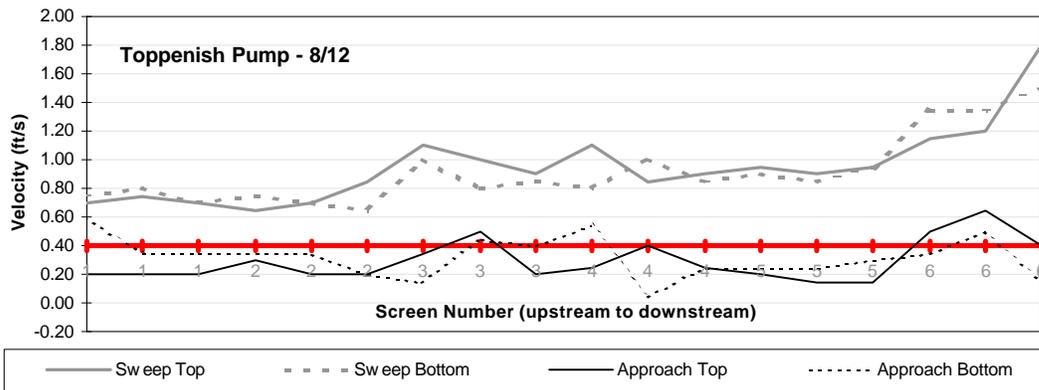
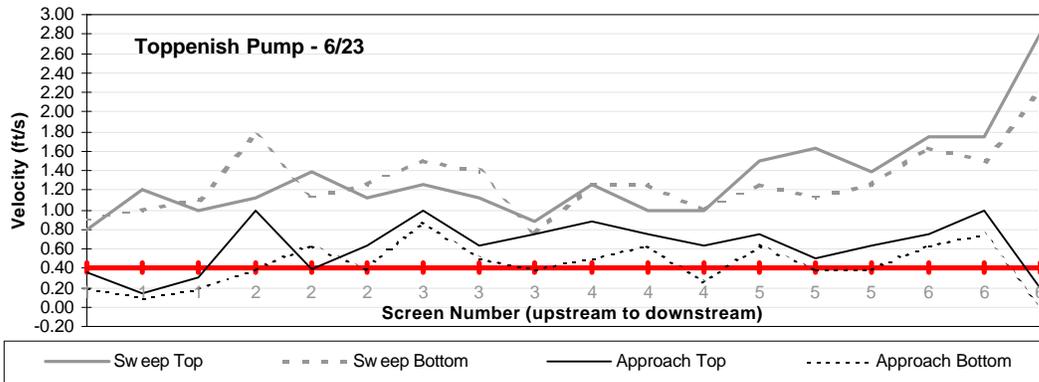
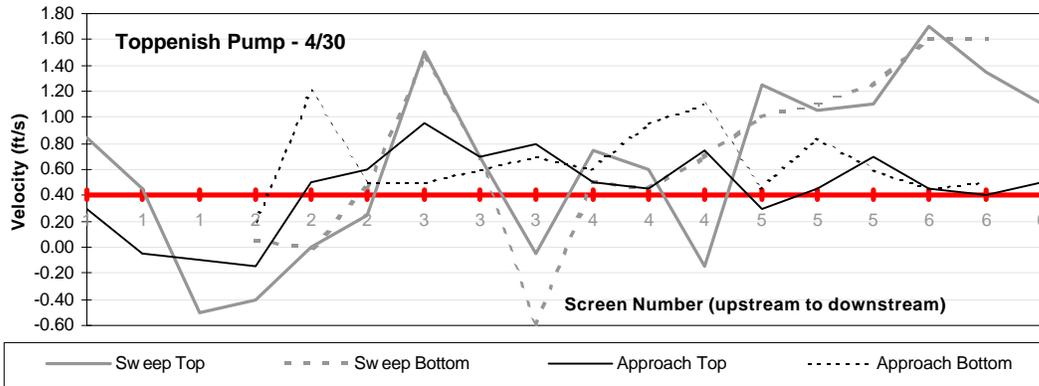
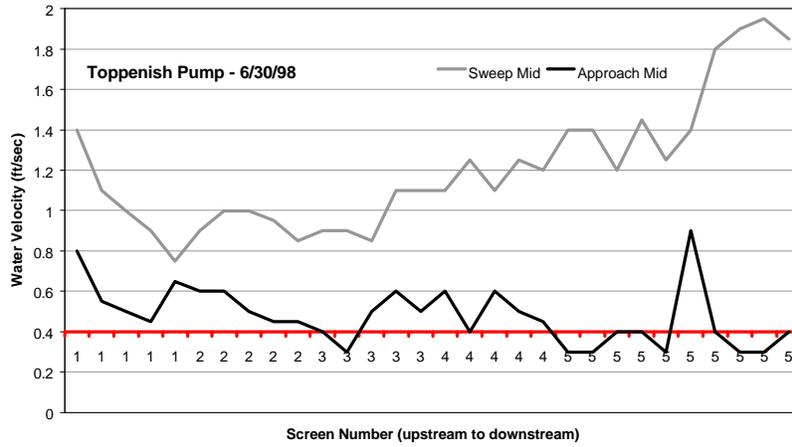


# Water Velocities: Toppenish Pump

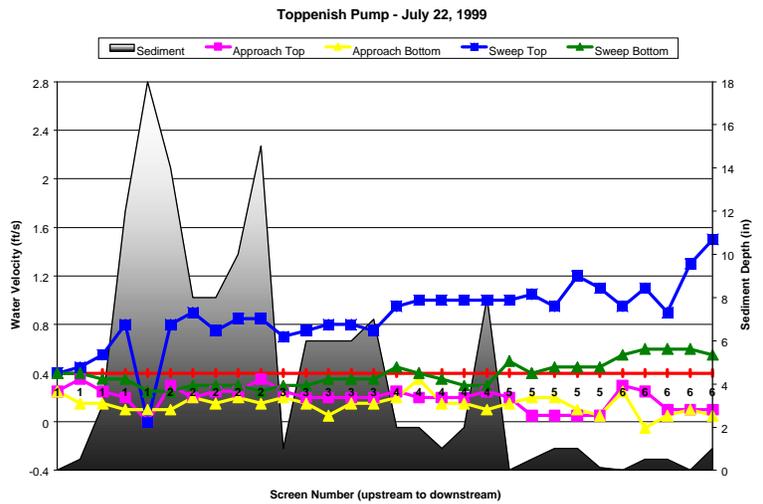
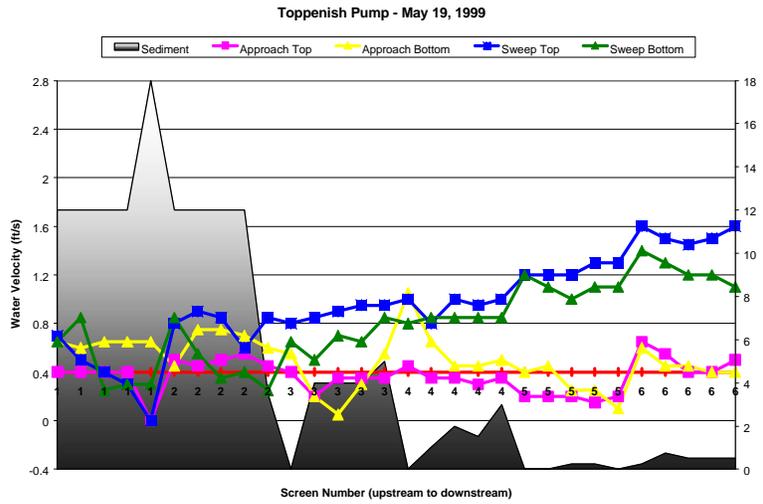
1997



1998



1999



General Observations: Toppenish Pump

Date	Toppenish Pump 4/30/97	Toppenish Pump 6/23/97	Toppenish Pump 7/10/97	Toppenish Pump 8/12/99	Toppenish Pump 6/30/98	Toppenish Pump 5/19/1999	Toppenish Pump 7/22/99
Staff Gages?	aftbay=2.6	forebay=2.5 aftbay=2.35	no info	forebay=2.4 aftbay=22.3	forebay=2.1 aftbay=2.0-1.9; (caked with mud)	forebay=2.74 aftbay=2.50	forebay=2.66 aftbay=2.56
Submergence Marks?	no	no	no	no	no	no	no
Stoplogs?	yes	yes, behind screens 1,2,3,and 6	yes	yes, behind the four downstream screens	yes	yes	yes
Louvers?	NA	NA	NA	NA	NA	NA	NA
Head Loss?	no	yes, 2" at #s 1 and 6, 1" at #2	1"	1/2"	1"	Yes. 1.5"	No. 3/4"
Screen Material Condition	good	#1 covered in thick algae, #s 2-6 clean (b/c of silt build-up)	no info	good	covered in diatoms	Scr.4&3 buildup of diatoms. Rest clean.	1 & 2 clean, rest have some brown algae.
Seal Condition	good	good	Screen #2's upstream side seal is tucked under	Screen #2's upstream side seal is still tucked under	good	Good. Scr.1 worn at top.	good
Drums Turning Evenly?	drum #1 not rotating	drum #1 not rotating	Screen #1 not operating	yes	Yes, except screen #6 (upstream), is turned off for some reason.	yes	yes
Debris Anywhere?	some sticks & cans between Screen #3 & its porosity boards; 15" of sticks in bypass past weir;	some small sticks and leaves that can't roll over the screens	lots of sticks & debris (garbage/styrofoam) in front of screens 1,2,3,4, and 6. Log floating in bypass. Silt in many places too.	woody debris on trashrack and at bypass entrance	4-6" of silt in the forebay, more upstream than downstream.	Trashrack has sticks and part has come away from concrete.	Cattails and woody debris at trashrack, some possibly getting through.
Cleaning System Working?	debris is passing over, but sometimes getting stuck between the screen & porosity boards	can't move the small sticks	no info	yes	yes	Yes. Moving woody debris over.	Yes.
Submergence (% of 48")	81.7	75.0	~83	75.8	very low (~78% from forebay depth reading?)	81.0	
Flow over Weir? How much?	yes, 30"	no weir in place; just 54-57" of water flowing out bypass pipe	no real weir	no weir in place	yes	59.5" far end of bypass.	NA
Gage to Measure Weir Crest?	no	no	no	no	no	no	NA

General Observations, continued

Date	Toppenish Pump 4/30/97	Toppenish Pump 6/23/97	Toppenish Pump 7/10/97	Toppenish Pump 8/12/99	Toppenish Pump 6/30/98	Toppenish Pump 5/19/1999	Toppenish Pump 7/22/99
<b>Weir Full Open? If not, how many inches to go?</b>	board seems to have been placed in bypass that allowed 30" of water to flow under it and to block most of the upper 30" of water	yes; no board in place	yes; no board in place	yes; no board in place	No weir control	yes	NA
<b>Water Running Freely behind Weir?</b>	may be slightly backed up - lots of debris on the bottom and some floating on top	yes	yes	yes	yes	yes	yes
<b>Depth of water in outfall pipe</b>	pipe is submerged	pipe is submerged	pipe is submerged	pipe is submerged	full	pipe is submerged	pipe is submerged
<b>Outfall Running Smooth?</b>	pipe is submerged	yes	no, must have been jammed with soil and debris. Teachers cleared it and then it ran freely	yes	yes	Yes. Little evidence of movement.	yes
<b>Debris at End of Pipe?</b>	no	lots in a mat on the surface; none below near actual outfall exit	yes, until teachers cleared it	a vegetation mat is growing on top; eddies are causing debris to build up	Lots of debris on surface of outfall 4" deep (sticks, etc.)	no	Stick holding back debris. Group of debris caught in eddy.
<b>Discharge Area ≈ 1 ft?</b>	yes	yes	yes	yes	yes	yes	yes
<b>Silt</b>	no info	Screens#1and 2=no silt; Screen #3=2-3" sand; Screens#4and5=4" sand, Screen #6=no sand	8" at #1; 3-6" in front of #s 2-5; no silt at #6	#1=4-5"silt; #2,3=3"silt; #4=1-2"silt; #5,6=0"silt	4-6" in forebay, more so upstream.	Branches at screens scr.1,2,3,4. Buildup of 4" sed. scr.3-4. Sed. of 1" other screens.	Silt all the way across, up to 18" at beginning and small amounts at end.
<b>Comments</b>	no video	too dark (turbid) to run video		Screen #1 was cleaned and working again. Water was very turbid so couldn't see the bottom seals. Fish in aftbay-look like shiners.	Water in canal seems to be low and turbid. Could not see the bottom seal very well. Submergence is very low (though no numbers are given)	No video. Couldn't always get probe down due to silt.	Lots of sediment and debris piles covering seals.

1997 Photos: Toppenish Pump



1999 Underwater Video: Toppenish Pump

Screen Site	Date (Tape #)	Location (screen # & VCR counter)	VCR Counter	Notes	Photos	Descriptor
Toppenish Pump	7/22/99	<b>Battery Failure so Notes Only</b>				
		1	0:00	sediment and sticks build up in middle possible gap in side seal		
		2	3:00	sticks in the downstream corner sediment over seal in upstream end		
		3	3:59	logs and sticks in downstream corner sediment covering seal		
		4	5:57	sticks in both corners twigs in downstream corner		
		5	6:56	brush pile in upstream corner		
		6	9:58	lots of sticks in downstream corner		
		Bypass	12:02			

1999 Photos: Toppenish Pump

