

**SITE NUMBER:** H-461R-01 (was H-R12-02)

**LOCAL NAME:** Hoh Springs

**WRIA:** 20.0461A

**NORTH COAST OFF CHANNEL SITE INVENTORY DATA**

**RIVER SYSTEM:** Hoh

**DATE:** 1-7-88

**OBSERVER:** Nettnin

**CHANNEL TYPE:** Terrace tributary (spring fed)

**TRIBUTARY TO:** Dismal Creek (20.0461)

**SITE LOCATION:** RB @ River mile - 0.01 (just above mouth)

**LEGAL DESCRIPTION:**

	<b>UPPER END</b>	<b>LOWER END</b>
<b><u>DISSOLVED OXYGEN:</u></b>	(No D.O. data was taken on this date.)	

<b><u>WATER TEMP.:</u></b>	45° F	45° F
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<b><u>AIR TEMP.:</u></b>	40° F	40° F
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<b><u>FLOW (CFS):</u></b>	< 0.25	1.5 - 2.0
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**SUBSTRATE TYPE:** Mostly sand. Some gravel.

**SITE SIZE:** Length- About 600 m (Estimated from aerial photo)

Width- 1 - 2 ft

Depth (if possible)- 4-6 inches

**WATER SOURCE:** Spring water and surface run off.

**DIRECTIONS TO SITE:** North on Hwy 101. Turn right between mile post 178 & 179 onto the Upper Hoh Road. Follow this road until coming to the Westward Hoh Resort (about 6 mi.). Continue east crossing the Rock Cr. and Tower Cr. bridges. The road enters a large, flat clear-cut area about 1 mi. east of Tower Cr. Take the first right after entering this clearcut. H-461R-01 is just east of this short spur road. H-461R-01 crosses the Upper Hoh Rd about 0.2 mi. west of Dismal Cr.

**FISH ACCESS AND CURRENT USE:** No fish were observed. There appears to be unrestricted access, however. One small redd was seen.

**FLOODING POTENTIAL:** Low.

**LANDOWNER:** Unknown at this time.

**COMMENTS & RECOMMENDATIONS:** The moderate gradient of the lower reach (i.e. between the mouth and the Upper Hoh Rd.) leaves it somewhat lacking in pool area. The gravel in this channel is concentrated in this lower reach. Some spawning may occur here. Above the Upper Hoh Rd. the gradient flattens. The channel diverges and becomes rather undefined as it enters a small marshy area. This marsh seems to be the head waters of the trib. Much of this stream may dry up in late summer.

**DATE:** Winter 1988

**OBSERVER:** Young, Nettnin

Electro-shocked and found trout and coho from mouth upstream to Upper Hoh road crossing.

**DATE:** 1/14/92

**OBSERVER:** Darrow

Four minnow traps were set in this channel to see if Coho are using the stream.

The minnow traps were baited with salmon roe and placed above the Upper Hoh Road. There were 9 Coho, 7 trout and 10 cottid captured.

**DATE:** June 15 - Nov.30, 1993

**OBSERVER:** King, Nettnin

During this time this channel was enhanced for summer and winter rearing, spawning and a start was made for an interpretive site. The enhancement work consists of two main areas split by the Upper Hoh Road.

The lower area has:

- Nineteen log and rock controls in the main channel.
- Spawning rock has been added at several controls.
- A fishway that is fashioned out of two cement vaults placed side by side and plank weirs installed inside.
- A cutoff wall and spillway complete this control to create a pond about 150 m long.
- Two small ponds that are excavated in spring areas.

The upper area has:

- Two spawning pads with plank controls.
- A wooden fishway constructed from rough cut cedar and lined with marine plywood to help seal it. This control creates a pond about 200 m long.

The project site has been revegetated using native species and in line with an interpretive area for fish and wildlife that will be completed in 1994.

**DATE:** July 1993

**OBSERVER:** King

This site was worked on by WDF's habitat enhancement section to develop more spawning and rearing area for salmonids. A wooden fishway and dam was built in the upper channel to pool water back through existing wetland vegetation. Two spawning pads were installed behind wooden plank weirs.

Two small refuge ponds were constructed just below the Upper Hoh Road where springs were evident. These were loaded with large and small organic debris. A wooden plank weir was installed at the outlet of the lowermost pond.

A precast concrete fishway was installed in the lower channel to serve the same purpose as the upper fishway. The channel section below this fishway was widened and loaded with spawning gravel. Log and rock controls were placed in the streambed to hold the gravel in place and create plunge pool habitat. Large organic debris was placed in the channel for cover. All exposed areas were revegetated.

This site is scheduled to have an interpretive trail built in 1994. The trail was roughed out during construction of the in-channel project. Rayonier timber company is planning to help share the cost.

**DATE:** January 24, 25, 1994

**OBSERVER:** Darrow

Five minnow traps were placed in H-461R-01 above the upper fishway to determine if coho were moving up into the enhanced area. All traps were baited with salmon eggs. Trap results follow.

#### MINNOW TRAPPING REPORT

TRAP	DATE		DATE		COHO	CATCH			COTTID
	SET	TEMP	PULLED	TEMP		TROUT	0+		
						RBT	CUTT	0+	
1	1/24	N/A	1/25	N/A	2	0	1	0	4
2	1/24	N/A	1/25	N/A	2	0	0	0	4
3	1/24	N/A	1/25	N/A	2	0	0	0	12
4	1/24	N/A	1/25	N/A	0	0	0	0	8
5	1/24	N/A	1/25	N/A	2	0	0	0	8

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**TOTALS:**      8      0      1      0      36

**DATE:** January 27, 28, 1994

**OBSERVER:** Darrow

Five minnow traps were placed in H-461R-01 between the trap box site and the Upper Hoh Road culvert; traps #1 and #2 were placed 1 m above trap box, trap #3 was placed 4 m above grated control box (first fishway), trap #4 was placed 36 m below Hoh Rd culvert, in the main channel, and trap #5 was placed 10 m below Hoh Rd culvert in a man made small side pond. All traps were baited with salmon eggs. It was observed that 150 - 175 fish were in the area of trap #1. Trap results follow.

**MINNOW TRAPPING REPORT**

TRAP	DATE		DATE		COHO	CATCH			COTTID
	SET	TEMP	PULLED	TEMP		TROUT			
						RBT	CUTT	0+	
1	1/27	N/A	1/28	N/A	35	0	0	0	1
2	1/27	N/A	1/28	N/A	22	0	0	0	0
3	1/27	N/A	1/28	N/A	1	0	0	0	0
4	1/27	N/A	1/28	N/A	0	0	0	0	9
5	1/27	N/A	1/28	N/A	0	0	0	0	12
<b>TOTALS:</b>					58	0	0	0	22

**DATE:** 10/11/94

**OBSERVER:** Powell

Upper end of project had some flow. Midsection (below Hwy) had much lower flow. Water was flowing from pooled area above lower fishway. Upper bay of this fishway is still seeping water so water is not flowing over notch at this flow level. It was determined that this dam board was not cut straight. This is the lowest flows of the season; There has been no appreciable rainfall in a month. Fishway dam board is on the list 'to fix'. No fish were observed.

**DATE:** 3/15/95

**OBSERVER:** Darrow

A large alder broke off next to lower fishway but missed grates. Upper fishway has developed a ~3.5 x 4.5 ft scour hole on right side of box from hard over flows. Box is not undermined yet but needs attention before it deepens. Larger diameter rock armor may cure problem. Fishways and log controls clear of blockages. Some erosion has occurred just below beaver dam due to plunge water. A few smolts have been caught in migrant trap to date.

**DATE:** 3/17/95

**OBSERVER:** Powell

The following water chemistry was observed on this date:

pH: 6.0 - 6.5

D.O.: 12 mg/l

Temp: 9° C

Water Hardness - CaCo3: 28 ppm

**DATE:** 7/13 - 7/31/95

**OBSERVER:** Nettnin

- Two spillways were installed on the upper fishway.
- The erosion under the second downstream weir, from the upper fishway, was repaired.
- Installed interpretive signs.
- Sealed the leaking weirs in the lower fishway by facing the upstream side with plywood and backfilled with gravel.
- Cleaned weeds and alders from the trail and viewing stations.
- Material used:

**SPILLWAY**

50 ft. of beveled 2 X 12  
20 ft. 4 X 4  
10 lbs. of nails  
2 bags of Redi-mix concrete

**INTERPRETIVE SIGNS**

156 ft. Of molding  
56 ft. of treated 4 X 4

24 ft. of rough cut 4 X 4  
20 ft. Of 18 in. Cedar pole  
12 ft. of 2 x 8  
50 ft. Of ½ in. Re-bar  
50 ft. Of 1 X 6  
2 sq. Of cedar shakes  
2 sheets of ¾ in. Plywood  
2 sheets of ⅛ in. Lexan plastic  
Assorted hardware and fasteners  
30 bags of Redi-mix concrete

**DATE:** 10-95 thru 11-95

**OBSERVER:** Darrow, Powell

There is beaver activity at upper fishway and some debris that may have been beaver related in lower fishway. These will have to be monitored. There was a problem, for several weeks, with small fish (80 mm range) getting between the upstream and downstream screens. A hole was detected by downstream rootwad and was filled; small fish were still getting between screens. Gravel was placed on both sides of both sets of screens. After numerous attempts to fill all questionable areas, we seem to have made a fish tight seal.

**DATE:** 4/4/96

**OBSERVER:** Darrow

A barrier fence was installed at the lower fishway to deter beaver activity; there has been no recent activity at either fishway. Coho fry were observed from upper fishway down to the controls below trap. Some smolt size fish were also seen in ponded area. This site experienced a minor outmigration early in the season.

**DATE:** 10/19/96

**OBSERVER:** Darrow

Beavers were a problem at both fishways; fences were installed to deter them. Lower fence had to be modified (lowered) because the beaver was still capable of going under it. Activity has ceased at present time. Good flow and lots of juveniles entering system.

**DATE:** 4/12/97

**OBSERVER:** Darrow

We trapped over 4000 upstream migrants this fall/winter. We utilized two marking techniques at this site to compare detection/retention - freeze brand and elastomer which was injected into anal fin with a syrijet. During high water events, trap screens were opened due to flow/debris buildup. We observed 2 coho redds in the project area (below the trap box) this season. Downstream migrants have been in good shape, and we have observed coho fry. Beaver have periodically rebuilt in upper fishway and immediately below, in the channel. We extended the sides of the barrier fence, and it appears to have worked - no recent activity.

**DATE:** 10/2/97

**OBSERVER:** Nettnin

- General maintenance of trails and viewing areas.
- Removed beaver dam below upper fishway and cleaned fishway.
- Removed interpretive signs for the winter.
- Fry trap installed for 97/98 trapping season.
- A small amount of water is piping through by the lower spillway. Not a problem at this time, needs to be watched.

**DATE:** 2/28/98

**OBSERVER:** Darrow

No adult coho were observed in project this past season. No recent beaver activity at fishways. Lower fishway leak has not worsen.

**DATE:** 10/25/98

**OBSERVER:** Darrow

Trap is currently active and catching juvenile coho and trout. Coho are being elastomer marked. This site has developed some structural problems including: seepage leak under lower spillway, and seepage leaks through joints in dam boards in lower fishway during low flows. Dam board leaks are overcome by higher flows and are fine now. Vegetation (water parsley) is rampant in the channel, primarily below the lower fishway. Vegetative growth along the banks makes this site difficult to view during the summer months (ie interpretive site).

**DATE:** 12/98

**OBSERVER:** Darrow

One coho redd was observed upstream of the trap box and 2 or 3 redds were observed in the project but downstream of the trap. Lots of high flows this season and trap has been open on numerous occasions.

**DATE:** 3/20/99

**OBSERVER:** Darrow

Fishways are clear. The lower one is still leaking but functions fine during normal flows. All controls are intact. A few fry were detected this spring in the trap box area.

**DATE:** 10/6/99

**OBSERVER:** Darrow

Trap site was deactivated this summer and all materials were brought to the Forks office. There was some beaver debris in upper fishway in the early fall. On this date, all fishways were clear. Aquatic vegetation (mainly water parsley) is dense below lower fishway. Juvenile salmonids were observed from old trap site up to lower fishway.

**DATE:** 3/27/00

**OBSERVER:** Darrow

Upper and lower fishways are running unrestricted. The seepage leak at the lower fishway has increased some. Juveniles were observed in one of the ponds and in the channel.

**DATE:** 10/10/00

**OBSERVER:** Darrow

A DNR Honor Camp Crew was utilized for the following work: to clean lower fishway of beaver debris. The upper controls of the fishway had extensive damage due to the beaver. Repairs were made. Also repaired lower rock weirs by replacing rock. Removed interpretive signs, fence post and boards. Observed a few juvenile salmonids where the trap use to be located.

**DATE:** 5/6/01

**OBSERVER:** Darrow

Upper fishway need periodic check due to aquatic vegetation on barrier screen. Also, occasional beaver activity. Lower fishway has been staying clear. Controls were all clear. Observed a few rises on upper end pond.

**DATE:** 10/1/01

**OBSERVER:** Darrow

The upper fishway and controls were clear. The lower fishway had a small mud and stick dam against the barrier fence. The lower controls were okay.

**DATE:** 3/26/01

**OBSERVER:** Darrow

This site had about 12 coho redds this season. There is recent beaver activity but the fishways are clear. No smolts or fry were observed.

**DATE:** 11/14/02

**OBSERVER:** Nettnin

Project okay except active beavers are plugging upper fishway. Installed a wood duck nest box.

**GPS: (decimal degrees, Datum WGS84):**

upper project - N47.80859, W124.09442

lower fishway - N47.80753, W124.09616

lower project - N47.80650, W124.09632

egress - N47.80570, W124.09554

**DATE:** 12/31/02

**OBSERVER:** Powell

Been stopping in routinely to conduct spawner surveys. To date, there have been 6 total coho redds observed downstream of the first fishway. The second fishway has been blocked by beaver debris.

**DATE:** 4/4/03

**OBSERVER:** King

Opened all four beaver dams. Smolts observed below upper fishway.

**DATE:** 5/21/03

**OBSERVER:** Powell

Stopped in through April and May to double check on beaver activity. No rebuilding has occurred.

**DATE:** 8/21/03

**OBSERVER:** Nettnin

Channel was watered but upper weirs in fishway were not sealed. Added fine gravel material to seal fishway. There may be water piping around or under the fishway but could not detect it.

**DATE:** 10/23/03

**OBSERVER:** Nettnin

Project looks good. No fish spawning.

## FISH PASSAGE FACT SHEET

Check one:     New Fishway  
                   Unresolved Fish Passage Problem  
                   Corrections or Additions to the Database

STREAM: Hoh Springs

WRIA #: 20.0461A(survey #: H-461R-01)

RIVER MILE: 0.2 and 0.3

LEGAL (S,T,R): NW¼, NW¼, SEC 35 T27N, R10½W

DESCRIPTION OF FISHWAY: The lower fishway is constructed of two cement vaults bolted side by side, with six plank weirs to create steps. The upper fishway is a wooden box build with rough cut cedar planks and lined with marine plywood. There are three plank weirs in this one.

YEAR COMPLETED: 1993

DESCRIPTION OF BARRIER: Installed to enhance oversummer and overwinter rearing habitat.

IDENTIFIED BY/YEAR: D. Nettnin in 1988

LANDOWNER (of fishway or barrier): WDF&W

(address if known):

PRIMARY SPECIES (impacted by barrier or utilizing fishway):

- Coho Salmon
- Cutthroat Trout

HABITAT AVAILABLE ABOVE FISHWAY OR BARRIER (miles): 510 m above the lower fishway and 153 m above the upper fishway.

DIRECTIONS TO SITE: North on Hwy 101. Turn right between mile post 178 & 179 onto the Upper Hoh Road. Follow this road until coming to the Westward Hoh Resort (about 6 mi.). Continue east crossing the Rock Cr. and Tower Cr. bridges. The road enters a large, flat clear-cut area about 1 mi. east of Tower Cr. Take the first right after entering this clearcut. H-R12-02 is just east of this short spur road. H-R12-02 crosses the Upper Hoh Rd about 0.2 mi. west of Dismal Cr.

REMARKS: Maps attached

**GPS: (decimal degrees, Datum WGS84):** 11/02

upper project - N47.80859, W124.09442

lower fishway - N47.80753, W124.09616

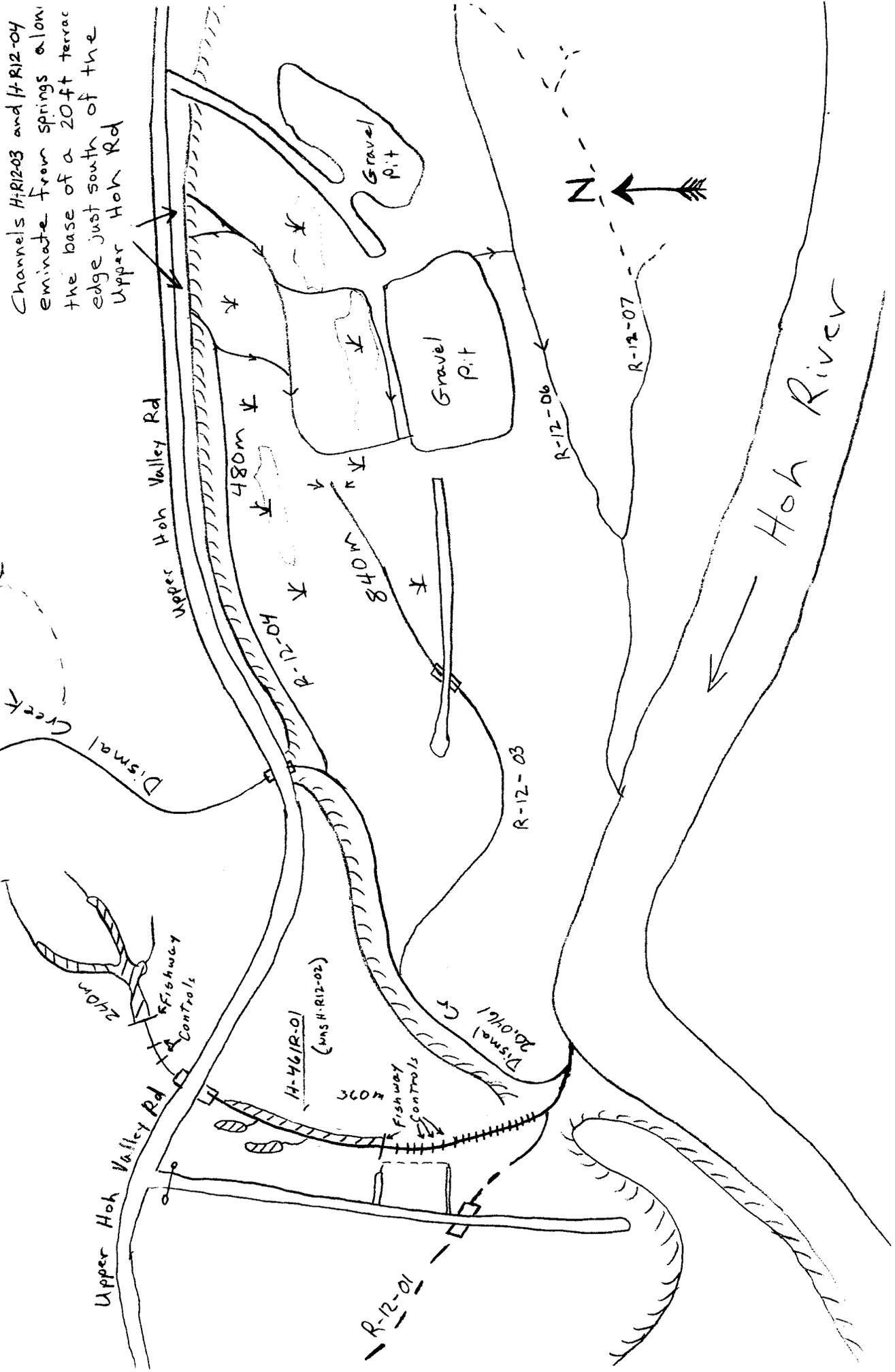
lower project - N47.80650, W124.09632

egress - N47.80570, W124.09554

Site: H-114

Channels 1, 2, 3, 4

Revised 10/9, 8/93, 7/94, 11/97



Channels H-12-03 and H-12-04  
emanate from springs along  
the base of a 20ft terrac  
edge just south of the  
Upper Hoh Rd

