

STATE OF WASHINGTON  
**DEPARTMENT OF FISH & WILDLIFE**  
**LANDS AND RESTORATION SERVICES PROGRAM**  
Salmonid Screening, Habitat Enhancement &  
Restoration Division (SSHEAR)

**OFF-CHANNEL SITE INVENTORY DATA**

**General Information:**

<b>Region:</b> North Coast	<b>Observer(s):</b> Nettrin
<b>River System:</b> Sol Duc	<b>Date:</b> 3/24/98
<b>Site Identifier:</b> S-0317	<b>WRIA:</b> 20.0317
<b>River Mile Location:</b> 5.61 mi.	<b>RB/LB:</b> LB
<b>Local Name:</b> Unnamed	<b>Trib. to:</b> Lake Creek (20.0313)
<b>Legal Description:</b> NE ¼ Sec 24 T30N R13W	<b>County:</b> Clallam

**Habitat Type:** Upper Valley Wall Trib.

**Landowner:**  Federal  State  County  Other Government  Private  
- Department of Natural Resources  
- Possibly Rayonier Timber Operations Company  
- Possibly Merrill and Ring Tree Farm

**Directions to site:**

North from Forks (Hwy 101) to MP 202. Turn left onto East Lake Pleasant Road and follow for 1.5 mi. to the end of the county road. A gate will be encountered. The key can be obtained at the Rayonier Timber Operations Company office in Forks. Continue to the end of the logging road. The stream at the end of the road is 20.0317.

To access the upper end of 20.0317: Follow East Lake Pleasant Road about 0.7 mile from highway 101 and take a right onto the B-1000. Bear right at the junction at the top of the first hill. Just before starting up the steep pitch to the ridge top, there is a wetland to the left of the road. This is one of the sources for 20.0317. Park on the landing that is located on the mid slope and on the left of the road. Walk down to the ponds.

**Site Overview:**

This valley wall tributary drains about 200 - 250 acres of commercial forest. Much of the forest has been through a second rotational harvest. The channel sources at 1000 feet on Beaver Hill, northeast of Lake Pleasant. It flows through a V-notch valley to the main valley floor at an elevation of about 400 feet. The 170-meter reach from Lake Creek to the toe of the ridge has a gradient of less than 5% and has good spawning gravel. But this reach is straight, deeply incised, and is almost void of woody debris which would limit rearing capabilities. The next 400-meter reach has a gradient of 5 - 10%. This second reach has more woody debris and boulders, and begins a step/pool channel configuration. The third reach, which is 300 meters long, has a gradient of 10 - 15%. The gradient then becomes 20 - 25% and moderates to 2 - 5% in the headwater basin. Beavers have built several dams in the upper reach, creating an optimum wetland which is feed by a side slope wetland. The RMZ in the lower half of this channel is 40 - 50-year-old deciduous trees with some scattered conifers. The upper half RMZ on the left bank was removed and has been replaced with a conifer plantation that is now 10 - 20-years-old. The upper half, right bank is old, mature timber up to the beaver ponds. There are two adjacent tributaries that contribute water and gravel, but they have steep gradients and provide very limited fish habitats.

**Habitat Information:**

**Water sources:** Upper valley wall tributaries

**Intermittent/year-around:** Unknown, probably year-around

**Estimated flows (cfs):** Lower end: 3.0 - 5.0 Upper end: 1.0 - 3.0

**Water temperatures:** Lower end: Not taken Upper end: Not taken  
- On 3/24/99 the temperature in the middle reach was 6.0°C  
- On 4/14/99 the temperature in the upper reach was 5.5°C

**Adjacent stream temperature (Lake Creek):** Not taken

**Other water observations:** Clearwater

**Site area measurements:**  Indirect  Direct  Combination

Widths: Channel- 3.0 - 5.0 m Pond- NA Wetlands- NA

Depths: Channel- 10 - 60 cm Pond- NA Wetlands- NA

Total length estimated (includes ponds and wetlands): 1100 m

- There is about 200 additional meters above the point where the survey was terminated.

**Total existing habitat area (est.):** 2,560 m<sup>2</sup>

Spawning area: 180 m<sup>2</sup>

Impounded area: 1,200 m<sup>2</sup>

Other rearing area: 1,800 m<sup>2</sup>

**Spawning Habitat conditions:**  None  Poor  Fair  Good  Excellent

**Describe spawning habitat:**

- There is a good grade of gravel for about 450 meters in the lower reach. The channel substrate then becomes boulder and rubble dominant.
- The gradient is less than 5% in the lower 450 meters, then increases to 10% to a maximum of 25%.

**Rearing habitat conditions:**  None  Poor  Fair  Good  Excellent

**Describe pond and other rearing habitat:**

- Ninety-five percent of the channel is well shaded by conifer and alder.
- The channel is almost void of woody debris. There is some suspended wood over the channel.
- Overhanging brush provides some cover along the banks.
- There is limited pool habitat in the channel.
- Excellent pond habitat in the upper reach: clear and cool water, two foot depths, cover provided by woody debris and some vegetative growth, and most of the impounded area is well shaded.

**Describe unaccessible habitat:** NA

**Describe wetland:**  Bog  Marsh  Scrub-shrub Wetland  Forested Wetland

- The marsh is about 200 meters long and 10 - 20 meters wide. It is partially channelized with a water depth of ~ 15 - 20 cm. It is vegetated with dense slough sedge, and supports cattails, water parsley and water parsnip. This wetland is above a 20 -25% gradient.
- The forested wetland is a side slope wetland that is composed of small alders. It is a headwater source to adjacent tributaries.

**Flooding potential:**  Low  Medium  High  
- This valley wall tributary is susceptible to flashy flows.

**Fish Information:**

**Site entry condition to Lake Creek:**  Poor  Fair  Good  
- Open and accessible.

**Coho access and use:**

Juvenile -  Unknown  None  Poor  Fair  Good  
Adult -  Unknown  None  Poor  Fair  Good  
- Spawning takes place in this tributary but rearing habitat is limited.  
- There is a spawner index on this stream.  
- Spawner survey data is available from the Quileute tribe and WDFW.

**Other species access and use:**  Chum  Pink  Sockeye  Chinook  Trout  
- The channel is open and available to all species.  
- On 4/14/99, a trout of about 30 cm was observed in the upper reach, impounded area.

**Habitat Improvements:**

**Enhancement opportunities:**

Possible project type:  
- Install digger logs, bed control logs.  
- Place woody debris in the channel.  
- Maintain the integrity of the stream.  
Equipment access: There is good access.

**Additional Comments:** A cooperative enhancement project may be possible for this stream.

**Attachments Available:**

**Contact respective SSHEAR habitat biologist for the following checked items:**

<input type="checkbox"/> Aerials	<input checked="" type="checkbox"/> Sketch	<input checked="" type="checkbox"/> Maps	<input type="checkbox"/> Culvert Report
<input type="checkbox"/> Other references	<input checked="" type="checkbox"/> Spawning surveys	<input checked="" type="checkbox"/> Juvenile trapping	<input type="checkbox"/> Fishway Report

**NORTH COAST OFF CHANNEL SURVEY**  
**SUBSEQUENT SITE EVALUATION FORM**

River System: Sol Duc

Site No.: S-0317  
Site Name: unnamed  
WRIA: 20.0317

DATE: 4/14 -4/15/99

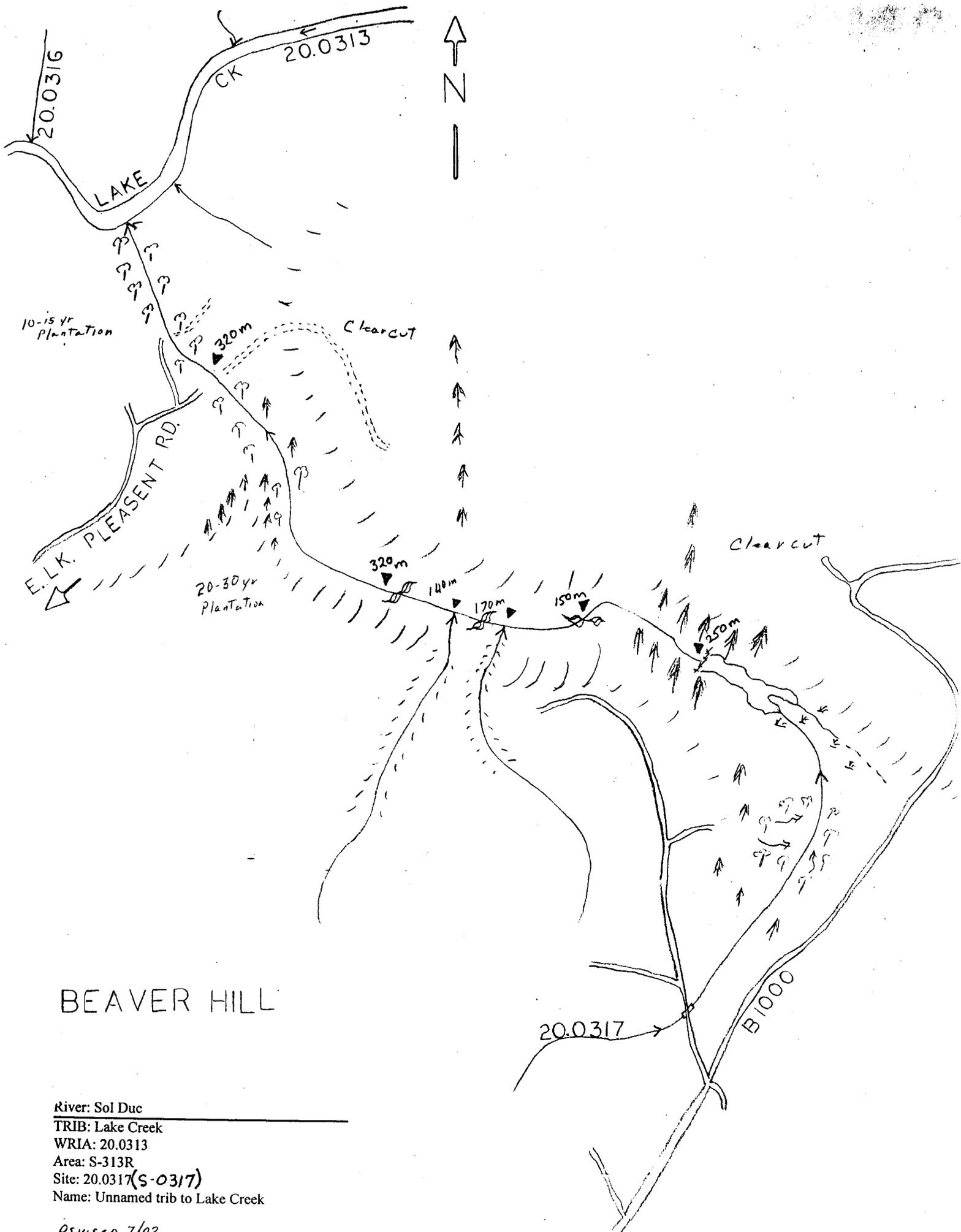
OBSERVER: Nettnin, Darrow

**MINNOW TRAPPING REPORT**

TRAP	DATE		DATE		COHO	CATCH			COTTID
	SET	TEMP	PULLED	TEMP		TROUT			
						RBT	CUTT	0+	
1	4/14	5.5°C	4/15	5.5°C	0	0	0	0	0
2	4/14	5.5°C	4/15	5.5°C	0	0	0	0	0
3	4/14	5.5°C	4/15	5.5°C	0	0	0	0	0
<b>TOTALS:</b>					0	0	0	0	0

**COMMENTS:**

- Trap 1 was placed above a secondary beaver dam on the RB side of the complex. One rough skinned newt and a northwest salamander were captured.
- Trap 2 was placed in the upper end of the main pond where there was an apparent channel. Five rough skinned newts were captured.
- Trap 3 was placed just below the main beaver dam.
- All traps were baited with salmon roe.



BEAVER HILL

River: Sol Duc  
 TRIB: Lake Creek  
 WRIA: 20.0313  
 Area: S-313R  
 Site: 20.0317(S-0317)  
 Name: Unnamed trib to Lake Creek

Revised 7/02

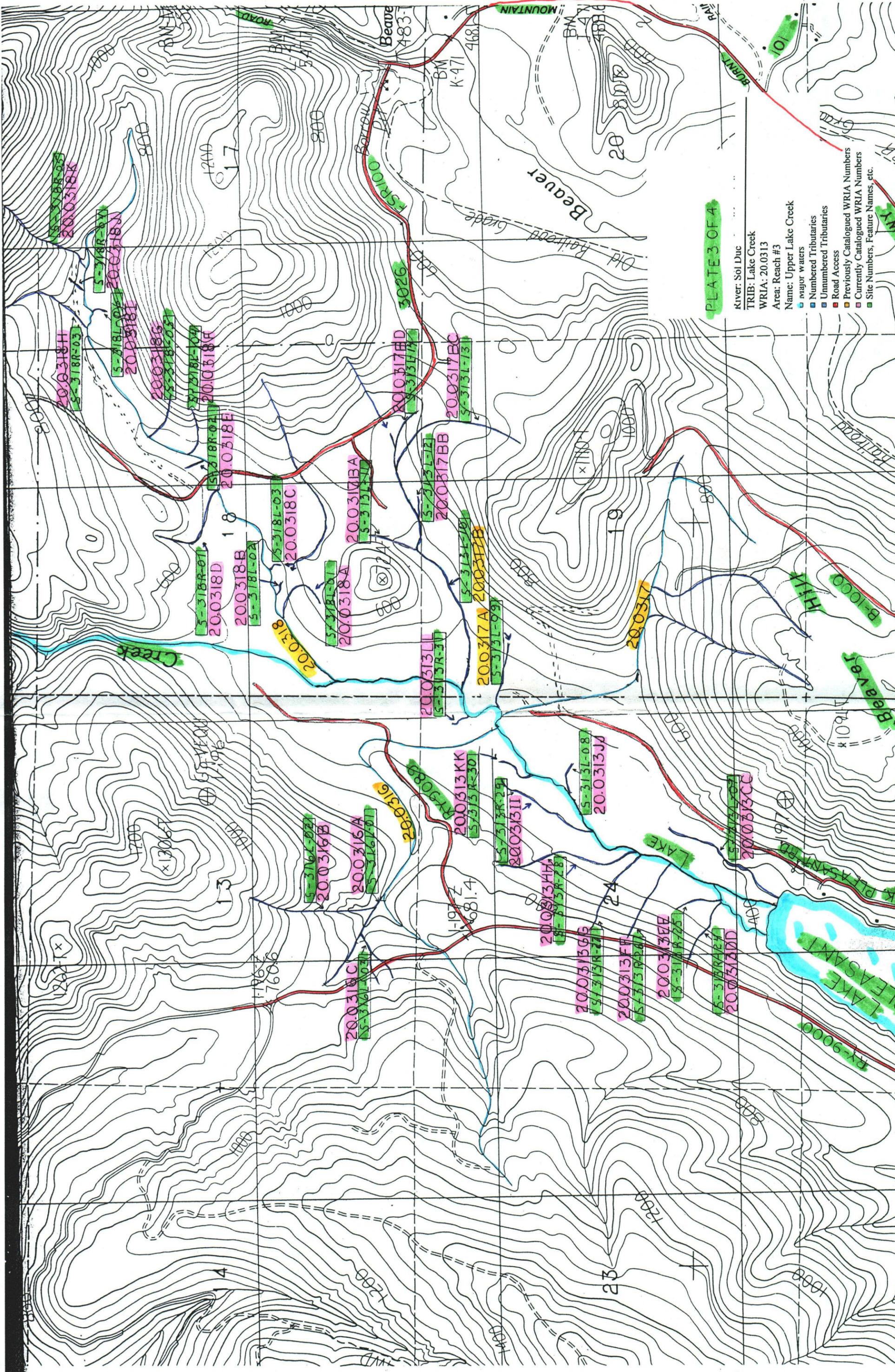


PLATE 3 OF 4

- Kiver: Sol Duc
- TRIB: Lake Creek
- WRIA: 20.0313
- Area: Reach #3
- Name: Upper Lake Creek
- Major waters
- Numbered Tributaries
- Unnumbered Tributaries
- Road Access
- Previously Catalogued WRIA Numbers
- Currently Catalogued WRIA Numbers
- Site Numbers, Feature Names, etc.

Map annotations include site numbers and codes such as:

- 20.0318H, 20.0318K, 20.0318L, 20.0318M, 20.0318N, 20.0318O, 20.0318P, 20.0318Q, 20.0318R, 20.0318S, 20.0318T, 20.0318U, 20.0318V, 20.0318W, 20.0318X, 20.0318Y, 20.0318Z, 20.0318AA, 20.0318AB, 20.0318AC, 20.0318AD, 20.0318AE, 20.0318AF, 20.0318AG, 20.0318AH, 20.0318AI, 20.0318AJ, 20.0318AK, 20.0318AL, 20.0318AM, 20.0318AN, 20.0318AO, 20.0318AP, 20.0318AQ, 20.0318AR, 20.0318AS, 20.0318AT, 20.0318AU, 20.0318AV, 20.0318AW, 20.0318AX, 20.0318AY, 20.0318AZ, 20.0318BA, 20.0318BB, 20.0318BC, 20.0318BD, 20.0318BE, 20.0318BF, 20.0318BG, 20.0318BH, 20.0318BI, 20.0318BJ, 20.0318BK, 20.0318BL, 20.0318BM, 20.0318BN, 20.0318BO, 20.0318BP, 20.0318BQ, 20.0318BR, 20.0318BS, 20.0318BT, 20.0318BU, 20.0318BV, 20.0318BW, 20.0318BX, 20.0318BY, 20.0318BZ, 20.0318CA, 20.0318CB, 20.0318CC, 20.0318CD, 20.0318CE, 20.0318CF, 20.0318CG, 20.0318CH, 20.0318CI, 20.0318CJ, 20.0318CK, 20.0318CL, 20.0318CM, 20.0318CN, 20.0318CO, 20.0318CP, 20.0318CQ, 20.0318CR, 20.0318CS, 20.0318CT, 20.0318CU, 20.0318CV, 20.0318CW, 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