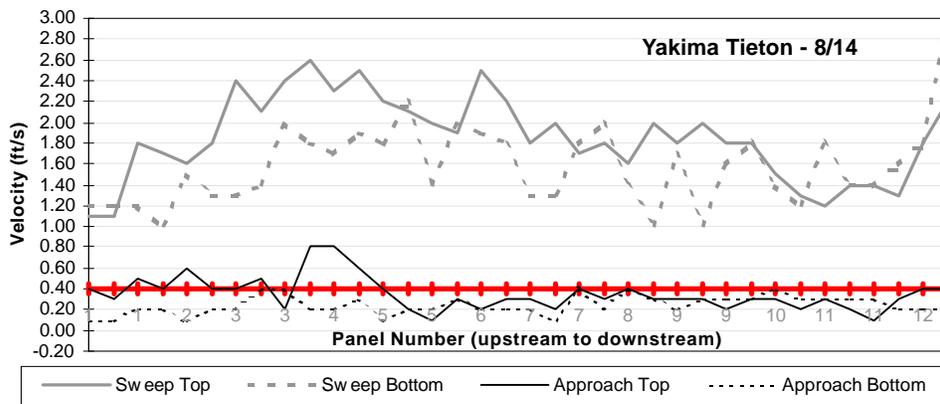
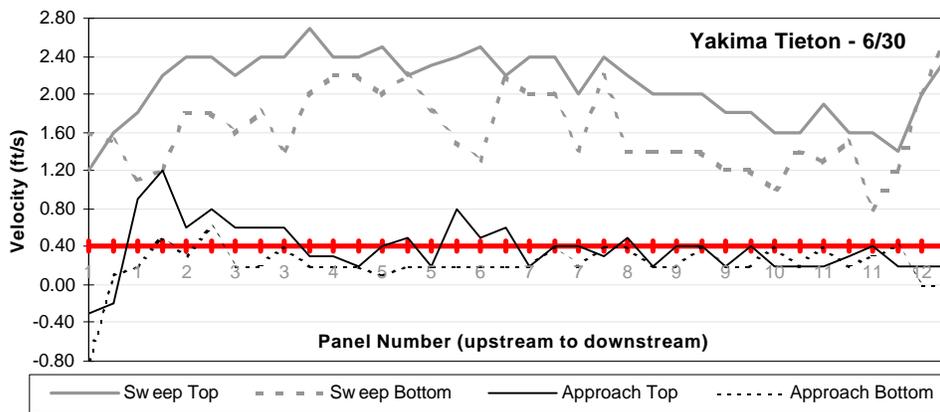
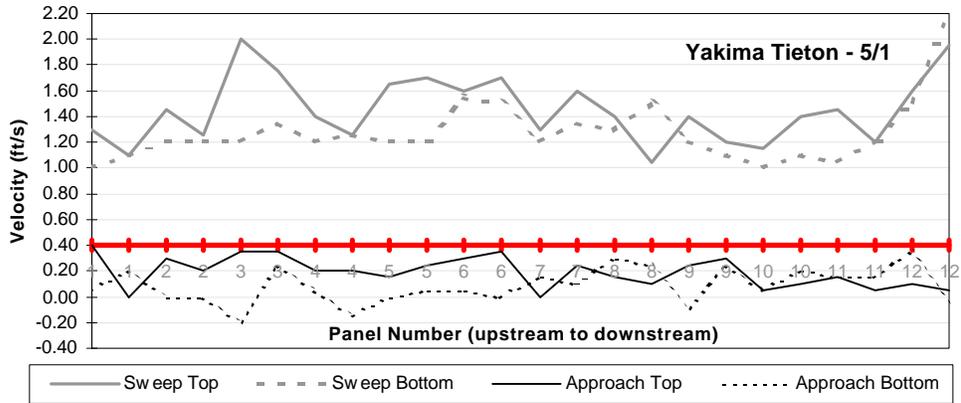
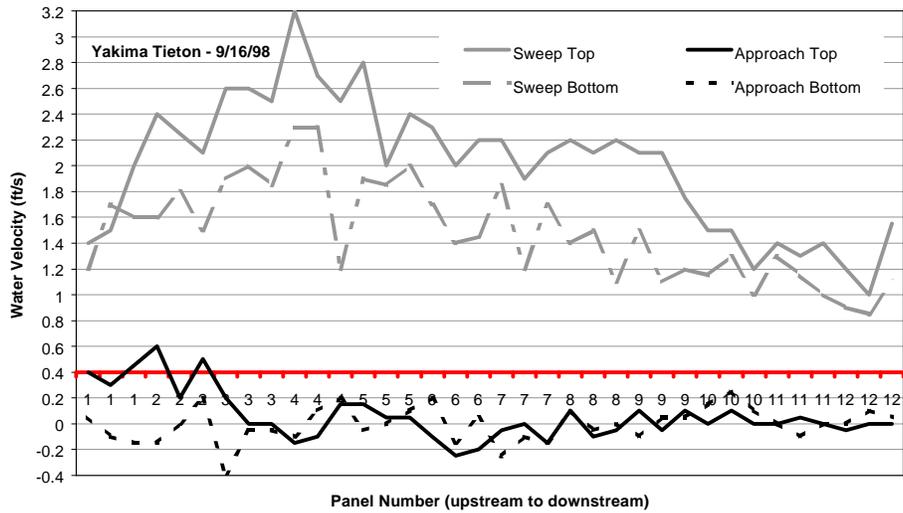
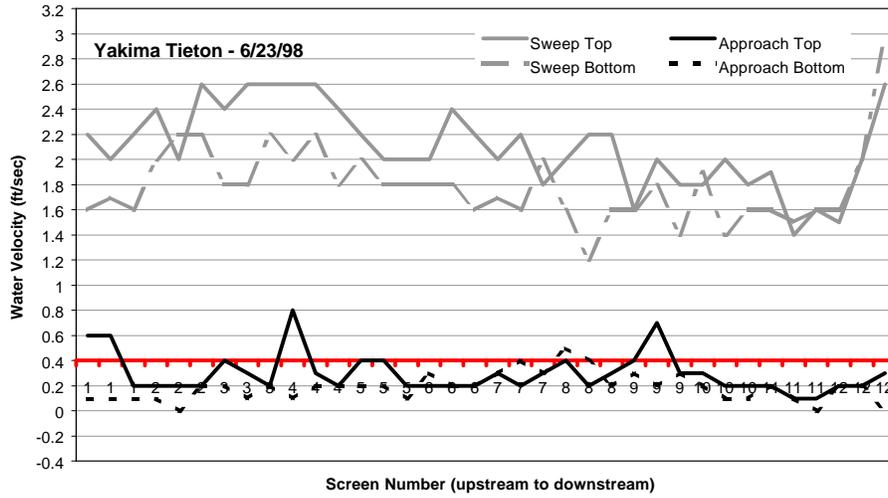
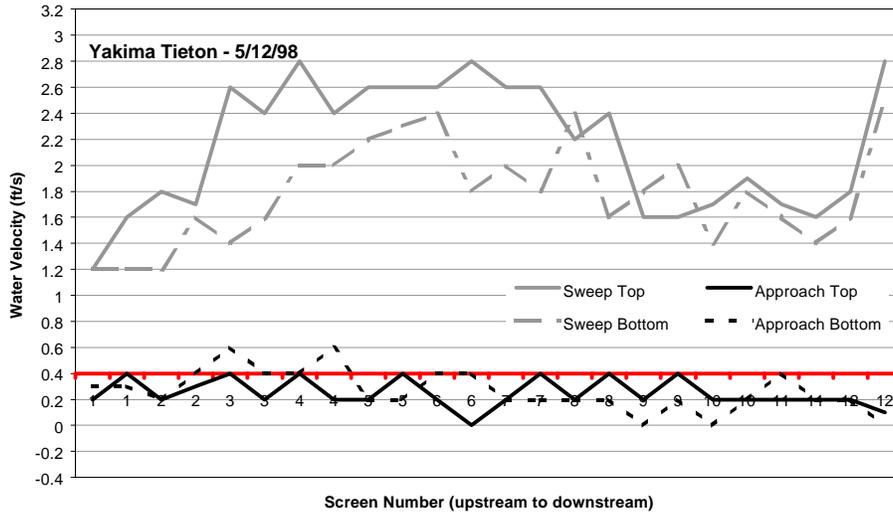


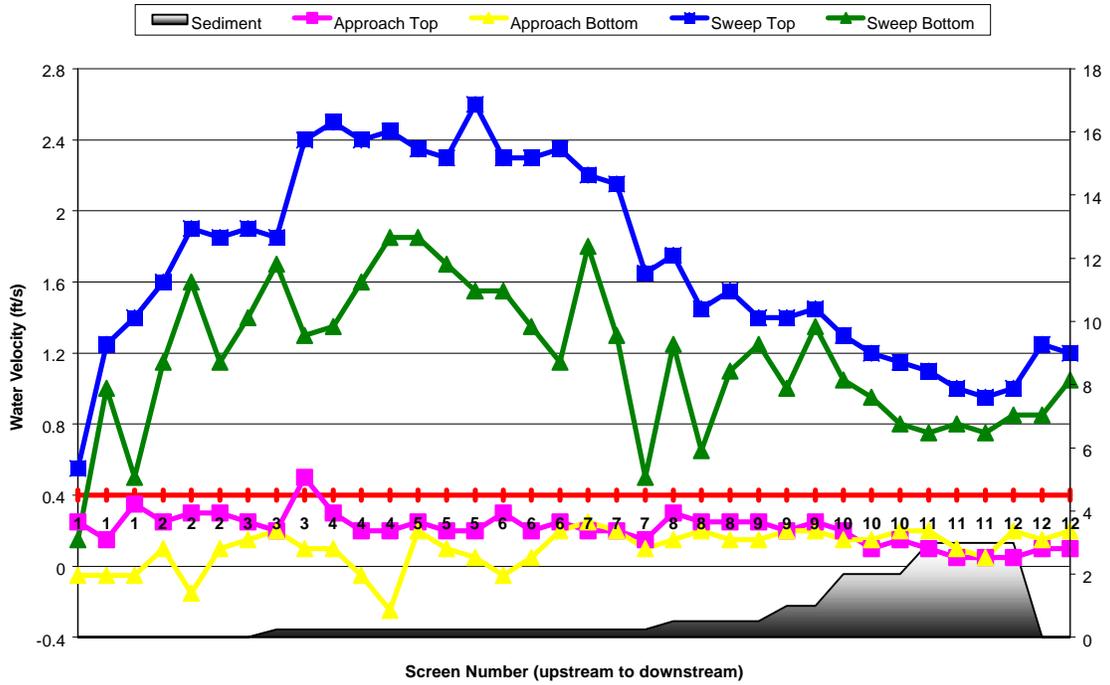
Water Velocities: Yakima Tieton

1997

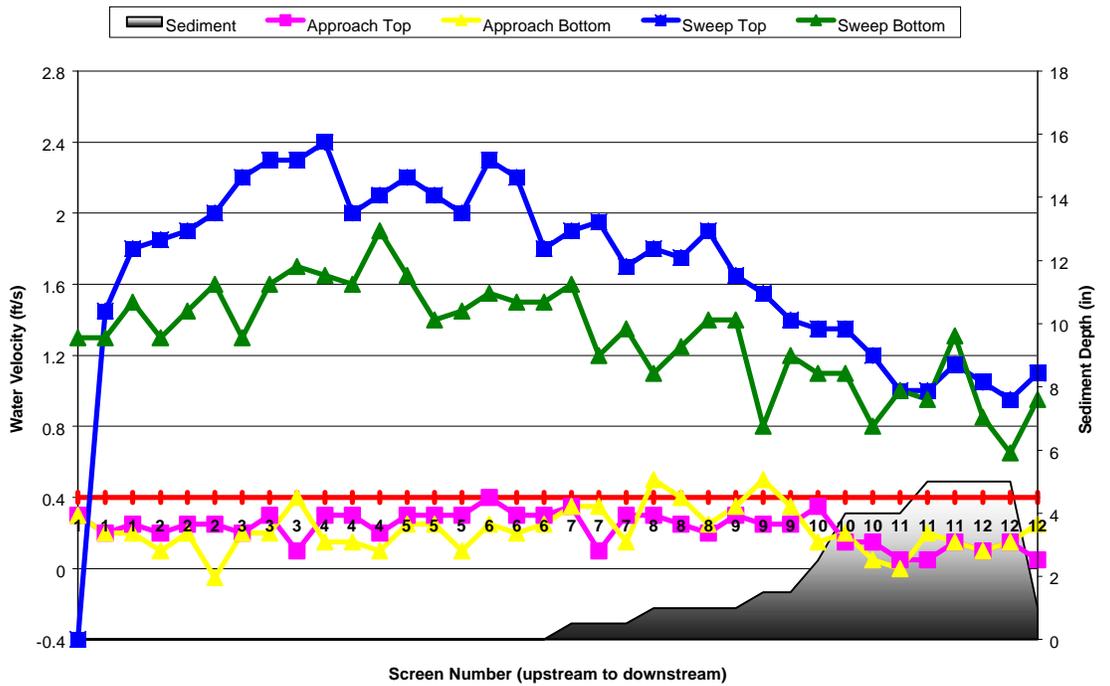




Yakima Tieton - May 17, 1999



Yakima-Teiton - July 21, 1999



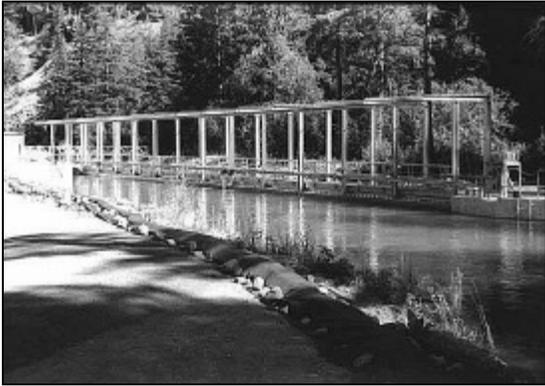
General Observations: Yakima Tieton

Date	Yakima Tieton 5/1/97	Yakima Tieton 6/30/97	Yakima Tieton 8/14/99	Yakima Tieton 5/12/98	Yakima Tieton 6/23/98	Yakima Tieton 9/16/98	Yakima Tieton 5/17/1999	Yakima Tieton 7/21/99
Staff Gages?	none	none	none	none	none	none	none	none
Submergence Marks?	NA	NA	NA	NA	No	no	no	no
Stoplogs?	NA	NA	NA	no info	NA	NA	NA	NA
Louvers?	no info	no info	no info	no info	45 degrees open for plates 1-10. Louvers for 11 & 12 are closed.	Louvers are all pointing the same direction except for the last 3 panels downstream which are closed to 1" openings. The rest are at a 45deg. Angle open.	see picture	see picture
Head Loss?	no	no info	no info	no	1"	1", though that was taken after we'd had the brush turned off for some time	No. 3/4"	No. 3/4"
Screen Material Condition	new wedge wire	good - new	good - new	no info	clean from above	Good; some algae accumulated at the bottom where the brush doesn't reach	Pretty Good. Accumulating some dirt.	good
Seal Condition	no info	good	no info	problem areas on Panels 3-12.	underwater video indicated some loose caulking on plates 3, 9, and 10. "Chipped" seal on panel 2 ?	Caulking is coming out in some places. Bottom side seam on Panel 9 may have had some gaps.	good	Okay. One piece of caulking coming off at surface near bypass.
Drums Turning Evenly?	NA	NA	NA	NA	NA	NA	NA	NA
Debris Anywhere?	some on screens b/c brush isn't operating; a few (3-4) sticks in bypass.	no	no	Yes, on screens and between brushes (leaf litter and small twigs, etc.)	None visible from above.	Just sandy silt and a few sticks	No.	No.
Cleaning System Working?	no - screen was still under construction and the brushes had been off for 3 days; workers were manually pulling the brushes across the screen to clean it	yes	no info	The gang brushes cannot keep up with the large amounts of debris. A maintenance person was jumping on the cables to get the brushes to move past some blockage when we arrived.	One brush has been removed from the system.	The brush doesn't get to the bottom and it is FULL of leaves & all splayed out - probably needs to be replaced (both brushes).	Yes. Not much debris coming over.	Pushing debris, but not coming off brush.
Submergence (% of 48")	40.0	no info	no info	83.3	95.2	92.9	56%	

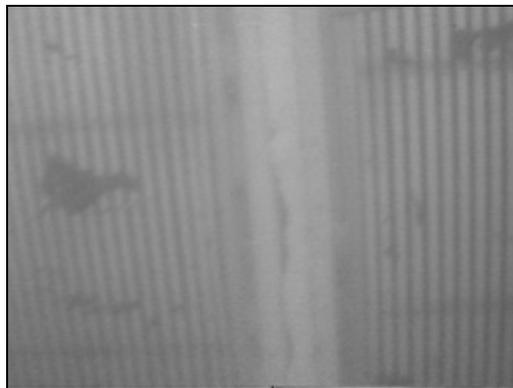
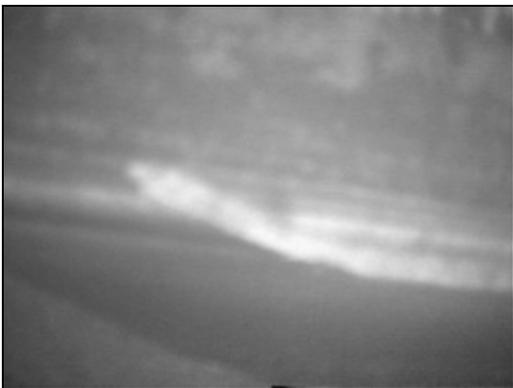
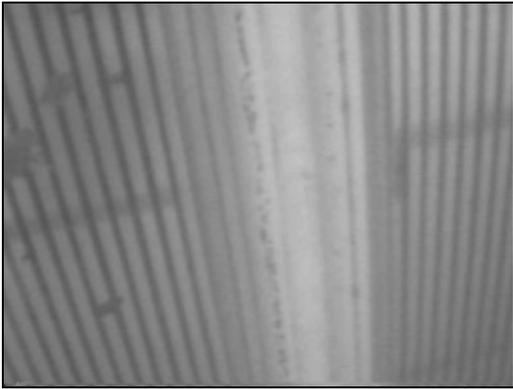
General Observations, continued

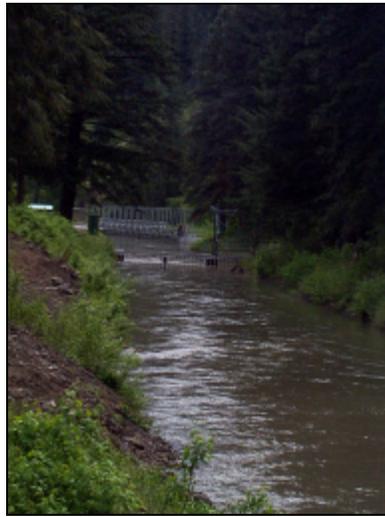
Date	Yakima Tieton 5/1/97	Yakima Tieton 6/30/97	Yakima Tieton 8/14/99	Yakima Tieton 5/12/98	Yakima Tieton 6/23/98	Yakima Tieton 9/16/98	Yakima Tieton 5/17/1999	Yakima Tieton 7/21/99
<b>Flow over Weir? How much?</b>	no weir in place	no info	no - it's going underneath only	Yes	No, several feet of water is flowing under the weir.	Yes. 11.5'	No. Going underneath 6" of screw post on top.	Yes. 3"
<b>Gage to Measure Weir Crest?</b>	no	no	no	no	no	no	no	no
<b>Weir Full Open? If not, how many inches to go?</b>	yes	yes	no, 5"	There are about 6" at the top of the screw post, but the weir is guillotine-shaped, so it may be all but 6" closed.	yes (?)	yes	NA	No. 5"
<b>Water Running Freely behind Weir?</b>	yes	yes	no - very rough and forceful; water is hitting the far wall and bouncing back. Sticks and branches appear to block the weir area.	no data	yes	Yes, but some sticks are blocking the top of the opening.	No. Hits far wall and rushes back.	yes
<b>Depth of water in outfall pipe</b>	~13"/24"	pipe is submerged	21"/24"	no data	24" (out of 27)	pipe is submerged	pipe is submerged	pipe is submerged
<b>Outfall Running Smooth?</b>	yes	yes	yes	no info	yes	yes	Yes. Some bubbling at end of pipe.	yes
<b>Debris at End of Pipe?</b>	no	no	no	no info	no	A small mat of pulverized sticks and herbaceous material is floating inside the wingwalls	no	no
<b>Discharge Area ≈ 1 ft?</b>	yes	yes	yes	no info	yes	yes	yes	yes
<b>Silt</b>	silt began around Panel #8 (6"); there were 10-12" of silt from Panel 9-12.	only in front of Panels 8-11; max was 1" sediment	no info	Between 1 and 4" on the downstream portion (panels 8-11).	1-2" noted in front of panels 7 & 8.	Silt was not present in front of the first 5 screens. Then it suddenly increased to 14" in front of Screen 6, then fluctuated between 1 and 6 inches for the remainder. No silt in the bypass.	Sed. begins at scr.3 with 1/4", increasing at scr.8 & climaxes at scr.11 with 3". With none at 12,1, or 2.	Starts at panel 7 and gets up to 5" at panel 11.
<b>Date</b>	Yakima Tieton 5/1/97	Yakima Tieton 6/30/97	Yakima Tieton 8/14/99	Yakima Tieton 5/12/98	Yakima Tieton 6/23/98	Yakima Tieton 9/16/98	Yakima Tieton 5/17/1999	Yakima Tieton 7/21/99
<b>Comments</b>	no video. These measurements aren't typical of normal conditions because the water had been lowered drastically to allow for construction at this site.		Some possible seam problem areas: along the bottom of panels 3-12 and at the seams in between all the panels from 3 to 12.	The brushes can't keep up with the debris; they're stuck. Maintenance person was jumping up and down on brush cables, trying to get the brushes to move.	none.	1 dead salmonid smolt caught in woody debris in bypass. The fish was probably dead when it got there because Jeff & Cory said they saw at least 2 dead fish float by while we were evaluating the site. Scott ID'd them as kokanee that didn't survive "flip-flop".	Water running low. 3 side seal caulking cracking, bottom corner going bad. 4,5 bottom seal pooching out, side seal cracking. 6 side caulking missing 6", cracked 1". 7,8,10 bottom missing, side cracking. 9,11,12 missing/loose bottom seal.	Couldn't get to logbook.

1997 Photos: Yakima Tieton



1998 Photos: Yakima Tieton







1999 Underwater Video: Yakima Tieton

Screen Site	Date (Tape #)	Location (screen # & VCR counter)	VCR Counter	Notes	Photos	Descriptor	
Yakima Tieton	5/17/99 (1)	1	1:31:04	1:31:50	bottom seal looks cracked	1:32:00	C1
		2	1:33:14	1:33:14	bottom seal of 1 & 2 looks loose	1:33:15	C2
				1:33:34	bottom pushing out	1:33:36	C3
				1:33:48	bottom pushing out seal 2 & 3 may be cracking		
				1:34:11	bottom seal looks loose		
		3	1:34:42	1:34:46	bottom loose, coming out; some algae and debris		
				1:35:09	cracked caulking		
				1:35:13	corner caulking going bad	1:35:39	C4
		4	1:36:19	1:36:19	bottom seal bad may be some missing caulking		
				1:36:41	seal between 3 & 4 might have cracks		
				1:37:22	bottom seal sticking out		
		5	1:37:42	1:38:10	missing caulking		
		6	1:39:18	1:40:22	between 6 & 7 loose caulking at bottom		
		7	1:40:50	1:40:51	missing seal on bottom	1:41:37	C5
				1:41:35	missing between 7 & 8?; loose at bottom		
				1:43:25	debris pile		
		8	1:44:00	1:44:23	loose and missing caulking		
				1:44:38	missing seal on bottom	1:44:58	C6
				1:44:56	loose seal caulking coming off		
				1:45:02	bottom bad		
				1:45:25	cracking in seam 8 & 9?		
		1:45:34					
9	1:45:50	1:46:10	hanging caulking loose seal, lots of sediment in water				
		1:46:22					

Screen Site	Date (Tape #)	Location (screen # & VCR counter)	VCR Counter	Notes	Photos	Descriptor	
Yakima Tieton (con't)	5/17/99 (1)		1:47:02	large piece of caulking hanging down	1:47:07	C7	
		10	1:47:59	most bottom caulking missing on bottom			
			1:48:00	lots of sediment	1:48:23	S1	
			1:48:08	sticks and leaf debris on screen			
			1:48:38	bottom 10 & 11 caulking missing	1:49:33	C8	
			1:49:33	missing caulking on bottom, sediment			
		11	1:50:04	buildup on bottom caulking frayed	1:50:07		
			1:50:25	sand and stick pile up to seal, leaf debris on	1:50:31		
			1:50:31	all caulking looks to be missing for awhile	1:50:34	1:50:45	C9
		12	1:51:48	lots of sediment piles some wood debris	1:51:52		
		Bypass	1:53:40	and sand; water very cloudy	1:53:48		

Yakima Tieton	7/21/1999 (3)	1	0:00:00	0:00:43	loose/missing caulking		
		2	0:03:03				
		3	0:04:49	0:05:38	missing caulking		
		4	0:06:17				
		5	0:07:48	0:07:48	loose caulking		
		6	0:09:11				
		7	0:11:47	0:11:54	missing caulking		
				0:12:06	sand pile up to seal		
		8	0:12:51	0:13:06	sand piling up, loose and missing caulking		
		9	0:14:09	0:14:28	throughout bottom loose/missing caulking		
		10	0:15:55	0:15:59	caulking missing all along bottom		
				0:16:18	sand building up to seal		
11	0:17:15	0:17:20	sand over seal				
12	0:18:20						
Bypass	0:20:07	0:20:30	debris and sand				

1999 Photos: Yakima Tieton

