

REPORT OF THE 1968 SURVEY OF SEDIMENT BELOW
STREAM GAGE SITES 1, 2, AND 3 ON THE
H. J. ANDREWS EXPERIMENTAL FOREST

By Ross Mersereau

The only treatment on watershed 1, 2, and 3 this year has been the remodeling of a section of the L220 Road (G Road) and a section of the L240 Road (J Road). These two sections of road had slid out during the December 1964 storm. Repair work had started on the section on the L220 Road during the summer of 1967, and soil was pushed into the creek bed and piled on the road. With repair barely started, the work was stopped long before the winter rain arrived. The job was not completed until the summer of 1968. The repair of the section on the L240 Road was also completed during the early summer 1968.

On watershed 1, it has been 2 years since completion of logging and slash burning.

On watershed 3, three winters have passed since the slides of December 1964, and it has been 5 years since logging and 9 years since road construction.

Measurements

Elevation measurements were consistent with those used in previous years.

The problem created by large differences in "line of sight" measurements during surveying was virtually eliminated during the 1968 survey by using two survey rods. One was used in the basin survey; the other was fastened on or near the bench mark and checked at the beginning of each line or when there was good reason to suspect that the level might have been moved.

At watershed 3, the elevation of the auxiliary spike, established in 1966, was found to be even lower than in 1967. This difference in elevation was taken into consideration during calculation of the "average bottom elevation."

Secondary auxiliary bench marks were established this year at watersheds 1 and 2. At watershed 1, the secondary auxiliary bench mark was established on a large boulder along the stream between the waterfall and the entrance to the basin. At watershed 2, the secondary auxiliary bench mark was established on the Douglas-fir stump standing along the trail between the road and the basin exit.

Calculations

Sediment accumulation was determined by the procedures outlined in 1959 by Sturges.

Because of the very small differences found by prorating "line of sight" errors last year, the "line of sight" figures of the August 1967 survey of watershed 3 and the initial survey of watershed 1 and 2 were averaged for this report and the resulting average used as "line of sight" figures on Table 1.

The elevation of the auxiliary spike, established in 1966, on the dam at watershed 3 was checked against the bench mark at the flume several times. The various differences were averaged, and the spike was found to be .009 ft. lower in elevation. This difference was subtracted from the 1968 "average bottom elevation" before the "change in average bottom elevation" figure was computed.

Discussion

Several techniques were employed this year, to survey the sediment basins, which have not been used in the past. One of these, the use of two survey rods, not only save time during the actual survey but enabled us to discover any errors in "line of sight" readings at a time when they could be corrected. Also, this method made computation of the bedload volume easier and more accurate. Also, checking the elevation of the auxiliary spike at watershed 3 more than once has produced a more dependable elevation and, therefore, a more accurate bedload volume measurement. Use of these techniques in subsequent surveys is recommended.

It should be borne in mind that accurate measurement gives at best a minimum estimate of bedload volume, since the physical layout of the basins is such that some of the bedload escapes during high water.

TABLE 1. SEDIMENT ACCUMULATION 1967-68

Year	Number of Points	Line of Sight	Average rod Reading	Average bottom Elev.	Change of Bottom Elev.	Basin area in Sq. ft.	Total Accum. in cu. ft.	Average Accum. Cu. ft./ Acre
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Watershed 1 -- 237 acres

1967								
Aug.	35	114.251 ^{1/}	6.747	107.504				
	<u>189</u>	114.246	8.865	<u>105.381</u>				
Total	224		Wt. Ave. =	<u>105.713</u>				
1968								
Aug.	64	114.199	6.654	107.545				
	<u>160</u>	114.200	6.678	<u>107.522</u>				
Total	224		Wt. Ave. =	<u>107.529</u>	1.816	2133	3873.528	16.344

Watershed 2 -- 149 acres

1967								
Aug.	121	108.067 ^{2/}	8.266	99.801				
	<u>89</u>	108.061	7.384	<u>100.677</u>				
Total	210		Wt. Ave. =	<u>100.172</u>				
1968								
Aug.	105	107.696	7.882	99.814				
	72	107.478	7.348	100.130				
	<u>33</u>	107.475	6.025	<u>101.450</u>				
Total	210		Wt. Ave. =	<u>100.179</u>	.007	1887	13.209	.089

*Watershed 3 -- 250 acres

1967								
Aug.	28	106.003	9.684	96.319				
	110*	106.004	8.375	97.629				
	<u>71</u>	106.005	9.317	<u>96.688</u>				
Total	209		Wt. Ave. =	<u>97.134</u>				
				<u>.004</u>	B.M. error ^{2/}			
			Corrected Wt. Ave =	<u>97.130</u>				
1968								
Aug.	88	105.681	7.108	98.573				
	86	105.682	8.145	97.537				
	22	105.683	8.509	97.174				
	<u>13</u>	105.684	8.452	<u>97.232</u>				
Total	209		Wt. Ave. =	<u>97.916</u>				
				<u>.009</u>	B.M. error ^{2/}			
			Corrected Wt. Ave. =	<u>97.907</u>	.777	890	691.530	2.766

Table 1.--Footnotes

*

For more complete coverage an additional line (1B) was added to last years figures.

1/

Lines of sight were averaged and the average used as line of sight.

2/

Correction over 1966 figures for settling of bench mark on the dam.

Table 2

SEDIMENT ACCUMULATION SUMMARY SHEET

Bedload Volume
Cubic Feet per Acre

Year	Undisturbed			After Treatment		Ratio	
	W. S. #2	W. S. #3	W. S. #1	W. S. #3	W. S. #1	3/2	1/2
1957	2.56	1.52	2.30			.59	.90
1958	3.52	2.28	1.40			.65	.40
1959	.61	.26	-.16 ^{4/}			.43	-.26 ^{4/}
1960	.23		.08	.42		1.83*	.35
1961	1.82		.21	1.63		.90	.12
1962	.61			10.84 ^{2/}	1.23	17.77*	2.02
1963	.69			1.28	.13	1.86*	.19
1964	.11			.83	.10	7.55*	.91
1965	11.06			2932.40 ^{2/}	2.82	265.13*	.25
1966	2.06			3.28 ^{3/}	.77 ^{4/}	1.59 ^{3/}	.37
1967	-.04			3.56	13.33	--	--
1968	.09			2.77	16.34	30.78	181.56

* Significant at the 95% level.

^{2/} Includes material from mass soil movements.

^{3/} Sediment accumulation on watershed 3 from Dec. to April only.

^{4/} Corrected figures of earlier reports.

RI - NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:

H.I.
Elev.

Experimental Area: AEF
Basin Location: WS#1

Date: 8-15-67
Party: Level Merguson
Rod Levino
Notes Merguson

Station*	Transects (Designated in ft. starting at crest of dam)													
	8		9		10		11		12		13		14	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
03														
06		4.29		3.80										
09		5.13		4.76		4.84		4.41						
12	WE 10.5	8.18	WE 11.0	7.30	WE 11.0	7.41	WE 11.0	5.08		4.49				
15		9.89		9.77		8.91	WE 13	7.03		6.18				
18		11.03		11.07		10.37		8.53		6.70				
21		11.31		11.06		10.75		9.18		6.60				
24		11.13		11.00		11.16		9.08		6.24				
27		10.98		10.99		10.68		8.85		6.74				
30		11.06		10.70		10.66	WE 12.1	9.26		4.75				11.91
33		10.82		10.80		10.03	WE 2	8.50		5.11		4.74		5.73
36		10.39		10.55		10.10	WE 18	8.31	Dam	5.27	Class 32.0	4.98		6.00
39		10.34		10.34		9.20	WE 1	7.66	WE 38.0	7.06		6.46		6.25
42		9.93		10.21		8.86		7.66		7.17		6.59	Mark	6.26
45		10.02		9.73		8.62		8.12		7.02		6.43		6.11
48		9.50		9.26		8.82		7.99		6.92		6.60		5.79
51		9.04		9.14		8.31		7.53		7.38	WE 52.0	6.94		5.26
54		8.87		8.26		7.99		7.90		7.41		5.51		4.81
57		8.67		8.38		7.96		7.98		7.12		5.38		4.49
60		7.88		8.51		8.10		7.63	WE 60.7	6.85		5.10		
63		7.02		7.99		7.93		7.05		5.34		4.35		
66		7.30		7.15		7.21	WE 66	6.49		4.73		3.31		
69	WE 74.0	6.79		7.29	WE 70	6.75		5.47		3.65				
72		5.55	WE 74.0	5.50		5.22		4.40						
75		5.46		5.31										
PTS 62-42 = 68.35 PTS 42-12 = 76.40														
		(22)		(21)		(20)		(18)		(16)		(5)		(3)
		201.83		195.00		179.82		144.75		104.42		33.02		30.35
				BM = 1.613		at Start		Line 14				7 Ave BM =		
				" 1.608		" "		" 11				1.611		
				BM 1.606		" "		" 11		Sta 42				

Line of Sight for this survey is equal to the assumed elevation of 100.000 ft. plus the elevation of the auxiliary spike (12.640) plus Rod reading at time of survey of each line

Meas. after cleaning

Total
Average

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

Initial measurement after Basin cleaning

 RI - NW
 SOIL STABILIZATION
 Watersheds

 ELEVATIONS OF SEDIMENT ACCUMULATED
 IN CATCHMENT BASINS

FORM RI-2

Benchmark:

 H.I.
 Elev.
Experimental Area: H.J.O.Basin Location: W.S. #1Date: 9-15-67Party: Level LeunoRod MessinaNotes Leuno

Station*	Transects (Designated in ft. starting at crest of dam)													
	1		2		3		4		5		6		7	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
03														
06		4.14		4.82		4.76		4.63		4.54	W.E.S.	4.37		4.32
09	W.E.	5.37	8.15	6.11	7.5	7.06	B.W.F.	7.02	W.F.	7.10		6.43	W.F.	6.67
12	1.14	6.63		7.99		8.53		8.46		8.90		8.53		8.32
15	1.34	7.26		8.35		9.48		10.50		10.91		10.94		10.7
18	2.54	7.33		8.50		9.77		10.74		11.29		11.20		11.35
21	2.44	7.91		7.38		10.10		10.54		10.99		11.44		10.94
24	2.14	7.49		9.18		10.30		10.39		10.70		10.87		10.85
27	2.54	7.22		9.11		10.08		10.40		10.53		10.64		10.85
30	1.54	6.04		8.30		10.02		10.32		10.39		10.56		10.62
33	33.5		2.85	8.46		9.91		10.67		10.33		10.30		10.41
36			1.5	6.93		7.94		9.78		10.25		10.27		10.40
39				6.65		7.73		9.66		10.35		10.24		9.81
42			41 W.E.	5.01		7.49		8.92		10.36		9.99		10.02
45				4.09		7.60		8.22		9.83		9.45		9.85
48				4.92		6.56		8.48		8.60		9.39		9.70
51				4.05		6.75		7.74		8.25		8.60		9.47
54						6.42		7.58		8.18		8.91		8.83
57					55.5	5.25		6.80		7.69		8.49		7.85
60						4.51		6.32	W.F.S.	6.01		7.80		8.24
63							6.11			5.11		6.99		7.93
66							5.76			5.09		6.99		7.15
69							5.13			4.92	W.E.S.	5.94	W.E.	6.52
72									Bul. Area			6.09		5.01
75												5.00		
		(7)		(15)		(16)		(19)		(19)		(21)		(21)
		49.88		107.03		135.74		168.65		170.66		193.97		196.48
		Rod on BM End of Survey 1.604												
		Rod on BM End of Survey 1.604												

Date: 8-12-68
Party: Level Free
Rod Marguerite
Notes Patience

Experimental Area: H.J. Andrews Exp. For.
Basin Location: #1

[illegible]

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

Benchmark:

H.I.
Elev.

Experimental Area:

Basin Location:

#1

Date: 8-12-68

Party: Level

Rod

Notes

H.J. Andrews Exp. For

Station#	Transects (Designated in ft. starting at crest of dam)													
	8		9		10		11		12		13		14	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
03														
06		4.24												
09	W.E. 9.0	5.09		4.59		4.62		4.37						
12		8.32	W.E. 10	7.62	W.E. 11	6.67		4.88		4.27				
15		9.52		9.01		8.28		6.94		5.66				
18		9.48		9.51		9.19		7.84	15 1/2 WE	6.31				
21		8.92		9.34		9.51		8.57		6.15				
24		8.55		9.15		9.65		8.72	WE 24	6.16				
27		8.40		8.80		9.67		8.70	WE 27	6.06				
30		8.12		8.56		9.64		8.70		4.66			WE 32	4.25
33		7.14		8.32		9.10		8.47	WE 33	5.05		4.54		6.02
36		5.91		6.95		7.64		8.19	WE 35	5.29	WE 38	4.90		6.36
39		5.25		5.80		6.25		6.94		6.14		6.29		6.46
42		5.11		5.26		5.61		5.80		5.66		5.94		6.21
45		5.19		5.66		5.56		5.56		5.44		6.05		6.32
48		5.50		5.44		5.46		5.46		5.40		6.11	WE 47	5.42
51		5.33		5.39		5.33		5.28		5.75	WE 51	5.77		5.07
54		5.38		5.31		5.26		5.34		6.21		5.50		4.76
57		5.68		5.57		5.49		5.70		6.79		5.24		4.59
60		5.64		5.69		5.55		5.81	WE 62	6.68		5.03		3.37
63		5.76		5.64		5.79		6.61	Rock	4.94		4.32		
66		5.62		5.72		6.10		6.52		4.74		3.24		
69		5.85		5.80		6.04	WE 68	5.38		3.70		1.16		
72	WE 72	5.50	72.5 WE	5.48	WE 70 1/2	5.05		4.27						
75		5.40		5.08		4.78								

(22) 145.26 (21) 144.02 (20) 141.81 (18) 125.15 (16) 93.51 (5) 30.16 (3) 21.37

Line of sight for this survey is equal to the assumed elevation of 100.000 ft plus the elevation of the auxiliary spike (12.640) plus the Rod Reading at the time of survey of each line

Initial measurement after clearing

ELEVATIONS OF SEDIMENT ACCUMULATED IN CATCHMENT BASINS

FORM RI-2

RI NW
SOIL STABILIZATION
Watersheds
Benchmark:
H. I.
Elev.

Date: 8-14-67
Party: Level Morseman
Rod Leuno
Notes Morseman

Experimental Area: AEF
Basin Location: WS#2

Transects (Designated in ft. starting at crest of dam)

[illegible]

	(5)	(16)	(16)	(17)	(17)	(17)	(17)
	36.57	127.11	136.08	144.55	144.17	141.22	139.21

BM	=	8.067	at	start	of	Line	1	} Average 8.067
"	"	8.068	"	"	"	"	3	
Bm	"	8.065	"	End	"	"	8	
"	"	8.062	at	start	"	"	9	} Average 8.061
"	"	8.061	at	start	"	"	10	
"	"	8.062	"	"	"	"	11	
"	"	8.061	"	"	"	"	12	
"	"	8.060	"	End	"	"	17	

Elevation of SPIKE in Douglas Fir Tree is assumed to be 100,000 ft.
Line of sight equals 100,000 + Rod Reading of each line at time of survey.

Meas. after cleaning

Total
Average

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

$$R = R_{OC}/5$$

RI - NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:

H.I.
Elev.

Experimental Area: AEF
Basin Location: WS #2

Date: 8-14-67
Party: Level Merse, cam
Rod Levno
Notes Merse, cam

Station*	Transects (Designated in ft. starting at crest of dam)													
	8		9		10		11		12		13		14	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00				3.74										
03	WE 4.8'	4.72	WE 4.5'	5.01	WE 5.2	4.66	WE 5.4'	5.11		3.94		4.16		4.38
06		6.30		6.60		6.51		6.52	WE 8.1'	5.51		4.84	WE 6.7'	5.46
09		7.48		7.65		7.63		R 7.19		6.56	WE 8.1'	6.21		6.37
12		8.45		8.19		8.12		8.22		7.43		7.24		6.88
15		8.81		8.84		8.59		R 8.26		R 7.31		7.39		6.84
18		9.21		9.03		8.64		8.46		7.90		7.52		7.00
21		9.39		9.17		8.85		8.22		8.21		7.51		7.08
24		9.10		8.90		8.68		8.48		8.24		7.40		6.77
27		9.03		8.74		8.60		8.42		8.11		7.49		6.36
30		8.69		8.62		8.71		8.28		8.08		7.40		6.15
33		9.05		8.60		8.46		8.24		7.79		7.02	WE 32.5'	5.52
36		8.53		8.14		8.06		7.98		7.66		6.47	Trail	4.68
39		8.39		7.92		7.70		7.52		7.26	WE 32.0'	R 5.18		
42		7.78		7.55		7.34		7.05	WE 43.0'	6.25	Trail	4.57		
45		7.39		7.12		6.70		6.25		4.99	Trail	4.30		
48		6.82		6.70		6.12	WE 46.4'	5.36	Trail	4.22				
51	WE 52.6'	6.31	WE 50.8'	5.65	WE 49.5'	5.28		4.66						
54		4.22		4.17		4.07	Trail	3.76						
57		4.22		4.17		3.60								
60														
63														
66														
69														
72														
		(16)		(15)		(15)		(14)		(12)		(11)		(8)
		130.73		121.77		118.71		109.09		90.80		76.83		53.45
Total														
Average														

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

RI NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED IN CATCHMENT BASINS

FORM RI-2

Benchmarks:

H. I.

Elev.

Experimental Area: AEF

Basin Location: WS# 2

Date: 8-14-67

Party: Level Mercedes

Rod Leveno

Notes *Mersereau*[illegible]

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

RI - NW
SOIL STABILIZATION
Watersheds.

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:
H.I.
Elev.

Experimental Area: H.J. Andrews Exp. Tor
Basin Location: # 2

Date: 8-12-68
Party: Level Mexican
Rod: Fredrickson
Notes: Mexican

Station*	Transects (Designated in ft. starting at crest of dam)													
	1		2		3		4		5		6		7	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
03				3.62		4.24	WE 4'	4.49	WE 32'	5.02	WE 5'	5.48	WE 4'	4.84
06			WE 7'	4.67	WE 5 1/2'	5.64		6.44		6.39		6.31		6.16
09				5.77		6.71		7.49		7.24		7.39		7.14
12				6.06		7.54		8.05		8.07		8.09		8.19
15				7.18		8.26		8.64		8.67		8.57		8.68
18				7.54		8.60		8.74		8.90		8.91		8.72
21	WE 20'	6.23		8.40		8.95		8.85		9.03		9.00		9.07
24		6.73		8.66		9.05		8.97		9.05		8.97		9.08
27		7.22		8.91		9.05		8.94		9.06		9.07		8.77
30		7.68		9.01		9.02		8.90		8.99		8.89		8.69
33		7.20		8.67		8.86		8.86		8.91		8.29		8.44
36				8.64		8.54		8.77		8.70		8.52		8.52
39				8.16		8.61		8.52		8.24		8.28		8.14
42				7.96		8.17		8.14		8.04		7.76		7.89
45				7.23		7.79		7.71		7.75		7.19		7.04
48				6.94		7.48		7.54		7.13		6.80		6.93
51				6.46		6.77		6.42		6.09		6.65		6.24
54			WE 54'	5.45	Rock	5.38	WE 55'	5.86	WE 56'	6.32	WE 55'	6.10	WE 54'	5.57
57					WE 54'				Rock	4.32	Rock	3.92	Rock	3.99
60														

(5)	(16)	(16)	(17)	(17)	(17)	(17)
35.06	121.04	129.04	136.84	137.08	135.29	133.27

Station	Line	Sta.	Temp. BM.	Rel.	Sec. in dam	Auxiliary BM
7.696	START	1	21	7.699		4.606
		2	03	7.699		
		3	54	7.699		
		4	03	7.699		
		5	57	7.699		
		6	03	7.699		
		7	57	7.699		
		8	57	7.483		
		9	03	7.483		
		10	57	7.483		
		11	03	7.483		
		12	51	7.483		
		13	03	7.480		
		14	39	7.480		
		15	03	7.480		
		15	24	7.480		
		16	27	7.480		
		17	00	7.480		
Total				7.478		
Average						

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

RI - NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:

H.I.
Elev.

Experimental Area: H.J. Andrews Exp. For.
Basin Location: # 2

Date: 8-12-68

Party: Level

Rod

Notes

Station*	Transects (Designated in ft. starting at crest of dam)													
	8		9		10		11		12		13		14	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
03		4.11		4.41		4.10		4.43		3.39		3.58		3.91
06	WE 5'	5.71	WE 4 1/2'	6.01	WE 5'	5.97	WE 5'	5.86		4.97		4.21	WE 6 1/2'	4.76
09		6.81		7.03		7.04		6.61	WE 8'	5.98	WE 8'	5.65		5.78
12		7.83		7.57		7.52		7.75		6.92		6.66		6.28
15		8.27		8.21		7.99		7.73		7.11		6.81		6.28
18		8.58		8.45		8.08		7.89		7.38		6.89		6.41
21		8.74		8.54		8.27		7.67		7.58		7.05		6.49
24		8.46		8.28		8.09		7.85		7.60		6.78		6.16
27		8.36		8.09		8.01		7.85		7.50		6.90		5.79
30		8.07		8.03		8.10		7.73		7.53		6.79	WE 3 1/2'	5.57
33		8.39		8.02		7.83		7.62		7.20		6.56		4.88
36		7.97		7.67		7.53		7.42		7.10		5.99	Path	4.06
39		7.72		7.28		7.21		7.00		6.49	WE 3 1/2'	5.42		3.78
42		7.18		7.00		6.76		6.47		5.74		3.96		
45		6.78		6.53		6.15	WE 4 1/2'	5.66	WE 4 1/2'	4.43	Path	3.72		
48		6.27		6.10		5.62		4.65		3.64				
51	WE 5 1/2'	5.67	Rock	5.10	WE 5 1/2'	4.70		3.99	Path	3.23				
54		3.67	WE 5 1/2'	3.58		3.48	Path	3.18						
57		3.62		3.58		2.98								
60														
		(16)		(15)		(15)		(14)		(12)		(11)		(8)
		120.81		112.81		110.17		101.11		84.13		71.50		42.78

Elevation of Spike in Douglas Fir Tree assumed to be 100.000 ft

Line of Sight Equals 100.000 + Rod Reading of each line at time of survey

Total
Average

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

Benchmark:

H.I.
Elev.

Experimental Area: H.J. Andrews Exp. For.
Basin Location: # 2

Date: 8-12-68

Party: Level

Rod

Notes

[illegible]

Spillway Center	5.28
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5.28

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

RI NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:

H.I.

Elev.

Experimental Area:

Basin Location:

HJA.

#3

Date: 8-13-68

Party: Level Fred.

Rod Portt

Notes Fred

Transects (Designated in ft. starting at crest of dam)

Station#	7		8		9		10		11		12		13	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
02.5	10.55		10.44		10.42		10.34		10.30		10.19			
04	10.23		10.16		10.09		10.10		10.13		10.18			
06	9.32		9.35		9.27		9.30		9.75		10.10			
08	9.11		8.99		8.76		8.86		9.39					
10	8.95		8.80		8.46		8.39		9.06					
12	8.64		8.53		8.17		7.99		8.54					
14	8.54		8.36		7.95		7.77		8.30					
16	8.66		8.33		8.11		7.96		8.40					
18	8.58		8.23		8.08		8.34		8.41					
20	8.27		8.00		7.61		7.51							
22	7.89		7.36		7.01									
24	7.31		6.83		6.70									
26	6.85		6.56											
28	6.47													
30	6.39													

2														
4														5.75
6														5.22
8														5.27
10	(15)	(13)	(12)	(10)	(9)	(3)								5.29
2	125.76	109.88	100.63	86.56	82.28	30.47								5.30
4														5.58
6														5.11
8														5.30

Red on spike
5.6811

Line 5th
12 2.5
11 2.5
10 20
9 24
8 26
7 30
6 32
5 38
4 48
3 48
2 48
1 48
1A 48
1B 48
18 34

Temp. Bm. 104
6.113
6.113
6.114
6.114
6.115
6.113
6.113
6.113
6.113
6.112
6.112
6.112
6.112
6.112

(5)
42.82

Auxiliary Bench Mark = spike in top log of Dam south end.

Aux BM = 100.00 ft.

line of site = 100.000 + Red Reading

Total

Average

*Numbered to right starting with 0 at borderline which extends upstream from left end of dam.

RI - NW
SOIL STABILIZATION
Watersheds

ELEVATIONS OF SEDIMENT ACCUMULATED
IN CATCHMENT BASINS

FORM RI-2

Benchmark:

H.I.
Elev.

Experimental Area: H.J. Andrews Exp. For
Basin Location: #3

Date: 8-13-68
Party: Level
Rod: Dist
Notes: Fred

Transects (Designated in ft. starting at crest of dam)														
Station#	1		1A		2		3		4		5		6	
	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.	H.I.	Elev.
00														
02.5	10	52			10	78	10	76	10	71	10	52	10	63
4	10	54			10	32	10	28	10	28	10	27	10	28
6	10	10			9	77	9	73	9	68	9	55	9	45
8	9	95			9	65	9	59	9	41	9	37	9	29
10	9	54			9	55	9	41	9	38	9	28	9	06
12	9	45			9	33	9	23	9	22	8	89	8	77
14	8	82			8	75	8	93	9	03	8	91	8	78
16	8	69			8	62	8	64	9	02	8	84	8	60
18	8	66			8	55	8	47	8	51	8	51	8	51
20	8	54			8	41	8	35	8	28	8	36	8	32
22	8	42			8	23	8	04	8	20	8	00	7	93
24	8	32			7	88	7	64	7	65	7	64	7	57
26	7	92			7	10	7	28	7	29	7	21	7	04
28	7	34			6	41	6	68	6	90	6	63	6	57
30	6	21			6	02	6	01	6	19	6	15	6	30
32	6	13			6	06	5	61	5	58	6	04	6	02
34	5	80	5	48	5	68	5	47	5	47	5	54		
36	5	67	5	34	5	75	5	28	5	43	5	83		
38	5	39	5	29	5	65	5	53	5	37	5	53		
40	5	59	5	26	5	34	5	30	5	43				
42	5	49	5	31	5	36	5	19	5	42				
44	5	44	5	23	5	55	5	29	5	14				
46	5	19	5	30	5	64	5	28	4	91				
48	5	14	5	44	5	42	5	26	4	72				
24 182.81 8 42.75 24 179.82 24 177.27 24 177.19 19 151.57 16 132.18														
<div><div><div>BS. ON BM</div><div>0.169</div><div rowspan="4">} 17.140</div></div><div><div>FS. to T.P.</div><div>11.413</div></div><div><div>BS. to T.P.</div><div>0.123</div></div><div><div>FS. to spike</div><div>6.009</div></div><div><div>BS. to spike</div><div>6.019</div><div rowspan="4">} 17.141</div></div><div><div>FS. to T.P.</div><div>0.130</div></div><div><div>BS. to T.P.</div><div>11.672</div></div><div><div>FS. to BM</div><div>0.478</div></div><div><div>0.401</div><div>12.903</div></div><div><div>0.072</div><div>12.976</div></div><div><div>5.738</div><div>0.736</div></div><div><div>0.647</div><div>12.588</div></div><div><div>0.783</div><div>5.682</div></div></div>														
Elev. Dist. Between Aux. / liary BM & BM on F/ume = an Ave. 17.140 in 1968														
" " " " " " " " " " " " 17.135 " 1967														
" " " " " " " " " " " " 17.131 " 1966														
Total														
Average														