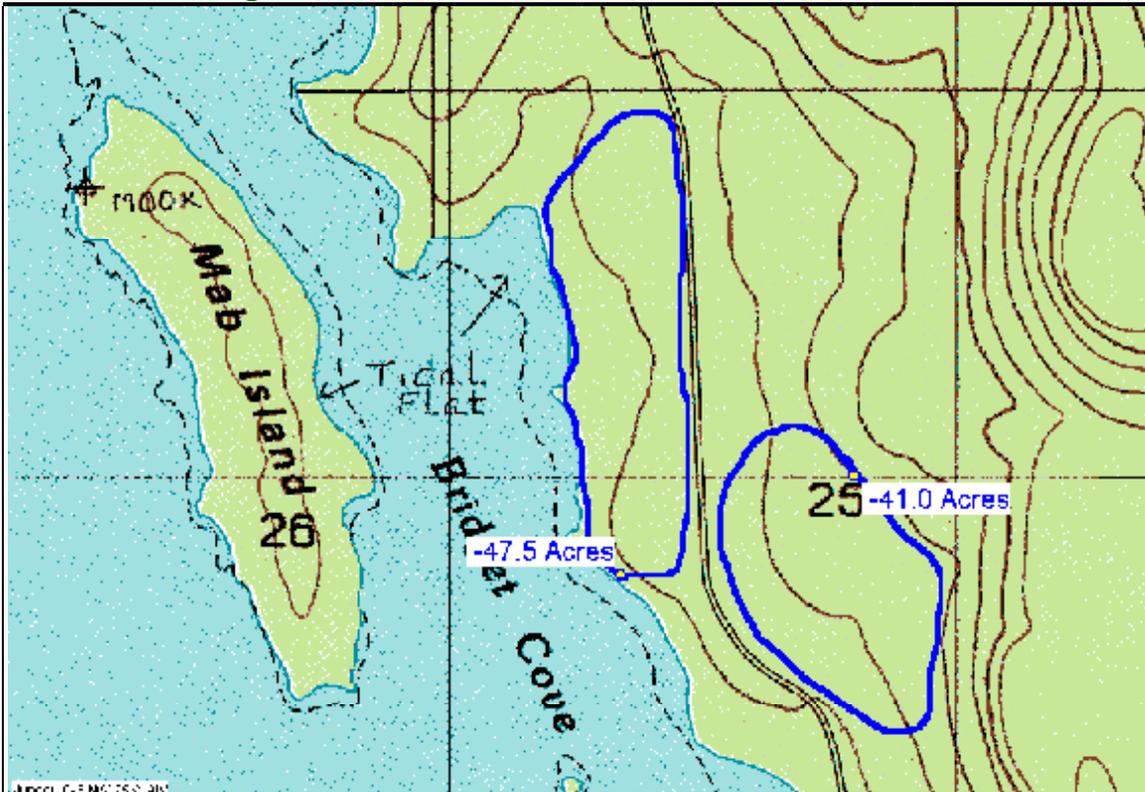


4.4 Level 2 Sites

4.4.1 Bridget Cove



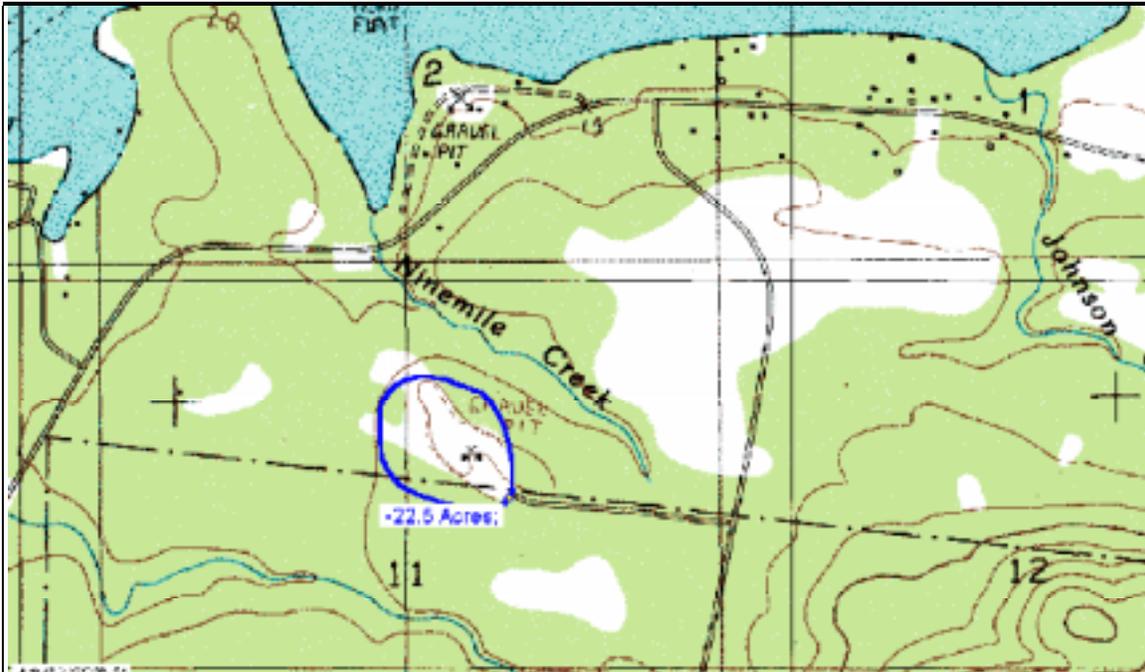
Land Ownership:	City owned uplands	
Physical:	12 to 20+ acre site	0' to 60' elevation
Terrain Features:	Gradually sloping timbered area.	
Adjacent Terrain Features:	< 600' hills to the north and southeast. Favorite Channel to the west. This is a recreational area. Private cabins border along the coast.	
Access:	38 miles from Marine Park	52 minute drive from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 9.5 miles. Egan turns into Glacier Highway, a two-lane road that continues northwesterly 24.5 miles.	
Type of Traffic:	Commercial and residential traffic.	
Nearest Fire Station:	Lynn Canal Fire Station, 19 miles.	

Bridget Cove had two sites that were considered as alternative heliport sites. They are located east of Bridget Cove off of Cowee Creek in relatively low and level terrain. The sites are 38 miles from Marine Park in down town and approximately 26 air miles northwest of the Juneau Airport, well away from Juneau airspace. There are no weather or wind conditions that would be of greater concern relative to other sites. These sites would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

The Bridget Cove sites offer good access from Glacier Highway. Timber would need to be cleared and an access road and base facilities would need to be constructed. On-site electricity, water system and facility septic system would be needed.

The round trip drive time for shuttle buses would be approximately 1 hour and 45 minutes, flight seeing trips are generally 1 hour long. The shuttle time involved would make it extremely difficult to convince operators to move to this site, and it does not offer any outstanding advantages not offered by other closer sites.

4.4.2 Eaglecrest Rock Quarry



Land Ownership:	City owned uplands	
Physical:	12 to 20+ acre site 20' to 40' elevation	
Terrain Features:	Relatively flat area with existing gravel quarry pit and surrounding muskeg meadows.	
Adjacent Terrain Features:		
Existing Infrastructure:	Electricity along North Douglas Highway.	City water along North Douglas Highway
Access:	9.5 miles from Marine Park.	14 minute drive from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 1.1 miles. West across the Douglas Bridge to North Douglas Highway, a two lane road, 6.9 miles. South on the Eaglecrest, two lane, road 1.5 miles.	
Type of Traffic:	Commercial and residential traffic.	
Miles to Nearest Fire Station:	Downtown Juneau Fire Department, 8.5 miles.	

Eaglecrest rock quarry was considered as an alternative heliport site. This site offers good access with an existing one-lane gravel road off of the Eaglecrest Road. Base facilities would need to be constructed. City water and electric hook up are available at the intersection of the North Douglas Highway and Eaglecrest Road; a facility septic system would be needed.

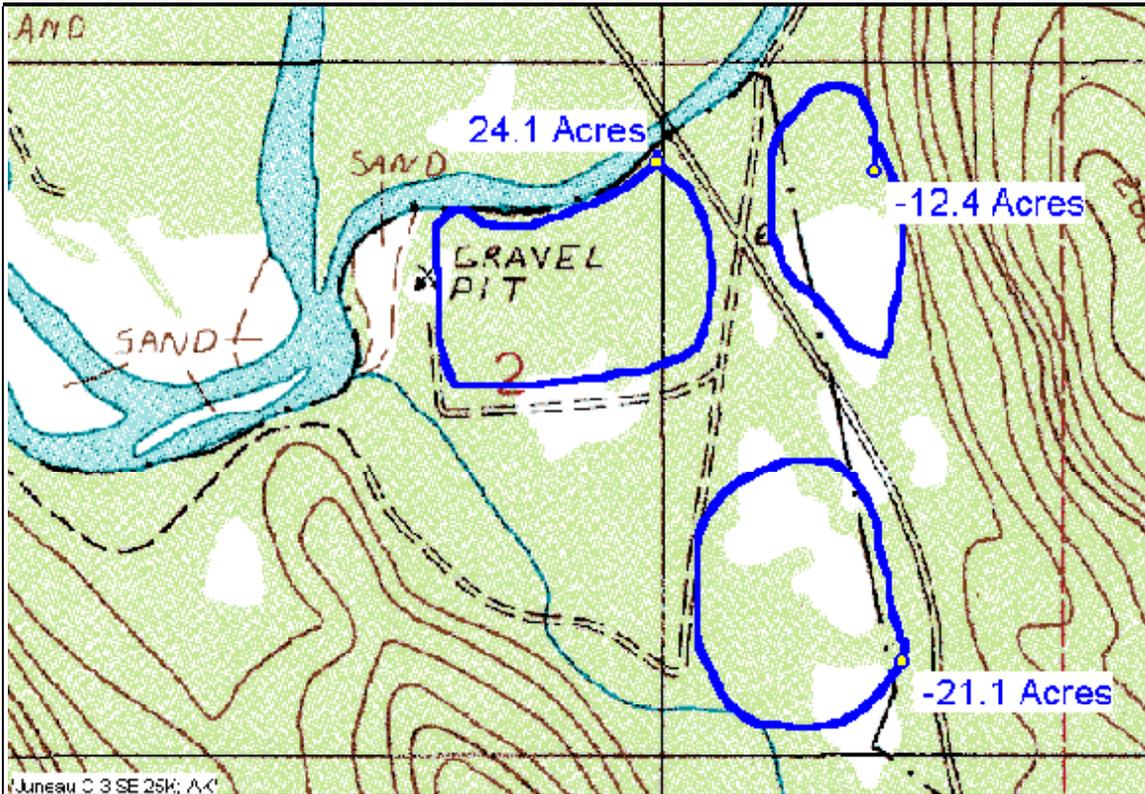
The rock quarry site is 2 miles immediately south of Juneau Airport in relatively low and level terrain. It is within the Class D airspace for the Juneau Airport and would require a clearance for all operations. There are no weather or wind conditions that would be of greater concern relative to other sites. This site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

On good weather days, when helicopters could fly south up the valley to Eaglecrest Ski Area and through the cut to the west side of Douglas Island, approximately 17 housing units would be affected at the 65 dBA level and 6 housing units at the 55 dBA level. There would be days that helicopters could fly down the Eaglecrest Road and Gastineau Channel when helicopters at the main Eaglecrest site would be grounded by fog.

Poor weather conditions, however, would force flight paths to utilize established routes down Gastineau Channel; the number of affected housing units would be greater than flight paths currently being operated out of the ERA Base. Approximately 1819 housing units would be affected at the 65 dBA level and 3934 housing units would be affected at the 55 dBA level.

This site lacks the established infrastructure of the upper Eaglecrest site.

4.43 Herbert River



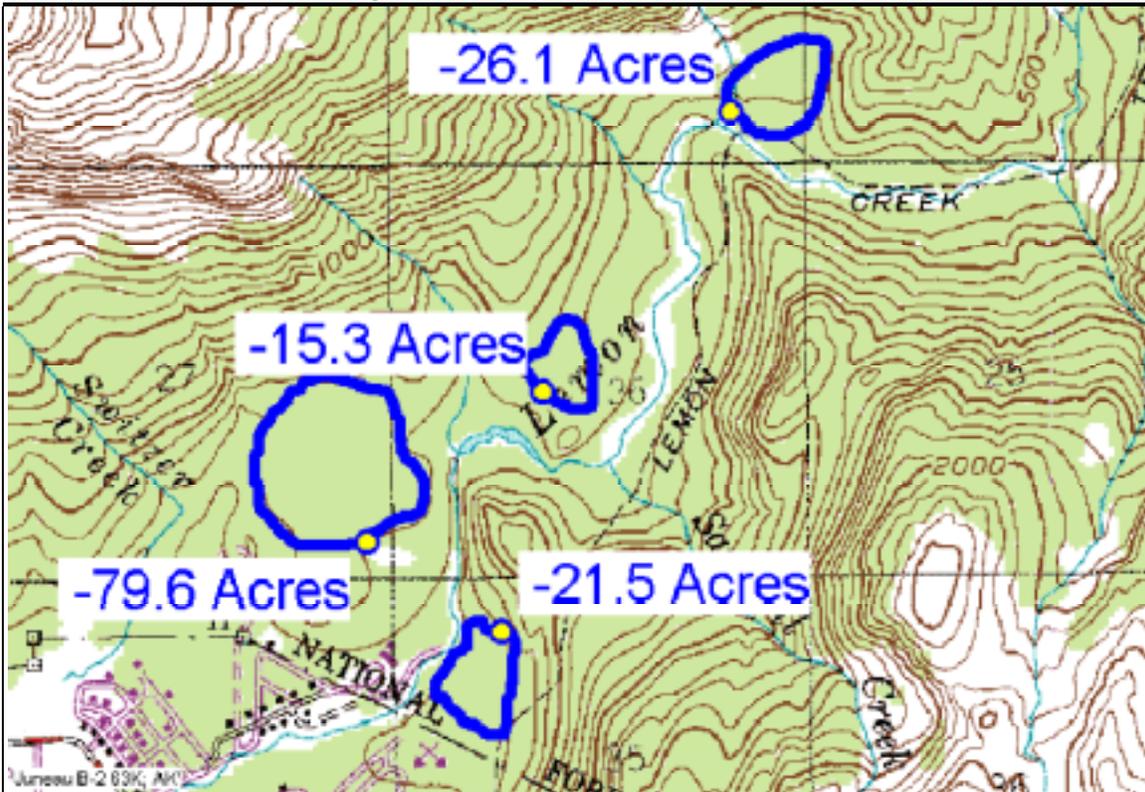
Land Ownership:	Channel Construction and National Forest Lands	
Physical:	12 to 20+ acre site	20' elevation
Terrain Features:	Flat low-lying area, which include timber, meadows and wetlands.	
Adjacent Terrain Features:	Flat low-lying areas with rolling hills <1500' elevation within 2-mile radius. Residential areas border to the south and west. Recreational areas border to the west, north, and east.	
Existing Infrastructure:	Electricity	
Access:	27 miles from Marine Park	37 minute drive from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 9.5 miles. Egan turns into Glacier Highway, a two-lane road that continues northwesterly 17.5 miles.	
Type of Traffic:	Commercial and residential traffic.	
Nearest Fire Station:	Lynn Canal Fire Station, 10 miles.	

Herbert River had three areas that were considered as alternative heliport sites. All three sites are located east of Eagle Beach State Recreational Area, off the Herbert River in relatively low and level protected terrain. The sites are approximately 13 miles northwest of the Juneau Airport and well away from Juneau airspace. There are no weather or wind conditions that would be of greater concern relative to other sites. This site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

These sites offer good access from Glacier Highway. Clearing of timber, an access road, and base facilities would need to be constructed. Some filling of wetlands may be required. Electric hook up is easily accessible. A water system and facility septic system would be needed.

Herbert River offers an attractive alternative. However due to a distance of 27 miles from Marine Park in downtown Juneau, this site has been excluded. The round trip drive time for shuttle buses would be approximately 1 hour and 15 minutes, flight seeing trips are generally 1 hour long. The shuttle time involved would make it extremely difficult to convince operators to move to this site and it does not provide any outstanding advantages not offered by other closer sites.

4.4.4 Hidden Valley



Land Ownership:	City owned uplands on the southern 79.6 acre and 21.5 acre sites. City and Seccon owned lands comprise the 15.3 acre site. The northern Hidden Valley site is Gold Belt and National Forest Lands.	
Physical:	12 to 20+ acre sites possible	40' to 400' elevation
Terrain Features:	This glacially formed U shaped valley is timbered.	
Adjacent Terrain Features:	Lemon Creek Hidden Valley is surrounded on the north, west, and east sides by steep mountains and ridgelines ranging from 2500' to 4885'. Lemon Creek State Prison and a Commercial / Industrial Park border these areas. Residential areas are within close proximity.	
Existing Infrastructure:	Electricity available in developed commercial area	City water and sewer available in developed commercial area
Access:	7 miles from Marine Park	10 to 15 minute drive time from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 5.5 miles. Northeast on Old Glacier Highway, a two-lane road, for .8 miles. Northeast into Lemon Creek industrial area along the east side of	

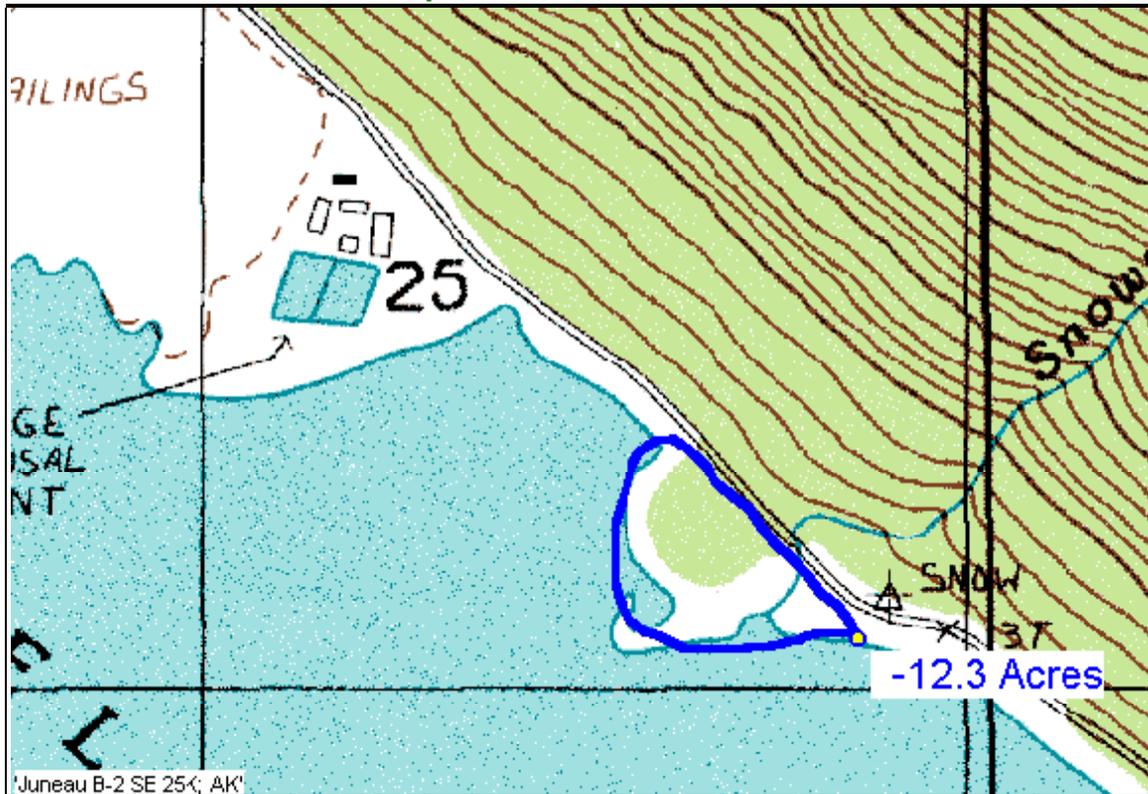
	Lemon Creek and crossing Lemon Creek 1.8 miles from turning off Old Glacier Highway. The upper section of road along Lemon Creek is a gravel road.
Type of Traffic:	Commercial traffic the entire route. Residential Traffic to the Lemon Creek Industrial area turn off.
Nearest Fire Station:	Glacier Valley Fire Department, 3.5 miles.

The Lemon Creek-Hidden Valley site is located northeast of the Gastineau Channel between the Heintzleman and Blackerby Ridges off Lemon Creek at medium elevation and on relatively level terrain. It is approximately 4 miles northeast of the Juneau Airport and would require an ATCT clearance for Juneau airspace to reach the channel. The Lemon Creek Hidden Valley offers areas along an existing gravel road extending three miles up the valley past the industrial area. Clearing of timber and base facilities would need to be constructed. City water, sewer and electric hook up are accessible.

This would be an excellent location if weather would allow routes up and onto the icefield to be flown regularly. Unfortunately that is not the case. Topography influences local weather conditions in Hidden Valley. Hidden Valley is a glacially formed U-shaped valley. Lemon Glacier and Ptarmigan Glaciers are hanging glaciers located at the end of the valley. Cold air flows down off the glaciers into Hidden Valley, often creating localized fog and clouds in the valley.

No formal statistical information is available on the fog and cloud levels and frequencies in Hidden Valley. Numerous informal conversations were held with flightseeing tour operators, residents, and CBJ staff who view this area regularly. A general consensus was that flights would be able to fly up over the Lemon Glacier less than 50 percent of the time. This would mean a majority of the flights would be flying down Gastineau Channel creating noise impacts for many additional residents. Low weather visibility conditions would also force operations to shut down on occasion and may force returning helicopters to land elsewhere if conditions deteriorated from time of departure.

4.4.5 Little Rock Dump



Land Ownership:	City owned uplands and tidelands	
Physical:	8.1 acres	0' to 50' elevation
Terrain Features:	Rock dump filled area	
Adjacent Terrain Features:	Commercial park to the northwest. 3666' Gastineau Peak steeply rising to the northeast.	
Existing Infrastructure:	Electricity	City water and sewer at Big Rock Dump.
Access:	1.5 miles from Marine Park	4 minute drive from Marine Park
Road Description:	Thane road, a two lane-winding road with a slight shoulder.	
Type of Traffic:	Commercial traffic extends to the Sheep Creek Mine cut off. Residential traffic extends to end of road.	
Nearest Fire Station:	Downtown Juneau Fire Station, 1.75 miles.	

The Little Rock Dump site is located on the northeast side of the Gastineau Channel. The terrain is low and level. It is approximately one mile south of downtown Juneau, and 8 miles southeast of the Juneau Airport, under the final approach path to Runway 26 and adjacent to the Juneau Harbor seaplane port. There are no weather or wind conditions that would be of greater concern relative to other sites. This site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design. The site offers sufficient land adjacent to Thane Road. Base facilities would need to be constructed. Electric hook up is available. City water and sewer extend to the Big Rock Dump, directly to the northwest. This site would shift major noise impacts to Douglas residents.

4.4.6 Rifle Range Flats



Land Ownership:	City owned uplands	
Physical:	12 to 20 acre site 20' to 80' elevation	
Terrain Features:	Montana Creek Drainage is a glacially-formed forested valley that opens up into the Mendenhall Valley.	
Adjacent Terrain Features:	Mount McGinnis @ 4228' to the north and 2008' mountain to northwest. The Rifle Range borders to the north and scattered residential areas are to the south.	
Existing Infrastructure:	Electricity at Rifle Range	City water and sewer at Rifle Range
Access:	14.4 miles from Marine Park	23 minute drive time from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 9.2 miles. Northeast on Mendenhall Loop Road, a two-lane road, for 2.2 miles. West on Back Loop Road, a two-lane road, for 1.5 miles. North West on Montana Creek Road, a two-lane road for 1.5 miles.	
Type of Traffic:	Commercial and residential traffic.	
Nearest Fire Station:	Glacier Valley Fire Department, 6 miles.	

Three areas, collectively called Rifle Range Flats, were considered as

Alternative Heliport Assessment
for the
City and Borough of Juneau

Michael Baker Jr., Inc.
FINAL REPORT
September 24, 2001

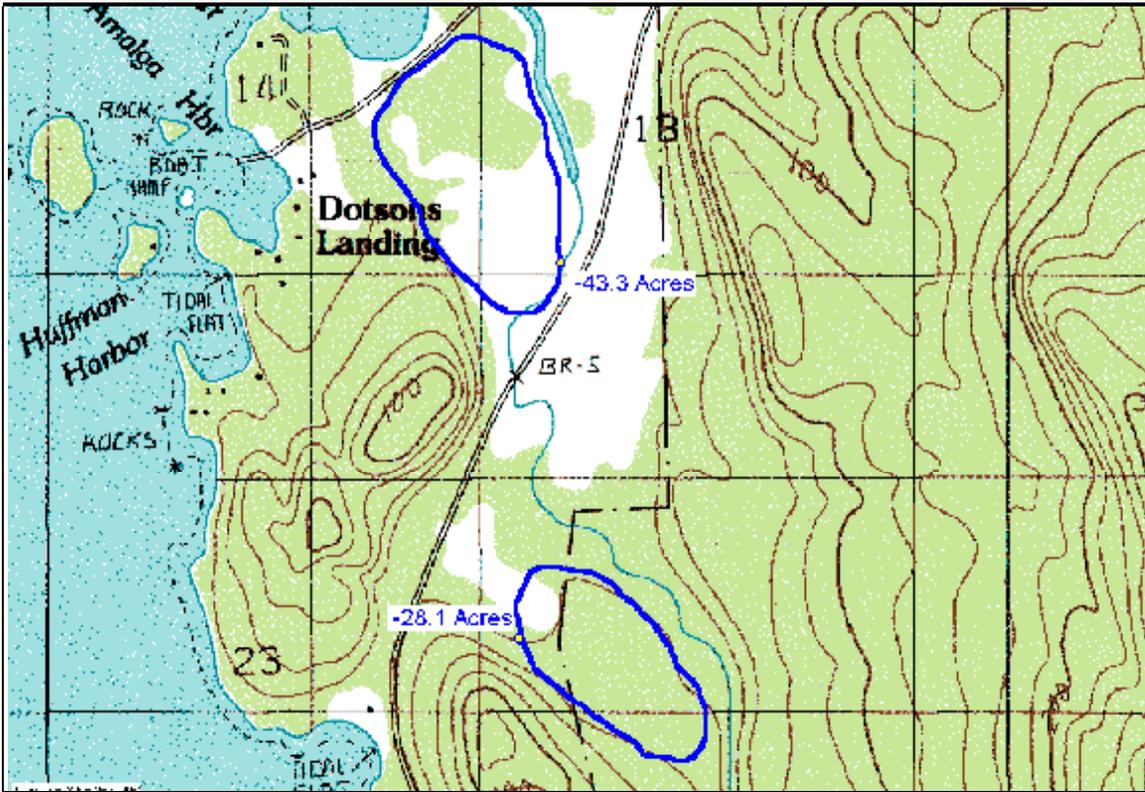
alternative heliport sites. The sites are located approximately 5.2 miles northwest of the Juneau Airport, west of Mendenhall Lake. Any of these sites would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

This area offers good access from Montana Creek Road. Clearing of timber, access roads and base facilities would need to be constructed. Depending on the site, filling of wetlands may be required. Electrical hook up is available, a facility water and septic system would be needed.

Rifle Range Flats and Montana Creek Road are in close proximity to each other. For this reason both areas were evaluated based on the same set of flight lines. 3000' and 6000' noise contours were applied to each flight path. Approximately 14 housing units would be affected at the 55 dBA level.

These sites did not offer any significant advantage over the recommended Montana Creek site and proximity to the rifle range is a potential liability.

4.4.7 Peterson Creek



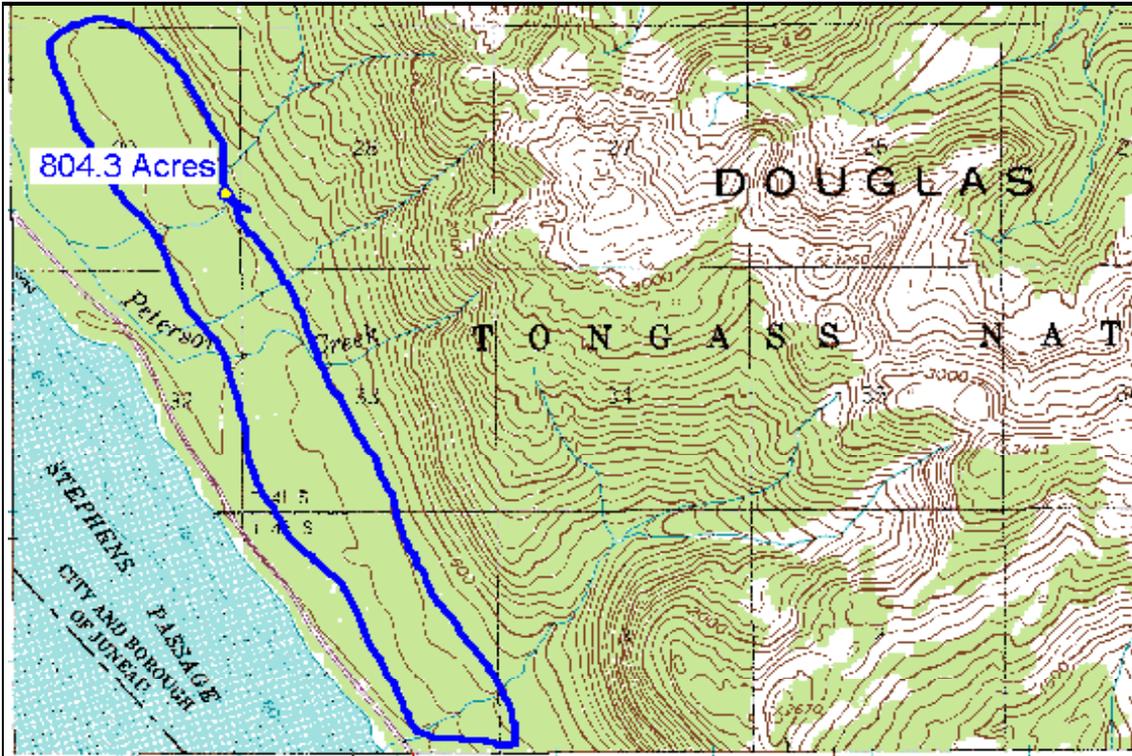
Land Ownership:	City owned uplands
Physical:	12 to 20+ acre site 10' to 60' elevation
Terrain Features:	Gradual sloping timbered valley that opens up into meadows and wetlands. Residential and recreation areas border this site.
Adjacent Terrain Features:	Rolling hills up to 1840' within 3 mile radius.
Existing Infrastructure:	Electricity
Access:	24 miles from Marine Park 33 minute drive from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 9.5 miles. Egan turns into Glacier Highway, a two-lane road that continues northwesterly 14.2 miles.
Type of Traffic:	Commercial and residential traffic.
Nearest Fire Station:	Lynn Canal Fire Station, 6 miles.

Two sites near Peterson Creek were considered. Both sites are located east of Pearl Harbor, off of Peterson Creek in relatively level terrain. These sites offer good access from Glacier Highway. Clearing of timber, an access road, and base facilities would need to be constructed. Electric hook up is easily accessible. A water system and septic system would be needed.

These sites are approximately 11 miles northwest of the Juneau Airport and well away from Juneau airspace. There are no weather or wind conditions that would be of greater concern relative to other sites. Either site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

Peterson Creek is 24 miles from Marine Park. The round trip drive time for shuttle buses would be approximately 1 hour and 10 minutes. The shuttle time involved would make it extremely difficult to convince operators to move to either of these sites, and they do not offer any outstanding advantages not offered by other closer sites.

4.4.9 West Douglas



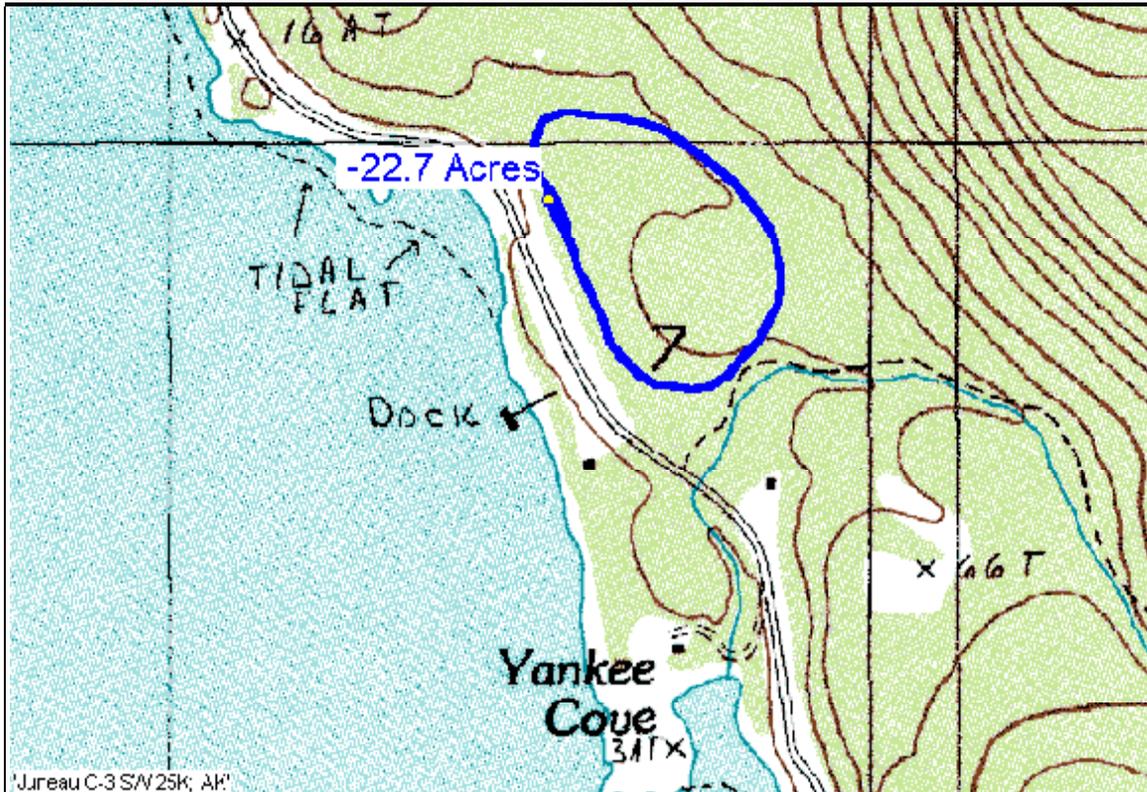
Land Ownership:	City owned uplands	
Physical:	12 to 20+ acre sites 100' to 400' elevation	
Terrain Features:	Gradually sloping upland timbered area paralleling shoreline.	
Adjacent Terrain Features:	2500' to 3000' steeply rising mountains to the east.	
Access:	14+ miles from Marine Park	20+ minute drive from Marine Park
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 1.1 miles. West across the Douglas Bridge to North Douglas Highway, a two lane road, 12.9 miles to end of road. A connecting road from selected site to termination of North Douglas Highway would be necessary.	
Type of Traffic:	Commercial and residential traffic.	
Nearest Fire Station:	Downtown Juneau Fire Department, 14+ miles.	

The City and Borough of Juneau owns over 800 acres on the back side of Douglas that were considered as alternative heliport locations. The particular West Douglas site we examined is located on the northwest side of Douglas Island, off of Peterson Creek in relatively low and level terrain adjacent to Stephens Passage. All of the potential West Douglas sites would need major road construction to reach them and they could not be conveniently reached by water transportation from the Juneau Harbor. In addition to access road construction, timber would need to be cleared and base facilities constructed. Local power generation, water system and facility septic system would also be needed.

The West Douglas site is approximately 6 miles south of the Juneau Airport and away from Juneau airspace; but would require an ATCT clearance to traverse Class D airspace when accessing sites to the north of the airport. There are no weather or wind conditions that would be of greater concern relative to other sites. This site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

In addition to the major access problems, West Douglas has been identified by the City and Borough as a future growth area. Creating a heliport in this area would remove most noise impact at present time, however noise problems would arise if this area develops as planned.

4.4.10 Yankee Cove



Land Ownership:	City owned uplands
Physical:	12 to 20+ acre site possible. 20' to 80' elevation.
Terrain Features:	Gradual sloping area.
Adjacent Terrain Features:	Steep 1500' mountains to the north; 2500' mountain to the southeast. Favorite Channel to the west. Residential and commercial businesses are in this area.
Access:	34 miles from Marine Park. 48 minute drive from Marine Park.
Road Description:	Northwest on Egan Highway, a four-lane freeway, for 9.5 miles. Egan turns into Glacier Highway, a two-lane road that continues northwesterly 24.5 miles.
Type of Traffic:	Commercial and residential traffic.
Nearest Fire Station:	Lynn Canal Fire Station, 15 miles.

The Yankee Cove site is a twenty plus acre site located east of Yankee Cove off of Bessie Creek. It is on relatively low and level terrain adjacent to Favorite Channel. The site offers good access from Glacier Highway. Clearing of timber, an access road, and base facilities would need to be constructed. A water system and facility septic system would be needed.

The Yankee Cove site is approximately 22 miles northwest of the Juneau Airport and well away from Juneau airspace. There are no weather or wind conditions that would be of greater concern relative to other sites. This site would likely be able to meet the requirements of FAA AC 150/5390-2A Heliport Design.

The distance from Marine Park is 34 miles and the round trip drive time for shuttle buses would be approximately 1 hour and 36 minutes. Flight seeing trips are generally 1 hour long. The shuttle time involved would make it extremely difficult to convince operators to move to this site, and it does not offer any outstanding advantages not offered by other closer sites.