ALASKA DEPT. OF FISH & GAME OCT 11 2007

**State of Alaska**
**Department of Fish and Game**
**Sportfish Division**

**Nomination Form**
**Fish Distribution Database**

Region: Southeast

USGS Quad(s): Juneau A-2 & A-3

Fish Distribution Database Number of Waterway: 112-65-10240

Name of Waterway: Greens Creek ☑ USGS Name ☐ Local Name

☑ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

| | | |
|---|---|---|
| Nomination # 07-255 | ADF&G Fisheries Scientist | 11/2/07 Date |
| Revision Year: 2008 | ADNR OHMP Operations Mgr. | 11/2/07 Date |
| Revision to: Atlas ____ Catalog ____ Both X | FDD Project Biologist | 10/19/07 Date |
| Revision Code: A-1, B-2 | Cartographer | 12/17/07 Date |

OBSERVATION INFORMATION

| Species | Date(s) Observed | Spawning | Rearing | Present | Anadromous |
|---|---|---|---|---|---|
| coho salmon | see below and attached | | Yes | Yes | ☑ |
| Dolly Varden | see below and attached | | | Yes | ☐ |
| | | | | | ☐ |
| | | | | | ☐ |
| | | | | | ☐ |

**IMPORTANT:** Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

**Comments:** As part of the Greens Creek Mine Biomonitoring Program, baited minnow trapping has occurred annually since 2001 in Greens Creek at three sample sites upstream of the currently-specified extent of anadromous habitat. Juvenile coho salmon have been captured at the lower two of these sites (Greens Creek Below Pond D Site 54 and Middle Greens Creek Site 6), as documented in the annual technical reports (http://www.dnr.state.ak.us/habitat/greensckbio.htm). A few juvenile coho have been captured at Middle Greens Creek Site 6 just upstream of the mouth of "Bruin Creek," however the character of Greens Creek changes at the confluence so the upstream end of this nomination is at the confluence. Dolly Varden (resident?) are common throughout Greens Creek including upstream of the Bruin Creek confluence.

ACTION NEEDED: Add COr to Greens Creek up to the mouth of "Bruin Creek."
Extend 112-65-10240 of coho salmon rearing

Name of Observer (please print): James D. Durst, Habitat Biologist
Signature: James D. Durst
Date: 10/10/2007
Agency: ADNR Office of Habitat Management & Permitting
Address: 1300 College Road
Fairbanks, AK 99701-1551

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist: _____ Date: 10/11/07 Revision 02/05
Name of Area Biologist (please print): _____

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Revision 02/05

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Signature of Area Biologist: _____ Date: 10/11/07 Revision 02/05
Name of Area Biologist (please print):

## Durst, James D (DNR)

**From:** Durst, James D (DNR)
**Sent:** Thursday, October 11, 2007 10:00 AM
**To:** Glynn, Brian J (DFG)
**Cc:** Johnson, J D (DFG)
**Subject:** Greens Creek Nomination

**Attachments:** Greens Creek Nomination 2007 - Form.xls; Greens Creek Nomination 2007 - Backup.pdf

Greens Creek Nomination 2007 -... Greens Creek Nomination 2007 -...

Brian:

As we discussed by phone, attached are the nomination form and backup I prepared to add coho rearing to several miles of Greens Creek (112-65-10240) on Admiralty Island (Juneau A-2 & A-3). I am faxing you a signed copy of the form for you to sign and send on to J Johnson, and I will mail my originals to J directly. Thanks for your help with this.

-Jim

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James D. Durst, Habitat Biologist
Alaska Department of Natural Resources
Office of Habitat Management & Permitting 1300 College Road, Fairbanks, AK 99701-1551
(907) 459-7254 voice / (907) 459-7303 fax james.durst@alaska.gov

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ALASKA DEPT. OF FISH & GAME
OCT 19 2007

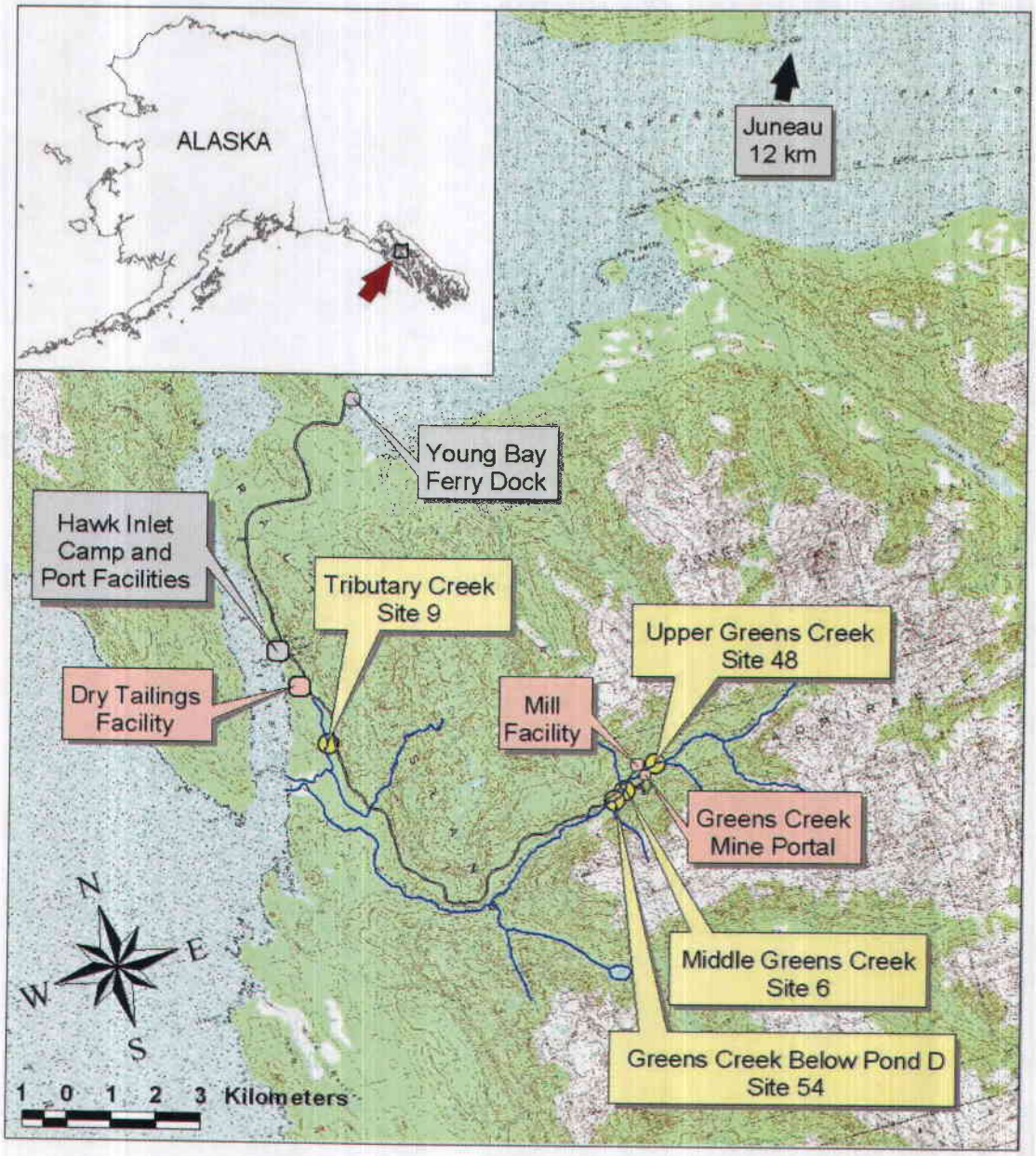



**Figure 1.** Location of the Greens Creek Mine operation and biomonitoring sampling sites on Admiralty Island in southeast Alaska, southwest of Juneau.

Source:

Durst, James D., and Laura L. Jacobs. 2007. Aquatic biomonitoring at Greens Creek Mine, 2006. Technical Report No. 07-02. Alaska Department of Natural Resources, Office of Habitat Management and Permitting, Juneau, Alaska. 85 pp.

# APPENDIX 4. JUVENILE FISH CAPTURE DATA

| Sampling Site | Fish Species[1] | Number of Fish Captured Set 1 | Set 2 | Set 3 | Total | MLE[2] Pop. Est. | Standard Error | 95% Conf. Interval |
|---|---|---|---|---|---|---|---|---|
| **2001[3]** | | | | | | | | |
| Upper Greens Cr 48 | DV | 30 | 16 | 22 | 68 | 96 | 13.80 | 68 - 124 |
| Middle Greens Cr 6 | DV | 80 | 8 | 43 | 131 | 161 | 12.14 | 137 - 185 |
| | CO | 1 | 0 | 2 | 3 | 3 | 0.00 | 3 - 3 |
| Greens Cr Below D 54 | DV | 70 | 49 | 19 | 138 | 158 | 8.44 | 141 - 175 |
| | CO | 2 | 6 | 4 | 12 | 17 | 4.46 | 8 - 26 |
| Tributary Cr 9 | DV | 70 | 4 | 7 | 81 | 81 | 0.00 | 81 - 81 |
| | CO | 89 | 18 | 11 | 118 | 120 | 1.69 | 117 - 123 |
| | CT | 1 | 0 | 0 | 1 | 1 | --- | --- |
| | Sc | 3 | 1 | 0 | 4 | 4 | 0.00 | 4 - 4 |
| **2002[3]** | | | | | | | | |
| Upper Greens Cr 48 | DV | 74 | 29 | 23 | 126 | 141 | 6.87 | 127 - 155 |
| Greens Cr Below D 54 | DV | 168 | 72 | 31 | 271 | 290 | 6.81 | 276 - 304 |
| | CO | 14 | 6 | 1 | 21 | 21 | 0.00 | 21 - 21 |
| Tributary Cr 9 | DV | 29 | 14 | 8 | 51 | 56 | 3.63 | 49 - 63 |
| | CO | 29 | 9 | 6 | 44 | 46 | 1.92 | 42 - 50 |
| | CT | 0 | 0 | 1 | 1 | 1 | 0.00 | 1 - 1 |
| | Sc | 0 | 1 | 1 | 2 | 2 | 0.00 | 2 - 2 |
| **2003** | | | | | | | | |
| Upper Greens Cr 48 | DV | 157 | 72 | 56 | 285 | 333 | 14.04 | 305 - 361 |
| Greens Cr Below D 54 | DV | 92 | 81 | 59 | 232 | 331 | 27.76 | 275 - 387 |
| | CO | 5 | 3 | 0 | 8 | 8 | 0.00 | 8 - 8 |
| Tributary Cr 9 | DV | 13 | 4 | 2 | 19 | 20 | 1.52 | 17 - 23 |
| | CO | 37 | 11 | 4 | 52 | 53 | 1.20 | 51 - 55 |
| | CT | 1 | 0 | 0 | 1 | 1 | --- | --- |
| | Sc | 0 | 0 | 1 | 1 | 1 | 0.00 | 1 - 1 |
| **2004** | | | | | | | | |
| Upper Greens Cr 48 | DV | 168 | 48 | 28 | 244 | 255 | 4.70 | 246 - 264 |
| Greens Cr Below D 54 | DV | 118 | 36 | 47 | 201 | 234 | 11.43 | 211 - 257 |
| | CO | 9 | 9 | 6 | 24 | 31 | 5.53 | 20 - 42 |
| Tributary Cr 9 | DV | 21 | 6 | 5 | 32 | 33 | 1.22 | 31 - 35 |
| | CO | 23 | 2 | 2 | 27 | 27 | 0.00 | 27 - 27 |
| | CT | 1 | 0 | 0 | 1 | 1 | --- | --- |
| | RT | 3 | 1 | 0 | 4 | 4 | 0.00 | 4 - 4 |
| | Sc | 1 | 1 | 0 | 2 | 2 | 0.00 | 2 - 2 |
| **2005** | | | | | | | | |
| Upper Greens Cr 48 | DV | 118 | 56 | 38 | 212 | 243 | 10.70 | 222 - 264 |
| Greens Cr Below D 54 | DV | 111 | 59 | 43 | 213 | 255 | 14.13 | 227 - 283 |
| | CO | 33 | 20 | 8 | 61 | 67 | 3.97 | 59 - 75 |
| Tributary Cr 9 | DV | 21 | 12 | 11 | 44 | 55 | 7.16 | 41 - 69 |
| | CO | 82 | 42 | 15 | 139 | 150 | 5.31 | 139 - 161 |
| | CT | 1 | 1 | 0 | 2 | 2 | 0.00 | 2 - 2 |
| | Sc | 2 | 0 | 0 | 2 | 2 | --- | --- |
| **2006** | | | | | | | | |
| Upper Greens Cr 48 | DV | 138 | 40 | 34 | 212 | 228 | 6.34 | 215 - 241 |
| Middle Greens Cr 6 | DV | 44 | 41 | 12 | 97 | 114 | 8.24 | 98 - 130 |
| | CO | 1 | 0 | 0 | 1 | 1 | --- | --- |
| Greens Cr Below D 54 | DV | 116 | 61 | 40 | 217 | 254 | 12.34 | 229 - 279 |
| | CO | 6 | 0 | 1 | 7 | 7 | 0.00 | 7 - 7 |
| Tributary Cr 9 | DV | 7 | 3 | 1 | 11 | 11 | 0.00 | 11 - 11 |
| | CO | 5 | 4 | 1 | 10 | 10 | 0.00 | 10 - 10 |
| | CT | 0 | 0 | 0 | 0 | --- | --- | --- |
| | Sc | 0 | 0 | 0 | 0 | --- | --- | --- |

[1] Species: DV = Dolly Varden, CO = coho salmon, CT = cutthroat trout, RT = rainbow trout / steelhead, Sc = sculpin species.

[2] Maximum Likelihood Estimate of fish population in the sample reach (Lockwood and Schneider 2000).

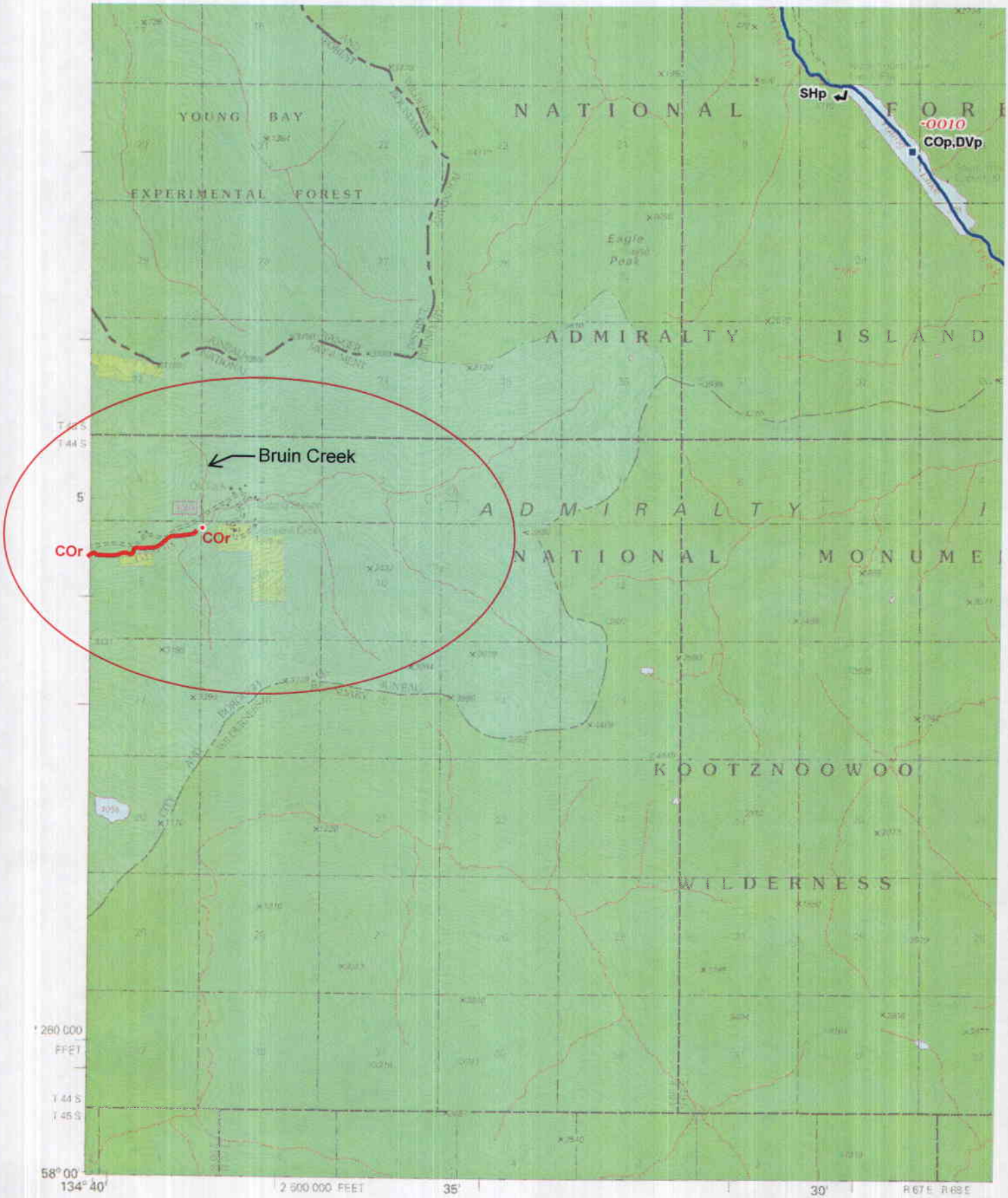
[3] Capture data for 2001 and 2002 from USDA Forest Service.

Source:

Durst, James D., and Laura L. Jacobs. 2007. Aquatic biomonitoring at Greens Creek Mine, 2006. Technical Report No. 07-02. Alaska Department of Natural Resources, Office of Habitat Management and Permitting, Juneau, Alaska. 85 pp.

# Greens Creek Addition – Juneau A-3

# Greens Creek Addition – Juneau A-2




eological Survey 1971
: 1996

SCALE 1:63 360

-134° 38.571' W
58° 4.785' N

EXPERIMENTAL
ISLAND
Hawk Inlet
Gasoline Tanks
Aqueduct
Dump Tailings
JUNEAU
NATIONAL
RANGER
MONUMENT
DISTRICT
BOUNDARY
JUNEAU
NATIONAL
COp,Pp,DVp
COp,Pp,DVp
CHp,COp,Pp,DVp
COp,Pp,DVp
CHp,COp,Pp,DVp
CHp
Extend 112-65-10240
w/ Coho Salmon Rearing
Greens
Creek
CHp,COp,Pp,DVp
Pp
Pp
Pp
Pp
WILDERNESS
Waste Rock Site
ISLAND
Communication Site
ADMIRALTY
BOUNDARY
AND
MONUMENT
NATIONAL
BOROUGH
OF
JUNEAU
KOOTZNOOWOO
Cabins
22