department of Fish and Game and the Department of Transportation and Public Facilities.

Tourism

In 2014, an estimated 14,720 tourists visited Wrangell and spent $4.1 million. The visitor business in Wrangell generated employment for approximately 85 individuals in 2013 with an income of $1,461,237.[19]

Tourists arriving by boat in 2014 accounted for the majority of visitors:

- Arrivals by boat (78% of visitors)
  - Cruise - 8,100 visitors (55% of total)
  - Yachters - 1,220 visitors (8% of total)
  - Ferry - 2,200 visitors (15% of total)
- Arrivals by plane
  - Air - 3,200 visitors (22% of total)

Wrangell's marine tourism is dominated by cruise lines (55% of visitors), visitors arriving by ferry (15% of visitors) and yachters (8% of visitors) in 2014.

[18] Source: Wrangell by the Numbers, 2014, Corvus Design, Rain Coast Data.

[19] Source: An Overview of the Wrangell Alaska Visitor Economy.

Wrangell has several notable visitor attractions, including Petroglyph Beach State Historic Part, the Anan Wildlife Observatory, and Anan Creek, which has one of Southeast's largest pink salmon runs as well as a large population of grizzly and black bears.

Wrangell has developed several facilities to enhance and grow the tourism industry, including construction of a convention and visitors center, upgrades to the cruise ship dock and reconstruction of Front Street.

Manufacturing

Most of manufacturing in Wrangell consists of seafood processing. However, there are three remaining small mill operators on Wrangell Island processing between 1 and 1.5 million board feet total of value added products annually, including products such as music wood, boat wood, dimensional lumber, and wood for home and bridge construction. "[20] Some of these firms have indicated an interest in the Silver Bay mill site.

Other Sectors

Other sectors, which primarily serve local residents and businesses, include: construction, utilities, financial services, information, professional and business services and educational and health services.

Summary of Development Concepts

The Wrangell Waterfront Plan focused on the following development considerations:

- Promote Wrangell as a waterfront community. Be authentic.
- Promote shipyard for regional fishing fleet.
- Low electric rates can attract business development.
- Promote accessible waterfront in Wrangell for all: locals, industry, visitors.
- Promote a balanced mixed-use waterfront that allows safe interaction.

Focusing tourism in the downtown waterfront is a key element of the Waterfront Plan. Efforts to improve the downtown area are underway that would enhance the downtown waterfront for local residents and visitors. Provision of visitor friendly facilities would enhance access for small cruise lines and yachts. This process could also include moving some industrial activities from the downtown waterfront to the sawmill property:

- Development of a second boatyard and upland storage in conjunction with the relocation of the 300-ton lift,
- Development of small scale sawmills and other manufacturing activities, and,
- Relocation of barge terminal, among other activities.

Between 2010 and 2012, the Silver Bay sawmill site was dismantled, and today the site is nearly cleared with Phase 2 Environmental Clean-up almost completed. If no private investors step forward The City and Borough of Wrangell is considering purchasing this property for use as a multi-use deep-water industrial port that could support existing and future small and

[20] Source: Wrangell Timber Industry Plan, Wrangell Economic Development Committee, October 2013

medium sized mills and other value added wood product businesses, as well as marine industry activities. ”[21]

Analysis of Demand

This section assesses the market opportunities for potential users of the Silver Bay Sawmill site.

Vessel Repair

As noted above, the Wrangell Boatyard is a key reason for the successful attraction of maritime business to the area. This section evaluates the utilization of the existing facility and the potential for additional repair/storage facilities at the Silver Bay

Existing Facilities

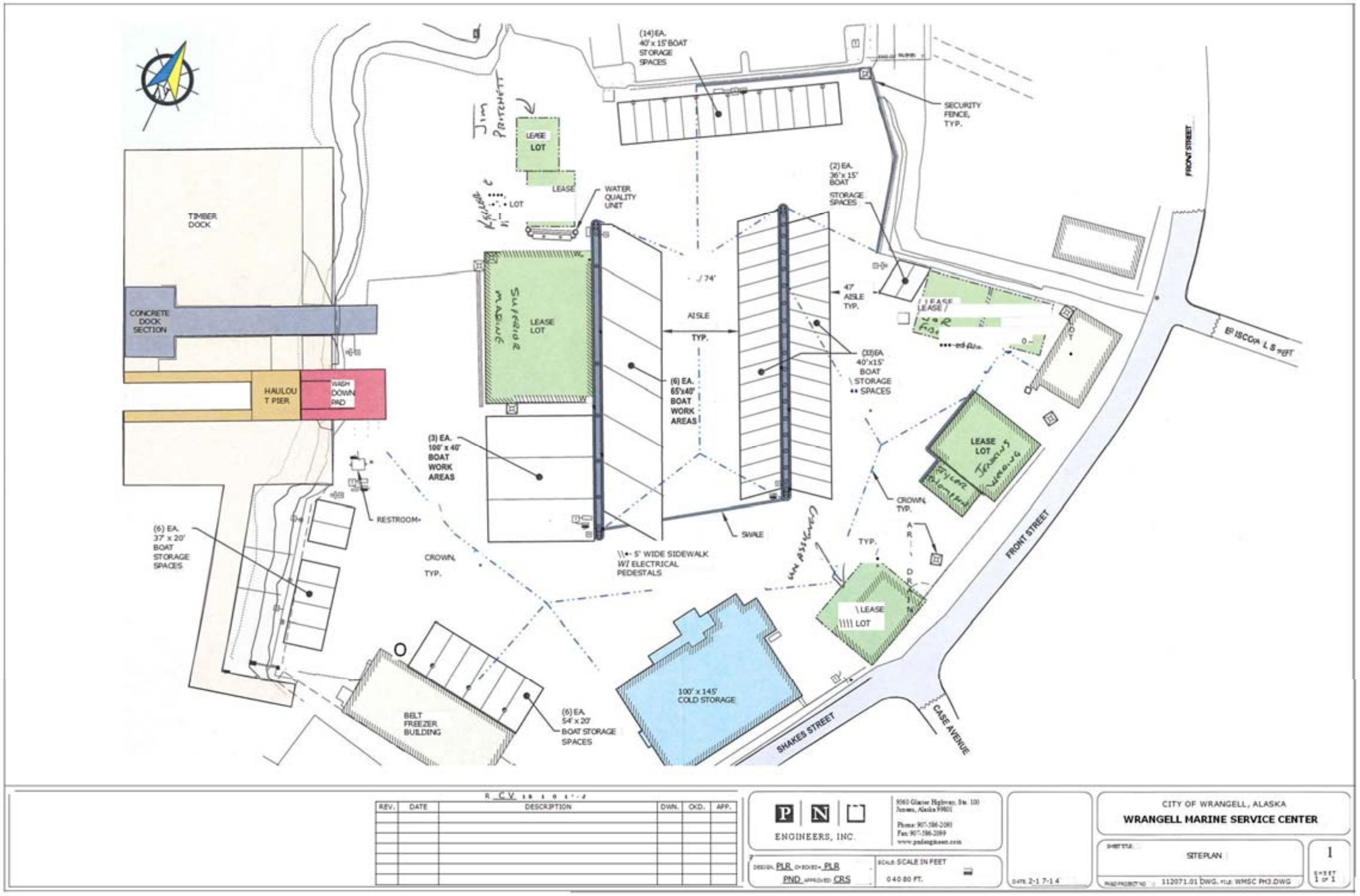
The existing Wrangell Boatyard, which is shown in Figure 5, consists of approximately 7.5 to 8 gross acres. This includes leased the Travelift pier and travel area, leased spaces, work spaces and storage spaces:

- There are approximately 85 storage spaces,
- There are approximately 42 work spaces:
    - Three 100’ x 40’
    - Six 65’ x 40’
    - Thirty-three 40’ x 15’
- The Boatyard is a self-service yard with a variety of skilled vendors available to assist vessel owners with repairs, modifications or upgrades to their boats, including:
    - Superior Marine
    - Keller Marine
    - Jim Pritchett
    - Jenkins Welding
    - Tyler Thompson
    - J& R Fiberglass

The Boatyard has two Travelifts (150-ton lift, 300-ton lift) as well as a 40-ton hydraulic trailer, and an EPA/DEC approved wash down area. The lifts are limited to the size of the existing Travelift pier, which allows a maximum beam of approximately 27 feet. Without the pier constraint, the Travelifts could lift vessels with a beam up to 32 feet.

[21] Source: Wrangell Timber Industry Plan, Wrangell Economic Development Committee, October 2013

Figure 5 – Wrangell Boatyard



Utilization Rate

The Wrangell Boatyard has serviced more than 210 vessels per year since fiscal year 2010. During the past four years, the yard has handled more than 247 boats per year. The yard caters primarily to commercial fishing boats but also accommodates recreational boats and other commercial boats (harbor boats including tugs and other boats).

Table 3 – Vessels Pulled per Fiscal Year

Fiscal Year	Vessels Pulled	Comments
2009-2010	274	
2010-2011	210	
2011-2012	276	
2012-2013	247	Construction and pouring pavement slowed down the yard for 2 months during this year
2013-2014	250	Second phase of pavement slowed down the yard for 2 months during this year
2014-2015	272	

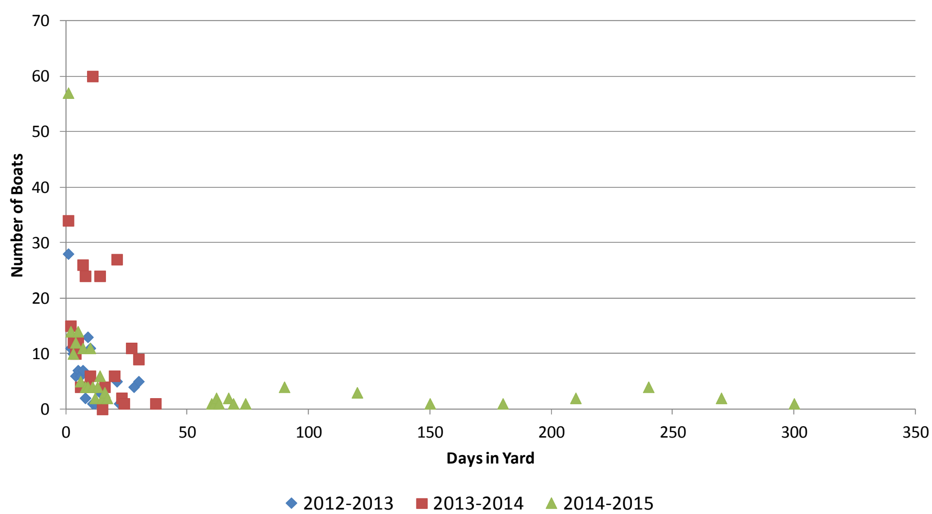
Source: City and Borough of Wrangell Harbormaster

The yard work space is busiest before and after the fishing season:

- Busy before the season - from April to early May
- Slows during July and August (as the commercial fishing fleet becomes active), and,
- Busy after the season - September and October.
- Slow from November to March.

Boats remain in the Boatyard from one day to more than 90 days. However, the average stay per boat has increased from about one week to two weeks (7.6 days in 2012/13; 10.7 days in 2013/14; 14.8 days in 2013/14). The Boatyard has a limit of 14-days stay without making other arrangements.

Figure 6 – Wrangell Boatyard Work Days per Boat



Demand

The market for the Wrangell Marine Service Center focuses primarily on commercial fishing vessels and to a lesser extent recreational and other commercial vessels. The fleet serving Alaska is comprised of approximately 9,416 vessels. Commercial fishing vessels account for nearly 70% of the total, followed by recreational boats (16% of the total), passenger and cruise vessels (6%), tugs and other commercial (3% each), oil & gas vessels (2%) and barges (1%).

The largest share of the fleet is homeported in SE Alaska (34%), followed by Cook Inlet (17%), Non-Alaska (mainly Washington and Oregon at 14%), Prince William Sound (10%), Bristol Bay (8%), Kodiak (5%), Bering Sea, Aleutian Islands, and Alaska Peninsula (4%), Northern (1%), Interior (1%). See Table 4.

Table 4 – Southeast and Alaska Fleet

	Commercial Fishing	Recreat-ion	Oil & Gas	Passenger & Cruise	Tugs	Barges	Other	Total
Alaska	6,489	1,540	152	576	296	108	255	9,416
% Total	69%	16%	2%	6%	3%	1%	3%	100%
SE % Alaska	34%	35%	6%	45%	22%	63%	19%	34%

Source: McDowell Group, Trends and Opportunities in the Alaska Maritime Industrial Support Sector, September 2015

The opportunities for Wrangell consist of vessels homeported in SE Alaska, vessels in other parts of Alaska and vessels from outside Alaska that transit through SE Alaska to reach their base of operations. Most of the Southeast fleet is less than 60 feet in length (88%).

Table 5 - Southeast Alaska Fleet, Number of Vessels by Homeport and Length

Homeport	28'-35'	36'-49'	50'-59'	60'-99'	100'-200'	+200'	Total	Percent
Haines	47	30	3	3	1	1	85	3%
Hoonah	27	20	3	1	0	1	52	2%
Juneau	380	378	77	67	35	5	942	29%
Ketchikan	136	189	56	54	35	14	484	15%
Petersburg	123	126	79	31	9	3	371	12%
Sitka	186	283	66	52	9	1	597	19%
Wrangell	75	88	12	17	5	1	198	6%
Other SE	186	222	58	17	6	3	492	15%
Subtotal	1,160	1,336	354	242	100	29	3,221	100%
% by lngth	36%	41%	11%	8%	3%	1%		

Source: McDowell Group, Trends and Opportunities in the Alaska Maritime Industrial Support Sector, September 2015

Most commercial boats undertake a haulout approximately once every other year. Wrangell currently handles the needs of approximately 250 commercial boats, which amounts to approximately 6% of the Alaskan fleet.

Annual repair and maintenance (R&M) costs for the Alaska fleet are conservatively estimated to range from $5,000 for vessels 28' to $600,000 for vessels more than 200'. Based on these and similar estimates for various vessel size classes, Alaska fleet vessel owners likely spend a total of approximately $80 to $100 million on R&M per year.[22] Each boat spent an estimated $7,200 per haulout in Wrangell. This amounts to 1.9% to 2.4% of the total fleet.

Vessel replacement of aging commercial fishing vessels in Alaska presents an opportunity for boat and ship builders in the United States, estimated to include 2,829 vessels in the Alaska fleet at a replacement cost of more than $14 billion.[23]

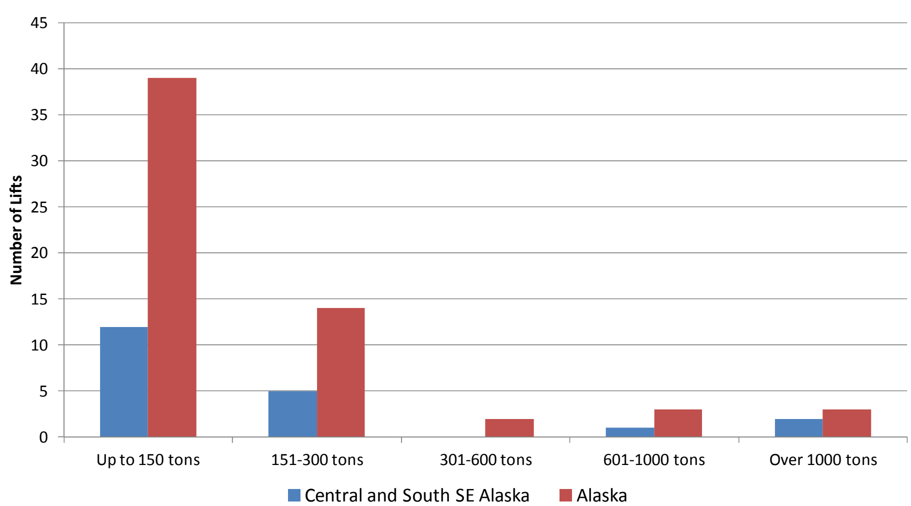
Wrangell accounts for around 6% of haulouts by number of lifts and 2% by value of repair/maintenance. Wrangell has an opportunity to increase its market share of the existing Boatyard activity. The Wrangell Boatyard generates around 50 jobs (part time jobs).

Competition

There are an estimated 100 businesses in Alaska actively engaged in boat/ship building and repair in Alaska.[24]

- Most boat builders in the state focus on vessels less than 40 feet.
- There are 25 travel lifts in 15 different communities. Kodiak has the largest capacity travel lift with an ability to haul out vessels up to 180' long, 42' wide, and 660 tons. Wrangell has the second largest lift (300 tons).
- Five dry-docks are available in four Alaska communities (Ketchikan, Sitka, Seward, and Dutch Harbor). The largest, with a capacity of 10,000 tons, is located in Ketchikan. Sitka hosts the smallest, at 850 tons, which was built and is operated by Allen Marine.
- There are also numerous tidal grids and marine railways in Alaska. Tidal grids are being phased out in other U.S. locations, which could enhance opportunities for the Wrangell Boatyard.

Figure 7 – Number of Marine Lifts in Alaska by Capacity



[22] Source: Trends and Opportunities in the Alaska Maritime Industrial Support Sector, prepared for Alaska Department of Commerce, Community & Economic Development, Division of Economic Development by McDowell Group, September 2014

[23] Source: Fishermen's News

[24] McDowell Group

However, competition for boatyard projects is strong in Alaska as well as with other yards located in Washington, Oregon and California. According to the McDowell Group, Alaskan yards face a competitive disadvantage relative to yards in the Lower 48 because labor rates are higher and the pool of labor is much smaller. “The combination of elevated labor and shipping costs often place Alaska at a competitive disadvantage with service providers in other regions. Wages paid for MIS-related skilled labor in Alaska can be 10 to 65 percent higher than a similar worker in Washington. Shipping adds 10 to 20 percent to the cost of securing boat-building and repair materials.”

A factor in favor of Alaska’s competitive position is its proximity to fisheries and resource development. As fuel prices increased in the recent past, the cost for vessels operating in Alaska waters to travel south for services also increased. The average cost to buy 600 gallons of diesel fuel[25] increased from approximately $1,000 in 2002 (adjusted to 2015 dollars) to a peak of $2,800 in 2008. However, the decline in crude oil prices has also affected diesel prices. The cost of 600 gallons of diesel was $1,900 in 2015, which was comparable to price levels in 2006 (in 2015$). Diesel prices are trending lower in 2016, averaging $2.40 per gallon through April. It is unclear how long prices will remain at low levels, because there are many external factors that control them. The Energy Information Administration expects gasoline and diesel prices to remain at lower levels for several years.

Despite these trends, there is growing recognition among local vessel owners that it is in their best interest to support local MIS providers because it will help to expand services, support a steady labor force, provide services more competitively, and provide higher quality services. This includes supporting infrastructure development in communities that have developed a threshold base (including Wrangell).

Boatyard expansion should be considered at the sawmill site. The existing Wrangell Boatyard currently reaches capacity during the peak season (months before and after the fishing season). Provision of additional boatyard capacity at the sawmill site would allow Wrangell to capture additional boatyard activity and related storage. However, this development will be expensive and funding resources are in short supply (especially from the State of Alaska).

Another key component of development of the Boatyard is labor force development. The Maritime Workforce Development Plan released in May 2014, by a partnership that represents industry, State agencies, and the University of Alaska, provides a strategy to address Alaska’s need for maritime-related technical skills and targets 23 high-priority occupations and occupational groups that include shipbuilding, vessel repair, and maintenance service providers. Because Alaska’s local MIS sectors are small, the need for specific skills varies from community to community and warrants additional analysis in conjunction with any local business development effort.

The City and Borough of Wrangell has received $15,050,000 in state grants to develop the Boatyard. The city also purchased land across the street and is using that area to store smaller boats. [26]

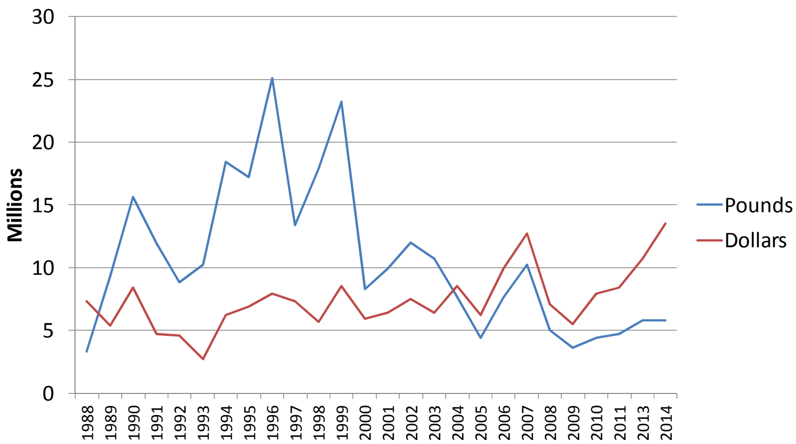
[25] Source: North Pacific Fishery Management Council and the Pacific Fishery Management Council (PFMC) Fisheries Economics Data Program (EFIN); surveys fuel prices in Alaska and other West Coast states.

[26] Source: City and Borough of Wrangell 2014-15 Budget

Seafood Harvesting and Processing

Wrangell ranked as the 75th largest port in the United States by value of seafood harvested in 2014. The volume of landings has averaged approximately 5 million pounds in the past five years. The value of the landings has increased to $13.5 million in 2014, up from $5.5 million in 2009.[27]

Figure 8 - Commercial Fishery Landings Wrangell, AK



Source: NMFS Landings by port

Trident Seafoods and Sea Level Seafoods are the two primary commercial seafood processing companies, processing salmon, crab, shrimp, halibut and rockfish. Alaska Specialty SEA Foods processes crab.[28] The combined capacity of these plants is nearly 6 million pounds.

The Trident plant is located south of the Boatyard at 641 Shake Street. Trident plant processes all five species of wild salmon into high-quality frozen, H&G product.[29] As indicated above, the city purchased a seafood plant and made investments in a flash-freeze facility and cold storage. Trident Seafoods purchased the plant and has undertaken additional improvements.[30]

Alaska Sea Level Seafoods, owned by Pacific Seafood, is located near the entrance to Heritage Harbor at 1204 Zimovia Highway. Sea Level processes all five species of salmon into several fresh and frozen product forms and the roe from these salmon is processed into caviar. The plant also processes a host of other species, including Pacific Halibut, Sablefish, Bottomfish and Dungeness Crab.[31] Sea Level Seafoods has also invested in and expanded its plant.

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[27] Source: National Marine Fisheries Service Fish Landings by Port; these statistics show known landings by port as opposed to landings by the fleet homeported at a port (CFEC data).

[28] http://www.wrangell.com/economicdevelopment/seafood-harvesting-and-processing

[29] Source: Trident website

[30] Source: http://www.sitnews.us/PaulaDobbyn/081013_wrangell_fishing.html

[31] Source: Pacific Seafood website

Alaska Special SEA Seafoods, which is located at Lot One Mill Dock, focuses on crab processing. Crab is kept in holding tanks with circulating salt water and shipped live via air freight.[32]

The City and Borough of Wrangell has worked with processors to enhance opportunities, including:[33]

- Maintaining harbor and port facilities and easy access to marine services.
- Ensuring ready availability of ice, bait and other support.
- Supporting SSRAA and terminal salmon fisheries harvests that benefit local fishermen and the Trident Seafoods operations.
- Ensuring continued reliable airlines flights in and out of Wrangell with adequate space for refrigerated cargo.
- Making public cold storage available to fishermen and processers through the Borough's anchor tenant relationship with Trident Seafoods. [The public cold storage has a capacity of 4,500,000 pounds]
- Diversifying dive fishery opportunities in Southeast Alaska.
- Supporting financing mechanisms that enable local commercial fish permit holders to sell permits to their children and other Wrangell residents when ready for retirement, rather than seeing permits leave the area.
- Participating in regional marketing efforts that create higher prices for local branded products; this will be an especially important if overall prices decline as they did in the late 1990'sr2004.
- Keeping Southeast Alaska fishing waters pollution free to ensure our 'Wild Alaska' image and reality is maintained.

Fish processing is highly seasonal in Wrangell and volumes are much lower than in other Southeast communities (e.g., Petersburg has three active processors that handle 126 million pounds of product, as compared with two in Wrangell that handle only 5.8 million pounds)[34]. Because of these factors, it is uncertain whether these facilities would relocate to the sawmill property.

Barge Transportation

Barge service in Wrangell was provided by AML and Northland, until AML's parent company Lynden purchased Northland Services in 2013.[35] Because AML and Northland were the primary barge lines serving Southeast Alaska, the Alaska Attorney General's office requires that AML sell Northland assets and assist with the transfer to ensure competitive serve in Southeast Alaska. After the acquisition of Northland, AML sold the Northland assets to Samson.

[32] Source: Wrangell Chamber of Commerce

[33] Source: City and Borough of Wrangell Comprehensive Plan 2010

[34] Source: Petersburg Borough Waterfront Master Plan, December 2015, Moffatt & Nichol.

[35] Lynden has several transportation-related subsidiaries, including: Alaska West, Aloha Marine Lines, Bering Marine Corporation, Brown Line, Lynden Air Cargo, Lynden Canada Co., Lynden Inc., Lynden International, Lynden International Logistics Co. Lynden Logistics, Lynden Training Center, Lynden Transport - provides multi-mode, full-service, regional, common and contract carrier services throughout the entire State of Alaska, LTI, Inc. and Milky Way.

Barge Lines

Barge service to Wrangell is currently provided by Alaska Marine Lines (AML) and Samson Tug and Barge.

AML continues to provide regular barge service to and from Southeast Alaska, Central Alaska, Western Alaska, and Hawaii. In Southeast Alaska, AML serves the communities of Juneau, Ketchikan, Wrangell, Sitka, Petersburg, Haines, Skagway, Kake and Prince of Wales Island with twice a week departures from Seattle.

Samson Tug and Barge served Wrangell and other Southeast Alaskan communities in the past. However, barge service was terminated as a result of declining traffic from the forest products sector. Samson continued to provide bi-weekly service to the communities of Cordova, Valdez, Seward, Kodiak, King Cove, and Dutch Harbor, serving the interior communities of Anchorage, Fairbanks, the Kenai Peninsula, and Prudhoe Bay through Seward or Valdez. After acquisition of the Northland assets, Samson began weekly service from Seattle to the communities of Metlakatla, Ketchikan, Prince of Wales, including Craig, KIawock and Thorne Bay, Wrangell, Petersburg, Juneau and Sitka.

Other barge services (such as fuel and project cargo) are provided on an as needed basis. In general, barges carrying diesel, heating oil, aviation gas, and gasoline, are towed from Washington each month or less frequently, from Nikiski, to provide fuel for Southeast Alaska. An additional ‘resident’ barge takes fuel from Ketchikan and provides supplies for the smaller communities or industrial activities.[36]

Cargo

Wrangell receives approximately 17,000 tons of inbound cargo and ships approximately 23,000 tons of out bound cargo each year. As shown in Table 6, inbound cargo consists primarily of consumer goods and inputs to manufacturing:

- Petroleum products (gasoline, diesel, fuel oil and other like products) account for 41% of inbound cargo,
- Machinery and equipment (mainly miscellaneous manufactured products as well as electrical equipment, vehicle parts and other commodities) accounted for 25% of inbound cargo,
- Primary manufactured commodities (cement, fabricated metal products, iron and steel products etc) accounted for 15% of inbound cargo,
- Food and farm products (consisting primarily of groceries and beverages) accounted for 13% of inbound cargo,
- Crude materials (sand and gravel, construction materials) accounted for 5% of inbound cargo,
- Other commodities (mainly chemicals and derivatives) accounted for the remaining 1% of inbound cargoes.

Outbound cargo consists primarily of fish/seafood product shipments, forest products and waste materials:

[36] Source: Southeast Alaska Vessel Traffic Study, 2012

- Food and farm products (fish and seafood products) accounted for 67% of outbound cargo,
- Crude materials (primarily consisting of steel scrap) accounted for 12% of inbound cargo,
- Machinery and equipment (miscellaneous manufactured products and other commodities) accounted for 12% of inbound cargo,
- Primary manufactured commodities (cement, fabricated metal products, iron and steel products etc) accounted for 15% of inbound cargo,
- Waste materials (consisting primarily of scrap and garbage) accounted for 4% of inbound cargo,
- Other commodities (mainly petroleum products, paper products and fabricated metal products) accounted for the remaining 5% of inbound cargoes.

Table 6 – Barge Traffic at Wrangell (short tons)

Commodity Group	Receipts	Shipments	Total
20 Petroleum and Petroleum Products	6,906	551	7,457
30 Chemicals and Related Products	252	101	353
40 Crude Materials, Inedible Except Fuels	864	2,675	3,539
50 Primary Manufactured Goods	2,521	730	3,251
60 Food and Farm Products	2,167	15,576	17,743
70 All Manufactured Equipment, Machinery	4,306	2,711	7,018
80 Waste Material	-	853	853
Total	17,015	23,199	40,214

Source: U.S. Army Corps of Engineers; table includes average annual cargo volumes for the period 2009 to 2013, which is the most recent data available

According to US Army Corps of Engineers data,[37] Wrangell handles approximately 10,000 twenty-foot equivalent units (TEUs) per year, with about 3,100 TEUs loaded with supplies inbound and 3,100 full TEUs shipped outbound with goods (primarily fish and seafood products). The remaining containers are empty. This equates to approximately 1,500 full containers in and out per year (assumes most containers are 40 footers).

Port Facilities

Barge service is accommodated at the Port of Wrangell's Barge Ramp and cargo Wharf. The Barge Ramp, which is used for shipping and receiving conventional, roll-on/roll-off, and containerized general cargo, is equipped with a pneumatic system to raise and lower the transfer bridge, and there are over two acres of open storage at the rear of the ramp. The Port of Wrangell Barge Ramp has berthing space of 400 feet with alongside depth of 20 feet. The Cargo Wharf is used for shipping and receiving containerized general cargo. At the rear of the facility is about 8,700 square feet of paved open storage, and there is more open storage available. The Cargo Wharf has berthing space of 300 feet with alongside depth of 32 feet.

When additional space is required during the peak summer season, barge lines can use a portion of the Boatyard for storage.

[37] Source: U.S. Army Corps of Engineers Waterborne Commerce data.

It is uncertain whether the barge lines would move to the sawmill site. The existing barge facilities are appropriately sized to accommodate normal loads. Shifting the barge lines to the sawmill property would entail additional capital costs as well as increased transportation and logistics costs for the barge lines and their customers to transit from the mill site to downtown.

Cruise and Ferry Transportation

This section reviews cruise and ferry transportation.

Cruise

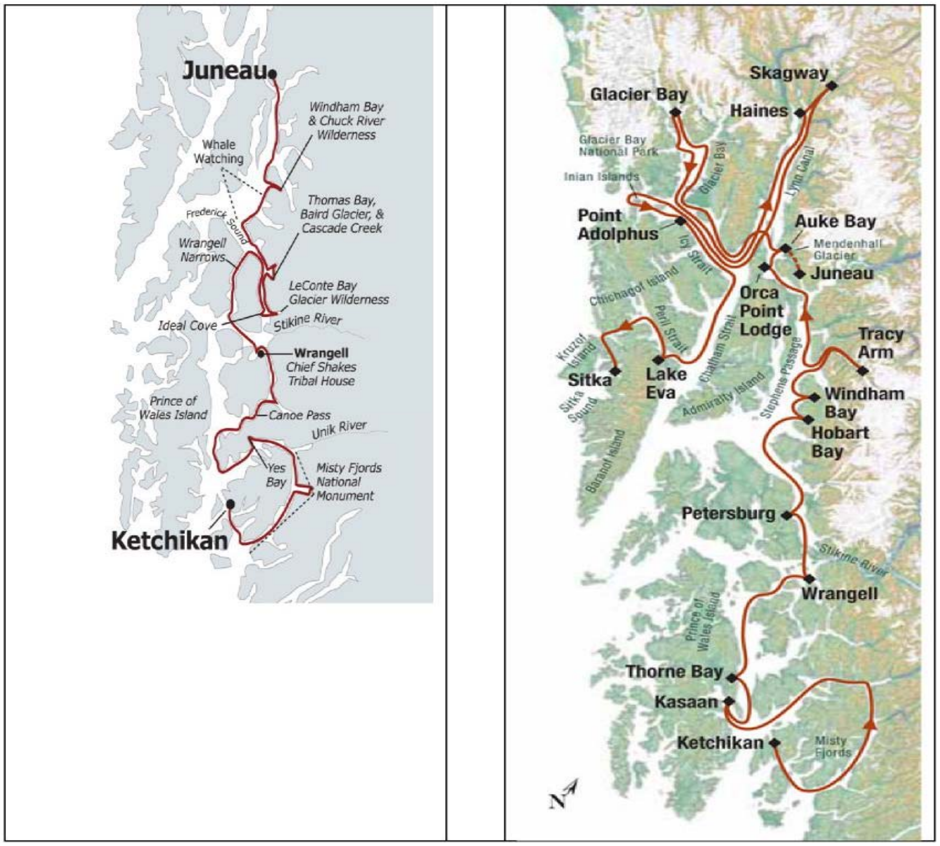
Wrangell receives small to midsize cruise ships from late April to the end of September. In 2016, 61 visits are scheduled by the following lines and vessels:

- Alaska Dream Cruises (Allen Marine - Sitka)
    - Alaska Dream (104 feet, 40 passengers)
    - Baranof Dream (143feet, 49 passengers)
- Un-Cruise Adventures (formerly InnerSeas Discoveries and American Safari)
    - Wilderness Explorer (186 feet, 76 passengers/ 26 crew)
    - Wilderness Adventure (160feet, 60 passengers /25 crew)
    - Wilderness Discoverer (176feet, 76 passengers / 26 crew)
    - Safari Quest (120 feet, 22 passengers/ 9 crew)
    - Safari Explorer (145feet, 36 passengers/ 15 crew)
    - Safari Endeavour (232feet, 86 passengers/ 34 crew)
    - SS Legacy (192 feet, 88 passengers / 34 crew)
- Oceania Cruises:
    - Regatta (593.7 feet, 684 passengers /400 crew)
- American Cruise Lines:
    - American Spirit (205 feet, 100passengers)
- Silversea
    - Silvershadow (610 feet, 382 passengers/302 crew)
- Regent Seven Seas Cruises:
    - Seven Seas Navigator (566 feet, 490 passengers/345 crew)
    - Seven Seas Mariner (709 feet, 700 passengers/445 crew)

Larger vessels embark from Seattle or Vancouver for ports in Southeast Alaska. The smaller vessels typically embark from Ketchikan, Juneau or Sitka and travel 7 to 14 days to a variety of destinations that provide wilderness activities. See Figure 9.

While in Wrangell, the cruise boats are in port for an average of nearly 9 hours, which enables passengers to engage in several activities.

Figure 9 – Typical Itinerary for Small Cruise Ships



Cruise Terminal

The Port of Wrangell cruise ship dock is called City Dock, which is located at the north end of downtown. This T-shaped dock has a dock face of 405 feet; the dock has a breasting pier head of 565 feet and a stern mooring dolphin off the northeast end of the dock with 225 feet of berthing space, all with alongside depth of 35 feet. Smaller cruise ships and yachts moor at the inside face. Charter vessels can load/unload passengers at the U-shaped summer float. Larger cruise ships can anchor in front of the dock to transfer passengers to the summer floats.

Cruise activity functions effectively at the existing terminal. The City is planning to enhance visitor satisfaction by redevelopment of the downtown area.

Ferries

Wrangell is served by the Alaska Marine Highway System and Rainforest Islands Ferry.

Alaska Marine Highway System (AMHS)

The AMHS serves Wrangell on its regular mainline ferry route which connects Bellingham and Prince Rupert to ports along the Inside Passage. Wrangell, which receives ferry service five days per week year round, is approximately six hours from Ketchikan, three hours from Petersburg, and twelve hours from Juneau. Wrangell has averaged around 7,000 embarking and disembarking passengers and approximately 1,900 embarking and disembarking vehicles per year from 2006 to 2015. However, ridership has declined during this period, especially in 2015.

Table 7 – AMHS Wrangell Embarking Ferry Traffic

Wrangell	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Passengers										
Embarking	7,446	6,929	7,676	6,772	7,156	6,838	6,707	6,782	6,835	5,952
Disembarking	7,676	7,174	7,673	6,979	7,325	7,112	6,909	7,180	6,803	6,130
Vehicles										
Embarking	1,843	1,894	1,822	1,735	1,952	1,866	2,066	2,017	1,876	1,619
Disembarking	2,050	2,084	1,894	1,797	2,010	1,995	2,120	2,159	2,009	1,683

Source: AMHS 2015 Annual Traffic Volume Report for 2015

AMHS Terminal

The State of Alaska owns and operates the Port of Wrangell Ferry Terminal Dock to support loading and landing for passenger and vehicular ferry traffic. The dock has a terminal building with a staging area and paved parking at the rear. The Ferry Terminal Dock in the Port of Wrangell offers berthing space of 626 feet with alongside depth of 24 feet.

Rainforest Islands Ferry

Rainforest Islands Ferry provides service four times a week between April 15th and October 15th, connecting Wrangell, Petersburg and Prince of Wales Island. Service is via a converted landing craft can handle up to 28 passengers and six vehicles.

Figure 10 – Rainforest Island Ferry Itinerary

Forest Products

The Wrangell Economic Development Committee created a economic development plan to enhance the forest products industry in Wrangell.[38] The goal of this effort is to maintain and enhance Wrangell's existing and future small and medium size (50-100 employees) mills and value added forest products industries.

Objectives include:

- Establish a plan to deliver a long-term timber supply for small and medium size mills in Wrangell providing value-added manufacturing
- Encourage private investment to develop infrastructure to maximize value from local wood manufacturing businesses
- Support regional efforts to create, promote, and market a sustainable wood brand from the Tongass
- Support "Buy Local" campaign for wood products
- Recruit wood product manufacturers
- Enhance workforce development and opportunities for youth
- Facilitate full utilization of wood waste to create additional jobs and add value to the resource harvested

There are three remaining small mill operators on Wrangell Island processing between 1 and 1.5 million board feet total of value added products annually, including products such as music wood, boat wood, dimensional lumber, and wood for home and bridge construction.

[38] Source: Wrangell Timber Industry Plan, Wrangell Economic Development Committee, October 2013