

**SITE NUMBER:** C-R1-03  
**LOCAL NAME:** Calawah Springs  
**WRIA:** 20.01751

**NORTH COAST OFF CHANNEL SITE INVENTORY DATA**

**RIVER SYSTEM:** Calawah R.                      **DATE:** 3/20/90                      **OBSERVER:** Nettnin

**CHANNEL TYPE:** Terrace trib. (Wall-based)

**TRIBUTARY TO:** Calawah R. (20.0175)

**SITE LOCATION:** R.B. @ River Mile: 3.0 (WDF)

**LEGAL DESCRIPTION:**

	UPPER END	LOWER END	RIVER TEMP
<b><u>WATER TEMP:</u></b>	49 F	48 F	45 F
<b><u>FLOW (CFS):</u></b>	0.5 - 1	5 - 6	

**SUBSTRATE TYPE:** Mostly silty, with some patches of exposed gravel.

**SITE SIZE:**      **Length-** 390 m  
                         **Width-** Water surface = 1 - 2 m    Channel =    2 - 3 m  
                         **Depth-** 10 - 20 cm

**WATER SOURCE:** Springs

**DIRECTIONS TO SITE:** Head north from the town of Forks on Hwy 101. Turn left just north of m.p. 193 (1 mile north of Forks) onto the La Push Rd. Continue west about 1 mile then turn left (i.e. south) onto a gravel road. Park at the road barrier. Walk in on the road until coming to the upper edge of a high terrace which overlooks a large clearcut. C-R1-01 is at the toe of this terrace. Follow the road, along the rim of the terrace, past the upper end of C-R1-01. Bear right at the "Y" in the road dropping down off the high terrace. The road crosses the upper end of C-R1-03 at the bottom of a small (6 to 8 ft) terrace near the end of the road.

**FISH ACCESS AND CURRENT USE:** Fish appear to have unrestricted access to C-R1-03. Fish were seen in the channel but the species could not be identified. One redd was also observed in C-R1-03.

**FLOODING POTENTIAL:** Low

**LANDOWNER:** Unknown

**COMMENTS & RECOMMENDATIONS:** C-R1-03 has a very nice egress. The river bank is recessed downstream of the mouth of C-R3-01 and probably causes a back eddy on high flows. The lower end of this recessed bank is bedrock with several boulders extending out into the river. This creates a small eddy at low flows.  
C-R1-03 appears lacking in quiet water and shade. It does have good cover provided by woody debris, bank overhang and aquatic vegetation. One redd was also seen in the channel.

The upper end of C-R1-03 is a sedge marsh. At the time of this survey, however, that portion of the marsh below the road was nearly dry. The water here was very shallow and/or contained within a single channel. The portion of marsh above the road (no fish access) has a ponded area about 60 m long, 3 m wide, 25 cm deep.

C-R1-03 could benefit from pond excavation (marsh area), channel beading and the installation of controls to deepen and enlarge the sedge marsh. The addition of a little clean gravel could create an excellent spawning area. Need to monitor and further evaluate water quality, fish use and flows.

DATE: 4/12 to 4/14/90

OBSERVER: Nettnin, Mosely, Darrow

All traps were baited with sugar cured salmon roe and set on the pond or stream bottom. This channel flows through a young stand of spruce reproduction. Instream cover is excellent - typical of most spring fed wall-base channels. Bankside cover is also excellent - mainly thick sedge and brush. Overhead cover in the upper channel is nonexistent at this time. Two traps were set in the upper channel. Ten coho with a mean length of 90.5mm were captured. These fish were short in length but very robust.

**MINNOW TRAPPING REPORT**

TRAP	DATE		DATE		COHO	CATCH			COTTID
	SET	TEMP	PULLED	TEMP		TROUT			
						RBT	CUTT	0+	
1	4/12	N/A	4/14	N/A	2	0	0	0	0
2	4/12	N/A	4/14	N/A	8	0	1	0	0
<b>TOTALS:</b>					10	0	1	0	

DATE: 4/17/90

OBSERVER: King

Excellent flow, good entrance, saw lots of 0+ coho and a few 1+ in upper channel. Good site for ponding with controls and/or deepening.

DATE: 1/30/92

OBSERVER: Young

It does not appear that recent high water backed over the beaver dam. There were three adult steelhead observed above the dam in the vicinity of the bypass channel (approx. 6 - 8 lbs. each).

DATE: 7/92 - 8/92

OBSERVER: King, Nettnin

In July of 1992 the Calawah Springs project was started and about 99% of it was completed. Between the spawning channel and the ponded areas 1300 square meters of habitat were enhanced. The project will be described starting at the lower end and going upstream. There was a small debris jam removed near the mouth. A large log laying across the stream and partially submerged was modified to allow debris to move through. Next there are two plank controls. They are about 25 feet long and one and two feet high respectively. The lower weir is a little high so cobble was placed in the stream bed to roughen the channel and achieve the desired elevation difference. They are constructed with 2" x 12" rough cut cedar planks laminated together to form a 4" x 24" and 4" x 36" beams. These were then dug into the stream bed and banks; anchored with steel posts and U bolts; the face lined with filter fabric and back filled with native material the seal the weirs.

Above the plank weirs there are five log and plank weirs spanning the channel. These are 35 to 45 feet long. They consist of a log dug into the banks, supported on both ends with blocks of concrete and tied down using bolts hiltied into the blocks. The log is faced with 2 x 12 cedar planking, then that is covered with a filter fabric and back filled with pit run to seal the weir.

About 100 feet above the third weir a side channel was excavated for 200 feet upstream and joins the main channel above the fifth weir. A series of weirs, to control bed load and pools for resting and rearing are incorporated into this channel. The material that was used for backfilling is washed gravel to allow for good spawning habitat.

All the disturbed areas were replanted using native plants acquired within the area of the job site. The slopes were also seeded with grass and mulched with local grass hay.

Crew days: 16 (crew days based on a 10 man crew working 8 hrs/day).

**MATERIALS LIST**

LUMBER	2 x 12	700 lineal feet
	2 x 10	250 " "
	2 x 6	100 " "
	2 x 4	550 " "
NAILS	20d common gal.	1/2 box

U-BOLTS	3/8 x 3 x 6 5/8	25 includes nuts
WASHERS	3/8 bridge washer	50
	3/8 flat washer	50
	5/8 flat washer	24
NUTS	5/8	24
STAPLES	3 in	20
REDI-BOLT	5/8	60 ft
CHAIN	1/4 in	60 ft
BLOCKS	environmental	12
POSTS	steel fence posts	17 (used from other projects)
SAND BAGS	plastic	200 (used from other projects)
COMPRIBAND		100 ft
FABRIC	Nicolon 720	2 rolls
ROCK	pit run	100 yards
	spawning gravel	40 yards
	rip rap	20 yards
GRASS SEED		15 lb
HAY	local grass hay	30 bales (left over from another project)

**DATE:** 12/7 - 12/8/92

**OBSERVER:** Darrow

All fish were in good shape. Coho ranged from 72mm to 120 mm in length. All traps were set on the bottom. Traps were set on 12/7/92 and pulled on 12/8/92. Water Temp: 9.5

**MINNOW TRAPPING REPORT**

TRAP	DATE		DATE		COHO	CATCH			COTTID
	SET	TEMP	PULLED	TEMP		TROUT			
						RBT	CUTT	0+	
1	12/7	N/A	12/8	N/A	0	0	5	0	9
2	12/7	N/A	12/8	N/A	18	2	1	0	0
3	12/7	N/A	12/8	N/A	11	0	0	0	13
4	12/7	N/A	12/8	N/A	18	0	0	0	8
5	12/7	N/A	12/8	N/A	8	1	0	0	1
6	12/7	N/A	12/8	N/A	4	0	5	0	0
7	12/7	N/A	12/8	N/A	12	2	0	0	5
8	12/7	N/A	12/8	N/A	0	0	0	0	4
9	12/7	N/A	12/8	N/A	0	0	0	0	3
10	12/7	N/A	12/8	N/A	0	0	0	0	0
<b>TOTALS:</b>					71	5	11	0	43

**DATE:** 10/30/92

**OBSERVER:** King

Project looks good. Need to notch upper log control. No sign of any spawners.

**DATE:** 1/93

**OBSERVER:** Nettnin

An apparent redd was observed above the lowest log weir and one below the project.

**DATE:** 2/25/93

**OBSERVER:** King

Water is almost flowing over upper log. Lots of trout in pools and at least one redd seen above lowermost log control.

**DATE:** October 1993

A juvenile migrant trap was installed in the outlet channel below the project to monitor upstream movement into the project. This trap will remain in place to evaluate the outmigration in the spring of 1994.

**DATE:** 10/14/94

**OBSERVER:** Darrow/Powell

Light summer flow at this date (est 1.3 cfs). Upper end of project looks fine. Installed trap on this date. Observed about a dozen juvenile coho in and around trap box area.

**DATE:** 2/95

**OBSERVER:** Powell

A coho redd was detected below the project on 11/95. One, possibly 2 coho redds plus a dead adult coho were detected in the upper end of project in January. Two adult steelhead morts and 1 redd were detected in the upper end of project in February.

**DATE:** 3/20/95

**OBSERVER:** Darrow

No blockages or fish passage problems. Aquatic and semiaquatic plants are well established in channel and along the banks. Observed no fry near redds yet. Observed several 9 - 12 inch trout holding in the top control bay. A small school of coho were observed in one of the pothole shots near upper end.

**DATE:** 5/5/95

**OBSERVER:** Powell

The following water chemistry was observed on this date:

pH: 7.0

D.O.: 12 mg/l

Temp.: 10.5 C

Water Hardness - CaCO<sub>3</sub>: 54 ppm

**DATE:** 8/1/95

**OBSERVER:** Nettnin

Cover structures were added to the middle reach of the channel. Installed a rock weir below the lowest plank control to reduce the height of the plunge. Notched the upper most log control.

**DATE:** 10/23/95

**OBSERVER:** Darrow

First trap activated for the season. New and rebuilt weir panels were installed. Some small conifer trees were placed in pools and modification of controls were done by honor camp crew. There was an active beaver but it appears to have moved on. Several large trout were observed in upper pools along with recent coho arrivals.

**DATE:** 4/4/96

**OBSERVER:** Darrow

All controls are clear of obstructions and everything looks okay. Some spawning activity took place in the project this winter. Fry have been captured in trap box. Coho presmolts and trout were observed in project.

**DATE:** 10/21/96

**OBSERVER:** Darrow

Trap box, a couple of screens (on bank screens), and numerous sand bags were replaced this summer. Additional spruce were placed in pools for cover this fall. There was some beaver activity but not enough that it was a barrier. Coho and trout have been trapped and are dispersed throughout the system.

**DATE:** 3/22/97

**OBSERVER:** Darrow

Trap has been inundated several times this year including a high flow event this spring. High flows appear to have little effect on structural components at this site. Project continues to have good flows due to ground water. We observed 2 coho redds this season. We have experienced an early, on going out migration of coho juveniles. Early out migrants were mostly thin but fish are now much improved in appearance.

**DATE:** 10/2/97

**OBSERVER:** Nettnin

Removed matted vegetative growth from below log weirs  
Upstream fry trap is installed for 97/98 season.  
Project looks good.  
Observed several large trout.

**DATE:** 10/20/97

**OBSERVER:** Darrow

This is an active juvenile trap site and we have seen numerous coho and trout moving upstream. Many of the trouts have been cutthroats that are averaging 5 - 8 inches long. The larger cutthroats have been 8 - 11 inches long. There were several beaver dams built within the project and one was built near the egress. The beaver stripped many of the conifer and alder bundles that were placed as cover. The dams have been disassembled and no new activity has been observed. Leaf debris on the trap screens has been increasing due to maturity of the site.

**DATE:** 2/28/98

**OBSERVER:** Darrow

Beaver activity ceased in early winter. One steelhead redd was observed below trap site in January. Trap only backwatered twice this season. We have observed an on going out migration all season. Emigrating fish have been thin the past couple months. Numerous cutthroats have immigrated into this site.

**DATE:** 10/11/98

**OBSERVER:** Darrow

Trap was pulled here last week after trapping upstream and downstream for 5 seasons. Beaver remains active in the system with two small dams approximately 22 and 26 meters above the confluence with the river and a much higher and wider one built across top log control. All were fish passable and were breached the day we pulled the trap. Site will need periodic inspection. Juvenile coho were observed around the trap site and cutthroat were observed in the upper pond.

**DATE:** 12/22/98

**OBSERVER:** Darrow

Observed numerous adult coho and 7 redds in the project on this day.

**DATE:** 4/3/99

**OBSERVER:** Darrow

Beaver dam does not appear to be maintained. There is a four foot wide outflow gap on the left bank side of the dam. Everything else appears okay. Did not observe any fry but saw some presmolts and trout.

**DATE:** 10/11/99

**OBSERVER:** Darrow

Site is active with beavers. There is one large dam upstream in the project and 2 smaller ones below project (downstream of trap box location). Made an opening in large dam and removed the smaller ones. This site will need periodic visits.

**DATE:** 4/11/00

**OBSERVER:** Darrow

This is a popular beaver site and will need constant monitoring during migration time. Beaver activity is flooding some adjoining young spruce areas (some trees are dying). Observed a few coho smolts in side channel, and trout above the big beaver dam.

**DATE:** 9/27/00

**OBSERVER:** Darrow

This site was prepped for trapping: beaver dams were breached, trapping materials were brought in by the DNR Honor Camp Crew. Numerous trout were observed and coho juveniles too. No leakage was observed around any of the controls. This site received two totes of coho carcasses (approx 130 carcasses each) over a two month period.

**DATE:** 3/10/01

**OBSERVER:** Darrow

Everything looks good, and beaver activity never resumed after breaching the dams in the fall. A few dead spruce along first upstream pool area were dropped into the pond to increase cover. Past beaver activity had removed all the old structures. This site stayed well watered during the low precipitation of this winter and early spring. A very large group of trout were typically observed occupying the first upper pool. Early observations of coho juveniles have indicated positive results from carcass placement. Fish are all in very good condition.

**DATE:** 9/19/01

**OBSERVER:** Darrow

Migratory trap was installed for another season of monitoring work. Numerous trout were observed in the lower pond. Coho are also present in the system.

**DATE:** 10/11/01

**OBSERVER:** Nettin

Cleared the reed canary grass off of the weirs number four and five.

**DATE:** 12/10/01

**OBSERVER:** Darrow

Distributed a tote of coho carcasses (about 120 fish) throughout the project for nutrient enhancement.

**DATE:** 4/28/02

**OBSERVER:** Darrow

There were about seven coho and seven steelhead redds in the project this season. Fry are evident throughout the system. Coho smolt migration is going well with fish appearing to be in good condition. Structures all look good and there has not been any beaver activity.

**DATE:** 7/1/02

**OBSERVER:** Nettin

Removed the trapping facility.

**DATE:** 10/7/02

**OBSERVER:** Nettnin

Repaired the leak on the right bank end of plank weir number 2. Removed sand bags and steps from old trap location.

**DATE:** 12/16/02

**OBSERVER:** Powell

There is some beaver activity again. To date, a total of 16 coho redds were observed.

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

upper project - N47.95827, W124.43215

lower project - N47.95911, W124.43309

channel egress - N47.95936, W124.43329

**DATE:** 3/28/03

**OBSERVER:** King

Everything looked good. Lots of smolt sized fish observed.

**DATE:** 10/29/03

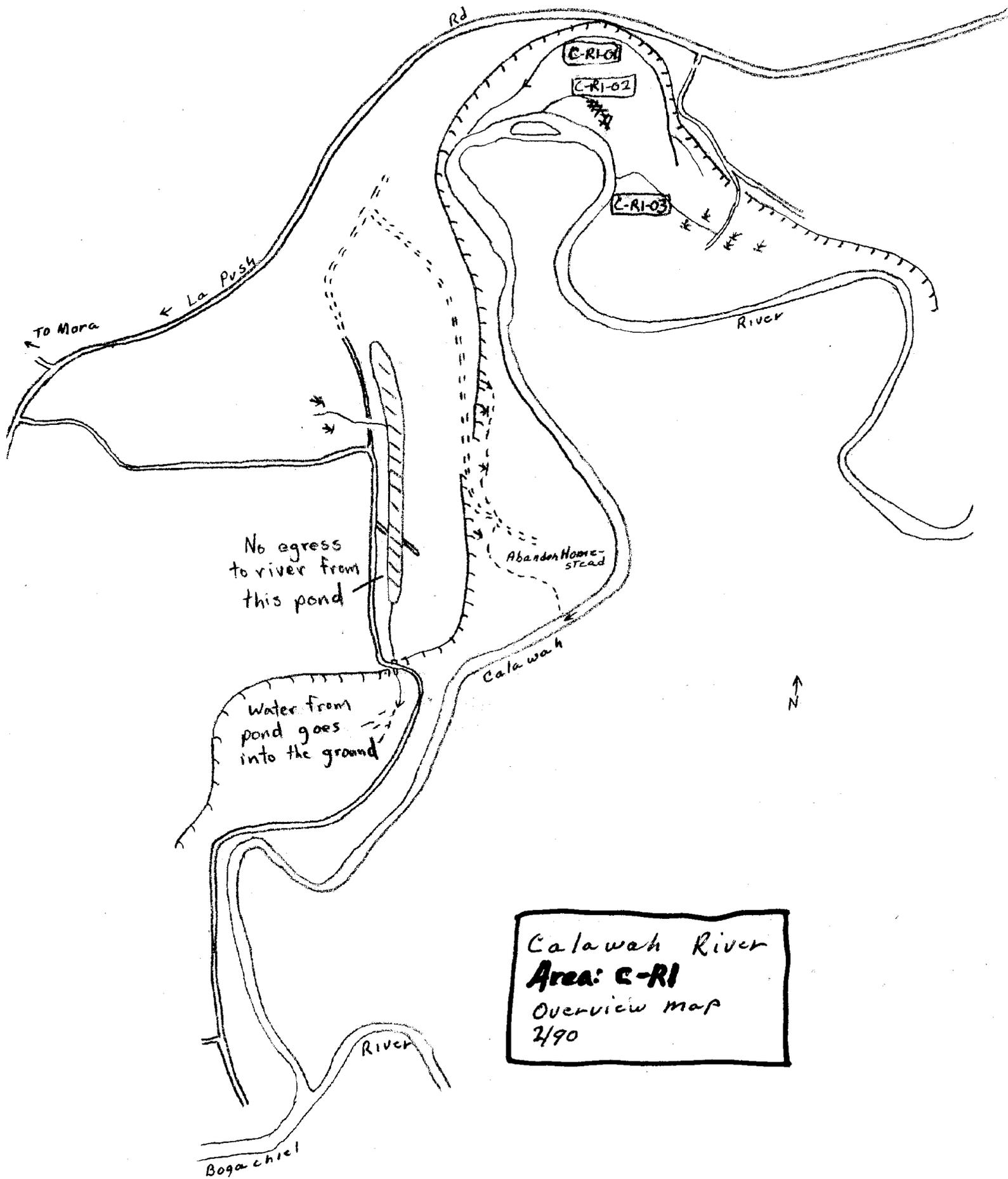
**OBSERVER:** Nettnin

Active beaver on weir #5. Water flowing around left bank end appears passable at this time.

**DATE:** 11/5/03

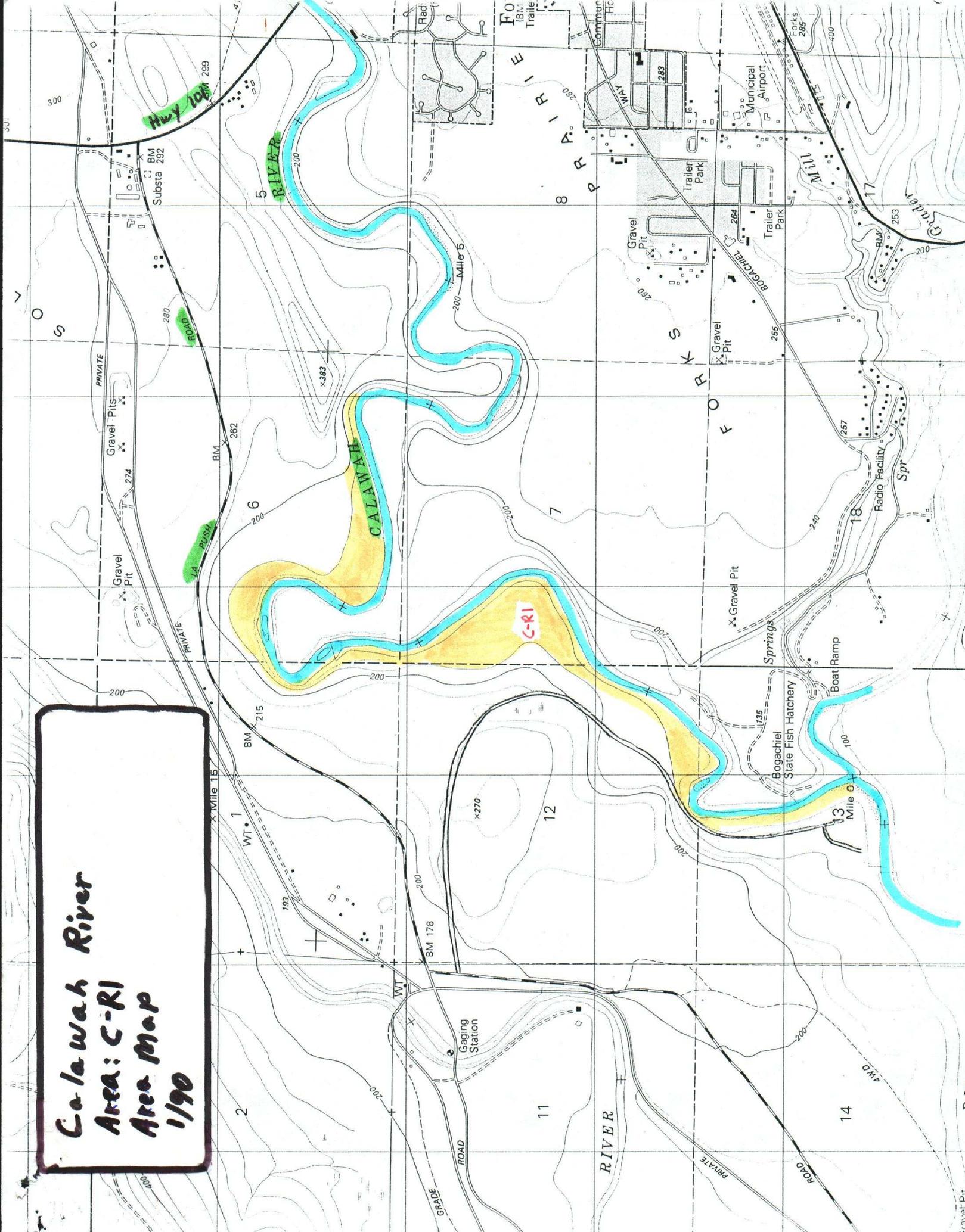
**OBSERVER:** Nettnin

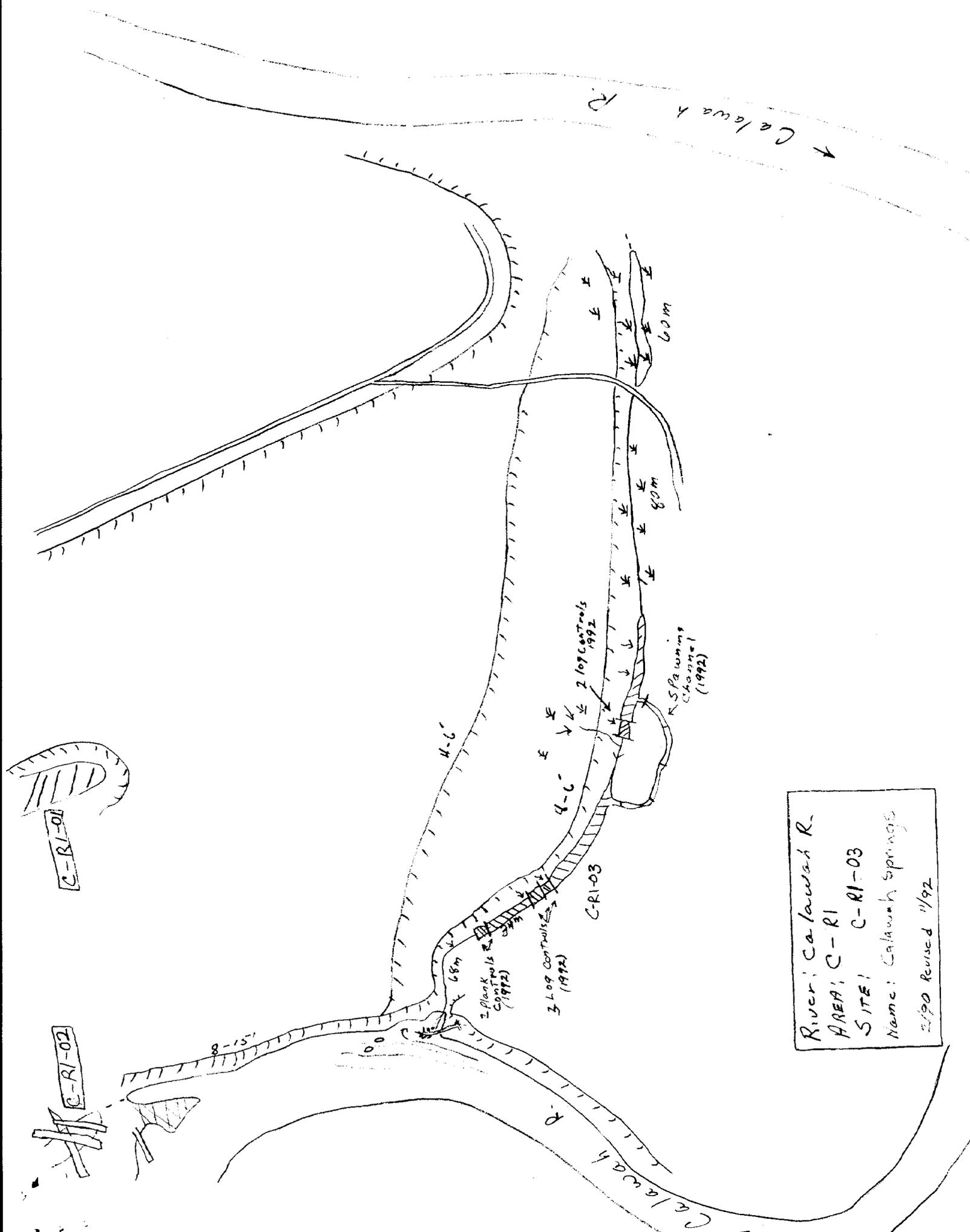
Revisited the project. Water is still flowing around the left bank end of the dam. It appears that fish can negotiate the flow at this time. No fish were observed.



Calawah River  
**Area: C-R1**  
 Overview map  
 2/90

**Calawah River  
Area: C-RI  
Area Map  
1/90**





River: Calawah R.  
 AREA: C-R1  
 SITE: C-R1-03  
 Name: Calawah Springs  
 2/90 Revised 1/92