APPENDIX B
STREAM CONDITION INVENTORY DATA SUMMARIES

SCI Pass Summary for Goodrich Creek

Pass 2 Cross-section summary

note: all units in feet

Owner	Stream	Date	Crew	Cross-Section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
Beaty&Assoc	Goodrich	9/8/99	Clifton/Yarnell	1	27.00	1.34	1.64	20.22	255.11	9.45
Beaty&Assoc	Goodrich	9/8/99	Clifton/Yarnell	2	25.00	1.32	1.60	18.93	275.20	11.01
Beaty&Assoc	Goodrich	9/8/99	Clifton/Yarnell	3	34.90	1.25	1.54	27.92	571.33	16.37
PVT	Goodrich	8/7/01	Clifton et al.	1	16.90	1.05	1.47	16.09	516.90	30.58
PVT	Goodrich	8/7/01	Clifton et al.	2	19.20	0.85	1.16	22.60	519.20	27.04
PVT	Goodrich	8/7/01	Clifton et al.	3	24.70	0.91	1.41	27.14	524.70	20.45

Pass 2 Transect Summary

				Transect						
PVT	Goodrich	9/8/99	Clifton et al.	1	18	1.05		17.14	518	28.7
PVT	Goodrich	9/8/99	Clifton et al.	2	25.6	0.94		27.23	525.6	20.53
PVT	Goodrich	9/8/99	Clifton et al.	3	21	1.17		17.94	521	24.8
PVT	Goodrich	9/8/99	Clifton et al.	4	25	1.07		23.36	525	21
PVT	Goodrich	9/8/99	Clifton et al.	5	20	1.08		18.51	520	26
PVT	Goodrich	8/7/01	Clifton et al.	1	22	0.95		23.15	522	23.72
PVT	Goodrich	8/7/01	Clifton et al.	2	17.6	0.91		19.34	517.6	29.4
PVT	Goodrich	8/7/01	Clifton et al.	3	18.7	0.68		27.5	518.7	27.73
PVT	Goodrich	8/7/01	Clifton et al.	4	16.2	0.68		23.82	516.2	31.86
PVT	Goodrich	8/7/01	Clifton et al.	5	16	0.87		18.39	516	32.25

Pass 3 pool data

				Total Habitat Lengths		Percent Habitat Lengths		Average Residual	Average % fines	Percent Wood-Formed	Avg "Wood"
				Fast	Slow	Fast	Slow	Pool Depth	in pooltails	Pools	Value
Beaty&Assoc	Goodrich			428	865	33%	67%	0.0	16.1	0.0%	
PVT	Goodrich	8/7/01	Clifton et al	152	544	21.8	78.2	2.0	3.3		

Pass 4 (measurements on 2 banks at each of 50 transects)

				Bank Stability Rating			Average	Shore Depth	Shore Depth	Bank Angle	Bank Angle
Owner	Stream	Date	Crew	# Stable	# Vulnerable	# Unstable	% Shade	% = 0	Avg of rest	%<90	% > 90
Beaty&Assoc	Goodrich	9/9/99	NS	64	34	1	0	85	1.1	11	86
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Biota observations:

1 bullfrog

1 rainbow trout

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

99 to '03 Residual pool depth changes could be due to observer error.

SCI pass summary for Butt Creek above Butt Valley Reservoir

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
Collins Pine	Butt	7/1/99	Clifton et. al	1	48.5	1.6	2.03	30.3	70.16	1.45
Collins Pine	Butt	7/1/99	Clifton et. al	2	52.4	1.84	2.31	28.5	66.94	1.28
Collins Pine	Butt	7/1/99	Clifton et. al	3	41.6	1.69	2.76	24.6	90.99	2.19
PNF	Butt	7/23/01	Clifton et al.	1	53.30	2.36	3.26	22.58	186.65	3.50
PNF	Butt	7/23/01	Clifton et al.	2	52.70	1.87	2.79	28.18	144.00	2.73
PNF	Butt	7/23/01	Clifton et al.	3	47.10	1.93	3.21	24.40	104.40	2.21
PVT	Butt	7/21/03	Clifton et al.	1	52.20	1.91	2.77	27.29	76.90	1.47
PVT	Butt	7/21/03	Clifton et al.	2	61.00	2.38	3.33	25.60	142.20	2.33
PVT	Butt	7/21/03	Clifton et al.	3	44.80	1.98	3.25	22.64	213.70	4.77

PASS #2 TRANSECT SUMMARY

				Transect							
Collins Pine	Butt	7/1/99	Hodge/Martin	1	31.6	1.7		18.77	67.1	2.12	
Collins Pine	Butt	7/1/99	Hodge/Martin	2	41.0	1.5		27.80	47.7	1.16	
Collins Pine	Butt	7/1/99	Hodge/Martin	3	22.7	1.8		12.43	70.9	3.12	
Collins Pine	Butt	7/1/99	Hodge/Martin	4	37.6	2.0		19.11	83.6	2.22	
Collins Pine	Butt	7/1/99	Hodge/Martin	5	30.9	3.2		9.70			
PVT	Butt	7/23/01	Clifton et al.	1	53.4	1.8		29.6	114.45	2.14	
PVT	Butt	7/23/01	Clifton et al.	2	29.7	1.61		18.44	87	2.92	
PVT	Butt	7/23/01	Clifton et al.	3	38.9	2.24		17.36	186.9	4.8	
PVT	Butt	7/23/01	Clifton et al.	4	42.7	1.81		23.59	213.2	4.99	
PVT	Butt	7/23/01	Clifton et al.	5	63.3	1.86		4.1	80.3	1.26	
PVT	Butt	7/21/03	Clifton et al.	1	42.80	2.59	4.00	16.52	227.20	5.31	
PVT	Butt	7/21/03	Clifton et al.	2	53.00	2.64	3.20	20.09	169.00	3.19	
PVT	Butt	7/21/03	Clifton et al.	3	56.00	2.14	4.15	26.17	172.30	3.08	
PVT	Butt	7/21/03	Clifton et al.	4	51.90	2.21	4.13	23.53	197.00	3.80	
PVT	Butt	7/21/03	Clifton et al.	5	61.00	2.01	3.33	30.37	114.00	1.87	

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D_{50}
Collins Pine	Butt	6/30/99	Clifton et. al	457	573	44%	56%	2.5	14.1	0.0	
PVT	Butt	7/23/01	Clifton et. al	451	653	40.9	59.1	1.7	9.5	n/a	29
PVT	Butt	7/21/03	Clifton et. al	577	516	52.79	47.21	2.04	12.53	0.00	27

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
Collins Pine	Butt	6/30/99	Clifton et. al	37	25	41	9.6	82	1.4	17	82
Collins Pine	Butt	7/23/01	Clifton et. al	n/a	n/a	n/a	n/a	82	0.97	2	82
PVT	Butt	7/21/03	Clifton et al.	n/a	n/a	n/a	n/a	63	1.05	6	63

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
Collins Pine	Butt	7/23/01	Clifton et al	38.4	37.78	0.87	32.7
PVT	Butt	7/22/03	Clifton et al	42	32.8	1.4	46

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

*'99 to'03 residual pool depth changes could be due to observer error.

SCI Summary for NFFR above EBNFFR

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	NFFR above EastBranch	8/12/99	Clifton et al.	1	70.50	1.16	1.68	60.87	82.38	1.17
PNF	NFFR above EastBranch	8/12/99	Clifton et al.	2	63.50	1.30	2.46	48.68	72.48	1.14
PNF	NFFR above EastBranch	8/12/99	Clifton et al.	3	56.60	1.21	2.09	46.71	71.52	1.26
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	1	70.50	1.13	1.73	62.38	82.97	1.17
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	2	63.50	1.36	2.62	46.69	76.40	1.20
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	3	56.10	1.60	2.31	35.06	81.05	1.44
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	1	70.20	1.06	1.60	66.23	93.50	1.33
PNF	NFFR above EastBranch	7/17/03	Clifton et al.	2	62.50	1.27	2.50	49.06	76.50	1.22
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	3	56.30	1.64	2.31	34.43	83.00	1.47

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	NFFR above EastBranch	8/12/99	Clifton	1	70.5	0.8		84.55	77.9	1.10
PNF	NFFR above EastBranch	8/12/99	Clifton	2	38.8	1.5		25.06	64.5	1.66
PNF	NFFR above EastBranch	8/12/99	Clifton	3	52.7	1.8		28.99	87.5	1.66
PNF	NFFR above EastBranch	8/12/99	Clifton	4	78.0	1.0		76.16	88.8	1.14
PNF	NFFR above EastBranch	8/12/99	Clifton	5	80.1	1.0		77.77	87.9	1.10
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	1	70	1.37		51.09	94.95	1.35
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	2	69.5	0.9		77.22	74.5	1.07
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	3	60.3	1.07		56.35	75.3	1.23
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	4	53.8	1.76		30.56	66.27	1.23
PNF	NFFR above EastBranch	7/18/01	Clifton et al.	5	63.7	1.41		45.17	76.17	1.19
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	1	77.2	1.22	2.49	63.20	90.5	1.17
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	2	62.5	1.41	1.9	44.46	81.4	1.30
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	3	71.2	1.21	1.83	58.65	89.7	1.26
PNF	NFFR above EastBranch	7/16/03	Clifton et al.	4	68.2	0.90	1.53	75.66	73.7	1.08
PNF	NFFR above EastBranch	7/17/03	Clifton et al.	5	65.4	1.21	1.46	54.20	72.7	1.11

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D_{50}
PNF	NFFR above EastBranch	8/11/99	Clifton et al	841	209	80.10	19.90	3.45	8.7	0	
PNF	NFFR above EastBranch	7/19/01	Clifton et al	336	264	56.0	44.0	2.2	3	**n/a**	55
PNF	NFFR above EastBranch	7/17/03	Clifton et al	337	33	91.1	8.9				30

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	NFFR above EastBranch	8/11/99	Clifton et al	100	0	0	44.68	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
PNF	NFFR above EastBranch	7/19/01	Clifton et al	63.7	92.78	1.88	174.1
PNF	NFFR above EastBranch	7/16/03	Clifton et al	56	91.5	1.78	163.3

Biota Observations: none

Definitions:
Width:Depth - field-id'ed bankfull width / mean bankfull depth
Floodprone width - width at 2x max bankfull depth
Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width
Residual pool depth = max pool depth minus max depth of pooltail crest
% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)
Bank stability measured at a one foot wide plot, going from bankfull upslope to break
Stable - 75% veg, or other non-erodable cover, no sign of instability
Vulnerable - same as stable, but with sign of instability
Unstable - less than 75% cover, may have other instability indicators
% shade - only one measurement per transect with a solar pathfinder
Shore depth - measured @ the current water's edge
Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation
*'99 to '03 residual pool depth changes could be due to observer error.

SCI Summary for NFFR above Lake Almanor (aboveDomingo Springs)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
LNF	NFFRabvAlmanor	7/28/99	Clifton	1	35.70	2.57	4.06	13.87	117.09	3.28
LNF	NFFRabvAlmanor	7/28/99	Clifton	2	50.60	2.01	3.11	25.20	124.83	2.47
LNF	NFFRabvAlmanor	7/28/99	Clifton	3	65.10	2.28	3.80	28.57	94.60	1.45
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	1	38.60	2.62	4.19	14.73	116.80	3.03
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	2	53.00	1.70	3.21	31.17	122.40	2.30
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	3	68.10	2.56	4.06	26.60	105.00	1.54
LNF	NFFRabvAlmanor	7/22/03	Clifton et al.	1	55.70	2.96	5.14	18.82	126.30	2.27
LNF	NFFRabvAlmanor	7/22/03	Clifton et al.	2	59.60	2.60	4.18	22.92	134.60	2.26
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	3	75.40	2.26	4.72	33.36	112.30	1.49

PASS #2 TRANSECT SUMMARY

				Transect						
LNF	NFFRabvAlmanor	7/28/99	Clifton	1	76.9	1.9		37.48	120.5	1.57
LNF	NFFRabvAlmanor	7/28/99	Clifton	2	63.4	1.7		38.16	116.9	1.84
LNF	NFFRabvAlmanor	7/28/99	Clifton	3	37.8	2.1		18.19	119.3	3.16
LNF	NFFRabvAlmanor	7/28/99	Clifton	4	47.0	2.0		23.49	118.3	2.52
LNF	NFFRabvAlmanor	7/28/99	Clifton	5	48.3	1.9		25.78	98.8	2.05
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	1	79.7	1.69		47.15	117.4	1.47
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	2	69	1.81		38.12	129	1.86
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	3	47	1.66		28.31	87	1.85
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	4	54.8	1.87		29.8	105.5	1.93
LNF	NFFRabvAlmanor	7/30/01	Clifton et al.	5	33.8	1.5		22.53	115.5	3.41
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	1	57.5	2.99	4.75	19.20	125.5	2.18
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	2	66.4	2.48	4.23	26.73	107.5	1.62
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	3	85.75	1.61	4	53.32	237.4	2.77
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	4	61.3	2.59	4.96	23.70	108.2	1.77
LNF	NFFRabvAlmanor	7/23/03	Clifton et al.	5	48	2.27	3.87	21.11	100	2.08

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D_{50}
LNF	NFFRabvAlmanor	7/28/99	Clifton	680	361	65%	35%	0.5	15.8	0	
LNF	NFFRabvAlmanor	7/31/01	Clifton et al	457	398	53.5	46.5	1.04	14.2	**n/a**	60
LNF	NFFRabvAlmanor	7/23/03	Clifton et al	628	401	61.0	39.0	1.6	16.33	**n/a**	110

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
LNF	NFFRabvAlmanor	7/28/99	Clifton et al	65	33	2	50.22	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
LNF	NFFRabvAlmanor	7/31/01	Clifton et al	43.1	42.81	0.74	31.8
LNF	NFFRabvAlmanor	7/22/03	Clifton et al	39.5	62.25	1.8	112.2

Biota Observations: none

Definitions:
Width:Depth - field-id'ed bankfull width / mean bankfull depth
Floodprone width - width at 2x max bankfull depth
Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width
Residual pool depth = max pool depth minus max depth of pooltail crest
% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)
Bank stability measured at a one foot wide plot, going from bankfull upslope to break
Stable - 75% veg, or other non-erodable cover, no sign of instability
Vulnerable - same as stable, but with sign of instability
Unstable - less than 75% cover, may have other instability indicators
% shade - only one measurement per transect with a solar pathfinder
Shore depth - measured @ the current water's edge
Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation
*'99 to '03 changes in pool depth could be due to observer error.

SCI Summary for Last ChanceCreek blw Murdock Crossing

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	LastChance-Murdock	8/2/99	Clifton et al.	1	25.50	1.75	2.71	14.59	87.23	3.42
PNF	LastChance-Murdock	8/2/99	Clifton et al.	2	43.50	1.86	2.82	23.35	61.62	1.42
PNF	LastChance-Murdock	7/29/99	Clifton et al.	3	19.10	1.31	1.55	14.55	62.32	3.26
PNF	LastChance-Murdock	7/24/01	Clifton et al.	1	30.10	1.72	3.07	17.50	87.10	2.89
PNF	LastChance-Murdock	7/24/01	Clifton et al.	2	48.40	1.15	2.05	42.08	58.00	1.19
PNF	LastChance-Murdock	7/24/01	Clifton et al.	3	20.20	1.20	2.23	16.83	65.30	3.23
PNF	LastChance-Murdock	8/6/03	Clifton et al.	1	36.40	1.70	3.23	21.42	89.80	2.47
PNF	LastChance-Murdock	8/6/03	Clifton et al.	2	48.20	1.07	2.07	45.11	58.70	1.22
PNF	LastChance-Murdock	8/6/03	Clifton et al.	3	18.30	1.00	1.51	18.36	60.20	3.29

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	LastChance-Murdock	7/29/99	Clifton et al.	1	48.7	1.4		34.60	62.8	1.29
PNF	LastChance-Murdock	7/29/99	Clifton et al.	2	48.1	1.3		37.77	58.9	1.22
PNF	LastChance-Murdock	7/29/99	Clifton et al.	3	46.5	1.3		36.72	54.7	1.18
PNF	LastChance-Murdock	7/29/99	Clifton et al.	4	38.1	1.5		25.55	54.8	1.44
PNF	LastChance-Murdock	7/29/99	Clifton et al.	5	29.6	1.3		23.43	65.5	2.21
PNF	LastChance-Murdock	7/24/01	Clifton et al.	1	29.1	1		29.1	50.6	1.73
PNF	LastChance-Murdock	7/24/01	Clifton et al.	2	27.6	1.34		20.58	50.2	1.81
PNF	LastChance-Murdock	7/24/01	Clifton et al.	3	51.9	1.1		47.18	66.6	1.28
PNF	LastChance-Murdock	7/24/01	Clifton et al.	4	29.9	1.05		28.47	85.7	2.86
PNF	LastChance-Murdock	7/24/01	Clifton et al.	5	55.2	1.5		36.8	63.1	1.14
PNF	LastChance-Murdock	8/5/03	Clifton et al.	1	27.3	1.31	1.76	20.90	44.7	1.64
PNF	LastChance-Murdock	8/6/03	Clifton et al.	2	41.8	1.44	1.88	29.06	62.3	1.49
PNF	LastChance-Murdock	8/6/03	Clifton et al.	3	40.5	1.82	2.65	22.22	62.8	1.55
PNF	LastChance-Murdock	8/6/03	Clifton et al.	4	26.5	1.53	2.55	17.30	126.8	4.78
PNF	LastChance-Murdock	8/6/03	Clifton et al.	5	22.3	1.28	1.84	17.40	82.1	3.68

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	LastChance-Murdock	8/3/99	Clifton et al.	378	1564	19%	81%	2.0	55.3		
PNF	LastChance-Murdock	7/24/01	Clifton et al.	239	1731	12.1	87.9	1.8	18		18
PNF	LastChance-Murdock	9/12/03	Clifton, Min	191	1715	10.0	90.0	1.53	25.3		20

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
PNF	LastChance-Murdock	8/3/99	Clifton et al	4	20	76	14.7	78	0.62	21	79
PNF	LastChance-Murdock	8/2/01	Clifton et al	n/a	n/a	n/a	n/a	90	0.6	9	91
PNF	LastChance-Murdock	8/7/03	Clifton et al	n/a	n/a	n/a	n/a	72	0.3	3	72

FLOW MEASUREMENT (feet & second

				width	area	velocity	discharge
PNF	LastChance-Murdock	8/6/03	Clifton et al	5.5	1.3	0.83	1.1

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

*99 to '03 residual pool depth changes could be due to observer error.

SCI Summary for Red Clover Cr below Chase Bridge

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	dClvrCrkC	9/19&26/95	Compton et al	1	55.1	1.47	2.27	37.5	60.61	1.1
PNF	dClvrCrkC	9/19&26/95	Compton et al	2	64.4	1.39	2.48	46	180.32	2.8
PNF	dClvrCrkC	9/19&26/95	Compton et al	3	36.6	1.4	2.66	26.1	71.00	1.94
PNF	Red Clover	8/4/03	Clifton et al.	1	50.60	1.72	2.86	29.42	202.30	4.00
PNF	Red Clover	8/4/03	Clifton et al.	2	60.60	1.63	2.22	37.18	65.60	1.08
PNF	Red Clover	8/4/03	Clifton et al.	3	74.10	1.62	2.55	45.74	79.60	1.07

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	Red Clover	8/4/03	Clifton et al.	1	71.8	1.57	2.61	45.73	94.8	1.32
PNF	Red Clover	8/4/03	Clifton et al.	2	63.1	1.80	2.58	35.06	78.3	1.24
PNF	Red Clover	8/4/03	Clifton et al.	3	56.9	1.54	2.4	36.95	64.4	1.13
PNF	Red Clover	8/5/03	Clifton et al.	4	89	1.50	2.32	59.33	104.7	1.18
PNF	Red Clover	8/5/03	Clifton et al.	5	55.8	2.00	2.81	27.90	106.9	1.92

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	RedClover	9/20/95	Cunningham	1274.00	1454.00	46.70	53.30	2.07	19.63	0	15
PNF	RedClover	8/5/03	Clifton et al	793	1463	35.2	64.8	1.95	39.7		22.5

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	RedClover	9/19/95	Cunningham	19	21	60	1.4	57%	0.17	11	89
PNF	RedClover	8/5/03	Clifton et al					90	0.62	0	90

ervations: none in 2003; dead cow in 1995

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per po

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

*'95 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for IndianCr above Red Clover (Flournoy Br)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Indian-Flournoy	8/23/99	Clifton	1	81.0	2.70	4.52	30.0	201.0	2.5
PVT	Indian-Flournoy	8/23/99	Clifton	2	97.5	1.76	2.66	55.3	193.2	2.0
PVT	Indian-Flournoy	8/23/99	Clifton et al.	3	56.3	1.71	2.42	32.9	94.6	1.7
PVT	Indian above Flornoy	7/2/01	Clifton et al.	1	84.0	2.81	5.16	29.8	212.0	2.5
PVT	Indian above Flornoy	7/2/01	Clifton et al.	2	103.6	2.29	3.46	45.2	303.6	2.9
PVT	Indian above Flornoy	7/2/01	Clifton et al.	3	63.1	2.05	3.05	30.7	276.1	4.4
PVT	Indian above Flornoy	7/9/03	Clifton et al.	1	81.0	2.44	5.00	33.3	224.0	2.8
PVT	Indian above Flornoy	7/9/03	Clifton et al.	2	99.0	1.92	3.24	51.5	242.0	2.4
PVT	Indian above Flornoy	7/9/03	Clifton et al.	3	60.0	1.80	2.83	33.3	214.9	3.6

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Indian-Flournoy	8/23/99	Clifton	1	81.0	1.4		56.6	146.3	1.8
PVT	Indian-Flournoy	8/23/99	Clifton	2	98.5	1.1		91.5	169.5	1.7
PVT	Indian-Flournoy	8/23/99	Clifton	3	94.7	1.7		56.1	126.0	1.3
PVT	Indian-Flournoy	8/23/99	Clifton	4	61.7	1.7		37.2	110.4	1.8
PVT	Indian-Flournoy	8/23/99	Clifton	5	53.0	2.0		27.0	122.5	2.3
PVT	Indian Above Flornoy	7/2/01	Clifton et al.	1	94.0	1.68		56.0	128.3	1.4
PVT	Indian Above Flornoy	7/2/01	Clifton et al.	2	106.5	1.73		61.6	290.5	2.7
PVT	Indian Above Flornoy	7/2/01	Clifton et al.	3	77.0	1.9		40.5	134.6	1.7
PVT	Indian Above Flornoy	7/2/01	Clifton et al.	4	74.3	1.61		46.1	170.6	2.3
PVT	Indian Above Flornoy	7/2/01	Clifton et al.	5	65.3	1.85		35.3	226.1	3.5
PVT	Indian Above Flornoy	7/9/03	Clifton et al.	1	87.5	2.04	2.8	42.9	125.5	1.4
PVT	Indian Above Flornoy	7/9/03	Clifton et al.	2	93.6	1.99	2.8	47.1	113.2	1.2
PVT	Indian Above Flornoy	7/9/03	Clifton et al.	3	94.5	2.02	3.2	46.8	176.5	1.9
PVT	Indian Above Flornoy	7/9/03	Clifton et al.	4	61.4	2.02	3.2	30.5	125.5	2.0
PVT	Indian Above Flornoy	7/9/03	Clifton et al.	5	60.5	1.73	2.5	34.9	116.4	1.92

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Indian-Flournoy	8/24/99	Clifton	490	828	37%	63%	2.8	36.6		
PVT	Indian above Flornoy	7/2/01	Clifton et al	424	777	35.3	64.7	1.9	6.5	n/a	30
PVT	Indian above Flornoy	7/9/03	Clifton et al.	419	680	38.13	61.87	2.82	23	0	27

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PVT	Indian-Flournoy	8/24/99	Clifton	1	6	93	2.98	100	0	0	100
PVT	Indian At Flornoy	6/27/01	Clifton et al	n/a	n/a	n/a	n/a	100	0	0	100
PVT	Indian At Flornoy	7/9/03	Clifton et al.	n/a	n/a	n/a	n/a	92	0.49	0	92

FLOW MEASUREMENT (feet & second

				width	area	velocity	discharge	see continuous recording station data
PVT	Indian above Flornoy	7/2/01	Clifton et al					

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

*'99 to '03 changes in residual pool depth could be due to observer error.

CRM SCI Summary for Red Clover below Drum Bridge

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	RedClover	7/19/99	Clifton et al.	1	55.50	2.20	2.77	25.28	312.62	5.63
PNF	RedClover	7/19/99	Clifton et al.	2	62.30	2.52	3.43	24.74	121.15	1.94
PNF	RedClover	7/19/99	Clifton et al.	3	53.80	1.89	2.87	28.42	85.85	1.60
PNF	RedClover	6/21/01	Clifton et al.	1	54.50	1.83	2.77	29.78	427.90	7.85
PNF	RedClover	6/21/01	Clifton et al.	2	61.90	2.72	4.31	22.75	111.50	1.80
PNF	RedClover	6/21/01	Clifton et al.	3	59.85	2.05	3.39	29.19	85.50	1.42

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	RedClover	7/19/99	Webster & Martin	1	46.5	1.7		27.84	71.0	1.53
PNF	RedClover	7/19/99	Webster & Martin	2	42.2	1.8		22.96	71.0	1.68
PNF	RedClover	7/19/99	Webster & Martin	3	44.0	2.5		17.96	68.0	1.55
PNF	RedClover	7/19/99	Webster & Martin	4	66.0	2.2		30.23	85.5	1.30
PNF	RedClover	7/19/99	Webster & Martin	5	55.6	2.0		28.11	92.2	1.66
PNF	RedClover	6/21/01	Clifton et al.	1	65	2.17		29.9	123	1.89
PNF	RedClover	6/21/01	Clifton et al.	2	60.55	2.84		21.32	130.9	2.16
PNF	RedClover	6/21/01	Clifton et al.	3	61.7	2.12		29.1	75.5	1.22
PNF	RedClover	6/21/01	Clifton et al.	4	66.5	1.8		36.94	90.5	1.36
PNF	RedClover	6/21/01	Clifton et al.	5	55	1.71		32.16	71.5	1.3

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large
				Fast	Slow	Fast	Slow	Pool Depth	in Pooltails	Wood
PNF	RedClover	7/20/99	Clifton et al	769	268	74%	26%	2.0	9.3	
PNF	RedClover	6/20/01	Clifton et al	1221	305	80.0	20.0	2.2	4.2	

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	RedClover	7/20/99	Clifton et al	44	26	8		n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & sec

				width	area	velocity	discharge
PNF	RedClover	6/20/01	Clifton et al	35.6	42.47	0.15	6.5

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

SCI Summary for Indian@ Tville (downstream of bridge)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Indian-Tville	7/14/99	Clifton e.t al	1	163.80	2.31	3.08	71.00	196.72	1.20
PVT	Indian-Tville	7/14/99	Clifton e.t al	2	102.30	1.82	2.65	56.36	318.12	3.11
PVT	Indian-Tville	7/14/99	Clifton e.t al	3	125.40	2.48	3.52	50.51	451.79	3.60
PVT	Indian-Tville	6/26/01	Clifton et al.	1	167.50	2.00	3.22	83.75	261.40	1.56
PVT	Indian-Tville	6/26/01	Clifton et al.	2	98.50	1.64	2.57	60.06	503.50	5.11
PVT	Indian-Tville	6/26/01	Clifton et al.	3	118.70	1.78	2.76	66.68	252.20	2.12
PVT	Indian-Tville	7/7/03	Clifton et al.	1	170.50	2.56	2.56	66.51	201.50	1.18
PVT	Indian-Tville	7/7/03	Clifton et al.	2	106.70	2.39	3.41	44.66	503.50	4.72
PVT	Indian-Tville	7/7/03	Clifton et al.	3	129.00	2.25	3.32	57.42	174.70	1.35

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Indian-Tville	7/7/99	Martin and Hodge	1	124.7	1.8		68.20	160.0	1.28
PVT	Indian-Tville	7/7/99	Martin and Hodge	2	74.3	2.0		37.50	226.0	3.04
PVT	Indian-Tville	7/7/99	Martin and Hodge	3	46.0	1.5		29.74		
PVT	Indian-Tville	7/7/99	Martin and Hodge	4	91.0	1.8		50.82		
PVT	Indian-Tville	7/7/99	Martin and Hodge	5	92.0	1.6		57.62	241.0	2.62
PVT	Indian-Tville	6/26/01	Clifton et al.	1	112.6	1.27		88.6	450.5	4
PVT	Indian-Tville	6/26/01	Clifton et al.	2	65.1	1.31		49.69	521	8
PVT	Indian-Tville	6/26/01	Clifton et al.	3	87.3	1.53		57.05	597	6.84
PVT	Indian-Tville	6/26/01	Clifton et al.	4	73.5	1.45		50.6	336.5	4.57
PVT	Indian-Tville	6/26/01	Clifton et al.	5	96.4	1.79		53.85	198.4	2.05
PVT	Indian-Tville	7/7/03	Clifton et al.	1	128.60	2.39	3.94	53.91	169.40	1.32
PVT	Indian-Tville	7/7/03	Clifton et al.	2	139.50	1.82	2.82	76.70	277.00	1.99
PVT	Indian-Tville	7/7/03	Clifton et al.	3	106.70	1.88	2.78	56.86	468.00	4.39
PVT	Indian-Tville	7/7/03	Clifton et al.	4	91.60	2.20	3.19	41.65	597.00	6.52
PVT	Indian-Tville	7/7/03	Clifton et al.	5	99.00	2.50	3.41	39.57	176.30	1.78

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Indian-Tville	7/7/99	Clifton et al	350	1289	21%	79%	3.8	34.9	1.35	
PVT	Indian-Tville	6/27/01	Clifton et al	357	1277	21.8	78.2	1.7	2.5	**n/a**	35
PVT	Indian-Tville	7/8/03	Clifton et al.	281	1377	16.95	83.05	1.89	11.87	0	36

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
PVT	Indian-Tville	7/6/99	Clifton	1	6	93	2.8	96	2.7	2	97
PVT	Indian-Tville	6/27/01	Clifton et al	n/a	n/a	n/a	n/a	98	0.4	1	99
PVT	Indian-Tville	7/7/03	Clifton et al.	n/a	n/a	n/a	n/a	93	0.93	0	93

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
PVT	Indian-Tville	6/27/01	Clifton et al	20	11.47	0.67	7.7
PVT	Indian-Tville	7/8/03	Clifton et al	52.5	42.43	0.71	30

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 residual pool depth changes could be due to observer error.

SCI Summary for Lights Cr above Deadfall Bridge

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Lights	6/24/99	Clifton et al.	1	47.20	1.88	2.55	25.15	55.79	1.18
PVT	Lights	6/24/99	Clifton et al.	2	48.80	1.74	2.61	28.05	56.62	1.16
PVT	Lights	6/24/99	Clifton et al.	3	53.70	2.25	4.10	23.86	69.60	1.30
PVT	Lights	6/14/01	Clifton et al.	1	49.95	0.94	1.48	53.13	65.23	1.30
PVT	Lights	6/14/01	Clifton et al.	2	33.50	1.32	1.21	25.45	73.00	2.20
PVT	Lights	6/14/01	Clifton et al.	3	20.10	1.73	2.94	11.61	57.30	2.85
PVT	Lights	7/10/03	Clifton et al.	1	46.40	1.02	1.45	45.43	59.60	1.28
PVT	Lights	7/10/03	Clifton et al.	2	40.00	0.98	1.64	41.03	70.20	1.76
PVT	Lights	7/10/03	Clifton et al.	3	22.40	1.29	2.95	17.33	49.90	2.23

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Lights	6/24/99	Brian & Ryan	1	40.5	2.2		18.70	49.8	1.23
PVT	Lights	6/24/99	Brian & Ryan	2	64.3	1.7		37.48	69.8	1.09
PVT	Lights	6/24/99	Brian & Ryan	3	46.5	1.9		25.02	57.1	1.23
PVT	Lights	6/24/99	Brian & Ryan	4	40.9	1.7		23.96	46.0	1.12
PVT	Lights	6/24/99	Brian & Ryan	5	42.8	1.3		31.73	60.5	1.42
PVT	Lights	6/14/01	Clifton et al.	1	36.75	1.11		33.1	45.75	1.24
PVT	Lights	6/14/01	Clifton et al.	2	22.6	1.76		12.84	51	2.25
PVT	Lights	6/14/01	Clifton et al.	3	22.55	1.28		17.61	80	3.54
PVT	Lights	6/14/01	Clifton et al.	4	33.6	2.06		16.31	51	1.51
PVT	Lights	6/14/01	Clifton et al.	5	43.1	1.75		24.62	49	1.13
PVT	Lights	7/10/03	Clifton et al.	1	13.9	1.42	3.02	9.78	72.7	5.23
PVT	Lights	7/10/03	Clifton et al.	2	27.8	1.38	2.43	20.16	60	2.16
PVT	Lights	7/10/03	Clifton et al.	3	33	1.26	2.55	26.14	58.3	1.77
PVT	Lights	7/10/03	Clifton et al.	4	45.9	1.52	2.17	30.11	58	1.26
PVT	Lights	7/10/03	Clifton et al.	5	37.9	1.63	2.52	23.27	54.5	1.44

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Lights	6/24/99	Brian & Ryan	448	974	32%	68%	3.5	62.7		
PVT	Lights	6/14/01	Clifton et al	189	1358	12.2	87.8	2.5	14.6	n/a	18
PVT	Lights	7/10/03	Clifton et al	228	1064	17.6	82.4	3.99	37.89		16

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
NS	Lights	6/23/99	Clifton et al	4	10	80	1.6	85	2.2	4	80
PVT	Lights	6/18/01	Clifton et al	n/a	n/a	n/a	n/a	78	1.4	0	79
PVT	Lights	7/11/03	Clifton et al	n/a	n/a	n/a	n/a	70	0.756	0	70

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Wolf Cr (near park at downstream end of town)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Wolf	6/22/99	Clifton et al.	1	19.60	1.57	3.05	12.48	61.78	3.15
PVT	Wolf	6/22/99	Clifton et al.	2	27.30	1.52	2.00	17.94	33.09	1.21
PVT	Wolf	6/22/99	Clifton et al.	3	23.50	1.45	1.95	16.18	41.35	1.76
PVT	Wolf	7/3/01	Clifton et al.	1	21.00	2.44	3.50	9.41	195.20	9.29
PVT	Wolf	7/3/01	Clifton et al.	2	28.80	1.74	3.30	16.50	79.50	2.76
PVT	Wolf	7/3/01	Clifton et al.	3	20.05	1.58	2.47	12.68	60.80	3.03
PVT	Wolf	6/26/03	Clifton et al.	1	17.55	1.47	2.94	11.93	58.20	3.32
PVT	Wolf	6/26/03	Clifton et al.	2	25.80	1.99	3.93	12.97	63.50	2.46
PVT	Wolf	6/26/03	Clifton et al.	3	24.80	1.25	1.97	19.89	45.90	1.85

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Wolf	6/22/99	Lindsey & Brian	1	26.5	1.3		20.78	63.0	2.38
PVT	Wolf	6/22/99	Lindsey & Brian	2	22.3	2.0		11.24	73.5	3.30
PVT	Wolf	6/22/99	Lindsey & Brian	3	26.7	1.7		16.12	37.6	1.41
PVT	Wolf	6/22/99	Lindsey & Brian	4	28.0	1.7		16.44	36.8	1.31
PVT	Wolf	6/22/99	Lindsey & Brian	5	31.5	1.2		26.31	37.7	1.20
PVT	Wolf	7/3/01	Clifton et al.	1	33.9	1.2		28.13	65.9	1.94
PVT	Wolf	7/3/01	Clifton et al.	2	44.6	1.26		35.28	51.6	1.15
PVT	Wolf	7/3/01	Clifton et al.	3	31.6	1.53		20.65	38.6	1.22
PVT	Wolf	7/3/01	Clifton et al.	4	41	1.44		28.47	45	1.09
PVT	Wolf	7/3/01	Clifton et al.	5	32.9	1.32		24.92	41.1	1.25
PVT	Wolf	6/25/03	Clifton et al.	1	33	1.09	1.69	30.18	45.9	1.39
PVT	Wolf	6/25/03	Clifton et al.	2	14.8	1.24	2.2	11.97	55.3	3.74
PVT	Wolf	6/25/03	Clifton et al.	3	19.9	1.44	2.73	13.81	55.6	2.79
PVT	Wolf	6/26/03	Clifton et al.	4	28.7	1.30	1.81	22.06	34.6	1.21
PVT	Wolf	6/26/03	Clifton et al.	5	28	1.25	2.14	22.40	40.5	1.45

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Wolf	6/22/99	Clifton et al	604	668	47%	53%	2.5	64.5		
PVT	Wolf	7/4/01	Clifton et al	445	781	36.3	63.7	1.9	21.7	n/a	15.5
PVT	Wolf	6/26/03	Clifton et al	369	629	37.0	63.0	2.6	26.4		18.5

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
PVT	Wolf	6/21/99	NS	0	16	84	46.78	92	0.86	3	92
PVT	Wolf	7/3/01	Clifton et al	n/a	n/a	n/a	n/a	93	0.85	0	94
PVT	Wolf	6/27/03	Clifton et al					81	0.78	0	79

FLOW MEASUREMENT (feet & se

				width	area	velocity	discharge
PVT	Wolf	7/3/01	Clifton et al	13	5.54	0.58	3.2
PVT	Wolf	6/25/03	Clifton et al	16.6	8.67	1.33	11.5

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 residual pool depth changes could be due to observer error.

SCI Summary for Indian above Spanish (at Dawn Institute)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Indian above Spanish	7/15/99	Clifton	1	76.70	2.82	5.30	27.21	129.16	1.68
PVT	Indian above Spanish	7/15/99	Clifton	2	182.00	1.93	3.46	94.37	264.05	1.45
PVT	Indian above Spanish	7/15/99	Clifton	3	86.00	2.66	3.74	32.38	109.14	1.27
PVT	Indian above Spanish	6/19/01	Clifton et al.	1	74.90	2.58	4.99	29.03	80.40	1.07
PVT	Indian above Spanish	6/19/01	Clifton et al.	2	193.95	2.30	4.16	84.30	284.55	1.47
PVT	Indian above Spanish	6/19/01	Clifton et al.	3	83.10	2.52	3.75	32.97	104.30	1.25
PVT	Indian above Spanish	7/2/03	Clifton et al.	1	74.00	2.32	4.51	31.90	103.40	1.40
PVT	Indian above Spanish	7/2/03	Clifton et al.	2	178.70	2.00	3.76	89.49	270.20	1.51
PVT	Indian above Spanish	7/2/03	Clifton et al.	3	86.00	2.15	3.75	39.96	108.00	1.26

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Indian above Spanish	7/15/99	Hodge/Martir	1	100.8	1.9		52.23	134.0	1.33
PVT	Indian above Spanish	7/15/99	Hodge/Martir	2	159.5	1.7		91.67		
PVT	Indian above Spanish	7/15/99	Hodge/Martir	3	122.0	2.5		48.22		
PVT	Indian above Spanish	7/15/99	Hodge/Martir	4	86.8	2.0		42.76	104.5	1.20
PVT	Indian above Spanish	7/15/99	Hodge/Martir	5	84.6	1.8		48.07	108.0	1.28
PVT	Indian above Spanish	6/20/01	Clifton et al.	1	85.2	2.7		30.46	147.45	1.73
PVT	Indian above Spanish	6/20/01	Clifton et al.	2	73.65	2.35		31.34	126.8	1.72
PVT	Indian above Spanish	6/20/01	Clifton et al.	3	160.7	2.56		62.77	277	1.72
PVT	Indian above Spanish	6/20/01	Clifton et al.	4	125	2.23		56.05	198.7	1.58
PVT	Indian above Spanish	6/20/01	Clifton et al.	5	77.3	1.93		40.05	121	1.58
PVT	Indian above Spanish	7/2/03	Clifton et al.	1	155.6	1.99	3.63	78.02	269	1.73
PVT	Indian above Spanish	7/2/03	Clifton et al.	2	156.5	2.72	5.88	57.45	290.5	1.86
PVT	Indian above Spanish	7/2/03	Clifton et al.	3	86.9	2.36	3.55	36.87	117	1.35
PVT	Indian above Spanish	7/2/03	Clifton et al.	4	90.8	2.20	3.32	41.35	112	1.23
PVT	Indian above Spanish	7/2/03	Clifton et al.	5	91.3	2.06	3.16	44.32	122.4	1.34

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Indian above Spanish	7/14/99	Clifton	360	751	32%	68%	4.0	13.3		
PVT	Indian above Spanish	6/20/01	Clifton et al	585	638	47.8	52.2	3.9	7	**n/a**	102
PVT	Indian above Spanish	7/2/03	Clifton et al.	390	681	36.41	63.59	4.12	21.11	0	104

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PVT	Indian above Spanish	7/14/99	NS	55	45	0	9.28	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds

				width	area	velocity	discharge
PVT	Indian above Spanish	6/20/01	Clifton et al	48	68	0.41	27.7
PVT	Indian above Spanish	7/1/03	Clifton et al	51	57.4	1.31	75.18

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Greenhorn Cr above confluence with Spanish Cr

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Greenhorn	6/14/99	Lindsey Kelly	1	43.90	1.44	3.51	30.39	57.72	1.31
PVT	Greenhorn	6/15/99	Lindsey Kelly	2	40.00	2.05	3.74	19.49	60.79	1.52
PVT	Greenhorn	6/15/99	Lindsey Kelly	3	46.80	0.99	1.71	47.10	55.85	1.19
PVT	Greenhorn	6/11/01	Clifton et al.	1	40.30	1.00	1.66	40.50	48.80	1.21
PVT	Greenhorn	6/11/01	Clifton et al.	2	35.40	1.30	1.38	27.20	46.20	1.30
PVT	Greenhorn	6/11/01	Clifton et al.	3	44.10	1.15	1.99	38.30	65.00	1.47
PVT	Greenhorn	6/16/03	Clifton et al.	1	39.10	0.75	1.82	52.13	50.70	1.30
PVT	Greenhorn	6/16/03	Clifton et al.	2	38.90	2.10	3.26	18.52	55.80	1.43
PVT	Greenhorn	6/16/03	Clifton et al.	3	45.90	1.41	2.37	32.55	60.70	1.32

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Greenhorn	6/15/99	Lindsey Kelly	1	21.0	1.6		12.79	55.0	2.62
PVT	Greenhorn	6/15/99	Lindsey Kelly	2	37.3	2.2		17.23	45.1	1.21
PVT	Greenhorn	6/15/99	Lindsey Kelly	3	37.5	1.3		28.28	52.4	1.40
PVT	Greenhorn	6/15/99	Lindsey Kelly	4	32.2	1.4		23.57	44.2	1.37
PVT	Greenhorn	6/15/99	Lindsey Kelly	5	36.5	2.2		16.68	49.8	1.36
PVT	Greenhorn	6/11/01	Clifton et al.	1	49.9	1.7		29.4	64.9	1.3
PVT	Greenhorn	6/11/01	Clifton et al.	2	38.4	1.4		27.4	55.1	1.4
PVT	Greenhorn	6/11/01	Clifton et al.	3	32.8	0.9		36.4	45.1	1.4
PVT	Greenhorn	6/11/01	Clifton et al.	4	36.8	1.5		24.5	55.2	1.5
PVT	Greenhorn	6/11/01	Clifton et al.	5	29.2	2.1		13.9	53.95	1.8
PVT	Greenhorn	6/16/03	Clifton et al.	1	34.2	1.17	1.55	29.23	44.05	1.29
PVT	Greenhorn	6/16/03	Clifton et al.	2	30	1.25	2.1	24.00	44.1	1.47
PVT	Greenhorn	6/16/03	Clifton et al.	3	31.3	1.21	1.82	25.87	53	1.69
PVT	Greenhorn	6/16/03	Clifton et al.	4	43.5	1.63	2.46	26.69	57.6	1.32
PVT	Greenhorn	6/16/03	Clifton et al.	5	51	1.6	2.53	31.88	69.5	1.36

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Greenhorn	6/14/99	Lindsey Buis-	312	420	43%	57%	1.04	30.7		
PVT	Greenhorn	6/12/01	Clifton et. Al	240	558	30	70	2.20	33		22
PVT	Greenhorn	6/17/03	Clifton et al.	192	594	24	76	3.23	6		18

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PVT	Greenhorn	6/15/99	Lindsey Buis-	46	31	23	16.31	66		25	75
PVT	Greenhorn	6/12/01	Clifton et. Al	n/a	n/a	n/a	n/a	85		14	86
PVT	Greenhorn	6/17/03	Clifton et. Al	n/a	n/a	n/a	n/a	70	0.78	0	70

FLOW MEASUREMENT (feet & se

				width	area	velocity	discharge
PVT	Greenhorn	6/11/01	Clifton et al	12.8	6.79	1.61	11
PVT	Greenhorn	6/16/03	Clifton et al	27.6	21.63	1.35	29.2

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Spanish Cr above Greenhorn Cr (above confluence with)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Spanish Above Greenhorn	6/29/99	Clifton et al.	1	80.60	1.47	1.93	54.78	92.22	1.14
PVT	Spanish Above Greenhorn	6/28/99	Clifton et al.	2	57.30	1.85	2.71	31.06	69.87	1.22
PVT	Spanish Above Greenhorn	6/28/99	Clifton et al.	3	59.30	1.66	2.78	35.63	87.14	1.47
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	1	83.00	2.02	3.38	41.08	104.30	1.25
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	2	55.30	1.99	3.68	27.78	83.70	1.51
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	3	100.40	2.75	4.66	36.50	114.40	1.14
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	1	81.10	2.28	4.13	35.57	119.20	1.47
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	2	62.30	2.34	3.65	26.62	96.30	1.55
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	3	75.00	2.40	5.15	31.25	94.20	1.26

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Spanish Above Greenhorn	6/28/99	Martin & Hodge	1	58.4	1.7		34.01	100.4	1.72
PVT	Spanish Above Greenhorn	6/28/99	Martin & Hodge	2	49.8	1.5		33.36	76.5	1.54
PVT	Spanish Above Greenhorn	6/28/99	Martin & Hodge	3	41.5	1.9		21.80	92.2	2.22
PVT	Spanish Above Greenhorn	6/28/99	Martin & Hodge	4	44.4	2.1		21.33	90.8	2.05
PVT	Spanish Above Greenhorn	6/28/99	Martin & Hodge	5	70.7	1.7		40.71	108.8	1.54
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	1	52.9	3.06		17.28	119.9	2.26
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	2	81.5	2.13		38.26	97.5	1.19
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	3	62.9	1.97		31.9	84.4	1.34
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	4	65.2	2.22		29.36	113.6	1.74
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al.	5	65.25	1.92		33.98	107	1.64
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	1	86	2.18	3.19	39.45	101.1	1.18
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	2	79.6	2.23	4.15	35.70	120.3	1.51
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	3	82.4	2.49	4.37	33.09	99.1	1.20
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	4	58	2.56	4.14	22.66	98.6	1.70
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al.	5	82	2.12	3.51	38.68	112	1.37

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PVT	Spanish Above Greenhorn	6/28/99	Clifton et al	483	935	34%	66%	5.1	19.7		
PVT	Spanish Above Greenhorn	6/28/01	Clifton et al	323	1165	21.7	78.3	4.01	16.8	n/a	11
PVT	Spanish Above Greenhorn	6/19/03	Clifton et al	356	1146	23.7	76.3	5.9	14.53		17

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating # Stable	# Vulnerable	# Unstable	Average % shade	ShoreDepth % = 0	Avg of rest	BankAngle % < 90	% > 90
PVT	Spanish Above Greenhorn	6/28/99	Clifton et al	5	6	89	5.9	95	1.3	1	93
PVT	Spanish Above Greenhorn	7/2/01	Clifton et al	n/a	n/a	n/a	n/a	74	1.8	0	75
PVT	Spanish Above Greenhorn	6/19/03	Clifton et al					79	2.16	0	78

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
PVT	Spanish Above Greenhorn	7/2/01	Clifton et al	21.4	8.22	2.38	19.6
PVT	Spanish Above Greenhorn	6/18/03	Clifton et al	40	52.8	1.61	85.2

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Spanish_campwallace

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	1	76.40	2.03	3.28	37.65	110.10	1.44
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	2	105.70	2.58	4.68	40.95	136.48	1.29
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	3	91.00	2.13	3.75	42.66	141.00	1.55
PNF	Spanish Above Indian	6/18/01	Clifton et al.	1	101.80	2.90	4.66	35.10	151.80	1.49
PNF	Spanish Above Indian	6/18/01	Clifton et al.	2	109.00	3.05	5.15	35.70	135.60	1.24
PNF	Spanish Above Indian	6/18/01	Clifton et al.	3	83.00	2.80	5.60	29.28	137.50	1.67
PNF	Spanish Above Indian	6/30/03	Clifton et al.	1	97.30	2.49	4.23	39.05	147.30	1.51
PNF	Spanish Above Indian	6/30/03	Clifton et al.	2	111.00	2.93	4.19	37.86	136.50	1.23
PNF	Spanish Above Indian	6/30/03	Clifton et al.	3	80.90	3.08	5.22	26.29	131.50	1.63

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	1	80.5	2.2		36.48	97.0	1.20
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	2	71.9	2.1		34.30		
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	3	76.5	2.0		37.86	129.0	1.69
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	4	50.5	2.1		24.21	80.0	1.58
PNF	Spanish-CampWallace	7/13/99	Clifton et al.	5	51.2	2.1		24.67		
PNF	Spanish above Indian	6/18/01	Clifton et al.	1	95.8	2.37		40.42	124.8	1.3
PNF	Spanish above Indian	6/18/01	Clifton et al.	2	85.8	2.5		34.32	125.6	1.46
PNF	Spanish above Indian	6/18/01	Clifton et al.	3	111.5	1.72		64.8	145.65	1.3
PNF	Spanish above Indian	6/18/01	Clifton et al.	4	69.3	2.8		24.75	128.8	1.85
PNF	Spanish above Indian	6/18/01	Clifton et al.	5	97.1	2.4		40.45	150.5	1.54
PNF	Spanish above Indian	6/30/03	Clifton et al.	1	89.5	3.00824	4.42	29.75	149.5	1.67
PNF	Spanish above Indian	6/30/03	Clifton et al.	2	90.6	3.45667	5.01	26.21	137	1.51
PNF	Spanish above Indian	6/30/03	Clifton et al.	3	84	2.94333	4.67	28.54	127.3	1.52
PNF	Spanish above Indian	6/30/03	Clifton et al.	4	77.5	2.668	5.18	29.05	123	1.59
PNF	Spanish above Indian	6/30/03	Clifton et al.	5	78.5	2.81063	4.19	27.93	123	1.57

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	Spanish above Indian		Clifton et. al	423	1127	27%	73%	5.1	36.8	n/a	
PNF	Spanish above Indian		Clifton et. al	452	1232	26.8	73.2	3.2	10.3	n/a	29.5
PNF	Spanish above Indian	7/1/03	Clifton et. al	398	1018	28.1	71.9	3.9	12.4	n/a	28.5

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	Spanish above Indian	7/14/99	Clifton et. al	49	42	9	28.75	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
PNF	Spanish above Indian	6/19/01	Clifton et al	32.1	32.18	0.8	25.6
PNF	Spanish above Indian	7/1/03	Clifton et al	105	123.35	0.7	86.1

Biota Observations: none

Definitions:
Width:Depth - field-id'ed bankfull width / mean bankfull depth
Floodprone width - width at 2x max bankfull depth
Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width
Residual pool depth = max pool depth minus max depth of pooltail crest
% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)
Bank stability measured at a one foot wide plot, going from bankfull upslope to break
Stable - 75% veg, or other non-erodable cover, no sign of instability
Vulnerable - same as stable, but with sign of instability
Unstable - less than 75% cover, may have other instability indicators
% shade - only one measurement per transect with a solar pathfinder
Shore depth - measured @ the current water's edge
Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation
* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Rock Cr (near mouth, above confluence with Spanish Cr)

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	Rock	6/17/99	Clifton et al.	1	52.80	1.40	1.80	37.74	62.31	1.18
PNF	Rock	6/17/99	Clifton et al.	2	45.00	1.29	2.21	34.82	56.97	1.27
PNF	Rock	6/17/99	Clifton et al.	3	49.35	1.66	2.62	29.70	60.51	1.23
PNF	Rock	6/12/01	Clifton et al.	1	52.10	1.71	2.36	30.46	67.80	1.30
PNF	Rock	6/12/01	Clifton et al.	2	49.55	2.43	4.04	20.39	75.40	1.52
PNF	Rock	6/12/01	Clifton et al.	3	50.60	1.90	3.16	26.60	65.80	1.30
PNF	Rock	6/23/03	Clifton et al.	1	54.00	1.79	2.40	30.21	66.60	1.23
PNF	Rock	6/23/03	Clifton et al.	2	51.10	2.10	3.17	24.38	74.00	1.45
PNF	Rock	6/23/03	Clifton et al.	3	52.50	2.08	3.33	25.28	66.80	1.27

PASS #2 TRANSECT SUMMAR\

				Transect						
PNF	Rock	6/17/99	Brian Hodge	1	49.5	1.7		28.95	67.9	1.37
PNF	Rock	6/17/99	Brian Hodge	2	39.0	1.4		27.51	46.5	1.19
PNF	Rock	6/17/99	Brian Hodge	3	49.5	1.7		29.88	60.3	1.22
PNF	Rock	6/17/99	Brian Hodge	4	43.9	1.4		31.84	54.0	1.23
PNF	Rock	6/17/99	Brian Hodge	5	37.5	1.5		25.00	54.6	1.46
PNF	Rock	6/12/01	Clifton et al.	1	48.25	1.7		28.4	89.25	1.8
PNF	Rock	6/12/01	Clifton et al.	2	39.4	2.5		15.76	66.6	1.7
PNF	Rock	6/12/01	Clifton et al.	3	57.65	1.66		34.7	96.05	1.66
PNF	Rock	6/12/01	Clifton et al.	4	62.4	1.68		37.1	115.4	1.84
PNF	Rock	6/12/01	Clifton et al.	5	44.2	2.33		18.9	67.2	1.52
PNF	Rock	6/23/03	Clifton et al.	1	47	1.97	2.57	23.90	76.5	1.63
PNF	Rock	6/23/03	Clifton et al.	2	63	2.50	3.52	25.23	118.7	1.88
PNF	Rock	6/23/03	Clifton et al.	3	51	2.63	4.01	19.37	116.5	2.28
PNF	Rock	6/23/03	Clifton et al.	4	44	2.22	3.24	19.84	87.5	1.99
PNF	Rock	6/23/03	Clifton et al.	5	46.3	2.1	3.1	21.67	92.20	1.99

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large
				Fast	Slow	Fast	Slow	Pool Depth	in Pooltails	Wood
PNF	Rock	6/17/99	Brian Hodge	1233	680	64%	36%	0.8	23.8	n/a
PNF	Rock	6/13/01	Clifton et al	1118	724	60.7	39.3	1.3	4.7	n/a
PNF	Rock	6/25/03	Clifton et al	1085	689	61.2	38.8	2.1	9.5	

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	Rock	6/17/99	Brian Hodge	27	31	42	41.58	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PNF	Rock		Clifton et al								

FLOW MEASUREMENT (feet &

				width	area	velocity	discharge
PNF	Rock	6/13/01	Clifton et al	13	10.38	0.71	7.4
PNF	Rock	6/23/03	Clifton et al	35	28.48	1.24	35.2

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

SCI Summary for East Branch North Fork Feather River above NFFR

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	EBNFFR above NFFR	8/9/99	Clifton et. al	1	98.60	2.26	3.53	43.63	141.95	1.44
PNF	EBNFFR above NFFR	8/9/99	Clifton et. al	2	115.30	2.47	4.39	46.73	294.80	2.56
PNF	EBNFFR above NFFR	8/9/99	Clifton et. al	3	150.60	3.17	4.78	47.45	214.30	1.42
PVT	EBNFFR above NFFR	7/16/01	Clifton et al.	1	124.20	2.49	3.86	49.87	169.00	1.36
PVT	EBNFFR above NFFR	7/16/01	Clifton et al.	2	129.30	2.41	4.49	53.65	342.00	2.64
PVT	EBNFFR above NFFR	7/16/01	Clifton et al.	3	167.60	2.20	3.98	76.18	211.40	1.26
	EBNFFR above NFFR	7/14/03	Clifton et al.	1	122.40	3.81	5.03	32.11	160.30	1.31
	EBNFFR above NFFR	7/14/03	Clifton et al.	2	130.50	3.48	4.69	37.54	327.40	2.51
	EBNFFR above NFFR	7/15/03	Clifton et al.	3	152.10	2.58	4.06	59.00	207.20	1.36

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	EBNFFR above NFFR	8/9/99	Clifton	1	111.2	2.3		52.21	148.8	1.34
PNF	EBNFFR above NFFR	8/9/99	Clifton	2	101	2.7		37.03	159.6	1.58
PNF	EBNFFR above NFFR	8/9/99	Clifton	3	146	4.3		34.35	240.0	1.64
PNF	EBNFFR above NFFR	8/9/99	Clifton	4	84.9	2.8		30.82	153.0	1.80
PNF	EBNFFR above NFFR	8/9/99	Clifton	5	147.8	2.0		75.44	200.0	1.35
PNF	EBNFFR above NFFR	7/16/01	Clifton et al.	1	145.8	2.81		51.88	229.8	1.57
PNF	EBNFFR above NFFR	7/16/01	Clifton et al.	2	131	2.94		44.55	181.9	1.38
PNF	EBNFFR above NFFR	7/16/01	Clifton et al.	3	72.3	3.06		23.62	126.3	1.74
PNF	EBNFFR above NFFR	7/16/01	Clifton et al.	4	110.2	2.42		45.5	162.6	1.47
PNF	EBNFFR above NFFR	7/16/01	Clifton et al.	5	98.3	2.66		36.95	185	1.88
PNF	EBNFFR above NFFR	7/14/03	Clifton et al.	1	119.4	2.98	4.85	40.06	153.40	1.28
PNF	EBNFFR above NFFR	7/14/03	Clifton et al.	2	151	3.05	4.27	49.53	185.80	1.23
PNF	EBNFFR above NFFR	7/14/03	Clifton et al.	3	143	4.22	6.12	33.88	341.00	2.38
PNF	EBNFFR above NFFR	7/15/03	Clifton et al.	4	117.3	3.35	5.01	35.07	158.90	1.35
PNF	EBNFFR above NFFR	7/15/03	Clifton et al.	5	128.5	3.29	5.21	39.09	183.60	1.43

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	EBNFFR above NFFR	8/4/99	Clifton	725	1804	29%	71%	7.0	10.3	0	
PNF	EBNFFR above NFFR	7/17/01	Clifton et al	705	1332	34.6	65.4	6.5	11.75	n/a	102
PNF	EBNFFR above NFFR	7/15/03	Clifton et al	818.0	1759	31.74	68.26	6.84	12.17		95

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	EBNFFR above NFFR	8/4/99	Clifton	37	10	53	18.4	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds

				width	area	velocity	discharge
PNF	EBNFFR above NFFR	7/17/01	Clifton et al	81.7	122.9	0.46	56.6
PNF	EBNFFR above NFFR	7/15/03	Clifton et al	104	130.6	1.14	149.5

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for MFFR-Beckworth

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	MFFR-Beckwourth	8/18/99	Clifton et al	1	32.70	0.92	1.20	35.72	46.55	1.42
PNF	MFFR-Beckwourth	8/18/99	Clifton et al	2	31.50	1.58	2.58	19.99	108.24	3.44
PNF	MFFR-Beckwourth	8/18/99	Clifton et al	3	38.20	1.24	1.64	30.85	102.59	2.69
PNF	MFFR-Beckwourth	7/11/01	Clifton et al.	1	85.90	1.50	2.27	57.26	124.60	1.45
PNF	MFFR-Beckwourth	7/11/01	Clifton et al.	2	31.70	1.30	2.39	24.38	66.90	2.11
PNF	MFFR-Beckwourth	7/11/01	Clifton et al.	3	39.80	1.14	1.90	34.91	139.50	3.57
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	1	47.70	1.64	2.53	29.04	138.70	2.91
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	2	32.30	1.37	2.05	23.64	54.10	1.67
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	3	85.40	1.71	2.76	50.01	189.50	2.22

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	MFFR-Beckwourth	8/18/99	Clifton	1	62.3	1.4		44.00	118.8	1.91
PNF	MFFR-Beckwourth	8/18/99	Clifton	2	20.7	1.8		11.69	102.5	4.95
PNF	MFFR-Beckwourth	8/18/99	Clifton	3	35.7	1.3		27.05	84.0	2.35
PNF	MFFR-Beckwourth	8/18/99	Clifton	4	27.7	1.3		21.90	64.3	2.32
PNF	MFFR-Beckwourth	8/18/99	Clifton	5	29.7	1.2		25.17	49.3	1.66
PNF	MFFR-Beckwourth	7/10/01	Clifton et al.	1	30.2	1.49		20.26	108.2	3.58
PNF	MFFR-Beckwourth	7/10/01	Clifton et al.	2	69.7	1.53		45.5	104	1.49
PNF	MFFR-Beckwourth	7/10/01	Clifton et al.	3	23.8	1.75		13.6	98.3	4.13
PNF	MFFR-Beckwourth	7/10/01	Clifton et al.	4	31.5	1.32		23.86	59	1.87
PNF	MFFR-Beckwourth	7/10/01	Clifton et al.	5	35.6	1.24		28.7	55.6	1.56
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	1	42.4	1.51	2.55	28.14	135.9	3.21
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	2	73.7	1.75	2.94	42.22	111.4	1.51
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	3	37.6	1.43	2.7	26.21	110	2.93
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	4	37.7	1.95	2.86	19.33	78.7	2.09
PNF	MFFR-Beckwourth	7/31/03	Clifton et al.	5	35.9	1.81	2.8	19.89	72.7	2.03

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	MFFR-Beckwourth	8/19/99	Clifton	127	1514	8%	92%	4.3	81.6		
PNF	MFFR-Beckwourth	7/12/01	Clifton et al	112	1539	6.8	93.2	3.5	35	n/a	4.9
PNF	MFFR-Beckwourth	9/3/03	Clifton et al	178	1575	10.2	89.8	4.12	58.33	0	15

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	MFFR-Beckworth	8/19/99	Clifton et al	34	22	44	1.71	95	0.95	0	96
PNF	MFFR-Beckworth	7/12/01	Clifton et al	n/a	n/a	n/a	n/a	91	0.71	0	91
PNF	MFFR-Beckworth	8/4/03	Clifton et al	n/a	n/a	n/a	n/a	39.22	0.54	0	60

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge	
PNF	MFFR-Beckworth	7/12/01	Clifton et al	0	0	0	0	dry
PNF	MFFR-Beckworth	8/4/03	Clifton et al	0	0	0	0	discontinuous pools

Biota Observations: none

Definitions:
Width:Depth - field-id'ed bankfull width / mean bankfull depth
Floodprone width - width at 2x max bankfull depth
Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width
Residual pool depth = max pool depth minus max depth of pooltail crest
% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)
Bank stability measured at a one foot wide plot, going from bankfull upslope to break
Stable - 75% veg, or other non-erodable cover, no sign of instability
Vulnerable - same as stable, but with sign of instability
Unstable - less than 75% cover, may have other instability indicators
% shade - only one measurement per transect with a solar pathfinder
Shore depth - measured @ the current water's edge
Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation
* '99 to '03 changes in residual pool depth could be due to observer error.

SCI Summary for Sulphur Creek

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PVT	Sulphur	8/16/99	Clifton et al	1	49.3	1.2	1.88	41.23	82.92	1.68
PVT	Sulphur	8/16/99	Clifton et al	2	33.4	1.04	1.6	32.11	92.22	1.14
PVT	Sulphur	8/16/99	Clifton et al	3	53.8	1.31	1.89	41.07	202.76	3.77
PVT	Sulphur	7/9/01	Clifton et al	1	45.40	0.88	1.67	51.60	84.40	1.86
PVT	Sulphur	7/9/01	Clifton et al	2	35.10	1.00	1.67	35.10	59.90	1.70
PVT	Sulphur	7/10/01	Clifton et al	3	52.10	1.30	1.98	40.00	80.90	1.55
PVT	Sulphur	7/30/03	Clifton et al	1	46.10	1.01	1.83	45.52	88.10	1.91
PVT	Sulphur	7/30/03	Clifton et al	2	37.20	1.04	1.75	35.77	64.50	1.73
PVT	Sulphur	7/30/03	Clifton et al	3	55.20	1.37	2.13	40.44	218.60	3.96

PASS #2 TRANSECT SUMMARY

				Transect						
PVT	Sulphur	8/16/99	Clifton et al	1	63.0	1.3		49.75	71.2	1.13
PVT	Sulphur	8/16/99	Clifton et al	2	41.0	1.3		32.69	86.5	2.11
PVT	Sulphur	8/16/99	Clifton et al	3	38.7	1.4		27.89	133.0	3.44
PVT	Sulphur	8/16/99	Clifton et al	4	37.5	1.3		28.69	72.0	1.92
PVT	Sulphur	8/16/99	Clifton et al	5	34.6	1.4		24.86	86.4	2.50
PVT	Sulphur	7/9/01	Clifton et al	1	40	1.26		31.75	81.4	2.04
PVT	Sulphur	7/9/01	Clifton et al	2	35	1.65		21.21	48.2	1.37
PVT	Sulphur	7/9/01	Clifton et al	3	37.5	1		37.5	93	2.48
PVT	Sulphur	7/9/01	Clifton et al	4	33.65	1.43		23.53	301.65	8.9
PVT	Sulphur	7/9/01	Clifton et al	5	35.1	1.05		33.42	98.6	2.8
PVT	Sulphur	7/30/03	Clifton et al	1	46.00	1.37	2.07	33.60	74.10	1.61
PVT	Sulphur	7/30/03	Clifton et al	2	39.80	1.33	1.67	30.04	89.40	2.25
PVT	Sulphur	7/30/03	Clifton et al	3	38.50	1.37	1.84	28.14	121.50	3.16
PVT	Sulphur	7/30/03	Clifton et al	4	37.6	1.70429	2.76	22.06	155.8	4.14
PVT	Sulphur	7/30/03	Clifton et al	5	43	1.44	2.13	29.86	248.6	5.78

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual Pool Depth*	Average % Fines in Pooltails	# Pieces Large Wood	Pebble Count D50
				Fast	Slow	Fast	Slow				
PVT	Sulphur	8/17/99	Clifton et. al	752	724	51%	49%	1.5	40.1	0.0	
PVT	Sulphur	7/10/01	Clifton et. al	760	708	51.8	48.2	1.3	10.0	n/a	31
PVT	Sulphur	9/3/03	Clifton et. al	705	802	46.8	53.2	1.84	18.83	1	39

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PVT	Sulphur	8/17/99	Clifton et. al	3	6	91	18.86	87	0.8	8	87
PVT	Sulphur	7/10/01	Clifton et. al	n/a	n/a	n/a	n/a	88	0.5	1	89
PVT	Sulphur	7/30/03	Clifton et. al	n/a	n/a	n/a	n/a	86	0.86	4	84

FLOW MEASUREMENT (feet & seco

				width	area	velocity	discharge
PVT	Sulphur	7/10/01	Clifton et al	21.2	10.62	0.64	6.8
PVT	Sulphur	7/30/03	Clifton et al	33	14.14	0.81	11.5

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 residual pool depth changes could be due to observer error.

SCI Summary for Jamison Cr

NOTE: all units are in feet and tenths

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	Jamison	7/12/99	Clifton et al.	1	37.90	2.42	3.24	15.68	55.49	1.46
PNF	Jamison	7/12/99	Clifton et al.	2	48.30	1.77	2.71	27.25	55.08	1.14
PNF	Jamison	7/12/99	Clifton et al.	3	41.10	1.69	2.39	24.29	47.60	1.16
PNF	Jamison	7/9/01	Clifton et al.	1	39.80	1.97	3.21	20.20	52.40	1.31
PNF	Jamison	7/9/01	Clifton et al.	2	49.70	1.75	3.02	28.40	54.85	1.10
PNF	Jamison	7/9/01	Clifton et al.	3	41.70	1.59	2.48	26.22	48.30	1.15
PNF	Jamison	7/29/03	Clifton et al.	1	37.90	1.43	2.90	26.50	50.80	1.34
PNF	Jamison	7/29/03	Clifton et al.	2	49.10	1.61	2.79	30.44	54.00	1.10
PNF	Jamison	7/29/03	Clifton et al.	3	42.30	1.39	2.21	30.40	47.90	1.13

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	Jamison	7/12/99	Clifton	1	40.8	1.5		28.14	54.8	1.34
PNF	Jamison	7/12/99	Clifton	2	33.7	1.5		22.41	89.6	2.66
PNF	Jamison	7/12/99	Clifton	3	41.5	1.5		27.47	48.2	1.16
PNF	Jamison	7/12/99	Clifton	4	36.8	1.7		22.25	42.0	1.14
PNF	Jamison	7/12/99	Clifton	5	39.0	1.5		25.79	52.7	1.35
PNF	Jamison	7/4/01	Clifton et al.	1	44	1.51		29.14	50.5	1.15
PNF	Jamison	7/4/01	Clifton et al.	2	37.4	1.54		24.28	50	1.33
PNF	Jamison	7/4/01	Clifton et al.	3	37.2	1.57		23.69	48.8	1.31
PNF	Jamison	7/4/01	Clifton et al.	4	41	1.74		23.56	54.1	1.31
PNF	Jamison	7/4/01	Clifton et al.	5	36.4	1.62		22.46	48.95	1.34
PNF	Jamison	7/29/03	Clifton et al.	1	39.7	1.66	2.48	23.87	45	1.13
PNF	Jamison	7/29/03	Clifton et al.	2	40	1.58545	2.29	25.23	48	1.20
PNF	Jamison	7/29/03	Clifton et al.	3	46	1.2975	1.77	35.45	53.2	1.16
PNF	Jamison	7/29/03	Clifton et al.	4	38.8	1.585	2.46	24.48	52.8	1.36
PNF	Jamison	7/29/03	Clifton et al.	5	39.3	1.50583	2.56	26.10	48.9	1.24

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	Jamison	7/26/99	Clifton	912	197	82%	18%	1.3	8.5	0.0	
PNF	Jamison	7/9/01	Clifton et. al	885	225	79.7	20.3	1.0	2.6	n/a	34
PNF	Jamison	7/28/03	Clifton et. al	920	171	84.3	15.7	1.7	11.5		32

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	Jamison	6/8/99	Clifton et. al	64	5	31	27.382	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & secor

				width	area	velocity	discharge
PNF	Jamison	7/9/01	Clifton et al		11.51	1.25	14.4
PNF	Jamison	7/28/03	Clifton et al	29.6	15.57	1.66	25.8

Biota Observations: none

Definitions:

Width:Depth - field-id'ed bankfull width / mean bankfull depth

Floodprone width - width at 2x max bankfull depth

Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width

Residual pool depth = max pool depth minus max depth of pooltail crest

% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)

Bank stability measured at a one foot wide plot, going from bankfull upslope to break

Stable - 75% veg, or other non-erodable cover, no sign of instability

Vulnerable - same as stable, but with sign of instability

Unstable - less than 75% cover, may have other instability indicators

% shade - only one measurement per transect with a solar pathfinder

Shore depth - measured @ the current water's edge

Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation

* '99 to '03 changes in residual pool depth cold be due to observer error.

SCI Summary for Middle Fork Feather River @ Nelson PT

NOTE: all units are in feet and tenths

Pass 1 SUMMARY

Owner	Stream	Date	Crew	D50
PNF	MFFR-Nelson	7/11/01	Clifton/et. al	93
PNF	MFFR-Nelson	7/24/03	Clifton/et. al	74

PASS #2 CROSS-SECTION SUMMARY

Owner	Stream	Date	Crew	Cross-section	Bankfull Width	Mean Bankfull Depth	Max Bankfull Depth	Width:Depth Ratio	Floodprone width	Entrenchment Ratio
PNF	MFFR-Nelson	7/22/99	Clifton/et. al	1	77.50	2.74	4.46	28.26	110.03	1.42
PNF	MFFR-Nelson	7/22/99	Clifton	2	127.90	2.28	4.01	55.99	138.02	1.08
PNF	MFFR-Nelson	7/21/99	Clifton - et. al	3	103.50	1.95	2.87	53.05	189.01	1.83
PNF	MFFR-Nelson	7/15/01	Clifton et. Al	1	77.20	2.44	4.65	31.63	108.00	1.40
PNF	MFFR-Nelson	7/15/01	Clifton et. Al	2	126.80	2.55	3.96	49.70	145.00	1.14
PNF	MFFR-Nelson	7/11/01	Clifton et. Al	3	107.75	2.10	3.40	51.30	197.90	1.83
PNF	MFFR-Nelson	7/24/03	Clifton et. Al	1	77.00	2.81	4.58	27.40	113.70	1.48
PNF	MFFR-Nelson	7/24/03	Clifton et. Al	2	124.40	2.30	3.96	54.06	138.60	1.11
PNF	MFFR-Nelson	7/24/03	Clifton et. Al	3	71.20	2.06	3.22	34.64	185.10	2.60

PASS #2 TRANSECT SUMMARY

				Transect						
PNF	MFFR-Nelson	7/21/99	Clifton	1	69.9	1.8		39.35	178.9	2.56
PNF	MFFR-Nelson	7/21/99	Clifton	2	113.0	1.9		59.38	179.4	1.59
PNF	MFFR-Nelson	7/21/99	Clifton	3	86.2	3.1		27.48	118.8	1.38
PNF	MFFR-Nelson	7/21/99	Clifton	4	82.0	2.1		38.95	96.2	1.17
PNF	MFFR-Nelson	7/21/99	Clifton	5	82.1	2.8		29.24	116.7	1.42
PNF	MFFR-Nelson	7/12/01	Clifton	1	76.7	2.23		34.39	197.7	2.57
PNF	MFFR-Nelson	7/12/01	Clifton	2	102	2.04		50	135.8	1.33
PNF	MFFR-Nelson	7/12/01	Clifton	3	114.5	1.58		72.46	134.5	1.17
PNF	MFFR-Nelson	7/12/01	Clifton	4	80	2.2		36.6	112.5	1.39
PNF	MFFR-Nelson	7/12/01	Clifton	5	87.4	2.03		43.05	107.4	1.22
PNF	MFFR-Nelson	7/24/03	Clifton	1	72.7	2.31	5.49	31.43	194.3	2.67
PNF	MFFR-Nelson	7/24/03	Clifton	2	102.4	2.42	4.44	42.37	137.4	1.34
PNF	MFFR-Nelson	7/24/03	Clifton	3	114.2	2.27	4.09	50.28	139.8	1.22
PNF	MFFR-Nelson	7/24/03	Clifton	4	94.5	2.87	5.2	32.94	118	1.25
PNF	MFFR-Nelson	7/24/03	Clifton	5	81.9	2.93	5.2	27.92	101	1.23

PASS#3 Pool Data

				Total Habitat Lengths		Percent Habitat Length		Average Residual	Average % Fines	# Pieces Large	Pebble Count
				Fast	Slow	Fast	Slow	Pool Depth*	in Pooltails	Wood	D50
PNF	MFFR-Nelson	7/26/99	Clifton et. al	823	983	46%	54%	5.6	15.3	0.0	
PNF	MFFR-Nelson	7/15/01	Clifton et. al	920	988	48.2	51.8	5.1	8.7	n/a	92
PNF	MFFR-Nelson	7/24/03	Clifton et. al	965	1165	45.3	54.7	5.6	7.0	n/a	73

PASS#4 (measurements on two banks at each of 50 transects)

				Bank Stability Rating			Average	ShoreDepth		BankAngle	
				# Stable	# Vulnerable	# Unstable	% shade	% = 0	Avg of rest	% < 90	% > 90
PNF	MFFR-Nelson	8/17/99	Clifton et. al	51	35	14	15.64	n/a	n/a	n/a	n/a

FLOW MEASUREMENT (feet & seconds)

				width	area	velocity	discharge
PNF	MFFR-Nelson	7/15/01	Clifton et al	57.7	57.05	0.82	46.8
PNF	MFFR-Nelson	7/28/03	Clifton et al	67.5	55.8	1.47	82.3

Biota Observations: none

Definitions:
Width:Depth - field-id'ed bankfull width / mean bankfull depth
Floodprone width - width at 2x max bankfull depth
Entrenchment ratio (I.e. channel confinement in valley) = Floodplain width / bankfull width
Residual pool depth = max pool depth minus max depth of pooltail crest
% fines - count substrate @ 49 string intersections in a one ft square grid and then add one corner for 50. Multiply by 2. (randomly tossed 3x's per pooltail)
Bank stability measured at a one foot wide plot, going from bankfull upslope to break
Stable - 75% veg, or other non-erodable cover, no sign of instability
Vulnerable - same as stable, but with sign of instability
Unstable - less than 75% cover, may have other instability indicators
% shade - only one measurement per transect with a solar pathfinder
Shore depth - measured @ the current water's edge
Bank angle - dominant angle of streambank between the base of the bank and bankfull elevation
* '99 to '03 changes in residual pool depth could be due to observer error.