

Physical Infrastructure

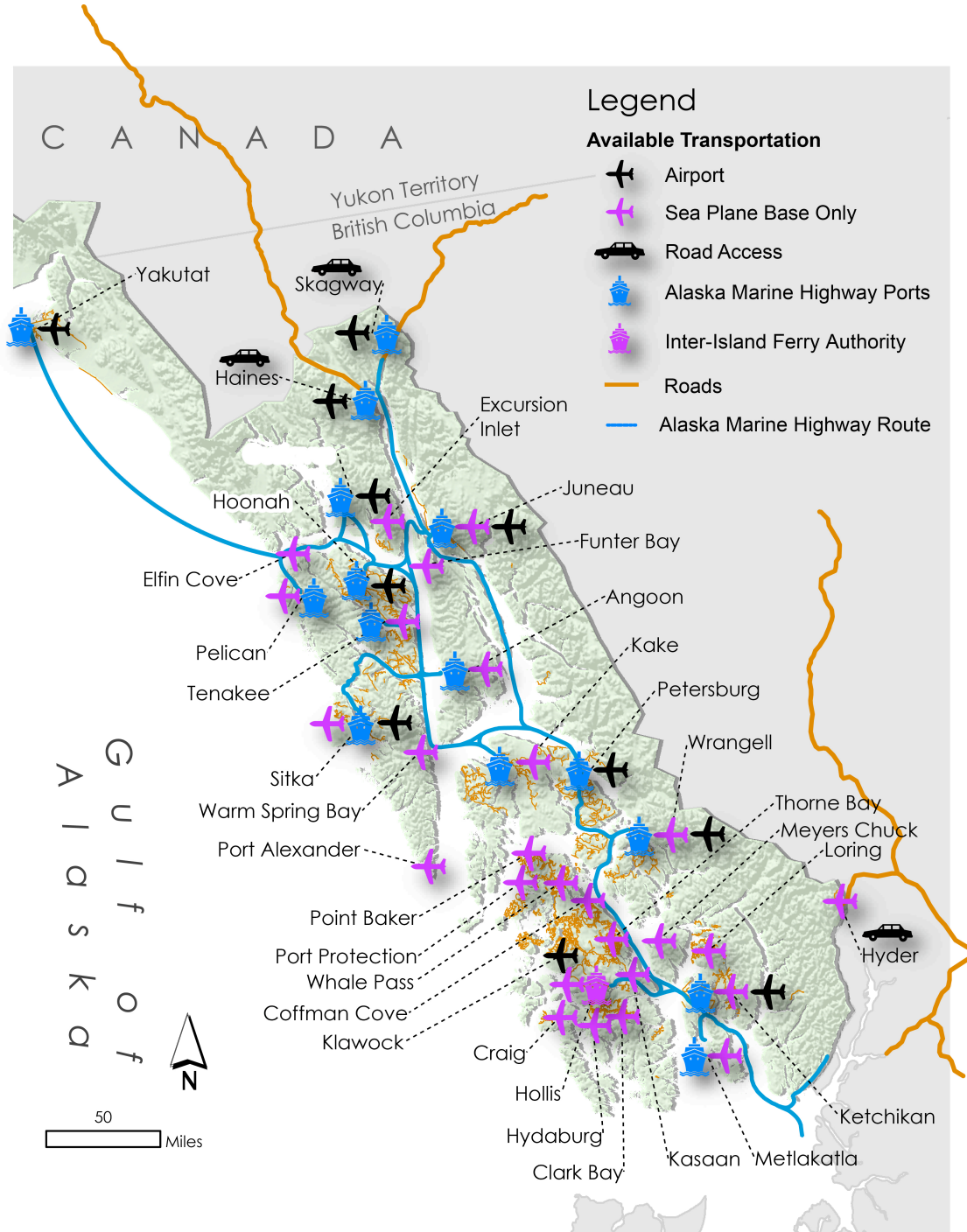
This section provides an overview of Southeast Alaska's physical infrastructure. Included in this inventory are transportation, including road, air and ferry transportation links, marine facilities, water, sewer and solid waste utilities, communications, and real estate.

Transportation

Juneau, Sitka, and Ketchikan are regional centers for retail as well as medical, business, transportation, and other services. With the exception of the communities on Prince of Wales Island, most Southeast Alaska communities do not have road connections to each other. Residents rely on air and ferry (the Alaska Marine Highway System and the Inter-Island Ferry Authority) service to move between communities. Visitors also rely on these transportation options, but they can (and do) take advantage of another option, the cruise industry, to travel to and within the region. Goods and vehicles rely on air, ferry, and barge to transit between communities.

Inter-community travel also contributes to the regional economy. The larger communities in the region reap economic benefits from residents of surrounding communities who travel to the regional hubs for recreation, shopping, to obtain medical services, or to connect to transportation out of the region. These resident travelers rent hotel rooms and cars, eat at restaurants, and buy goods and services not available in their home communities. They often have a greater economic effect on the region's larger communities than out-of-region visitors because they make repeat visits and large purchases of goods and services.

Southeast Alaska's Roads, Airports, and Ferry Routes, 2010



Source: Alaska Department of Transportation, Alaska Department of Natural Resources, Atlas Canada, Federal Aviation Administration, The Nature Conservancy, US Census Bureau, Geography Division, Geographic Products Branch

The following table shows selected Southeast Alaska communities by population and transportation facility.

Southeast Alaska Communities by Population Size and Transportation Facilities

Southeast Alaska Community	2009 Population Estimate	Airport	Seaplane Base	Ferry Service	Barge Service	Road Connection
Juneau	30,661	Yes	Yes	Yes	Yes	No
Ketchikan	12,984	Yes	Yes	Yes	Yes	No
Sitka	8,627	Yes	Yes	Yes	Yes	No
Petersburg	2,973	Yes	Yes	Yes	Yes	No
Haines	2,286	Yes	Yes	Yes	Yes	Canada
Wrangell	1,892	Yes	Yes	Yes	Yes	No
Craig	1,400	No	Yes	IFA	Yes	Island-wide
Metlakatla	1,330	Yes	Yes	Yes	Yes	No
Skagway	865	Yes	Yes	Yes	Yes	Canada
Hoonah	764	Yes	Yes	Yes	Summer	No
Klawock	782	Yes	No	IFA	Yes	Island-wide
Yakutat	608	Yes	Yes	Flag Stop	Summer	No
Kake	497	Yes	Yes	Yes	Yes	No
Gustavus	451	Yes	No	Charter	Summer	No
Thorne Bay	424	No	Yes	IFA	Yes	Island-wide
Angoon	442	No	Yes	Yes	Summer	No
Saxman	434	No	No	No	No	Ketchikan
Hydaburg	340	No	Yes	IFA	No	Island-wide
Hollis	193	No	Yes	IFA	No	Island-wide
Coffman Cove	152	No	Yes	IFA	No	Island-wide
Naukati	118	No	Yes	IFA	No	Island-wide
Pelican	122	No	Yes	Summer	Summer	No
Klukwan	72	No	No	No	No	Haines
Tenakee Springs	104	No	Yes	Yes	Summer	No
Hyder	87	No	Yes	No	No	Canada
Port Protection	72	No	Yes	No	No	No
Port Alexander	61	No	Yes	No	Charter	No
Kasaan	56	No	Yes	No	No	No
Whale Pass	60	No	Yes	IFA	No	Island-wide
Elfin Cove	25	No	Yes	No	Charter	No

Source: Southeast Conference, AKDOLWD, 2009 and Southeast Strategies, 2007. Note 1: IFA is the Inter-Island Ferry Authority, which is located on Prince of Wales Island and has year round ferry service from Hollis to Ketchikan, and summer ferry service from Coffman Cove to Petersburg and Wrangell. Most communities on Prince of Wales Island are connected by road to one of those ferry terminals. Note 2: Haines population includes the population of Klukwan, since it is only a short distance away on the road system, and uses the same facilities.

The following sections provide detailed information about the road, air, ferry, and barge linkages vital to the flow of people and commerce into, within and out of Southeast Alaska.

Road Links

Southeast Alaska is connected to the continental road system at only three locations as follows:

- Hyder links to the Cassiar Highway via a 40-mile paved access road.
- Haines links to the Alaska Highway (in Canada) via the 146-mile Haines Highway.
- Skagway links to the Alaska Highway (in Canada) via the 99-mile South Klondike Highway.

With the exception of the communities on Prince of Wales Island, most Southeast Alaska communities do not have road connections to any other communities. Of the over 1,500 miles of road system on Prince of Wales Island, approximately 125 miles of it is paved connecting 6 of the 8 communities.

Air Links

Air service in Southeast Alaska includes jet service coming into the region from Seattle and Anchorage, and service between the major communities (Juneau, Ketchikan, Sitka, Petersburg, Wrangell, and seasonally – Gustavus). Air cargo and air courier services are also available. Smaller air carriers in 4 to 12 seat wheel or float planes provide service within the region and to Prince Rupert, British Columbia to the south. Scheduled air service is available to most communities, and charter service is also available. Currently, two companies provide medical evacuation service via jet aircraft in the region. The U.S. Coast Guard has an air station in Sitka and provides medical evacuations via helicopter when necessary, as well as search and rescue services.

Southeast Alaska has several types and sizes of airports, and virtually every community has an air facility of some kind. Many are airport runways, but some are seaplane bases. Following are the larger airports as classified by the Alaska Department of Transportation and Public Facilities' 2008 Alaska Aviation System Plan Update.

Jet Serviced Airports by Classification

Regional Center Airports	Juneau, Sitka, Ketchikan
District Airports	Petersburg, Wrangell
Transport Airports	Yakutat Gustavus (jet service seasonally) Klawock (jet capable, not currently jet serviced)

The following table lists community airports by ownership, infrastructure condition & upgrade plans.

Community Airports

Community	Airport Owner	Runway Length (ft)	Runway Width (ft)	Runway Condition	2009 Passenger Boardings	Daily Jet Service	Plans	Seaplane Base Owner
Angoon							DOT&PF currently planning new airport. EIS underway.	ADOT&PF
Coffman Cove								ADOT&PF
Craig								ADOT&PF
Edna Bay								
Elfin Cove								ADOT&PF
Gustavus	ADOT&PF	6721	150	asphalt/grooved, in good condition	8,822	Summer		
Haines	ADOT&PF	4000	100	asphalt, in good condition	7,099			Haines Borough
Hollis								ADOT&PF
Hoonah	ADOT&PF	2,997	75	asphalt, in good condition	7,651		DOT&PF expanding apron space and extending runway in 2011.	ADOT&PF
Hydaburg								ADOT&PF
Hyder								ADOT&PF
Juneau	City & Borough of Juneau	8457	150	asphalt/grooved, in good condition	337,038	Year round	Runway safety area expansion and terminal expansion underway. Completion early 2011.	City and Borough of Juneau
Kake	ADOT&PF	4000	100	asphalt, in good condition				City of Kake
Kasaan								ADOT&PF
Ketchikan	ADOT&PF	7500	150	asphalt/grooved, in good condition	96,996	Year round		ADOT&PF
Klawock	ADOT&PF	5000	100	asphalt/grooved, in good condition				ADOT&PF
Metlakatla								ADOT&PF
Pelican								City of Pelican
Petersburg	ADOT&PF	7500	150	asphalt/grooved, in good condition	17,988	Year round	DOT&PF completing runway safety area expansion and runway overlay. Completion early 2011.	ADOT&PF

Community	Airport Owner	Runway Length (ft)	Runway Width (ft)	Runway Condition	2009 Passenger Boardings	Daily Jet Service	Plans	Seaplane Base Owner
Point Baker								ADOT&PF
Port Alexander								ADOT&PF
Port Protection								ADOT&PF
Saxman								
Sitka	ADOT&PF	6500	150	asphalt/grooved, in good condition	62,498	Year round	Safety area expansion planned for 2011.	City and Borough of Sitka
Skagway	ADOT&PF	3500	75	asphalt, in good condition	6,468			ADOT&PF
Tenakee Springs								ADOT&PF
Thorne Bay								ADOT&PF
Whale Pass								ADOT&PF
Wrangell	ADOT&PF	5999	150	asphalt/grooved, in good condition	10,790	Year round		City and Borough of Wrangell
Yakutat	ADOT&PF	7745	150	asphalt/grooved, in good condition	12,158	Year round		ADOT&PF

Sources: ADOT&PF, Federal Aviation Administration, Alaska Airlines

In the table below showing air travel statistics, passenger arrival counts include locals traveling for a variety of reasons, business travelers, and tourists. Air freight is measured in pounds. Passenger arrivals for 2009 (excluding most charter flight data) in Southeast Alaska communities consisted of the following:

Air Passenger and Freight Statistics by Southeast Alaska Community, 2009

Destination City	Pounds of Arriving Air Freight 2009	Number of Arriving Passengers 2009*
Angoon	76,309	1,675
Coffman Cove	12,298	206
Craig	189,426	5,233
Elfin Cove	34,549	397
Excursion Inlet	4,047	14
Gustavus	178,938	3,800
Haines	254,929	7,609
Hollis	65,226	3,806
Hoonah	168,658	6,526
Hydaburg	30,850	59
Hyder	8,019	133
Juneau	16,524,338	331,670
Kake	51,183	1,181
Ketchikan	11,223,660	222,504
Metlakatla	113,923	3,379
Naukiti	4,181	108
Pelican	90,760	644
Petersburg	1,292,471	39,025
Port Alexander	-	189
Port Protection	8,644	120
Sitka	6,370,578	104,680
Skagway	250,451	6,532
Thorne Bay	60,469	3,183
Whale Pass	4,154	154
Wrangell	2,157,862	36,013
Yakutat	2,735,135	23,204

Source: Bureau of Transportation Statistics.
http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=259&DB_Short_Name=Air%20Carriers
 The data does not include most charter flights, and is direct link only.
 *Note: The data includes all arriving passengers, even if they did not deplane.

Ferry Links

The Alaska Marine Highway System provides year-round, public ferry service to the region. The system has seven conventional-speed and two high-speed vessels that are used in Southeast Alaska. The mainline system connects major Southeast Alaska communities together, and to road systems in British Columbia via Prince Rupert, Skagway and Haines, to Washington via Bellingham, and to South-central Alaska via Whittier and Homer. These ferries take passengers, vehicles and freight, and often have staterooms, restaurants and lounges on board. The following table shows running times and distances for mainline routes.

Mainline Routes and Running Times

From	To	Running Time	Miles Nautical/Statute
Bellingham	Ketchikan	38 hours	595 / 676
Prince Rupert	Ketchikan	6 hours	91 / 103
Ketchikan	Wrangell	6 hours	89 / 101
Wrangell	Petersburg	3 hours	41 / 47
Petersburg	Juneau	8 hours	123 / 140
Petersburg	Sitka	10 hours	156 / 177
Sitka	Juneau/Auke Bay	8 hours, 45 min.	132 / 150
Juneau/Auke Bay	Haines	4 hours, 30 min.	68 / 77
Haines	Skagway	1 hour	13 / 15

Source: Alaska Marine Highway System. Does not include fast ferry time, approx. ½ the time.

Feeder routes connect smaller communities to a regional hub and to each other. Ferries used for feeder service travel at conventional speed and take passengers, vehicles and freight. These ships generally do not have staterooms. The following table shows running times and distances for feeder routes.

Feeder Routes and Running Times

From	To	Running Time	Miles Nautical/Statute
Petersburg	Kake	4 hours	65 / 74
Kake	Sitka	8 hours	115 / 131
Angoon	Hoonah	4 hours	63 / 72
Angoon	Tenakee	2 hrs, 30 min.	35 / 40
Tenakee	Hoonah	3 hrs, 15 min.	49 / 56
Hoonah	Juneau	3 hrs, 15 min.	48 / 55
Juneau	Pelican	6 hrs, 30 min.	91 / 103

Source: Alaska Marine Highway System.

Five hours is the average running time for transit between communities by ferry, and scheduled arrivals and departures in most communities require an overnight or a several day stay.

The Alaska Marine Highway System will sometimes dedicate a vessel to a particular route, especially during the summer months. These shuttle ferries can be either conventional-speed or high-speed vessels. Currently, a dedicated vessel provides year-round service between Ketchikan and Metlakatla.

In addition, the Inter-Island Ferry Authority provides year-round passenger, vehicle and cargo service on a conventional speed ferry between Hollis on Prince of Wales Island, and Ketchikan. In the summer of 2006, another Inter-Island Ferry Authority vessel began providing summer passenger, vehicle and cargo service between Coffman Cove on Prince of Wales Island, Wrangell, and Petersburg. However, at the end of the 2008 summer season they had to cease offering extended service due to rising operational costs. Private companies in the region (such as Allen Marine) provide charter ferry service for passengers and cargo.

Between 2000 and 2009, total Southeast Alaska passenger traffic declined, with passenger disembarkations in Haines, Ketchikan, Petersburg and Skagway each down by more than 18 percent in this period. Communities that experienced significant passenger increases between 2000 and 2009 included Kake, Metlakatla, Pelican, Tenakee, and Yakutat. AMHS terminated service to the community of Hollis (not listed) in 2003 when the Inter-Island Ferry Authority took over that ferry link.

Southeast Alaska AMHS Passenger Traffic, 2000 to 2009

Disembarking Passenger Traffic	2000	2008	2009	Change 2000-2009
Angoon	4,273	4,584	4,655	9%
Haines	38,779	34,214	30,944	-20%
Hoonah	6,132	7,055	5,847	-5%
Juneau	75,463	82,957	73,189	-3%
Kake	1,932	2,814	2,536	31%
Ketchikan	47,813	35,506	32,296	-32%
Metlakatla	7,006	16,419	15,667	124%
Pelican	573	959	885	54%
Petersburg	11,020	9,887	8,984	-18%
Sitka	13,593	18,047	15,151	11%
Skagway	34,850	24,297	23,307	-33%
Tenakee	1,251	1,694	2,040	63%
Wrangell	7,475	7,673	6,979	-7%
Yakutat	66	162	161	144%

Source: Alaska Marine Highway System.

Vehicle traffic gains and losses followed the same pattern as passenger traffic during this period.

Southeast Alaska AMHS Vehicle Traffic, 2000 to 2009

Disembarking Vehicle Traffic	2000	2008	2009	Change 2000-2009
Angoon	666	948	852	28%
Haines	13,613	12,567	11,658	-14%
Hoonah	1,678	2,207	1,886	12%
Juneau	19,096	23,023	21,523	13%
Kake	520	590	481	-8%
Ketchikan	12,728	11,564	11,076	-13%
Metlakatla	1,797	5,620	5,436	203%
Pelican	58	97	74	28%
Petersburg	2,493	2,501	2,502	0%
Sitka	3,588	4,990	4,483	25%
Skagway	9,390	7,310	7,371	-22%
Tenakee	45	48	41	-9%
Wrangell	1,757	1,894	1,797	2%
Yakutat	44	70	129	193%

Source: Alaska Marine Highway System.

Barge Links

Three major barge lines serve Southeast Alaska from Seattle, delivering freight, vehicles, and equipment. One line serves the communities of Ketchikan, Wrangell, Petersburg, Sitka, and Juneau weekly, and some smaller communities less frequently (in some cases, seasonally). A second line serves Ketchikan, Petersburg, Sitka, and Juneau twice weekly; Wrangell, Craig, Klawock, Thorne Bay, Haines and Skagway weekly; and Angoon, Pelican, Hoonah, Gustavus and Yakutat seasonally. A third line serves Sitka every two weeks, and then continues on to Alaska destinations north and west. Following are the approximate transit times between Seattle and several Southeast Alaska ports.

Barge Transit Times to Southeast Ports

Port	Transit Time From Seattle
Ketchikan	4 Days
Metlakatla	6 Days
Prince of Wales Island	5 Days
Wrangell	5 Days
Petersburg	5 Days
Sitka	5 Days
Juneau	5 Days

Source: Southeast Conference

Regional Ship Repair Facilities¹

Southeast Alaska has several boat haul-out and repair facilities. They include:

Ketchikan –

- 50-ton lift
- 200-ton marine railway
- Dry dock for ships up to 10,000 tons
- Full shipbuilding and repair services

Wrangell –

- 5+ acre Marine Service Center
- 150-ton travel lift, installed in 2006 that can handle boats 120 feet long & 28 feet wide
- Boat building and repair services
- 40-ton hydraulic trailer was installed in 2008.
- 130-ton marine railway

Craig –

- Hydraulic Trailer – 50 ft./60-ton maximum
- Storage yard
- Diesel mechanic repair services

Petersburg –

- Floating dry dock for vessels up to 45 ft.
- 300-ton marine railway with multiple cradles
- Boat building and repair services

Sitka –

- 80-ton lift
- Full shipbuilding and repair services

Juneau –

- 15-ton lift
- 35-ton lift
- Boat building and repair services

Hoonah –

- Hydraulic Trailer – 40 ft./20-ton maximum
- Developing a bulkhead and uplands work yard with a 150-ton lift.

Haines –

- Small storage yard
- Plans to develop an uplands work yard with a 70 to 100-ton lift.

Skagway –

- Hydraulic Trailer – 40 ft./20-ton maximum
- Storage yard
- Mechanic/electronic repair services

¹ Source: Southeast Conference

Water, Sewer, Solid Waste

Most, but not all, businesses need utilities, including electricity, heat, water, sewer, and solid waste service. Most places in Southeast Alaska have ready access to drinking water and either municipal or some type of onsite solid waste and gray water disposal system. For most businesses, garbage is either disposed of in a municipal landfill or burned onsite.

Utilities Provider by Southeast Alaska Community

Community	Water	Sewer	Landfill
Angoon	City; School	City	City
Coffman Cove	City	City	City Incinerator/Bale Fill; Thorne Bay
Covenant Life	Community	Individuals	Haines
Craig	City	City	Klawock
Cube Cove	Private	Private	Atikon Forest Products
Edna Bay	Individuals; School	Individuals	Not available
Elfin Cove	Individuals; Private	Individuals	Not available
Game Creek	Individuals	Individuals	Hoonah
Gustavus	Individuals; US Park Service	Individuals	City
Haines Borough	n/a	n/a	n/a
Hobart Bay	Private	Private	Private
Hollis	Individuals; School	Individuals	Klawock
Hoonah	City	City	City
Hydaburg	City	City	City; Haida Corp.
Hyder	Individuals	Individuals	Not available
Juneau	City & Borough	City & Borough	Private/Waste Mgmt. Co.
Kake	City	City	City
Kasaan	City	Individuals; City	Thorne Bay
Ketchikan	City; Borough	City; Borough	City; Private
Klawock	City	City	City
Klukwan	Village Council	Village Council	Village Council
Kupreanof	Individuals	Individuals	Not available
Lutak	Individuals	Individuals	Haines
Metlakatla	Community	Community	Metlakatla Indian Community
Meyers Chuck	Individuals; Private	Individuals	Not available
Mosquito Lake	Individuals	Individuals	Haines
Mud Bay	n/a	n/a	Haines
Naukati Bay	Individuals; Private	Individuals; Community	Not available
Pelican	Kake Tribal Corp	City	City
Petersburg	City	City	City; Public Works
Point Baker	Individuals	Individuals	Not available
Port Alexander	City; Individuals	Individuals	Not available
Port Protection	Community Assoc.	Individuals	Not available
Saxman	City	City	Ketchikan
Sitka	City & Borough	City & Borough	City & Borough
Skagway	Borough	Borough	Borough (Incinerator Operator)
Tenakee Springs	Individuals	Individuals	Not available
Thom's Place	n/a	n/a	Wrangell
Thorne Bay	City	City	City
Whale Pass	Individuals	Individuals	Not available
Whitstone	Private	Private	Hoonah, Church of Living World
Wrangell	City	City	City & Borough of Wrangell
Yakutat	City & Borough	City & Borough	Borough; Icy Bay

Solid Waste

Over the last decade in Southeast Alaska, incinerators have closed and landfills have reached capacity. Rather than develop new local landfills, several communities in the region have instead chosen to ship municipal solid waste by barge to super landfills in Washington State. In 2006, the communities of Craig, Klawock, Ketchikan, Petersburg, Sitka, and Wrangell shipped 24,300 tons of garbage to the lower-48 at a cost of \$2.3 million. Waste in Juneau is land-filled locally. These seven communities create 150 tons of garbage per day.

In 1995 Ketchikan's main landfill reached capacity and closed, and the community began to ship its waste to eastern Washington.² After Sitka's incinerator was shut down in 1998, that community also began shipping its waste to Washington, a trip of 1,100 miles. In 2004 Juneau's waste incinerators ceased operations and the City began depositing 30,000 tons of garbage annually into its ever-growing landfill. Juneau's landfill is currently 30 feet high and is permitted to grow to 120 feet.

According to a 1999 study by the Solid Waste Association of North America: "The economic and environmental benefits of shipping waste out to a well maintained and operated regional facility probably apply to most Southeast Alaska communities. Most communities in Southeast Alaska have non-compliant dumps with associated environmental problems." The trend in the rest of the United States has been to close local landfills and open larger, multiple-community, regional solid waste treatment facilities. (Washington State, for example, has 21 permitted landfills compared to nearly 250 in Alaska.)

Small communities in Alaska often lack sufficient economic resources to properly manage waste. Many Southeast Alaska communities have open pit dumps that do not comply with State waste regulations. Waste materials sometimes contain toxic chemicals that are harmful to human health and the environment. Even Juneau, a larger community with more resources, operates a landfill situated on wetlands with no liner.

Washington State has strict recycling laws and closely monitors what is allowed into state landfills. According to Richard Smith, author of the Southeast Conference waste report, officials in Washington State have been exempting Alaska waste from needing to comply. He believes that this exemption will not last long-term, and that the cost of sorting all waste prior to disposal will make lower-48 landfills less financially interesting. The landfill in Eastern Washington where

² Ketchikan currently operates an inert class 3 landfill that takes construction waste and an incinerator that takes animal carcasses and other specialty items. The landfill and incinerator do not accept household or business waste.

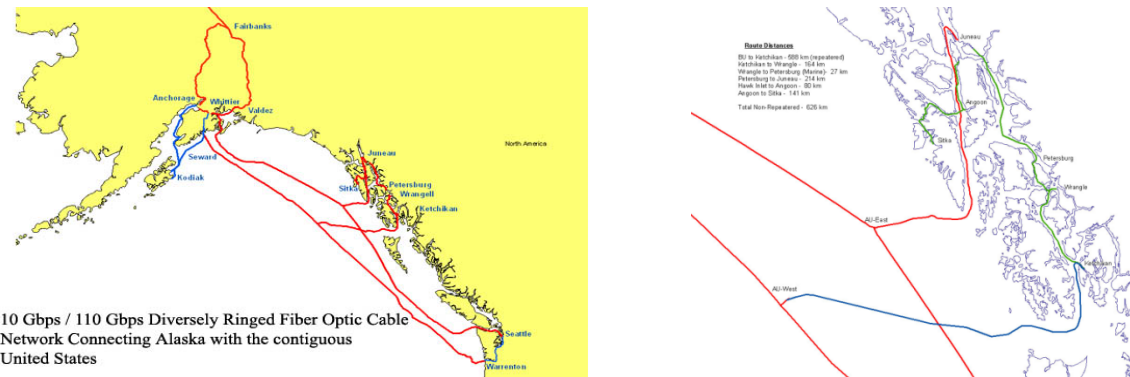
Ketchikan and Sitka currently ship their waste charges \$24 per ton. (For comparison, the Juneau landfill charges \$120 per ton.)

Because our region is located in a coastal rainforest, permitting and land development have the potential of being a lengthy and expensive process. According to Steve Haavig of Carson Dorn, a Juneau based environmental and engineering firm, and former DEC employee "Southeast is not good country for a sanitary landfill." The soils are poor, and the site prep would be very, very expensive."

Communications

Internet access, in some form, is available in all communities in Southeast Alaska. Overall, the availability of high speed internet was listed as the third most significant benefit to operating a business in Southeast Alaska in the 2010 Southeast Alaska Business Climate Survey.

Since 2008, GCI's Alaska United fiber optic cable connects Anchorage, Fairbanks, Ketchikan, Sitka, Petersburg, Wrangell, Angoon, and Juneau to Seattle by way of a SNET ring. It brought significant telecommunication capacity (Internet, video, voice and data) to Southeast Alaska, and it provides for alternative routing if any part of the system should go down.



Source: <http://www.alaskaunited.com/>

Broadband internet is available in Haines, Skagway, Angoon, Juneau, Sitka, Petersburg, Wrangell, Thorne Bay, Klawock, Kasaan, Craig and Hydaburg. Broadband is defined as data transmission technology that provides two-way data transmission to and from the Internet with speeds of at least 768 kilobits per second (kbps) downstream and at least 200 kbps upstream to end users. Broadband is provided through fiber optics, cable, DSL, fixed wireless or mobile wireless.

In communities without broadband service, satellite and dial-up are the only options. Dial-up can be used to view websites or send email, but is usually too slow for regular business needs. Satellite

internet requires the installation of a small satellite dish and many small communities (including Yakutat, Hoonah and Klawock) have a local company that provides this service. In more rural or isolated areas, satellite internet can be used, but installation of the satellite is more expensive because cost includes the technicians travel time and expenses. See table on the following page.

Southeast Alaska Internet Access

Angoon	Broadband
Coffman Cove	Satellite/Dial-up
Craig	Broadband
Edna Bay	Satellite/Dial-up
Elfin Cove	Satellite/Dial-up
Game Creek	Satellite/Dial-up
Gustavus	Satellite/Dial-up
Haines	Broadband
Hollis	Satellite/Dial-up
Hoonah	Satellite/Dial-up
Hydaburg	Broadband
Hyder	Satellite/Dial-up
Juneau	Broadband
Kake	Satellite/Dial-up
Kasaan	Broadband
Ketchikan	Broadband
Ketchikan Gateway Borough	Broadband
Klawock	Broadband
Klukwan	Broadband
Kupreanof	Broadband
Metlakatla	Broadband
Naukati Bay	Satellite/Dial-up
Pelican	Satellite/Dial-up
Petersburg	Broadband
Point Baker	Satellite/Dial-up
Port Alexander	Satellite/Dial-up
Port Protection	Satellite/Dial-up
Saxman	Broadband
Sitka	Broadband
Skagway	Broadband
Tenakee Springs	Satellite/Dial-up
Thorne Bay	Broadband
Whale Pass	Satellite/Dial-up
Whitestone Logging Camp	Satellite/Dial-up
Wrangell	Broadband
Yakutat	Satellite/Dial-up

Information from: Connect Alaska Source: (<http://connectak.org>), GCI, AP&T

Mass Media: Television, Radio, Newspaper

Southeast Alaska's scattered, geographically isolated population is especially dependent on the region's print, broadcast, and Internet media for news and information about weather, health and social services, commerce, and communications both within and outside of the region. The area's population of roughly 75,000 is scattered among numerous communities, most of them on islands and all but three of which number fewer than 3,500 people.

The cities of Juneau (with just under half of the region's total population), Ketchikan, and Sitka serve as regional hubs for commerce, culture, transportation, and especially communications. While half of the region's newspapers, twelve of its seventeen radio stations, and all of its TV stations are headquartered in these three largest cities, all communities are sustained by vital connections within the region as a whole and to the outside world through deliveries of print media, signals from radio and TV stations, and/or cable phone and Internet linkage.

In spite of perhaps because of the region's unique geography, public radio in particular has experienced extraordinary development and growth in Southeast Alaska, providing diverse, consistent, and highly dependable services for many communities. Juneau boasts Alaska's largest public broadcasting service, KTOO, with three separate, 24-hour, regional public radio stations, a statewide TV station, and audio and television production studios, all within a single facility. Further connected with four of the five other public radio stations in Southeast Alaska through a cost-consolidating network known as CoastAlaska, and also affiliated with the Alaska Public Broadcasting Network, KTOO is consistently among the top public broadcasting organizations in the country for market share.

For these reasons, it is not surprising that award winning, nationally recognized broadcasters such as Elizabeth Arnold of Annenberg Media, America Abroad Media and Encounters North, Peter Kenyon of National Public Radio, and others got their start at radio stations in Southeast Alaska.

Another unique and vitally important service is provided by the National Weather Service in the form of constantly updated marine weather information and forecasts covering vast stretches of Southeast Alaska's outer coast and interior waterways. Fishermen and other operators of marine vessels depend on the service, which is delivered over radio (WXJ-25, 162.550 MHz and other frequencies) and telephone.

At its most fundamental level, then, the role of mass media in Southeast Alaska is far more important to the health and safety of the population than it would be for more geographically connected populations elsewhere in Alaska and the nation. In a much broader sense, Southeast

Alaska's mass media entities are primary resources of information, commerce and education for the majority of the region's population.

Key Southeast Alaska Media Contacts

Newspapers			
Capital City Weekly	Juneau & SE AK	capweek.com	789-4144
Juneau Empire	Juneau	juneauempire.com	586-3740
The Local Paper	Ketchikan	alaska.fm/tlp	225-6540
Ketchikan Daily News	Ketchikan	ketchikandailynews.com	225-3157
Skagway News	Skagway	skagwaynews.com	983-2354
Island News	Thorne Bay	smalltownpapers.com	828-3377
Wrangell Sentinel	Wrangell	thewrangellsentinel.com	874-2301
Petersburg Pilot	Petersburg	petersburgpilot.com	772-9393
Daily Sitka Sentinel	Sitka	sitkasentinel.com	747-3219
Chilkat Valley News	Haines	chilkatvalleynews.com	766-2688
Radio			
KTOO-FM	Juneau—104.3	ktoo.org	586-1670
	Gustavus—88.1		
	Excursion Inlet—89.9		
	Hoonah—91.9		
KRNN-FM	Lemon Creek/Switzer Creek—101.7		
	Mendenhall Valley—103.1		
KXLL-FM	Juneau—102.7		
KXLL-FM	Juneau—100.7		
KINY-AM/FM	Juneau—800	kinyradio.com	586-3630
	Kake, Frederick Sound—103.5		
	Haines, Skagway—103.7		
	Angoon, Lower Chatham Strait, Hoonah, Icy Strait—103.9		
	Skagway—104.7		
KSUP-FM	Juneau—106.3/107.9	ptialaska.net/~ksup	
KJNO-AM	Juneau—630	kjno.com	
KTKU-AM	Juneau—930	ktkn.com	
KXLJ-AM	Juneau—1330	kxljradio.com	586-2455
KFMJ-FM	Ketchikan—99.9	kfmj.com	247-3699
KGTW-FM	Ketchikan—106.7	gateway1067.com	225-2193
	Prince of Wales—99.5		
	Wrangell—98.3		
KTKN-AM	Ketchikan—930	ktkn.org	
KRBD-FM	Ketchikan—105.3	krbd.org	225-9655
	Craig, N. Ketchikan—101.7		
	Klawock, Thorne Bay, Hydaburg & S. Ketchikan—90.1		
	North Point Higgins—90.7		

Radio continued			
KFSK-FM	Petersburg—100.9 Central SE—91.1 Lower Mitkof, Beecher Pass, Duncan Canal— 103.1 Point Baker—88.1 Whale Pass—96.1	kfsk.org	772-3808
KRSA-AM	Petersburg—580 Sitka, Wrangell, Haines— 94.9	krsa.org	772-3891
KHNS-FM	Haines—102.3 Skagway—90.9	khns.org	766-2020
KCAW-FM	Sitka—90.1 or 104.7 Angoon—105.5 Elfin Cove—92.1 Kake—107.1 Pelican—91.7 Port Alexander—91.9 Tenakee Springs—91.9 Yakutat—90.1	kcaw.org	747-5877
KSTK-FM	Wrangell—101.7 Shoemaker Bay—91.9 Coffman Cove—96.9 North Wrangell Island— 107.1	kstk.org	874-2345
TV			
GCI Cable	Angoon, Juneau, Ketchikan, Petersburg, Sitka, Wrangell	gci.com/for-home	800-800- 4800
KATH-LP	Juneau—5 (NBC)	kath.tv	586-8384
KJUD-DT	Juneau—8.1 (ABC) Juneau—8.2 (CW)	aksuperstation.com	586-3145
KTOO-DT	Juneau—3.1 (PBS) Juneau—3.2 (360 North)	ktoo.org	586-1670
KXLJ-LP	Juneau—24 (CBS)	cbssoutheastak.com	586-2455
Other			
Associated Press	Juneau	ap.org	586-1515

Real Estate

There are 33,530 housing units in Southeast Alaska, including 28,766 occupied units. Similar to national rates, approximately two-thirds of Southeast homes are owner-occupied, while one-third are renter occupied.

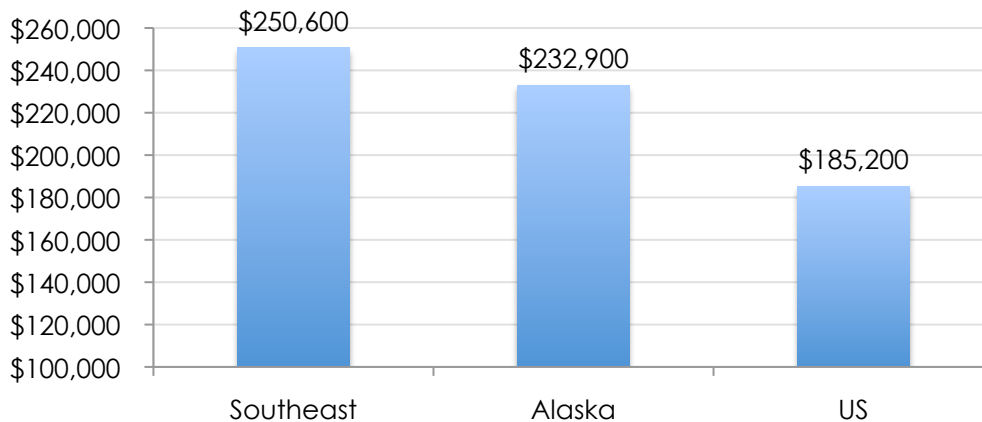
Housing Occupancy

	Southeast Alaska 2009	Southeast 2009 %	Alaska 2009 %	US 2009 %
Total housing units	33,530	33,530	283,895	129,949,960
Occupied housing units	28,776	85.8%	83.3%	87.4%
Owner-occupied	18,559	64.5%	65.2%	65.9%
Renter-occupied	10,217	35.5%	34.8%	34.1%

Source: 2009 American Community Survey, US Census Borough

Generally housing and the cost of housing is more expensive in Southeast Alaska than in the rest of the state or nation. The median value of an owner-occupied housing unit in 2009 was 35% higher in Southeast Alaska than the nation as a whole, and eight percent higher than the Alaska median.

Median Value of Owner-Occupied Housing Units, 2009



Source: 2009 American Community Survey, US Census Borough

Another way to look at housing costs is through selected monthly housing costs for homeowners. Selected monthly housing costs include payments for mortgages, taxes, insurance, utilities, and other components of monthly housing expenses.³ The median monthly Southeast homeowner cost (for those homeowners with a mortgage) was \$1,837 in 2008. Comparatively, these costs are 3%

³ The determination of Selected Monthly Owner Costs is based on all mortgage payments – first, second or junior, and home equity – real estate taxes, homeowners insurance premiums, condominium fees and mobile home costs, if applicable, and all utility costs.

higher than the Alaska median and 22% higher than the national median. Juneau's selected monthly homeowner costs are 35% higher than the national median.

According to the 2009 American Community Survey, the median rent for Southeast Alaska (\$1,001) is roughly the same as the statewide median of \$1,007, but 19% higher than the national median of \$842. The median rents for each Southeast Alaska borough or census area for 2011, as determined by HUD and broken out by number of bedrooms, is presented below. The highest rental rates in the region are in Juneau. Overall, the lowest median rental prices are in the Haines borough.

Median Rents In Southeast Alaska 2011

	0 Bedroom	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Haines Borough, AK	\$704	\$886	\$1,084	\$1,565	\$1,716
Hoonah-Angoon Census Area, AK	\$900	\$975	\$1,278	\$1,564	\$1,612
Juneau City and Borough, AK	\$850	\$1,025	\$1,308	\$1,727	\$2,207
Ketchikan Gateway Borough, AK	\$757	\$1,004	\$1,163	\$1,694	\$2,041
Petersburg Census Area, AK	\$900	\$975	\$1,278	\$1,564	\$1,612
Prince of Wales-Hyder Census Area, AK	\$900	\$975	\$1,278	\$1,564	\$1,612
Sitka City and Borough, AK	\$772	\$933	\$1,145	\$1,612	\$2,009
Skagway Municipality, AK	\$900	\$975	\$1,278	\$1,564	\$1,612
Wrangell City and Borough, AK	\$900	\$975	\$1,278	\$1,564	\$1,612
Yakutat City and Borough, AK	\$900	\$975	\$1,278	\$1,564	\$1,612

Source: HUD. Rent estimates at the 50th percentile (or median) are calculated for all Fair Market Rent areas. THESE ARE NOT FAIR MARKET RENTS. <http://www.huduser.org/portal/datasets/50per.html>

Southeast Alaska has more mobile homes, compared to the state or nation. Regionally, 9.3 percent of housing units are mobile homes, compared to 6.1% statewide, and 6.5% nationally.

Units In Structure

	Southeast Alaska 2009	Southeast 2009 %	Alaska 2009 %	US 2009 %
Total housing units	33,530	33,530	283,895	129,949,960
1-unit, detached	19,380	57.8%	61.2%	61.6%
1-unit, attached	1,410	4.2%	8.6%	5.8%
2 units	3,046	9.1%	4.9%	3.9%
3 or 4 units	2,503	7.5%	6.3%	4.5%
5 to 9 units	1,293	3.9%	5.2%	4.9%
10 to 19 units	955	2.8%	2.8%	4.6%
20 or more units	1,764	5.3%	4.8%	8.2%
Mobile home	3,127	9.3%	6.1%	6.5%
Boat, RV, van, etc.	52	0.2%	0.1%	0.1%

Source: 2009 American Community Survey, US Census Borough

Southeast also has a smaller number of newer housing units, compared to the state or nation. Regionally, only 7% of the housing units were built after 2000, compared to 10% statewide and 13% nationally. The flip side is that Southeast Alaska has not experienced the negative implications of the burst of the most recent nationwide housing bubble. Southeast Alaska has a much lower rate of foreclosures compared to national averages.

Year Structure Built

	Southeast Alaska 2009	Southeast 2009 %	Alaska 2009 %	US 2009 %
Total housing units	33,530	33,530	283,895	129,949,960
Built 2005 or later	631	1.9%	3.6%	4.8%
Built 2000 to 2004	1,746	5.2%	6.7%	8.5%
Built 1990 to 1999	4,161	12.4%	13.3%	13.9%
Built 1980 to 1989	7,046	21.0%	28.8%	14.0%
Built 1970 to 1979	9,351	27.9%	26.0%	16.3%
Built 1960 to 1969	2,428	7.2%	9.7%	11.4%
Built 1950 to 1959	3,396	10.1%	7.8%	11.3%
Built 1940 to 1949	1,951	5.8%	2.3%	5.8%
Built 1939 or earlier	2,820	8.4%	1.8%	14.0%

Source: 2009 American Community Survey, US Census Borough

Households, as measured by the number of people living in a home, are smaller in Southeast Alaska compared to the state or nation. The average household size is 2.47 for owner-occupied homes and 2.12 for renter-occupied homes. This is due to the older average age of Southeast Alaskans than the state or nation. Southeast Alaskans are less likely to have children living at home.

Size of Household

	Southeast 2009 %	Alaska 2009 %	US 2009 %
Average household size of owner-occupied unit	2.47	2.98	2.71
Average household size of renter-occupied unit	2.12	2.64	2.48

Source: 2009 American Community Survey, US Census Borough

Southeast Alaskans are more likely to be recent residents of their homes, compared to national averages. Nearly half (47.4%) of Southeast Alaskans moved into their home in 2005 or later, compared to 40.5% nationally. This is due to the high level of in and out migration that the region experiences.

Year Householder Moved Into Unit

	Southeast Alaska 2009	Southeast 2009 %	Alaska 2009 %	US 2009 %
Occupied housing units	28,776	28,776	236,597	113,616,229
Moved in 2005 or later	13,640	47.4%	45.4%	40.5%

Source: 2009 American Community Survey, US Census Borough

Most Southeast Alaskans (70.4%) heat their homes with heating oil, compared to just 6.7% of homes nationally, and 32.9% of all Alaskans. The next two top ways to heat homes in Southeast Alaska include electricity (at 16.1%) and wood (at 9.2%).

House Heating Fuel

	Southeast Alaska 2009	Southeast 2009 %	Alaska 2009 %	US 2009 %
Occupied housing units	28,776	28,776	236,597	113,616,229
Utility gas	630	2.2%	49.0%	49.8%
Bottled, tank, or LP gas	489	1.7%	1.4%	5.1%
Electricity	4,641	16.1%	9.5%	34.8%
Fuel oil, kerosene, etc.	20,261	70.4%	32.9%	6.7%
Coal or coke	0	0.0%	0.5%	0.1%
Wood	2,652	9.2%	5.8%	2.1%
Solar energy	0	0.0%	0.0%	0.0%
Other fuel	93	0.3%	0.7%	0.4%
No fuel used	10	0.0%	0.1%	0.9%

Source: 2009 American Community Survey, US Census Borough

Physical Infrastructure Strength/Constraints

Key Strengths/Opportunities

The existence of the publicly owned Alaska Marine Highway System (AMHS) is one of the key strengths of the regional infrastructure. It is a vital link between communities, without which the regional flow of people, vehicles, goods and commerce would be very restricted. In the business climate survey conducted by JEDC, Southeast Alaska's marine transportation network ranked fifth in importance as a significant benefit to operating a business (out of the 29 choices available).

All communities in the region are served by land and/or sea air transportation facilities. All runways are in good condition, with regular maintenance and upgrades scheduled. Thanks to the

commitment of the region's only jet air carrier, Alaska Airlines, all regional airports are equipped with more precise aids to air navigation than bigger cities with populations in excess of 200,000. The GPS (or Global Positioning System) computers installed on Alaska Airlines' jets in the last decade have vastly improved the safety and reliability of air service to and within the region. Southeast's air transportation was cited as the sixth most important element to operating a business in the region.

Further, Southeast Alaska was one of two initial test sites selected by the FAA for Automatic Dependent Surveillance-Broadcast (ADS-B) under a pilot project called Capstone, from 1999-2006. Through the Capstone project, the FAA equipped hundreds of general aviation aircraft with ADS-B avionics and installed ground-based infrastructure. Pilots were able to see on their displays where they were in relation to bad weather and terrain and the fatal accident rate was cut nearly in half for equipped aircraft. The success of the Capstone project led to the FAA's decision in 2005 to deploy ADS-B nationwide. ADS-B is critical in Juneau because there is no radar coverage. Radar transmissions cannot pass through the mountains in Juneau, while the low cloud ceiling often requires a low altitude approach through the narrow channel leading to the airport. These characteristics make the approach to Juneau among the nation's most difficult.

Another surveillance system in Juneau that began operating on January 25, 2010, is the Wide Area Multilateration (WAM) system. WAM is a ground-based system employing multiple remote small sensors that receive aircraft transponder signals and triangulate them to determine precise locations. WAM provides surveillance for the Juneau area for aircraft not yet equipped with ADS-B.

Internet access, in some form, is available in all communities in Southeast Alaska. Broadband internet is available in Haines, Skagway, Angoon, Juneau, Sitka, Petersburg, Wrangell, Thorne Bay, Klawock, Kasaan, Craig and Hydaburg. With the installation of GCI's southeast fiber optic undersea cable in 2008, these communities have access to large bandwidth capacity, a vital need for businesses in today's economy. Completion of this fiber optic network has also served to free up space on the existing microwave and satellite networks, allowing increased access to smaller communities. Overall, the availability of high speed internet was listed as the third most significant benefit to operating a business in Southeast Alaska.

"Telecommunications has been one of the single most important contributors to quality of life and economic development in Alaska - quite possibly more significant than for any other state in the union - offering a practical connection to the outside world and delivering the future to a state that is remote and still coming of age. Along with electricity, gas, roads, bridges, and sewer and water systems, this core infrastructure component continues to be essential to growth, education, and health and safety for Alaska villages and cities that would otherwise still be struggling to make their way in the 21st century. In today's information age, fiber optics is the advanced telecommunications network that provides proximity and access to resources and markets - as critical to business activity as close proximity to raw materials and markets was during the industrial age. Fiber optics give Alaska

residents and businesses the ability to send and receive high-quality voice, data and video telecommunications, while increasing the viability to attract new industries, businesses and professionals as geographic distance and low density population become archaic barriers of the past." Alaska Business Monthly, December 2009 by Heidi Bohi

Key Constraints/Obstacles

Because most communities in Southeast Alaska are located on islands, road access is impossible. Access to most communities in Southeast is available by boat, but the lengthy travel time makes it impractical for everyday and emergency use. The trip from Ketchikan to Juneau requires sixteen (16) hours by boat and the voyage from Bellingham, Washington to Juneau takes over fifty hours. Having to rely on jet and/or commuter air service as the only quick and convenient way to travel in and out of a community is one of the components contributing to the high cost of doing business in the region. Regional jet service is provided by only one airline, Alaska Airlines, which also provides the only jet service into and out of the region. Residents face higher air fares for the same air miles flown when compared to communities where competition exists.

While transportation linkages to suppliers and to markets for goods can be by both air and marine when time constraints do not exist, both of these are very expensive. Freight costs are the number one significant barrier to operating a business, as reported in the business climate survey.

More than half of the regional Alaska Marine Highway fleet has aged beyond optimal retirement, increasing maintenance costs and unreliability. This, along with high costs of labor, complex schedules, and the state legislature's reluctance to fund increasing costs, there is an uncertain outlook for this key strength in the region. The Alaska Class Ferry has been designed to be a lower operational cost next generation of ferries for the Alaska Marine Highway System, but funding for it is held up by the State legislature, which is holding out hope of funds from the federal government. These new vessels would be incrementally added to the fleet to operate on routes within Alaska's inside-waters as replacements for existing vessels. Expected construction time per vessel is 3 to 5 years once funding is secured. Meanwhile, the state legislature appears reluctant to continue to fund the high operating costs of the current fleet. Thus, any near term improvement in transit time, convenience of schedule, or reliability is not evident at this time.

The cost of solid waste disposal and ensuring regulatory compliance is a growing concern among municipalities in Southeast Alaska. Many landfills are nearing or are at capacity and the cost of compliance with today's environmental regulations governing solid waste disposal, as well as our rainforest climate, abundant wetlands, and limited private or municipal land base prohibits smaller communities from opening new landfills. There is an ongoing effort to develop a Southeast Alaska regional solid waste facility led by several regional municipalities and Southeast Conference.

Generally, housing and the cost of housing is more expensive in Southeast Alaska than the state or nation. The median value of an owner-occupied housing unit in 2009 was 35% higher in Southeast Alaska than the nation as a whole, and eight percent higher than the Alaska median. In Juneau, in particular, there is a shortage of developable land for commercial and residential construction. The cost of real estate (buildings, land and rent) was the second most significant barrier to operating a business for Juneau, dropping to number nine for the region, outside of Juneau.