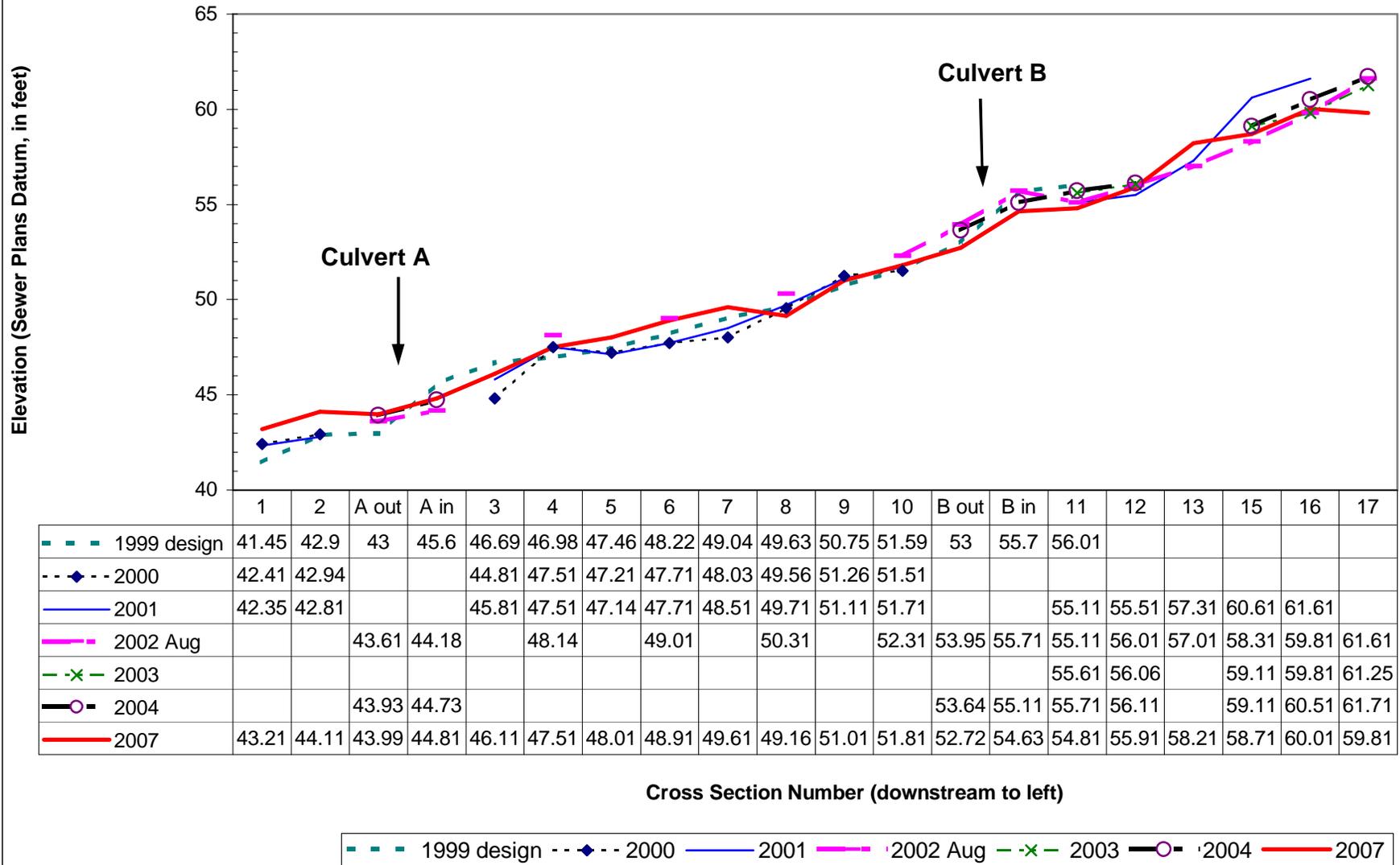


Appendix C

Culvert Replacement Area Survey Data

Figure C1. Thalweg Elevation Changes at Surveyed Cross Sections



Elevation Changes at Cross-Sections and Culverts

XS# or Culvert	average elevation change(ft) 2001-2007	thalweg elevation change (ft) 1999-2001	thalweg elevation change (ft) 2001-2007
1	1.2	0.9	0.9
2	0.9	-0.1	1.3
Culvert A outlet	0.2	0.6	0.4
Culvert A inlet	0.6	-1.4	0.6
3	-0.4	-0.9	0.3
4	-0.3	0.5	0.0
5	0.5	-0.3	0.9
6	1.1	-0.5	1.2
7	0.7	-0.5	1.1
8	0.4	0.1	-0.5
9	0.7	0.4	-0.1
10	0.6	0.1	0.1
Culvert B outlet	-1.0	1.0	-1.2
Culvert B inlet	-1.1	0.0	-1.1
11	-0.6	-0.9	-0.3
12	-1.7		0.4
13	-0.1		0.9
15	-1.2		-1.9
16	-1.4		-1.6
17	-1.4		-1.8

Notes

1. Culverts and XS17 used 2002 elevation as no 2001 measurements were made.
2. XS 17 elevation change is from 2002-2007.

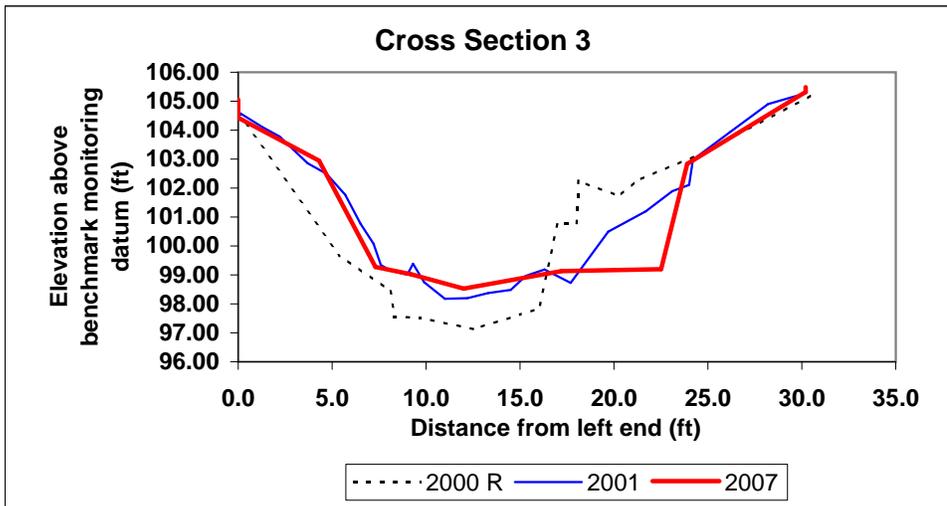
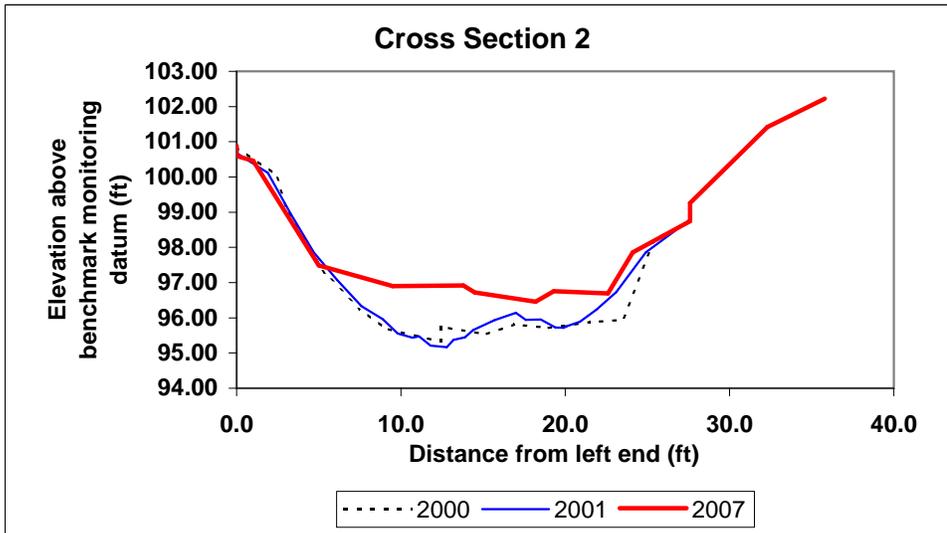
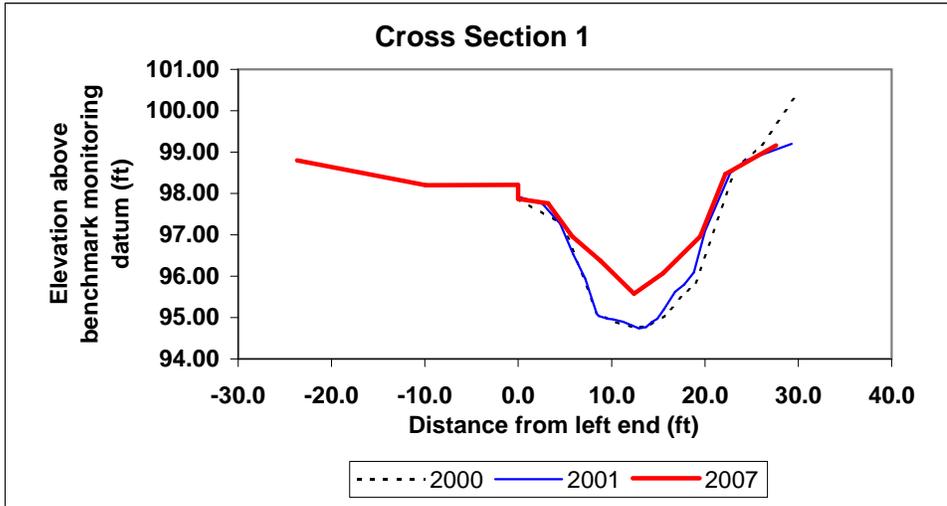
Table C2. Sediment Volume Changes and Rates in Culvert Replacement Area, Calculated from Repeated XS Surveys

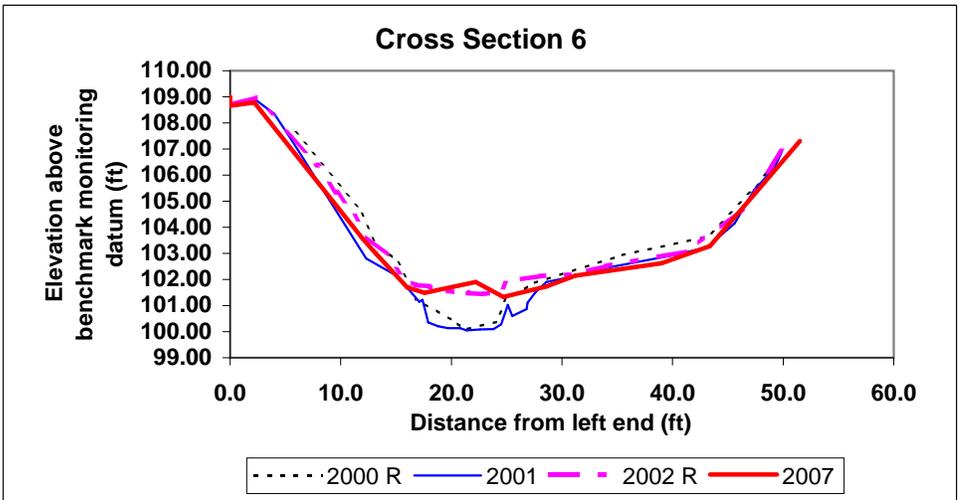
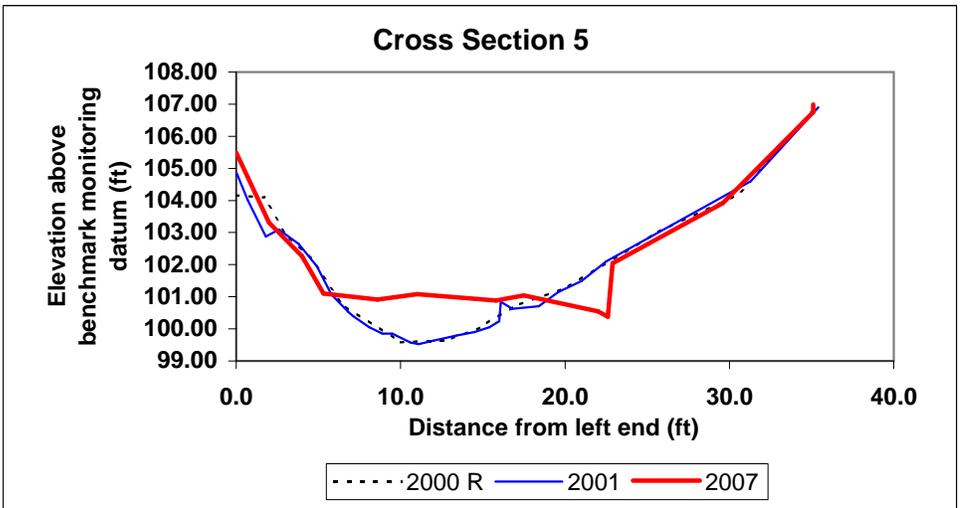
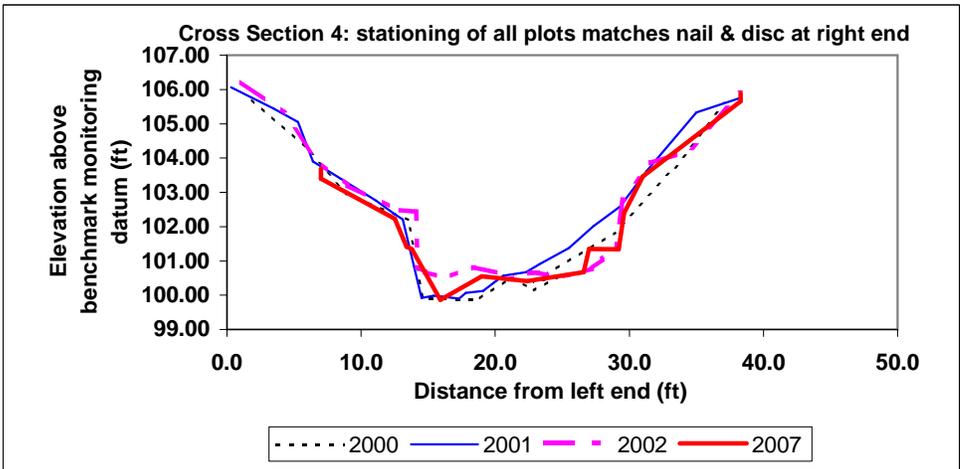
XS #	Station (ft)	Representative Distance (ft)	Date of First XS Survey	+ is up, - is down			+ is up, - is down			+ is up, - is down		
				XS Area Change (sq ft)			Volume Change (cu yd)			Deposition or Scour Rate (cu yd)		
				2001-2002	2002-2007	2001-2007	2001-2002	2002-2007	2001-2007	2001-2002	2002-2007	2001-2007
	24	56				6.00			12			2.1
1	96	50	2000			12.47			23			3.8
2	138	10	2000			15.28			6			0.9
Culv A out	146	48	2002		2.66	2.66		5	5		0.9	0.8
Culv A in	230	47	2002		7.74	7.74		13	13		2.7	2.2
3	241.5	8.5	2000			-6.18			-2			-0.3
4	250	13.5	2000			-4.04			-2			-0.3
5	264	18	2000			8.21			5			0.9
6	286	23	2000			12.89			11			1.8
7	310	21	2000			21.18			16			2.7
8	327	24	2000			12.00			11			1.8
9	359.5	30	2000			15.80			18			2.9
10	384	45	2000			14.05			23			3.9
Culv B out	422	43	2002	13.3	-14.41	-14.41	0	-23	-23		-4.6	-3.8
Culv B in	500	44	2002	0	-14.85	-14.85	0	-24	-24		-4.8	-4.0
11	509	15	2001	-12.70	-2.03	-14.73	-7	-1	-8	-7.1	-0.2	-1.4
12	532	17	2001	-26.29	-7.19	-33.48	-17	-5	-21	-16.6	-0.9	-3.5
13	577	49	2001	-17.68	16.28	-1.40	-32	30	-3	-32.1	5.9	-0.4
15	597	21	2001	-46.30	14.73	-31.57	-36	11	-25	-36.0	2.3	-4.1
16	625	25	2001	-43.86	6.15	-37.71	-41	6	-35	-40.6	1.1	-5.8
17	639	20	2002	no 2001 XS	-31.72	-31.72	0	-23	-23		-4.7	-3.9

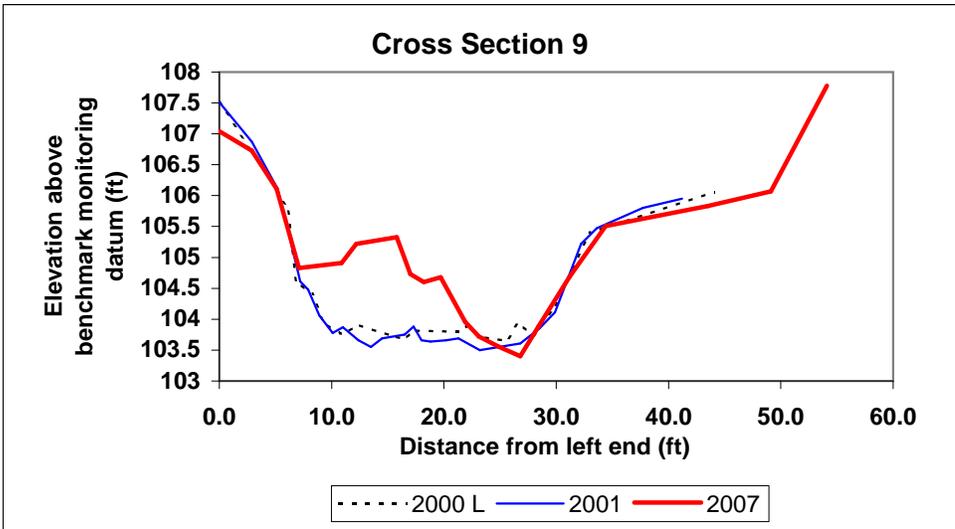
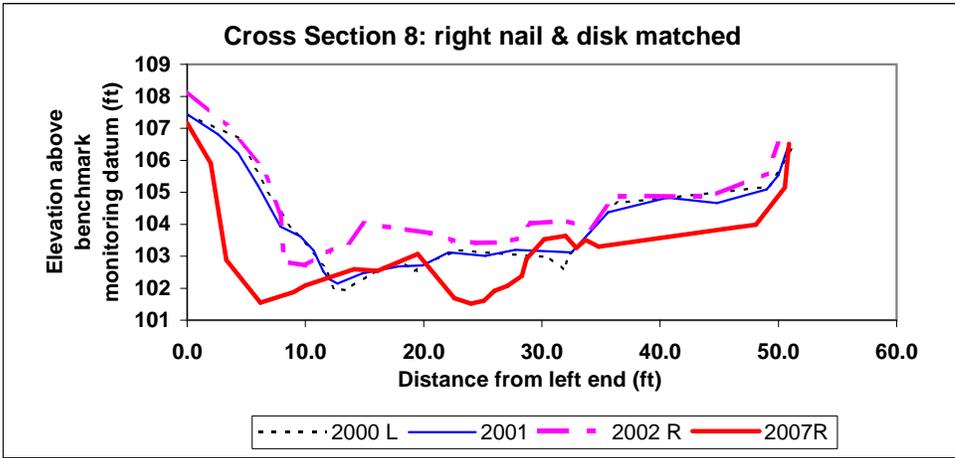
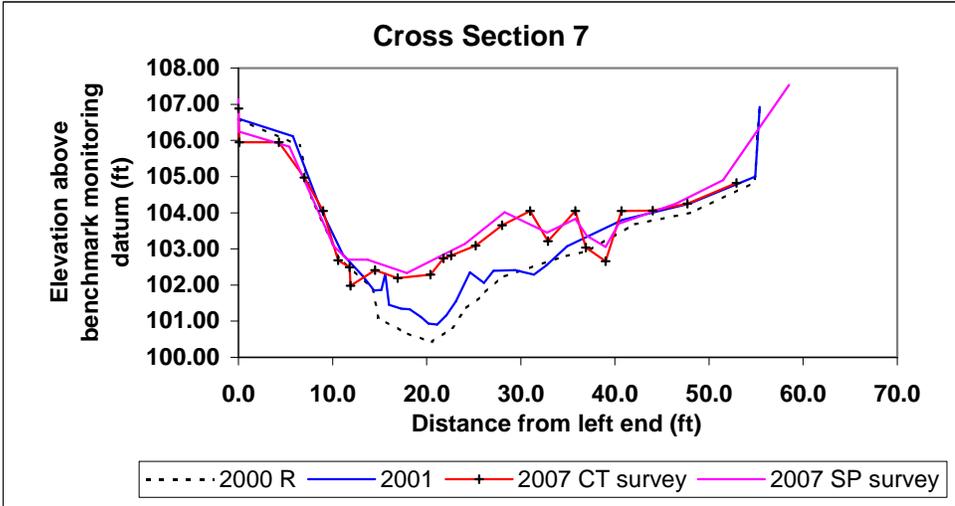
shading means estimated from another time period

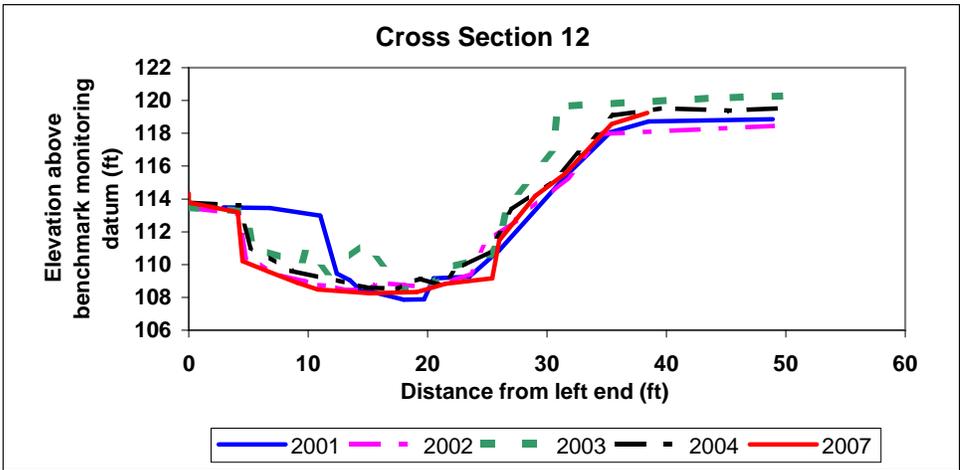
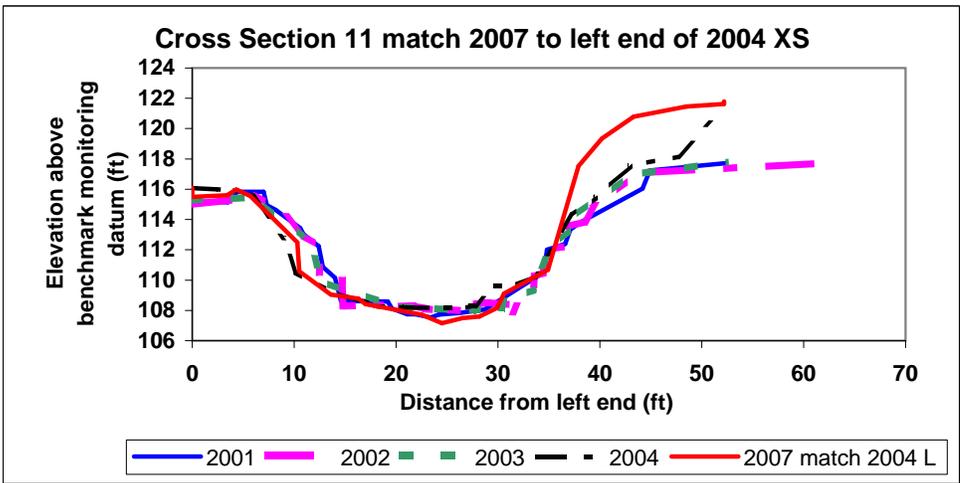
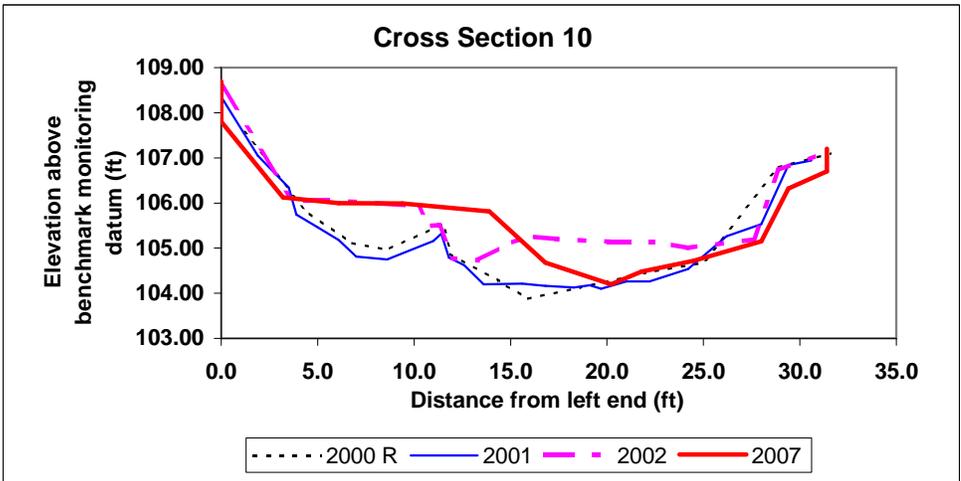
Net 2001-2007 volume change for entire culvert area (cubic yards): -22

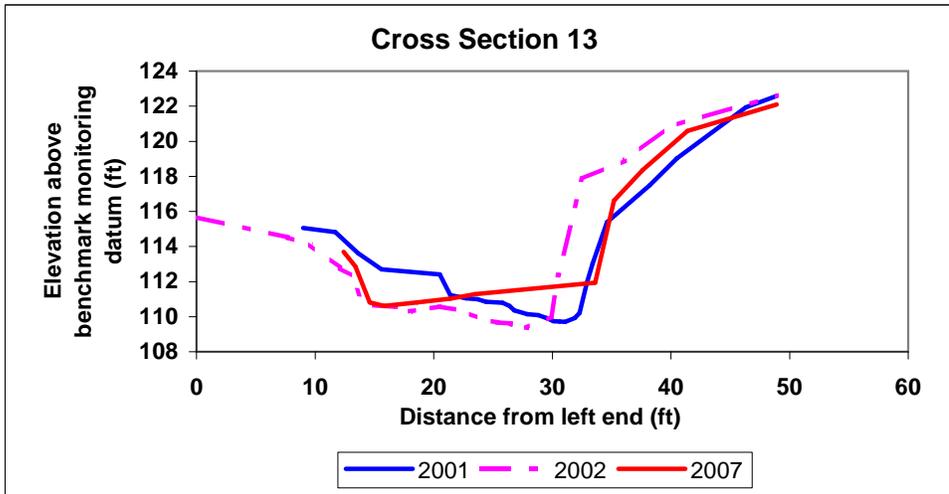
Figure C2. Cross-section plots (see Figure 13 for site map)











NOTE: there is no XS 14.

