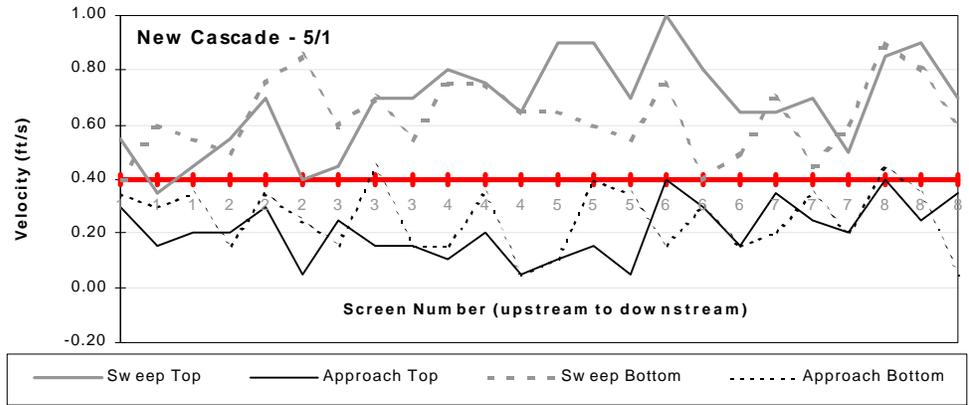


Water Velocities: New Cascade

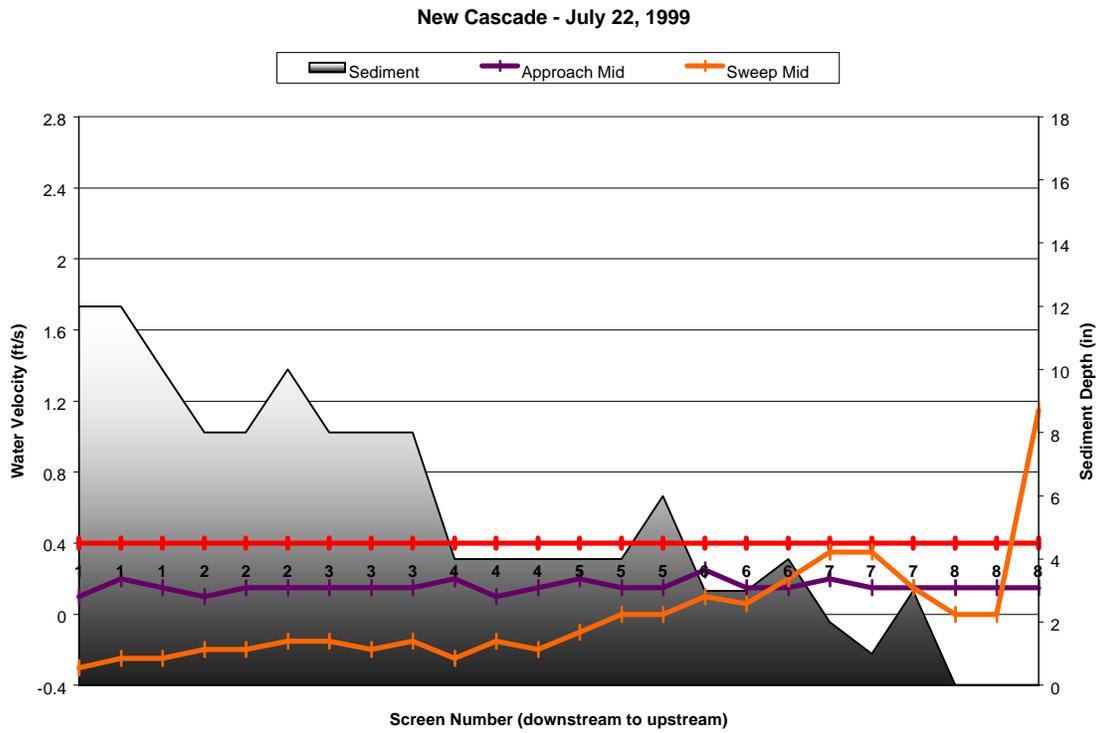
1997



1998

none

1999



General Observations: New Cascade

Date	New Cascade 5/1/97	New Cascade 6/26/97	New Cascade 8/13/97	New Cascade 5/13/98	New Cascade 7/8/98	New Cascade 9/17/98	New Cascade 5/20/1999	New Cascade 7/22/99
Staff Gages?	forebay=2.0 canal=2.15	forebay=2.1 canal=2.1	forebay=1.9 canal=1.85	forebay=2.25 canal=2.2	forebay=1.95 aftbay=1.85	forebay=1.92	forebay=2.30 aftbay=2.28	forebay=no aftbay=2.2
Submergence Marks?	no	yes, but very hard to see b/c of algae build-up	no	yes, at every 10% (though it would be nice to have them every 5%)	no	yes	yes; 90 marked then just lines.	yes, but can't see below 85.
Stoplogs?	no info	yes, only at screens 1-4; they're ~21" under water	yes, only at screens 1-4	yes	no	yes, screens 1,2,3 have stoplogs that are 18" under water	yes at screens 1, 2, and 3	yes at screens 1, 2, and 3
Louvers?	NA	NA	NA	NA	NA	NA	NA	NA
Head Loss?	no	no	1/2"	no	1"	no	No. 1/2"	No. 1/2"
Screen Material Condition	#6 has 3 dents, 2 near seals, on near middle ~6-8" around and 1/4" deep; #7 has 1 dent ~12"wide x 15"long x 1/3" deep; #8 has 1 area depressed ~12"diameter by 1/4" deep	good, but some algae	algae-covered	some algae growth on all screens, but minor.	good	Some algae growing, but not covered. #8 had lighter colored screen on downstream end. Also, it's turning in a jerky motion.	Scr.1 not operating, clogged w/algae & diatoms. Screens 4,5,6 clean.	Brown but look good, 4 & 8 are cleaner downstream.
Seal Condition	good	good	good	no info	good	Screen 8's seals look worn and chewed up.	Good except scr.8, worn at top and narrower.	Screen 8 a little ragged, rest good.
Drums Turning Evenly?	yes	yes	yes	Yes	yes	Screen #1 isn't operating (even when turned on); Screen #8 jerks.	All except scr.1. Makes noise when turned on but doesn't turn.	yes
Debris Anywhere?	no	lots of debris at Screen #1, downstream end - covered seal	no	no, the site looks pretty clean.	No	Lots of vegetation is piling up in front of the screens.	No.	No.
Cleaning System Working?	yes	yes	yes	no data	yes	Yes, however stuff is piling up in front of the bottom seal.	Yes.	Yes.
Submergence (% of 48")	83.3	84.7	82.0	82.6	no info	81.9	89	
Flow over Weir? How much?	yes, 15"	yes, 14.5"	yes, 11"	Yes, 13-14"	Yes, 13"	Yes, 12" though ramp is in "flush" position	Yes. 21"	Yes. 16-17"
Gage to Measure Weir Crest?	no	no	no	no	yes	no	Yes. Pole w/ .1ft to 2ft marked.	Yes. Gaff hook with marks to 2ft.
Weir Full Open? If not, how many inches to go?	no ~1/3 open	no, only 10" closed...	no, 2.5" to go	yes	No, 29" to go	yes	yes	yes
Water Running Freely behind Weir?	yes	yes	yes	yes	yes	yes	yes	yes
Depth of water in outfall pipe	15"/18"	4"/18"	14"/18"	the pipe was almost full (~15-18inches)	yes	half full (~9")	only 1" of airspace	pipe is submerged

General Observations, continued

Date	New Cascade 5/1/97	New Cascade 6/26/97	New Cascade 8/13/97	New Cascade 5/13/98	New Cascade 7/8/98	New Cascade 9/17/98	New Cascade 5/20/1999	New Cascade 7/22/99
Outfall Running Smooth?	yes	yes	yes	yes	yes	yes	yes	yes
Debris at End of Pipe?	no	no	no	no	no	no	no	no
Discharge Area = 1 ft?	yes	yes	yes	yes	yes	Yes, maybe less between wingwalls, but not enough to cause a problem for fish.	yes	yes
Silt	Screen #8 had 2.5" of sediment in one position and that's all the silt	only mention is at the downstream end of Screen #1 - covered seal	max 2" of silt	no info	Most sediment & debris in front of screens 1-5 (some weeds & up to 2" sediment). None commented on in front of screens 6-8.	didn't measure. Video indicated that there was lots of muck (2-6") and submergent vegetation, especially in front of the upstream screens (1-7 of 8).	Upstream 12" and downstream 8".	Up to 12" at beginning lowering to none at bottom screen.
Comments	saw a fish at screen #6 swimming away from the bypass. It was 2.5-3" long and was fat.	saw smolts (?) - parr marked fish below Screen #5 and Screen #8.	caught several fish - red shiner (1); whitefish (1); chinook salmon (2)=87mm and 90mm	None.	some fish observed in the video in front of screens 1, 4, and 8(big fish)	Electrical interference! A lot of fish in the forebay (some salmonids including a ~14" trout). Some smaller fish behind screens (not salmonids).	Sand covering seal at 2. Sand and brush pile at 3,4,5,6. Scr.7 less sand, few sticks. Scr.8 has worn & wavy seals.	Debris, grasses and silt covering seals along way. 6 10 fish, like suckers.

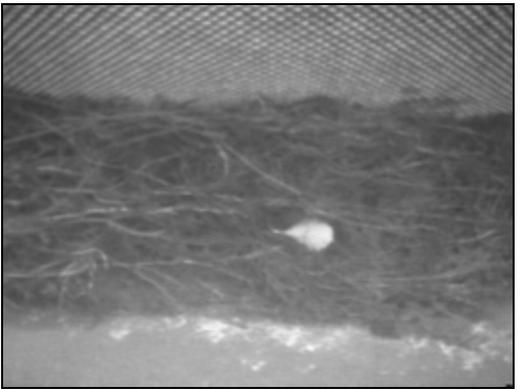
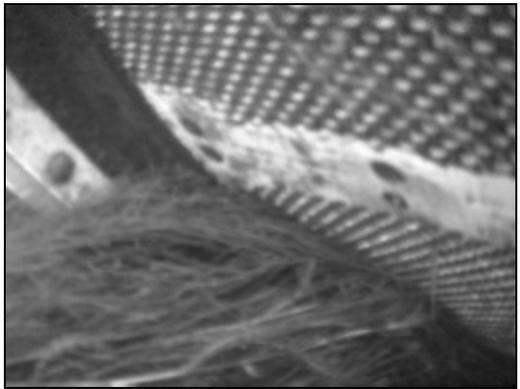
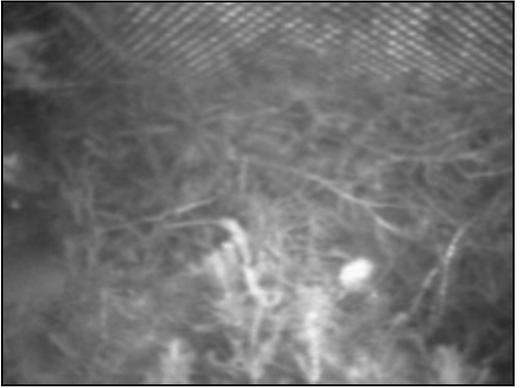
1997 Photos: New Cascade

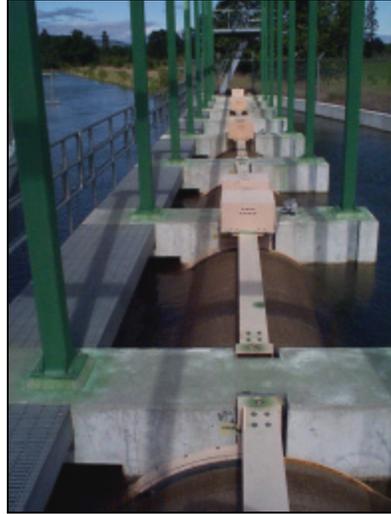




1998 Photos: New Cascade





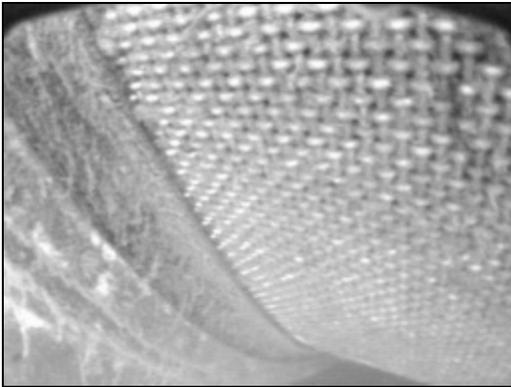


1999 Underwater Video

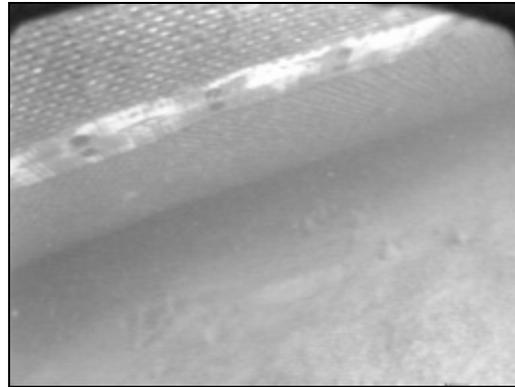
Screen Site	Date (Tape #)	Location (screen # & VCR counter)	VCR Counter	Notes	Photos	Descriptor	
New Cascade	5/20/99 (2)	1	0:19:18	0:19:40	screen covered in algae (screen not on)	0:19:40	D1
				0:20:38	sediment covering all the way past seal		
				0:21:12	across screen	0:20:52	S1
		2	0:22:02	0:22:33	sticks at corner		
				0:23:29	sand at seal all the way across		
		3	0:24:12	0:24:52	sand up and over seal		
				0:25:58	sand and plant growth	0:25:56	AVG
		4	0:26:34	0:27:14	sand and plant up and over seal		
				0:28:22	sand piling across large tumble weed-like things in front of screen	0:28:23	D2
		5	0:29:16	0:30:04	sand piling across brush pile		
		6	0:32:11	0:33:11			
				0:33:31	sediment pile across large brush pile in corner	0:33:32	D3
		7	0:34:28	0:34:55	sticks at corner		
				0:35:15	sand and plants, brush throughout		
8	0:36:14	0:36:38	seals look worn	0:36:40	C1		
		0:37:56	sand				
		Bypass	0:38:49	0:39:22	sticks		

New Cascade	7/22/99	1	Battery Failure, so NOTES ONLY	sand covering seal little fish in front of screen feeding off screen			
		2		5:32	sand covering seal milfoil and grasses in corners		
		3		7:38	sand covering seal dead plants piled in downstream corner grasses in upstream corner		
		4		9:49	sand covering seal middle down something wedged in screen		
		5		12:24	twigs, branches and live plants sand pile up at the end branches, leaves, grass at upstream end		
		6		14:52	pile of debris and big pile of junk Sand and debris covering seal		
		7		17:06	clear, may be notch in upstream seal		
		8		19:50			
		Bypass		22:20			

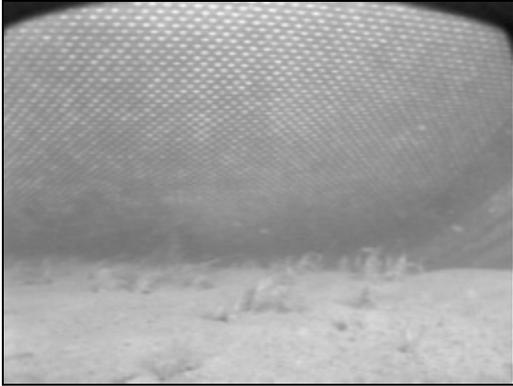
1999 Photos: New Cascade



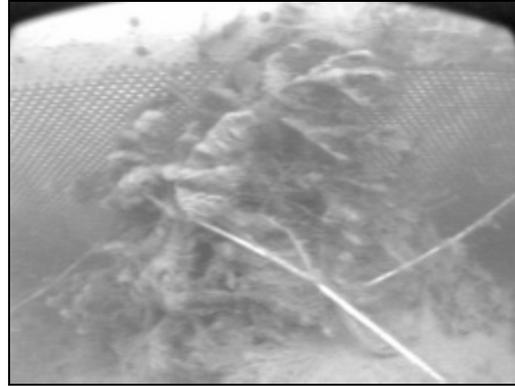
D1



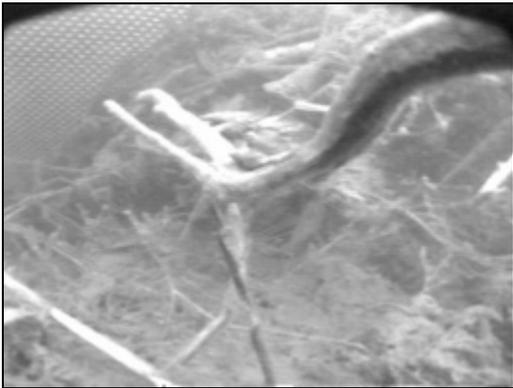
S1



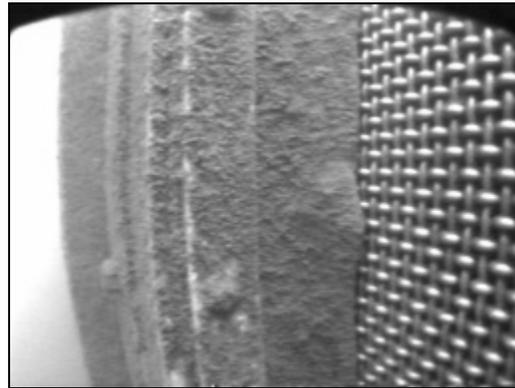
AVG



D2



D3



C1



