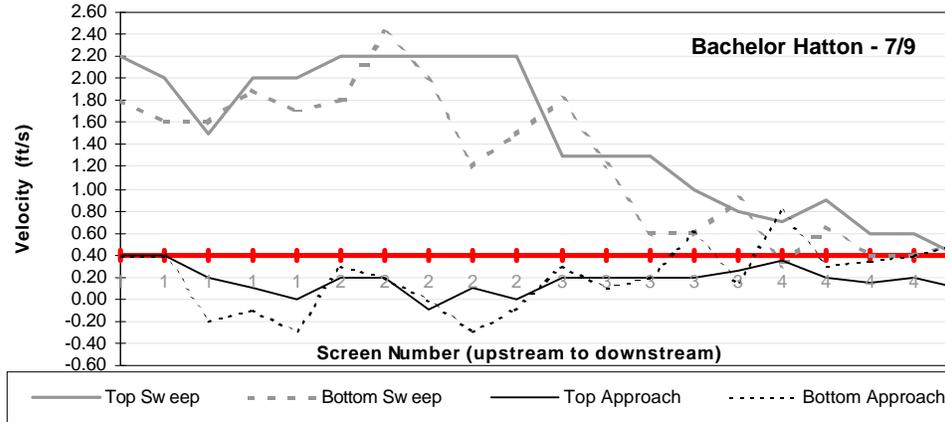
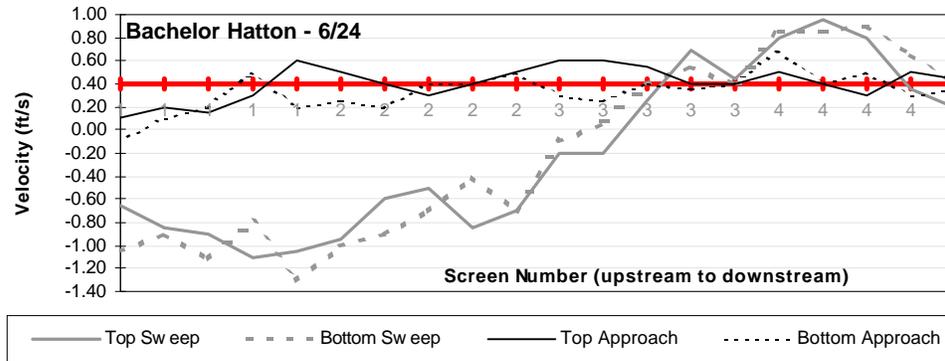
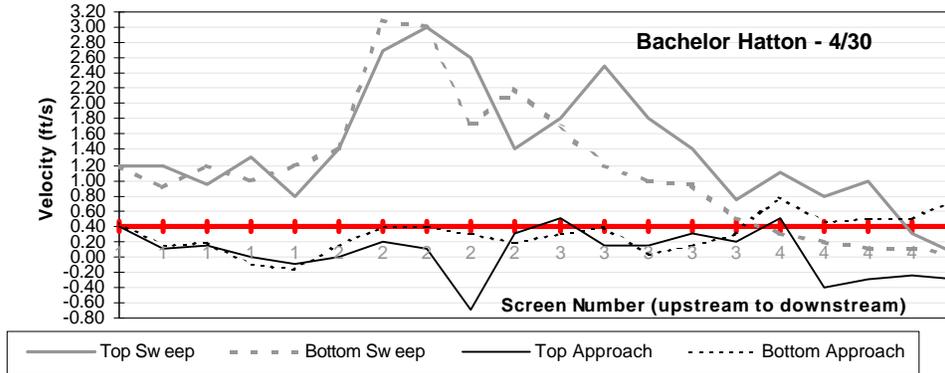
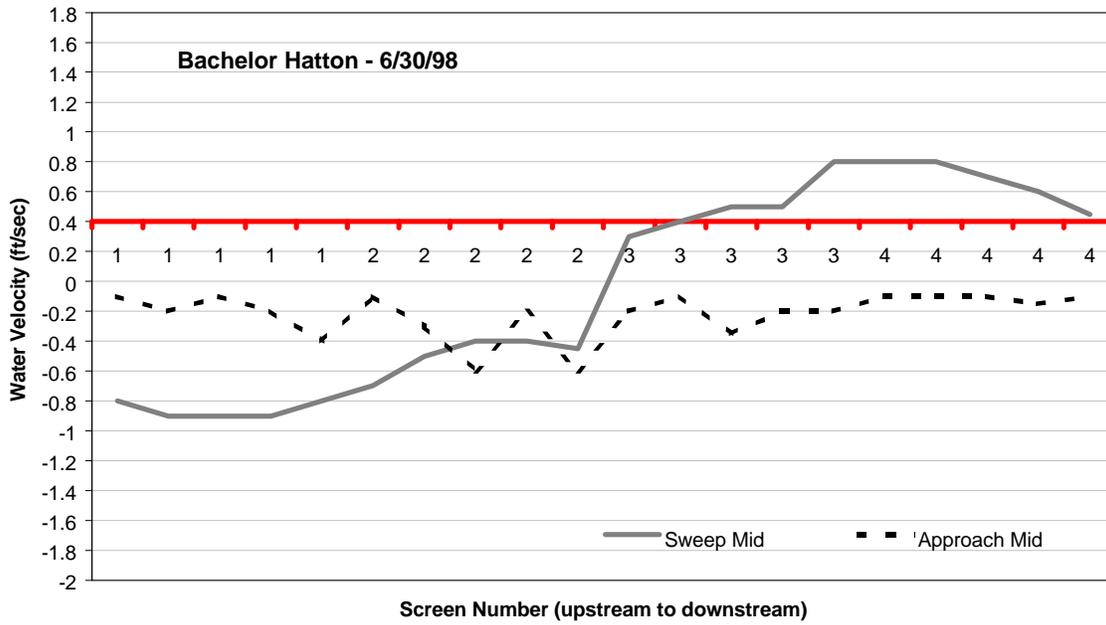
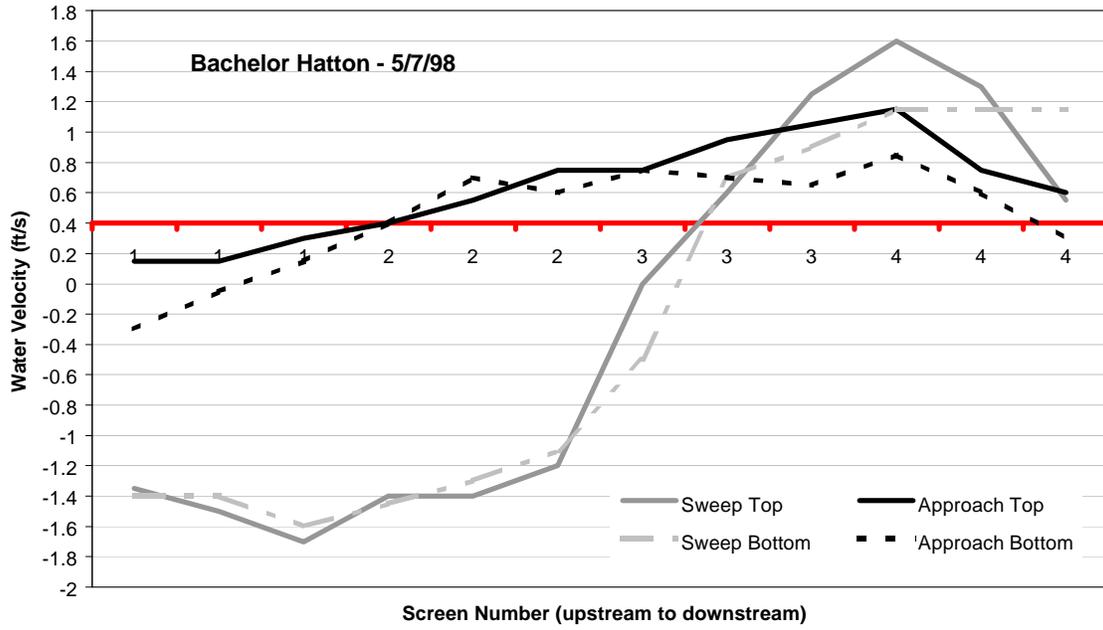


Water Velocities: Bachelor Hatton

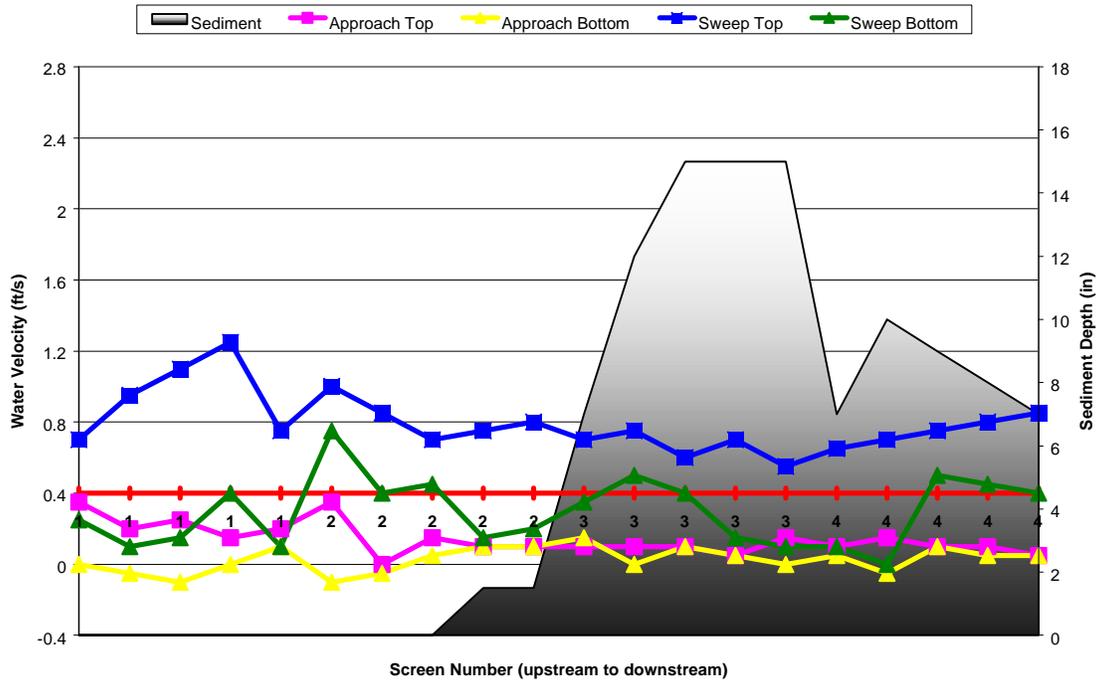
1997



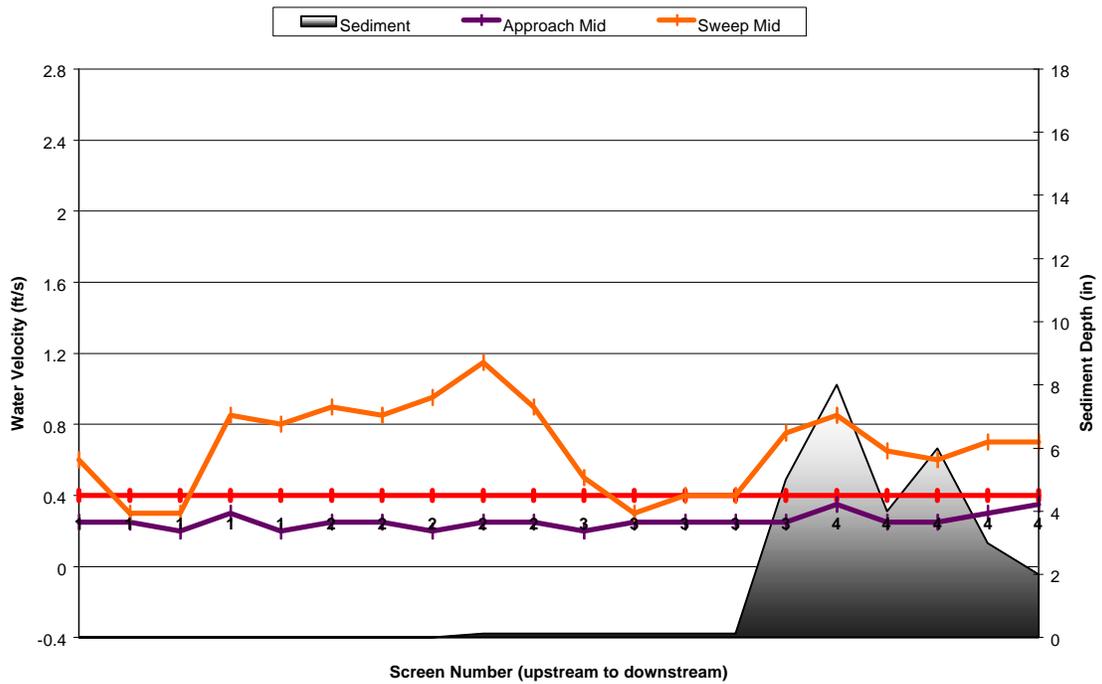
1998



Bachelor-Hatton - May 12, 1999



Bachelor-Hatton - July 7, 1999



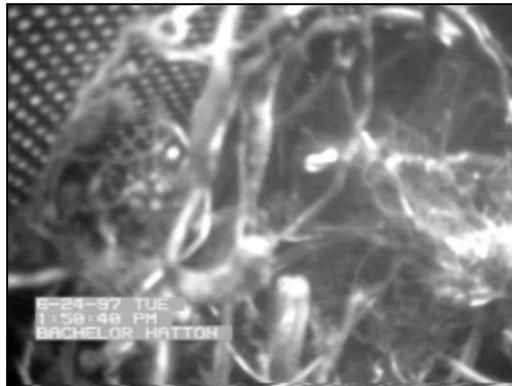
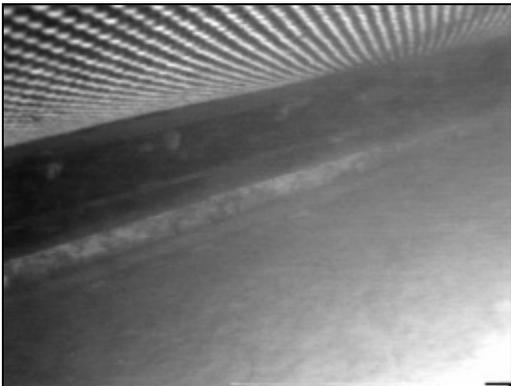
General Observations: Bachelor Hatton

Date	Bachelor Hatton 4/30/97	Bachelor Hatton 6/24/97	Bachelor Hatton 7/9/97	Bachelor Hatton 5/7/98	Bachelor Hatton 6/30/98	Bachelor Hatton 9/14/98	Bachelor Hatton 5/12/1999	Bachelor Hatton 7/15/99
Staff Gages?	aftbay 19.5	aftbay 19.6	aftbay 19.5	Aftbay=19.7 1st_check gate = full open 2nd_check gate = 24" open 3rd check gate = full open (45'+)	aftbay=19.05	no data	aftbay=20.05	aftbay=19.90
Submergence Marks?	no	no	no	no	no	no info	no	no
Stoplogs?	yes	yes	yes, behind all screens	yes	yes	no info	yes, behind all four screens	yes
Louvers?	NA	NA	NA	NA	NA	NA	NA	NA
Head Loss?	no	yes, 1.5" across Screen 4, less than 1" on other screens	1.5"	yes, 4.5" difference.	no info	no water	No. 3/4"	No. 1/4"
Screen Material Condition	#4 has a 1/4" depression	good except a possible gap at Screen #2.	good, but video showed possible gap at Screen 4.	no info	Good; covered in diatoms	no data, except that the log book said a State inspection on 8/19 showed a big gap at Screen 3 and a dent in Screen 4. Both were fixed on 8/20/98.	Covered in brown diatoms. Scr.1&3 algae strands. Bare patches all & 8' circles 4.	All screens are brown, but not blocking water. 4 has rubbed spots from sand.
Seal Condition	no info	good	good	no info	good. Video says there could be a stick in Screen 1's seal.	no info	good	Downstream 3 seal is a little chewed up.
Drums Turning Evenly?	yes	yes	yes	yes	yes	turned off	yes	yes
Debris Anywhere?	some in bypass immediately after the weir ramp and before the bypass outlet pipe	yes, 11.5" sediment in bypass	a few sticks & twigs in front of Screen 4; clean elsewhere	lots of sediment	lots of silt	lots of algae growth in the fore aft bays	Few sticks in trashrack. Cleaning regularly.	Pile of silt in aftbay.
Cleaning System Working?	yes	yes	yes	No information	yes	NA	Yes.	Yes.
Submergence (% of 48")	66.7	80.2	79.2	88	? No real measurement taken. Judging from forebay depth, approximately 75%	not much water	91%	
Flow over Weir? How much?	yes, 4.5"	yes, 3"	yes, 3.5"	yes	No; bypass closed.	not much water, therefore none going over weir	Yes. 15"	Yes. 8"
Gage to Measure Weir Crest?	no	no	no	no	no	no data	no	no
Weir Full Open? If not, how many inches to go?	no information	no, 11" to go	no, half open	yes	No, completely closed.	no data	No. 3"	No. 6.5"
Water Running Freely behind Weir?	yes	yes	slow but constant	No. Backed up due to high stream flow - submerged.	No, closed.	no data	yes	yes
Depth of water in outfall pipe	pipe is submerged	pipe is submerged	full pipe (12")	pipe is submerged		none	pipe is submerged	pipe is submerged
Outfall Running Smooth?	pipe is submerged	yes	slow (pooling)	yes	No discharge.	no water	yes	yes
Debris at End of Pipe?	no	no	yes	no	no	no info	no	no
Discharge Area ≈ 1 ft?	yes	yes	yes	yes	Yes, but water gets shallow 3 meters downstream.	no data, but probably not since all water is being diverted to WIP Upper.	yes	yes

General Observations, continued

Date	Bachelor Hatton 4/30/97	Bachelor Hatton 6/24/97	Bachelor Hatton 7/9/97	Bachelor Hatton 5/7/98	Bachelor Hatton 6/30/98	Bachelor Hatton 9/14/98	Bachelor Hatton 5/12/1999	Bachelor Hatton 7/15/99
Silt	4" at bypass entrance		silt & debris on top of Sill #4.	Sediments found in front of screens include gravel & large cobble upstream (1), cobble & sand (2), gravel (3), and then nothing from the middle of Screen 3 to the bypass. The bypass may have been blocked with sand (?).	7-8" in front of Screen 4, but this conflicts with the video notes that said 4 was clean.	It had been cleared out just prior to the inspection.	Sed. began 2" scr.2, 15" scr.3, 10" scr.4-Can't see bottom so much.	Lots of sediment at screen 4, some at 3.
Comments			replanting of trees across from outfall after flooding; saw a fish in front of Screen #4.	Poor approach channel hydraulics. Screen not operating within the design criteria.	Bypass is closed. Supposedly still open on 29th. Log said closing bypass may not be the answer yet.	The site had been pretty dry for 1.5 months as water was diverted from that site by WIP Upper.	#12,13,14 had to hold above because so much sed. Report no juv. fish seen yet. Coho juv. seen mouth of Aht.Crk.in fall. Gap at #2.	New rock pile at outfall creating pool. Gap in screen 3. Debris at 4 and bypass.

1997 Underwater Video & Photos: Bachelor Hatton



1998 Underwater Video & Photos: Bachelor Hatton





1999 Video Summaries

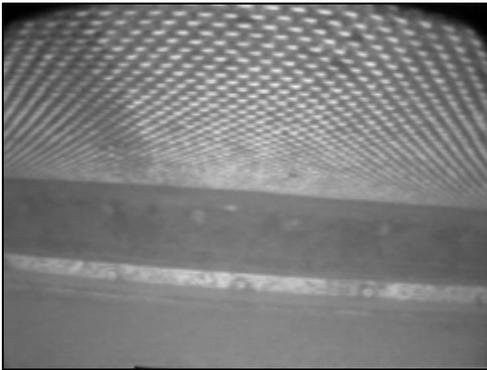
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Where,

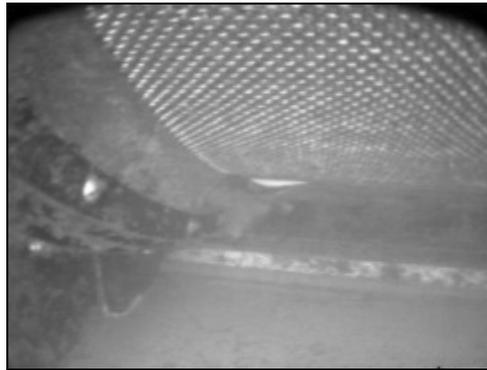
99_0512 = Date (descriptors) AVG : average screen picture
 BachelorHatton = Site G : gap
 1 = screen (B = bypass; F = forebay) D : debris, sticks, leaves, ect.
 AVG = descriptor (see right) S : sediment, sand
 T : trash
 P : plant or algae growth
 C : loose, missing, pouching, worn caulking/seal
 R : repair/patch
 F : fish

Screen Site	Date (Tape #)	Location (screen # & VCR counter)	VCR Counter	Notes	Photos	Descriptor
Bachelor Hatton	5/12/99 (1)	1 0:00:34	0:01:01	small pile of sand	0:02:15	AVG
		2 0:03:42	0:05:08	large gap in corner, also along seam	0:05:08	G1
			0:05:34	possible gaping along seam	0:05:35	G2
		3 0:07:30	0:08:14	sticks in corner and along drum	0:09:00	D1
			0:09:33	sand & sticks piled up to seam		
			0:10:31	piling up over seam & up drum	0:10:40	D2
		4 0:11:50	0:12:21	branch and sand pile; can't see seal		
			0:12:58	large sticks along bottom	0:13:09	
		0:13:35	sticks coming up over seal to drum	0:13:32	D3, D4	
	Bypass 0:15:11	0:15:21	sand & stick piles	0:15:46	D5	
Bachelor Hatton	7/15/99 (2)	1 1:16:04				
		2 1:17:54	1:18:20	gap in corner		
		3 1:21:11	1:23:15	gaping from corner to middle		
			1:24:48	sand pile begins		
			1:25:04	sand and debris up over seal		
			1:25:31	debris piled up and over corner seal		
		4 1:26:07	1:26:28	large sticks in corner		
	1:27:17	debris up and over seal				
	Bypass 1:28:29	1:28:41	debris and sand			

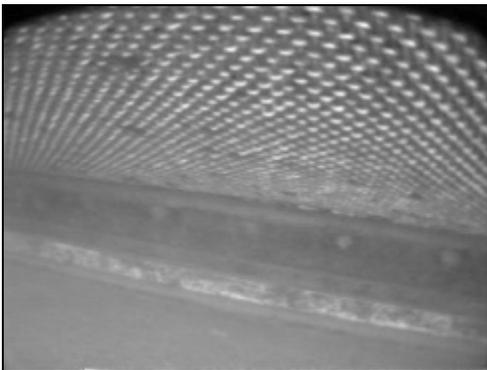
1999 Underwater Video Images: Bachelor Hatton



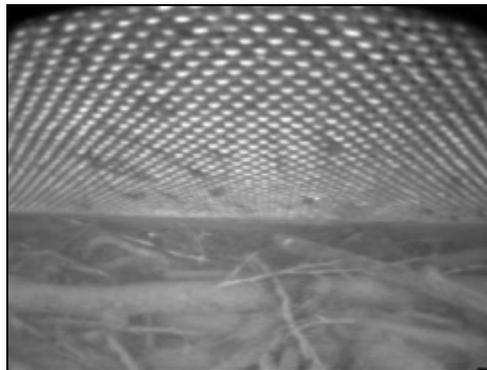
Bachelor Hatton: AVG



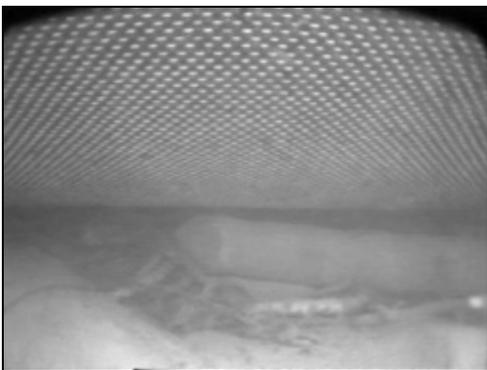
G1



G2



D1



D3



D4



D5

1999: Bachelor Hatton

