

SITE NUMBER: H-R12-06
LOCAL NAME: Dismal Pond
WRIA: 20.0461B

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Hoh **DATE:** 1/21/88 **OBSERVER:** Nettnin

CHANNEL TYPE: Wall-based terrace tributary (spring fed)

TRIBUTARY TO: Hoh River (20.0422)

SITE LOCATION: RB @ River mile - 26.7 (U.S.G.S)

LEGAL DESCRIPTION:

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

<u>WATER TEMP.:</u>	45 F	47 F
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<u>AIR TEMP.:</u>	38 F	38 F
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<u>FLOW (CFS):</u>	0.0 - 0.5	0.5 - 1.0
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SUBSTRATE TYPE: Mostly sand. Some good gravel in spots.

SITE SIZE: **Length-** About 850 m
 Width- 6-8 ft in lower 400 m. 3-4 ft in upper 450 m.
 Depth (If possible)-

WATER SOURCE: Spring water.

DIRECTIONS TO SITE: North on Hwy 101. Turn right between mile post 178 and 179 onto the Upper Hoh Valley Road. Follow this road until coming to the Westward Hoh Resort (about 6 mi.). Continue east about 1.75 mi. crossing both the Rock Cr. and Tower Cr. bridges. Turn right approximately 1.75 mi. east of the Tower Cr. bridge onto a gravel road which leads to two gravel pits. The channel lies just south of the two pits.

FISH ACCESS AND CURRENT USE: It appears that spawners have used this channel. Unidentified fry were seen in the upper end.

FLOODING POTENTIAL: Low. May receive overflow from Spruce Creek.

LANDOWNER: I.T.T. Rayonier

COMMENTS & RECOMMENDATIONS: There is gravel present under the sand and silt. The lower end (i.e. below the mouth of channel H-R12-07) has a strong sulfur smell. There may be some problems with the mouth of this channel as it is braided and joins the Hoh in a riffle area. Though there is less exposed gravel, this channel reminds one of the Maple Glen channel on the Satsop River.

GPS: (decimal degrees, Datum WGS84): 12/23/02
pond inlet - N47.80823, W124.08605
pond outlet - N47.80779, W124.08478
egress - N47.80505, W124.41871

DATE: Winter 1987

OBSERVER:

Electroshocked and found coho and trout in the area near the pits.

DATE: 10/26/88

OBSERVER:

Flow is less than 1/4 cfs. This channel is being well used by 0+ coho. Several pools were checked upstream of rock pit. Each pool had 20-30 fry.

DATE: 1/12/89

OBSERVER:

Spawning had occurred in the upper channel. This is an excellent looking channel and should benefit from beading. The mouth may not be as attractive as it could be, but a little work should improve it. Flows could be increased by connecting the marsh of H-461L-01 to the gravel pits and then creating an outlet from the pits to H-R12-06.

DATE: 2/13/89

OBSERVER:

Upper channel water temp. = 4.5 C
Mouth " " = 7.0 C

DATE: 4/6/89

OBSERVER:

Lower gravel pit water temp. = 49 F
Dissolved oxygen = 12.0 mg/ml
Spring sources in terrace wall that feed marsh = 44 F

DATE: June 1989

OBSERVER:

The gravel pit between channels H-R12-06 and H-461L-01 was excavated on an average of 3 feet below the low flow water table and encompassed approximately one acre. The spring flow in H-461L-01 was diverted into the pond and an outlet was dug to connect the pond to H-R12-06.

Dismal Ck. Pond:

	<u>Date</u>	<u>Pond Avg.</u>	<u>Inlet</u>	<u>Outlet</u>	<u>Marsh</u>
Pre-Proj.	4-6-89	49°	----	----	46°
" "	4-11-89	53°	----	----	44°
Post-Proj.	6-26-89	----	53°	66°	----
" "	7-5-89	64°	57°	----	52°
" "	7-25-89	----	61°	72°	----
" "	8-1-89	----	55°	65°	----
" "	8-7-89	66°	52°	65°	----
" "	8-23-89	67°	61°	69°	----

DATE: August/Sept. 1989

OBSERVER:

The Clearwater corrections center crew installed wooden controls in the pond outlet.

DATE: 9/13/89

OBSERVER:

A fry/smolt trap was installed in the pond outlet. No flow out of pond at this point. Inlet spring was still flowing.

DATE: 10/12/89

OBSERVER:

Pond is filling but no water is running out of the outlet yet.

DATE: 10/22/89

OBSERVER:

Water is now flowing through the outlet channel.

DATE: 11/14/89

OBSERVER: Young, Nettin

During the storm of 11-8 to 11-10 Spruce Cr. carried tons of rock and gravel down filling up the channel and diverting part of Spruce Cr. down the left branch of H-R12-06. Except for the extra water and some increase silt there doesn't appear to be any alterations to the channel.

DATE: 11/30/89

OBSERVER: Young, Nettin

Three minnow traps were set in the small marshy area to the north of Dismal Pond in order to determine the fry utilization of that area. All three traps were baited with both cluster eggs (home cured skeins) and "Pautzke's" single eggs.

Trap #1 was set under LOD just to the north of the overburden. The water at this site runs parallel to the north shore of the pond and enters the excavated inlet channel along its left bank and just up from the pond.

Trap #2 was set in the uppermost wetted area of the marsh. It was set near vegetation in about 12 to 18 inches of water.

Trap #3 was set near the outlet of the marsh (i.e just above the excavated channel). It was set close to LOD and in 12 -18 inches of water.

DATE: 12/1/89

OBSERVER: Darrow, Frost

The traps set on 11-30 were fished after approximately 24 hrs.

Trap #1 caught 21 cottids and 0 salmonids.

Trap #2 caught 17 cottids, 5 coho (3 with "T" brands) and 2 cutthroat trout.

Trap #3 caught 10 cottids and 1 coho ("T" branded).

DATE: 12/29/89

OBSERVER: Nettnin

A sudden and unexpected out migration of juvenile coho occurred at this site on 12-25-89 (see trapping data) and appears to be continuing. Dissolved oxygen was measured at the inlet and outlet of the pond. The water in pond is murky and a hydrogen sulfide smell has been reported by technician Ron Darrow.

Outlet: DO = 11 mg/ml Water temp. = 44 F

Inlet: DO = 11 mg/ml Water temp. = 44 F

DATE: 7/92

OBSERVER: Nettnin

More cover structures were added to the pond. The material used was alder brush that had been removed from the surrounding spruce plantation. These pieces were tied together with a rock anchor and distributed throughout the pond.

Crew days: 2.7 (crew days based on a 10 man crew working 8 hrs/day).

DATE: 10/11/94

OBSERVER: Powell

Spring flow into pond was ~40-60 gpm. No outflow from pond at this date; No appreciable rain in a month. Plank controls at outflow are angled downstream but are ok. Good vegetative growth this summer. Two weeks prior to this date, saw good surface activity. Observed little surface activity in the past 2 days.

DATE: 3/16/95

OBSERVER: Powell

The following water chemistry was observed on this date:

pH: 7.0

D.O.: 11 mg/l

Temp: 8.5° C

Water Hardness - CaCo3: 36 ppm

DATE: 3/22/95

OBSERVER: Darrow

Submerged once during US migration. Trap has recently been producing some thin DS migrants - large, thin bodies make the eyes look unusually large. Lots of cottids have been caught; over 100 in trap at times. They may be competing for food. Have not seen the usual number of fish ducks this year. Surface activity has been observed.

DATE: 7/20/95

OBSERVER: Nettnin

-Cover structures were added to the pond near the inlet.

-The test box for, 0+ coho fry, upstream migration was removed, along with the supply piping. All materials were taken to Forks for disposal.

-More sedges were planted along the shallows.

-Installed four boulders and four logs at the mouth to enhance the entrance conditions and improve attraction to the site. The logs and boulders were placed by helicopter and then tied together with cable and Hilti cement.

-Material used: 150 ft. of 5/8 in. aircraft cable

60 ft of 3/8 in. Aircraft cable

Four 5/8 in. Cable clamps
Twenty 3 in. Staples
Two tubes of Hilti epoxy cement

DATE: 10/23/95

OBSERVER: Darrow

Trap installed 2nd week of October. Leaf debris has increased dramatically due to growth of willows and alder along pond edge; usually not a problem due to moderate flows. Moderately-large numbers of fish being caught.

DATE: 1/9/96

OBSERVER: King

Checked the mouth of the channel and one of the 4 logs is missing. Mouth has also changed so that most of the water is now running into the Hoh at a spot about 50' downstream from the old mouth. Could not see how much the boulders have shifted yet due to high flows.

DATE: 4/1/96

OBSERVER: Darrow

This winter we had silt and mud deposited around trap box area due to backwatering from river. Mud deposit was deep enough that we had to get a camp crew in to remove it (trap box and screens were buried). High flows altered Spruce Creek egress; Spruce Creek now contributes minimally to the tributary that project outflows to. Low end of channel experienced some bank cutting during high water, and structure at confluence has been rearranged with one log missing.

We had a beaver attempting to build a dam above trap box, where channel is narrow. We installed a barrier fence which stopped the activity.

We had an early outmigration of ~400 juveniles during January and February. We have had few fish move out since that surge. Surface activity has been observed on calm days.

DATE: 10/28/96

OBSERVER: Darrow

Walked channel from project outlet to river. Just tiny patches of gravel (mostly in mid section), the majority of the substrate was silt/sand. The structure at the mouth is still anchored to alders and boulders. Three cabled logs were visible. Cables have caught a lot of debris. There are willows growing through silt and debris, and the debris obscures portions of cable and boulder anchors but it all appeared intact. Juvenile coho were observed in the channel.

DATE: 3/29/97

OBSERVER: Darrow

Some high flows this season have made a few significant changes in channel to egress. Silt deposits are large in spruce grove area along channel, and corner hole (where left bank trib enters channel) has been gouged much deeper/wider/longer with numerous alders undermined and toppled. Channel bank is wider most of the way to the egress. There is more exposed gravel now. Anchor logs/boulders have accumulated more silt and debris but it appears that all is in place. Willow chutes are prolific in this area - isthmus adjacent to cable structure. There is a scour hole above log/boulder structure that has become wider and deeper. Trap had backwatered several times this season and left a moderate amount of silt in trapping area. Coho fry and pre-smolts were observed in lower half of channel to confluence with the river.

DATE: 8/26/97

OBSERVER: Nettnin

- Located, hauled, and placed thinning slash as cover structures in the pond. Also, placed spruce trees in the outlet channel for additional cover. All cover structures were anchored with duckbill anchors, cement blocks or secured to other structures.

- Fish were observed hitting the surface of the pond.

DATE: 10/20/97

OBSERVER: Darrow

We are trapping juvenile coho at this site again. There has been beaver activity at the pond outlet (upstream of trapping box) and in the wetland upstream of the pond. There are several beaver dams in the wetland and some may not be passable.

DATE: 2/28/98

OBSERVER: Darrow

Mild winter has resulted in little changes to the system or structures at the confluence. Willows are growing rampantly at confluence. Observed signs of otter activity around the pond. We are just starting to see a few downstream coho at this site.

DATE: 10/14/98

OBSERVER: Darrow

This trap is currently active and catching juvenile coho and trout. The pond filled up and started attracting fish on 10/11 and 10/12. Thinned vegetation is rapidly filling in with new growth which is providing great cover. Heavy silt deposits left by heavy flooding in '94 and '95 along channel outlet has cut down to gravel beds again in several places of the mid and lower portions. Armor structures at the river confluence remain intact although rearranged by numerous past high water events. Willow growth is rampant at the confluence and contributes to bank stability.

DATE: 3/31/99

OBSERVER: Darrow

An early out-migration of large, thin fish started in late fall. These fish appeared to be hold-overs from last season (low spring flows trapped them in the pond). The trap became inundated once this season and flooded over the upstream screens twice.

Controls are okay. Some cabled debris in the pond has broken free and has moved. Logs and boulders at the channel egress are still intact and recruiting debris.

Fry have been migrating into the site since late spring.

DATE: 7/19/99 - 7/27/99

OBSERVER: Nettnin

To provide additional cover, stumps were placed and secured in the pond.

DATE: 12/28/99

OBSERVER: Darrow

MINNOW TRAPPING REPORT

TRAP	DATE		DATE		CATCH					
	SET	TEMP	PULLED	TEMP	COHO		TROUT		COTTID	
					Unmrk	Mrk	RBT	CUTT	0+	
1	12/27	5°C	12/28	4.5°C	3	0	0	0	0	0
2	12/27	5°C	12/28	4.5°C	4	1	0	0	0	0
3	12/27	5°C	12/28	4.5°C	3	1	0	3	0	0
4	12/27	5°C	12/28	4.5°C	12	2	1	0	0	3
5	12/27	5°C	12/28	4.5°C	4	0	0	0	0	2
TOTALS:					26	4	1	3	0	5

COMMENTS:

These traps were placed throughout the wetland. Numerous fish (~6700 coho) migrating into the project this fall. We were curious about utilization in the wetland. A week after the trap placement, dry weather prevailed. Isolated pockets of water formed in the wetland area. One pocket of water (isolated left bank pool) had 23 (2 mrk) coho mortalities.

-Trap 1 was placed in left bank, isolated pool - closest to egress of wetland channel flow. This is the area that had the mortalities a week later.

-Trap 2 was placed in pool area as Trap 1. Fish from both traps were released out of this pool, into the channel.

-Trap 3 was placed in upper end wetland - an area that had good flow.

-Trap 4 was placed in left bank, natural beaded wetland area.

-Trap 5 was placed in wooded wetland, alongside of road leading into the site.

DATE: 4/9/00

OBSERVER: Darrow

Numerous juveniles (6778) were trapped moving into the site this past season. They have distributed themselves throughout the site including the wetland. The site flooded once but no heavy siltation problem in the trapping area resulted. Some clay colored water (with fines) was running from an area in the wetland for a period of time. Had some early outmigrants but overall, fish have been staying in the site and are looking good. Otter activity has been detected. The trap was vandalized once - a screen needed to be replaced. Structure at the mouth is intact and willows are growing in the area. The channel egress appears attractive due to the structure and changes in the river bedload distribution.

DATE: 11/18/00

OBSERVER: Darrow

Trapping this site as usual. Presently, there is a beaver active at this location. Egress logs, boulders and cables are still present. They have collected debris and sediment over time.

DATE: 2/28/01

OBSERVER: Darrow

Lower than normal precipitation this winter and early spring. Pond flow is low, and beaver continues to repeatedly dam outflow channel of the pond. Wetland has not had any recent beaver activity. No high water events and egress structures are intact.

DATE: 9/26/02

OBSERVER: Darrow

We are continuing our monitoring of migration juvenile coho at this site. The beaver dam at the outlet of the pond has been an on going problem. We installed a pipe through the dam. We also caged the inlet area of the pipe to prevent beavers from plugging it. The upstream, wetland area has recent beaver activity. There is a beaver lodge near the confluence of the wetland channel with the pond. In the past week, an otter has been observed swimming around the pond. Egress structures are intact and had lots of willow growth.

DATE: 3/26/02

OBSERVER: Darrow

Beaver activity continues and the parameter alders continue to be dropped. The trap flooded only once this season. The high waters did not affect the egress structures.

DATE: 6/11/02

OBSERVER: Powell

Only about 7 percent of our marked fish were recaptured downstream. We set 20 minnow traps throughout the pond to see what we could catch. A total of 26 coho were capture (one marked - 98 mm). The twenty five-unmarked coho averaged 107.2 mm. They ranged from 81 - 126 mm. Six of the fish appeared to be 2+ years due to their eye size, thinnest and blackspot. Most of them were shiny. Eleven of the fish were in good shape and were shiny. Five of the coho (including the marked fish) had an orange caste and the parr marks were evident. All of these fish were noted as in excellent shape, and they were smaller than average. A rainstorm (2+ inches) at the end of the month did not spark any downstream movement.

DATE: 12/12/02

OBSERVER: Nettnin

Installed a picket fence of rebar and steel T-posts at the beaver dam in the channel upstream of the pond.

DATE: 12/23/02

OBSERVER: Powell

Picket fence appears to be working for the upper end but the beavers are now damming the outlet channel.

GPS: (decimal degrees, Datum WGS84):

pond inlet - N47.80823, W124.08605

pond outlet - N47.80779, W124.08478

egress - N47.80505, W124.41871

DATE: 4/03 thru 6/03

OBSERVER: Powell/Nettnin

Stopped in numerous times to dismantle beaver dams in the upper and lower ends.

DATE: 5/21/03

OBSERVER: Powell

There was no outflow from the pond and very little inflow. Beaver dam at upper end is substantial.

DATE: 10/23/03

OBSERVER: Nettnin

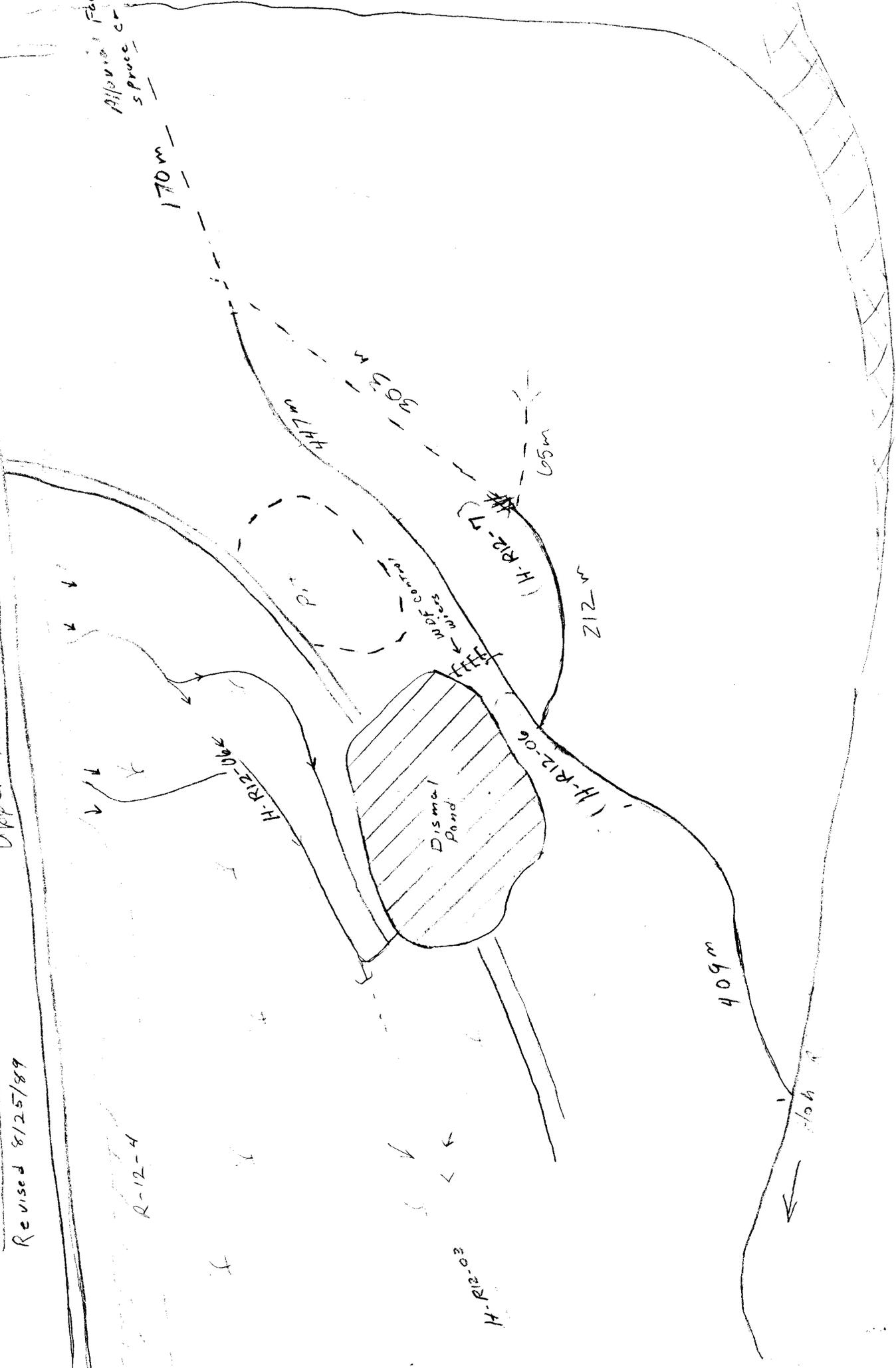
Beaver is active in outlet channel and inlet channel. Also three stumps have floated into the outlet channel. Structure at the egress is still functioning well although it is buried by recruited debris.

Site: H-R12
Channel 6 and 7
Revised 8/25/89

SPRUCE
CR.

Allowance For
SPRUCE CR.

Upper Hoh Valley Rd



R-12-4

H-R12-03

H-R12-06

(H-R12-7)

(H-R12-06)

409m

212m

303m

170m

65m

W/O control

H-R12-04

Hoh Cr

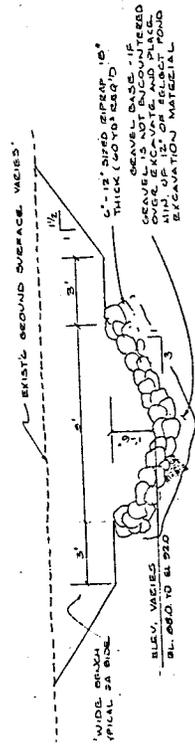
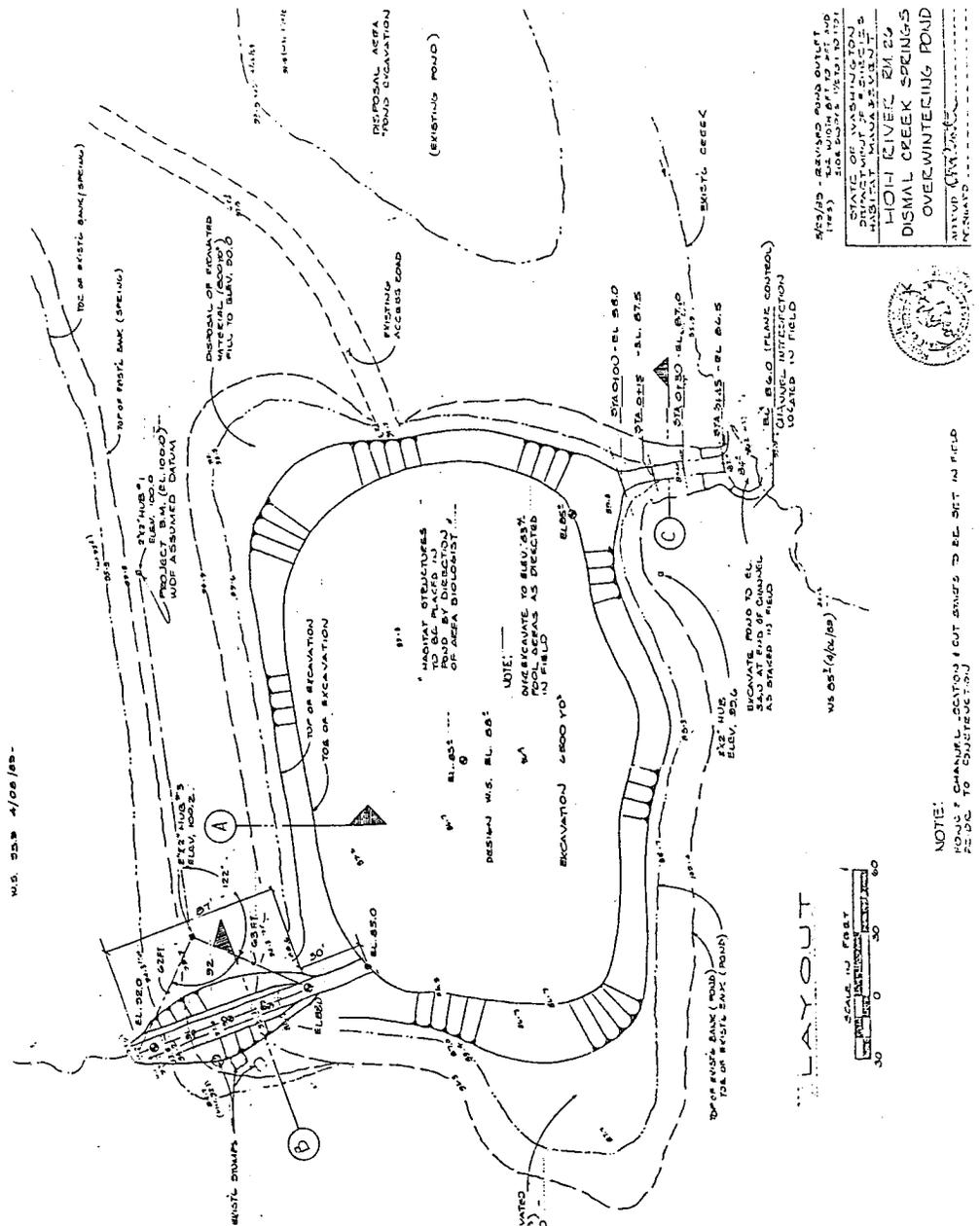
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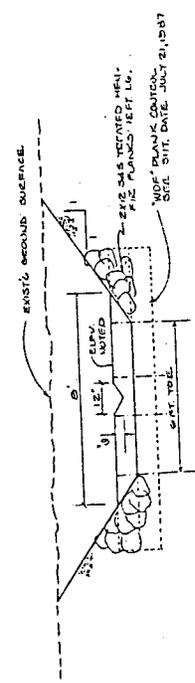
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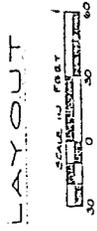
R.T.O.C. Dismal Ck. Pond
 Hoh River
 Pond Built - 1989
 Surface Area = 1 acre



SECTION B (TYPICAL)
 SCALE 1"=3'



SECTION C
 SCALE NONE



LAYOUT

NOTE:
 POND CHANNEL SECTION CUT SHOWN TO EL. 250 IN FIELD
 TO BE TO CONSTRUCTION



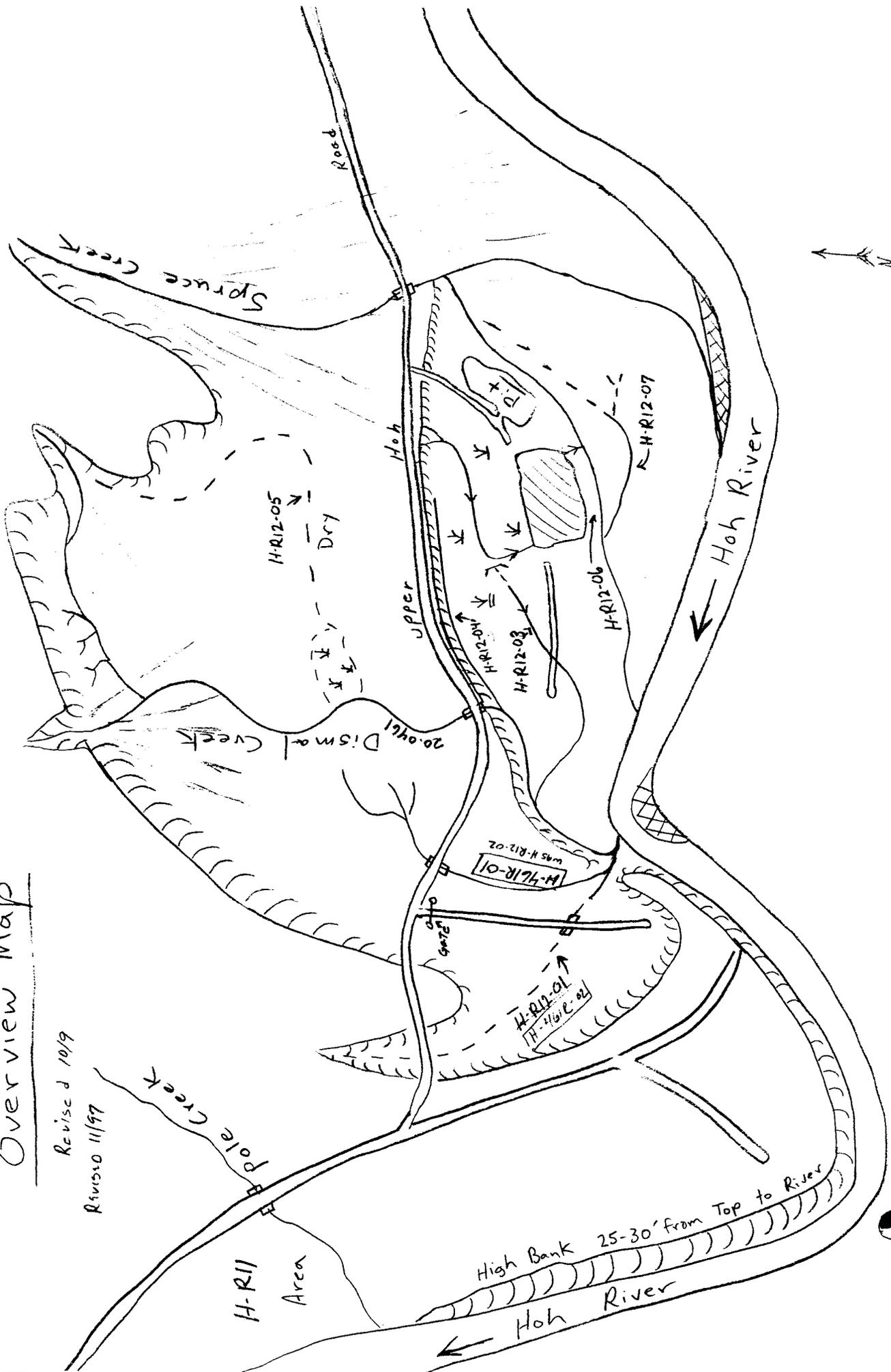
STATE OF WASHINGTON
 DISTRICT OF COLUMBIA
 HIGH LEVEL 200
 DISMAL CREEK SPRINGS
 OVERWINTERING POND
 ATTORNEY GENERAL

Site: H-R12

Overview Map

Revised 10/19

Revised 11/97



Old Gauging Station