Summary- Stream Flow (cu ft/sec) Walsh Creek and Driggs River

	Walsh Creek (M-28 Bridge)	Walsh Creek Farm	Driggs Diversion Ditch
9/18/02	not measured	7.48	63.44
6/28/01	30.05	39.47	90.63
8/30/01	2.99	6.65	61.05
7/1/02	14.42	18.25	102.75
Water Quality			
PH			
6/28/01	7.2	7.04	7.6
8/30/01	7.04	7.04	7.9
7/1/02	6.98	7.05	7.1
9/18/02	no report	7.86	7.8
Temp- C			
6/28/01	no report	no report	18
8/30/01	14.8	14	13.6
7/1/02	no report	no report	no report
9/18/02	no report	13.7	17.6
Oxygen-mg/l			
6/28/01	no report	no report	no report
8/30/01	7.1	no report	6.3
7/1/02	no report	no report	
9/18/02	no report	7.5(10.8 temp)	9.3(13.8 temp)
Cond			
6/28/01	149	156	128
8/30/01	165	177	142
7/1/02	167	176	141
9/18/02	no report	191	142
Alk-mg/l			
6/28/01	68	68	81
8/30/01	80	71	60
7/1/02	65	69	52
9/18/02		74	56

Stream Flow measurments

Walsh Creek Near M-28

Distance (ft)	3	3	3	3	3.5
Depth	1.3	2.05	2.2	2	2.55
Flow (ft^3)	0.36	0.61	0.4	0.2	0.47
Volume(ft^3)	1.44	3.752	2.64	1.2	5.39
Total					**14.42 ft^3/sec**

Walsh Creek Near Farm

Distance (ft)	3	3	3	3	3
Depth (ft)	0.9	1.4	1.4	1.5	0.4
Flow rate (ft^3)	0.27	1.05	1.59	1.27	0.6
Volume (ft^3)	0.729	4.41	6.678	5.715	0.72
Total					**18.25 ft^3/sec**

Driggs River Bridge by C-3

Distance (ft)	7.25	7.25	7.25	7.25	7.25	7.25
Depth	0.9	0.7	1	1.7	1.5	2.4
Flow Rate (ft^3)	1.14	1.67	1.84	1.7	1.88	1.87
	7.438	8.475	13.34	20.952	20.445	32.338

= 102.756 ft^3/sec

Inserted 7-1-02
Josh and Bo

File name - sf02.xls hard drive group room

Stream Flow Measurements

Walsh creek @ M28 bridge 08/30/2001

Distance (ft)	3	3.5	3	3	3.5	
Depth (ft)	?	1.8	1.6	0.8	?	
Flow rate (ft)	0	0.18	0.18	0.39	0	
Volume (ft^3)	0	1.134	0.864	0.936	0.06	
Total						**2.994 $ft^{3/sec}$**

O_2=7.1 mg/l
^{0}C=14.8
Conductivity=165
pH=7.04
Alkalinity=80
Hardness=92

Walsh Creek Farm Bridge 08/30/2001

Distance	4.5	3	3	1.5	
Depth	0.9	1.1	0.7	?	
Flow Rate	0.49	1.09	0.51	0	
Volume	1.985	3.597	1.071	0	6.653
Total					~~6.653~~ $ft^{3/sec}$

^{0}C=14
Conductivity=177
pH=7.04
Alkalinity=71
Hardness=82

Marsh Creek @ C3 (Walsh Ditc h 08/29/2001

Distance	3	5	5	5	5	5	5	
Depth	?	0.8	0.9	0.5	0.5	0.8	0.7	
Flow Rate	0	0	0.16	0.29	0.39	0.38	0.33	
Volume	0	0	0.72	0.725	0.98	1.52	1.155	
Total								**5.095$^{ft3/sec}$**

0_2=7.7
^{0}C=16.5
Conductivity=178
pH=7.78
Alkalinity=79
Hardness=89

Driggs River @ M28 08/29/2001

Distance	2.5	3	3	3	3	3	3	3	3	4.5	
Depth	?	0.9	1.1	2.3	1.7	1.65	2.3	2.7	2.5	?	
Flow Rate	0	0.5	0.81	1.54	1.55	1.8	1.26	1.67	0.09	0	
Volume	0	1.35	2.673	10.63	7.91	8.91	8.694	13.527	8.175	0	
Total											**61.05$^{ft3/sec}$**

0_2=6.33 mg/l
^{0}C=13.6
Conductivity=142
pH=7.9
Alkalinity=60
Hardness=66

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Driggs River @ C3 bridge 08/29/2001

Distance	10.5	7	7	7	7	7	10.5	
Depth	0.5	0.5	0.7	0.8	1	1.4	1	
Flow Rate	1.03	1.22	1.45	1.65	1.85	1.86	0.69	
Volume	5.408	4.27	7.05	9.24	13	18.228	7.245	
Total								**64.39ft$^{3/sec}$**

0_2=~~29~~ pH=7.84

^{0}C=16.3 Alkalinity=61

Conductivity=138 Hardness=67

Driggs River @ M2-road bridge 08/29/2001

Distance	7.5	5	5	5	5	5	2.5	
Depth	1.8	1.7	1.5	1.5	1.3	1	?	
Flow Rate	1.45	1.75	1.62	1.83	1.71	1.36	0	
Volume	19.58	14.875	12.15	13.73	11.1	6.8	0	
Total								**78.24ft$^{3/sec}$**

0_2=7.9 pH=8.25

^{0}C=19.3 Alkalinity=57

Conductivity=136 Hardness=64

Driggs River @ Chicago Farm Bridge 08/29/2001

Distance	1	6.5	5	5	5	5	6	3.5	
Depth	?	1.4	2.7	2	1.5	1.3	0.8	?	
Flow Rate	0	1.19	1.29	1.75	1.75	1.64	1.64	0	
Volume	0	10.829	17.42	17.5	13.1	10.66	7.872	0	
Total									**77.401ft$^{3/sec}$**

0_2=7.3 pH=7.99

^{0}C=18.8 Alkalinity=61

Conductivity=138 Hardness=65

Walsh Creek Ditch @ Walsh Farm Bridge

Speed(S)	1.34 ft/sec	1.85	2.42	1.95	1.14
Depth(De)	1.1 ft	1.7	1.8	1.8	1.5
Distance(D)	3.75 ft	2.5	2.5	2.5	3.75
S*De*D	5.53 ft^3/sec	7.86	10.89	8.78	6.41
Total Volume					**39.47 ft^3/sec**

Creek width=15'
5 points were sampled across the river
Ph=7

Walsh Creek at M-28

Speed	1.21	1.15	1.03	0.83	0.87
Depth	1.8	1.95	2.1	2.05	1.6
Distance	3.75	2.5	2.5	2.5	4.75
S*De*D	8.17	5.61	5.41	4.25	6.61
Total					**30.05 ft^3/sec**

Creek width=16'
5 points sampled
Ph=7.18

Driggs River-225 yards down stream of old Walsh Creek bed

Speed	0.97	1.11	1.61	2.03	1.89	1.93	1.45	1	0.49
Depth	1.5	1.1	1.2	1.85	1.9	1.85	0.9	1.2	0.25
Distance	5	5	5	5	5	5	5	5	4
S*De*D	7.28	6.1	9.66	18.78	17.96	17.85	6.51	6	0.49
Total									**90.63 ft^3/sec**

River width=44'
9 points sampled
Ph=7.61

Stream Speed*Depth*Distance=Volume

06/28/2001

Inserted 11-01-01 BM

SAMPLE SITE DRIGGS RIVER

DATE	TEMP C	pH	CONDUCTIVITY	ALKALINITY	TURBIDITY	IRON
8/6/96	19.3	7.92	105	40	52	>1.3
5/14/97	7.2	7.10	72	26	56	1.8
9/18/97	13.7	7.87	132	56	15	0.65
4/30/98	10.4	7.37	120	46	1	1.1
6/22/99	18.0	7.38	129	56	nr	nr
9/16/99	14.6	7.78	137	61	39	0.8
5/15/00	14.3	8.08	135	62	2	1.02
4/16/01	4.2	6.53	76.8	nr	nr	nr

6/28/01

Special sampling with flow measurements approx 250 yds below confluence with old Walsh Creek

pH	7.61	
conductivity	128	us/cm
temp	18	C
alkalinity	81	gm/l
hardness	59	gm/l
color	9	FTU
SiO2	0.68	gm/l
tannic acid	1.40	gm/l
Slow	90.63	ft³/sec

inserted 7-17-01 JM

sited

SAMPLE SITE WALSH CREEK

DATE	TEMP C	pH	CONDUCTIVITY	ALKALINITY	TURBIDITY	IRON
8/6/96	19.2	7.9	63	42.0	39	0.66
5/14/97	6.8	6.9	59	17.0	17	nr
9/18/97	14.3	7.4	144	62.0	33	>1.3
4/30/98	9.3	7.2	103	37.0	22	>1.3
6/22/99	18.6	7.4	142	74.0	nr	nr
9/16/99	10.3	8.0	173	78.0	164	nr
5/15/00	14.5	7.8	124	51.0	16	>1.3
4/16/01	4.9	6.5	35.9	nr	nr	nr

6/28/01 Special sampling along with flow measurements at M-28 bridge and at Walsh Farm bridge

		M-26 Bridge	Walsh Farm Bridge
pH		7.2	7.0
conductivity	us/cm	149.0	156.0
alkalinity	gm/l	68.0	68.0
hardness	gm/l	71.0	71.0
color FTU		30.0	30.0
SiO2	gm/l	0.8	0.8
iron	gm/l	or2x *	or2x *
tannic acid	gm/l	3.3	3.3
flow	cf3/sec	30.05	39.47

inserted 7-17-01 by SM