

Appendix B

Interim Survey Memoranda and Data Sheets

Appendix B contains the following sections:

- Initial Reconnaissance Fall 2004. Technical Memorandum. Subject: San Francisquito Creek Watershed Reconnaissance Survey Memo. November 24, 2004.
- Fall 2004 Surveys. Technical Memorandum. Subject: San Francisquito Creek Watershed Fall Survey Memo. February 4, 2005.
- Winter 2005 Surveys. Technical Memorandum. Subject: San Francisquito Creek Watershed Winter Survey Memo. July 15, 2005 revision to memorandum dated April 29, 2005.
- Spring 2005 Surveys. Technical Memorandum. Subject: San Francisquito Spring Survey Memo. July 1, 2005.
- AHALFA Phase II Spring Surveys: Permeability Sampling on San Francisquito Creek and Los Trancos Creek. Draft Report. June 10, 2005.

T e c h n i c a l M e m o r a n d u m



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To: San Francisquito Creek Joint Powers Authority,
Steelhead Task Force, and Expert Advisory Panel

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Date: November 24, 2004

Subject: San Francisquito Creek Watershed
Reconnaissance Survey Memo

Project #: 04568.04

Introduction

Los Trancos and San Francisquito Creeks were surveyed during the weeks of October 11th and 18th. Jones & Stokes conducted reconnaissance and aquatic habitat assessment surveys to identify aquatic habitats and resources in Los Trancos and San Francisquito Creeks. This memo provides information regarding the methods, results, and conclusions of the aquatic resources assessment. The project area surveyed included Los Trancos Creek (from the San Francisquito Creek confluence to Arastradero Road) and San Francisquito Creek (from 500 feet upstream of Highway 101 to the confluence with Los Trancos Creek).

Methods

The habitat reconnaissance in October and November 2004 included in-channel assessments of habitat units, an inventory of large woody debris, and spawning gravel abundance and quality. Physical barriers were also identified and measured. Temperature loggers were deployed in both creeks. Methods are briefly described below and detailed methods are described in the Data Collection Plan.

Streamflow

The field crews did not measure streamflow during the reconnaissance surveys. Real-time streamflow measurements on San Francisquito Creek during field measurements are available from the gage at Stanford University (11164500), located just upstream of the junction with Los Trancos Creek. Stanford University operates a gage on Los Trancos Creek at Arastradero Road but flow records are not yet available for October and November 2004.

San Francisquito Creek loses flow to groundwater downstream of the gage during the summer and fall and flows were not observed in the creek (the streambed was dry) from just upstream of El Camino Real downstream near to Highway 101 in October 2004. Flows were not observed in Los Trancos Creek approximately 2 miles upstream of the confluence with San Francisquito Creek.

Habitat Assessment

On October 11, 12, 13, 14, and 18, Jones & Stokes biologists assessed the habitat on Los Trancos Creek and San Francisquito Creek. A total of 2.0 miles of Los Trancos Creek was surveyed on foot by two biologists, commencing at the confluence with San Francisquito Creek and ending approximately 2 miles upstream due to the lack of flow upstream. Habitat assessment for the remaining 1 mile will be completed in December 2004. A total of 2.5 miles of San Francisquito Creek was surveyed on foot by two biologists, commencing approximately 500 feet downstream of Oak Creek Apartments and ending at Los Trancos Creek.

Habitat units were categorized as pools, riffles, or runs. Categories were kept simple to avoid compounding errors resulting from observer differences. Habitat units were defined as:

- **Pool:** Slow water, length and width at least one-half the bankfull channel width and a 10-inch minimum residual pool depth (Schuett-Hames et al. 1994). Subcategories define the general type of pool and include scour (lateral, channel, channel confluence, plunge), dam, and backwater as defined by Overton et al. (1997).
- **Riffle:** Swiftly flowing, turbulent water; some partially exposed substrate; substrate cobble and/or boulder dominated (McCain et al. 1990).
- **Run:** Wide, uniform channel volume, low to moderate water velocity, little surface agitation. Encompasses any areas that do not qualify as pool or riffle.

Walking upstream in the stream channel, habitat units (pool, run and riffle) were measured with a 100' measuring tape (in feet). Other measurements taken were average bankfull width, average wetted width, average depth, length of habitat unit, and estimated percent canopy cover. Average depth was measured with a marked rod throughout the habitat unit. Percent canopy cover was visually estimated by standing in the middle of the channel and observing how much tree canopy was overhanging the habitat unit. Each habitat unit was marked on aerial photographs noting the upstream and downstream ends of the habitats.

On the aerial maps, the following alphanumeric naming convention was used to label each habitat unit: water year, four-letter abbreviation for habitat unit (e.g., RIFF, RUNN, POOL), and a three-digit consecutive number for each habitat unit, beginning with 001. For example, the first habitat unit for water year 2004 was labeled 04-RUNN-001 if the habitat unit is a run. Subsequent habitats encountered will be numbered sequentially but with their respective abbreviation for habitat unit. For example, if the first five habitats encountered are a riffle, a run, a riffle, a run, and a pool, they were designated 04-RIFF-001, 04-RUNN-002, 04-RIFF-003, 04-RUNN-004, and 04-POOL-005.

Large Woody Debris and Erosion

Large woody debris (LWD) pieces were defined as logs at least 6 feet long and at least 10 inches in diameter (Schuett-Hames et al. 1999, WFPB 1997) or rootwads of any size. LWD was measured (in feet) by diameter at the estimated breast height (dbh) and length. The stream reach and the habitat unit that the LWD occupied were also noted but LWD function or position was not described. LWD was common along Los Trancos Creek and only very large pieces of LWD situated within the wetted channel were measured and recorded. Digital photos were taken.

Areas of extensive erosion along San Francisquito and Los Trancos Creeks were also noted. The length and height of the eroded bank were measured.

Physical Barrier Assessment

In addition to the habitat assessment, physical barriers were also measured. Velocity measurements were planned below the barriers in Los Trancos Creek, but due to low and shallow flows no velocities were recorded. However, barrier height, staging pool depth, and horizontal distance were recorded. Velocities will be measured in subsequent months when there is an increase in flow. The mapped barriers at the following locations were reassessed:

- weir approximately 2,700 feet upstream of 101 on San Francisquito Creek;
- two notched weirs upstream of Sunset Magazine building on San Francisquito Creek
- bonde weir at El Camino Real on San Francisquito Creek;
- concrete apron 600 feet downstream of Alpine Road on San Francisquito Creek;
- weir 800 feet upstream of Alpine Road on Los Trancos Creek;
- four weirs between Alpine Road and Interstate 280 on Los Trancos Creek;
- weir under Interstate-280 on Los Trancos Creek; and
- Felt Lake Diversion structure on Los Trancos Creek.

Spawning Gravel Assessment

Spawning gravel patches were noted on datasheets during the habitat mapping survey on October 11 - 14. Suitable spawning beds were identified as: having a minimum area of 10 square feet and at least 6 inches in depth; not armored with cobbles or rocks greater than 6

inches in diameter; and containing gravel ranging from 0.25 to 4.0 inches in diameter, averaging 2.0 inches in diameter.

Gravel surveys were conducted on 1.15 miles of Los Trancos Creek on October 18. The parameters recorded were: visual estimation (in feet) of the height of the gravel bed above water level, average gravel bed length and width, gravel bed depth, and gravel size. Photographs of each gravel sample were taken.

Gravel beds that met the suitability criteria in San Francisquito Creek were inaccessible during November surveys due to a combination of steep, entrenched banks and deep, impassable pools. Spawning gravel assessment will be completed on Los Trancos Creek and San Francisquito Creek in early December 2004.

Temperature

Four water temperature loggers were deployed to record water temperatures every two minutes for the period of October 18th through November 15th. The six-digit identification number (serial number) of each logger was recorded on the datasheet along with the location of the logger. A photograph was taken of each location to aid in the retrieval of data and the logger. Temperature loggers were installed on October 18 at the following locations:

- San Francisquito Creek at Newell Road;
- San Francisquito Creek at the Oak Court Apartments access stairs;
- Los Trancos Creek downstream of the inlet from Felt Lake; and
- Los Trancos Creek, downstream of Arastradero Road.

The temperature loggers were retrieved on November 15th. The data logger downstream of Arastradero Road was not found and appears to have been removed by a person, not washed out during high flow events. A replacement data logger will be placed on Los Trancos Creek at the Ford Field community ballfield on Alpine Road approximately half a mile downstream from Arastradero Road. All of the other loggers were recovered, data was downloaded, and the loggers were returned to the field.

Results

The results for each of the surveyed areas in San Francisquito and Los Trancos Creeks will be discussed separately. All raw data collected in October 2004 is listed in Attachment A.

San Francisquito Creek

Habitat Reconnaissance - Within the surveyed reach, from the access point at Oak Creek Apartments upstream of Camino Real to the confluence with Los Trancos Creek, San Francisquito Creek is characterized mostly by deep, stagnant pool habitat (71%), with riffle habitat comprising 23% and run habitat comprising 6% of the remainder of the reach (See Table 1).

Average bankfull, average wetted width, and average depth were measured in each reach. The average bankfull for the entire reach was 32 feet, average wetted width was 15 feet and average depth was 0.89 feet. Percent canopy cover over the entire reach averaged 33%.

Table 1. Habitat Type Summary for San Francisquito Creek

Habitat Type	Total Length (feet)	Percent of Reach
Pool	9481	71%
Run	831	6%
Riffle	3031	23%
Total	13344	100%

Large Woody Debris and Erosion - Large woody debris and erosion were recorded on the datasheets. Two pieces of large woody debris were identified throughout the reach. The LWD were 20 and 27 feet in length, with DBH of 25 cm and 41 cm. Three areas of erosion were also identified. The lengths of the eroded areas were approximately 50 feet long and the height of the bank ranged from 20 to 30 feet high. All identified eroding banks were photographed and set as photo points for further analysis.

Physical Barriers - Physical barriers were assessed throughout the entire reach. The barriers were identified on the aerial photos and from the list of previously identified barriers included in the *Physical Barrier Assessment* section above. A total of five barriers were identified on San Francisquito Creek and they are numbered consecutively from downstream to upstream (Refer to Attachment A for full description). Three of these barriers were existing weirs and the other two were critical riffles (e.g. a riffle with no point at which fish could pass). At the flows during the survey, one of the riffles and two of the weirs would block upstream adult migration. Barrier height ranged from 1 to 2 feet, staging pool depth 3 inches to 2 feet, and horizontal distance across the top of the barrier ranged from 2.5 to 7 feet.

At higher flows, only the weir SF WEIR-03 would be a potential passage barrier. The concrete apron downstream of Alpine Road identified in the methods section has been recently removed and the channel regraded in association with construction activities at Sand Hill Road. The new riffle at the site is SF BARR-02, which does appear passable, despite not meeting conservative passage criteria.

Spawning Gravels - Spawning gravel assessments were not completed in San Francisquito Creek due to access problems resulting from higher flows. Other options will be identified to survey these beds. Surveying these beds are a low priority given that flow in the mainstem will likely prohibit successful spawning in these beds. Two of the three gravel beds identified in the mainstem have formed upstream of low flow passage barriers.

Los Trancos Creek

Habitat Reconnaissance – Within the surveyed reach, from the confluence of San Francisquito Creek and continuing upstream 2 miles, is characterized mostly by riffle habitat (45%), with the remainder being divided equally between pool and run habitats (30% and 25% respectively; see Table 2).

Average bankfull, average wetted width, and average depth were measured in each reach. The average bankfull for the entire reach was 34 feet, average wetted width was 7.3 feet and average depth was 0.6 feet. Percent canopy cover over the entire reach averaged 57%.

Table 2. Habitat Type Summary for Los Trancos Creek

Habitat Type	Total Length (feet)	Percent of Reach
Pool	3130	30%
Run	2601	25%
Riffle	4674	45%
Total	10405	100%

Large Woody Debris and Erosion - Large woody debris and areas of erosion were recorded on the datasheets. Nine pieces of large woody debris were identified throughout the reach. As stated above, only LWD present in the wetted channel were measured. Most of the pieces identified were large trees spanning the channel with smaller logs and branches trapped against it. The logjams formed by these spanning LWD ranged from 14 to 47 feet in length, and the heights ranged from 2 to 8 feet high. There was also a large rootwad in the channel with a length of 18 feet and 8 feet tall. Throughout the surveyed reach, many fallen trees were observed within the bankfull area, but due to time constraints, they were not measured.

Three areas of erosion were also identified. The lengths of the eroded areas ranged from 50 to 70 feet and the height of the bank ranged from 12 to 50 feet high. As with LWD, there were many erosion sites and only the most severe were noted.

Physical Barriers - Physical barriers were assessed throughout the entire reach. The barriers were identified on the aerial photos and from the list included in the *Physical Barrier Assessment* section. A total of eight barriers were identified on Los Trancos Creek. Six of these barriers are existing weirs, one is a natural root barrier, and one is the fish ladder at the Felt Lake Diversion Structure. Under low flow conditions, similar to those experienced during the survey, all of these barriers would block adult migration. Barrier height was generally below 1 foot, staging pool depth approximately 1 foot and horizontal distance across the top of the barrier about 0.75 feet.

Spawning Gravels - Spawning gravels were assessed for half of Los Trancos Creek. Three gravel samples were taken from the confluence with San Francisquito Creek upstream to the tennis courts that abut the creek.

Gravel bed length ranged from 22 to 36 feet, and the average width ranged from 11 to 18 feet. The majority of the gravel was classified as fine, indicating suboptimal spawning gravel. Beds identified during the initial reconnaissance were reassessed, which revealed that most did not meet the criteria for spawnable beds. These sub-optimal beds do, however, provide spawning opportunities due to the lack of spawning gravels in the lower reaches of the watershed and will continue to be assessed.

Conclusions

Los Trancos and San Francisquito Creeks were assessed for steelhead habitat. Los Trancos Creek has more complex habitat with a more even distribution of pool, run, and riffle habitat available for steelhead. San Francisquito Creek has mostly pool habitat with some riffle and run habitat. Large woody debris is far more prevalent in Los Trancos providing more cover for juvenile and adult steelhead. However, erosion is prevalent in both systems and may be responsible for the high percentage of fines observed in spawning gravel samples in Los Trancos Creek below the tennis courts.

Both creeks will be sampled for spawning gravel and a final determination of fines made then. Spawnable gravel beds are notably lacking from all surveyed reaches and suggests poor gravel recruitment from the upper watershed. Migration barriers were present in both creeks during the survey. Some of these features may not be barriers when more flow is available in the creeks.

Most importantly, San Francisquito Creek had no surface flow from upstream of Camino Real downstream to just shy of State Highway 101 during habitat assessments. Water temperatures are being monitored throughout the system and data will be included in the next summary memo for work performed in November.

Literature Cited in the Memorandum

- California Department of Fish and Game. 1976. San Francisquito Creek drainage streamflow measurements and fish sampling. Walk of Bear Creek to San Francisquito Creek (June 24). Menlo Park.
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- Northwest Hydraulic Consultants, Balance Hydrologics, Inc, H.T. Harvey & Associates, Jones & Stokes, Dr. Matt Kondolf and Dr. Jerry Smith. 2002. *Searsville Lake sediment impact study*. Stanford, CA: Stanford University, Facilities Operation. 186 pp. and Appendices.
- Northwest Hydraulic Consultants and Jones & Stokes Associates. 2004. San Francisquito Creek Watershed, Existing Conditions Analysis, Final Report. San Francisquito Creek Joint Powers Authority. 27 p and Appendices.

Initial Recon/Summer Surveys Memorandum
November 24, 2004

San Francisquito Creek
Aquatic Habitat Assessment

Santa Clara Valley Water District. 2004. San Francisquito and Los Trancos Creeks
Spawning Habitat Survey March - April 2003

Vogel, D. 2002. Juvenile steelhead/rainbow trout (*Oncorhynchus mykiss*) surveys in Los
Trancos Creek, March – May 2002. Red Bluff, CA.

Attachment A: Data Sheets

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Gradient	Comments
1	Pool	31.8	23.5	0.125	84.8	15	<1%	start of no water
2	Riffle	43.5	0	0.000	9.9	80		
3	Pool	32	13.2	0.108	138.6	10		
4	Riffle	16.5	10.4	0.083	14.4	0		
5	Pool	15.5	3.7	0.250	55.3	15		
6	Riffle	6	2.5	0.083	62.8	25		
7	Pool	45	37	2.000	242.5	60		
8	Pool	23	17.2	1.000	89.2	10		
9	Riffle	56	9.8	0.167	55	5		
10	Pool	50	20	4.000	239.5	10		
11	Riffle	16.7	9.2	0.167	26	85		
12	Pool	30.6	28.8	0.217	224	20		
13	Riffle	45	31	0.167	52.4	20		2 foot bar in channel
14	Pool	44.8	17	0.133	180	30		
15	Run	32	23.6	1.000	394	35		
16	Riffle	44	8.8	0.250	153	20		
17	Run	17.4	14.5	0.750	151	40		
18	Riffle	18.4	8.4	0.250	31	70		
19	Pool	19	8.6	1.167	71.8	30		
20	Riffle	22.7	8.5	0.167	33.6	15		
21	Pool	27.2	23	1.667	638.1	30		At Oak Creek Access Stairs
22	Riffle	33.8	11	0.25	66.4	80		
23	Pool	32	22	2.00	96	50		
24	Riffle	45	17	0.60	22	15		
25	Pool	45	9.6	1.30	63	20		
26	Riffle	45	15	0.30	174.2	90		Under Sand Hill Road Bridge
27	Run	24.6	19	1.00	68.5	10		
28	Pool	45	24	2.90	101	70		
29	Riffle	25	7	0.50	48.7	75		
30	Pool	35	10	2.00	174.6	50		
31	Riffle	30.4	15	0.33	140.1	40		
32	Pool	44.5	38	1.50	225	50		
33	Riffle	15	15	0.17	33.4	90		
34	Pool	33.2	22.5	0.50	293	30		Downstream of Restoration Site
35	Riffle	23.2	3	0.17	128.7	10		Restoration Site- Bank potentially unstable
36	Pool	20.5	16.3	1.75	130.8	75		
37	Riffle	47	2	0.08	15	80		
38	Pool	17	6.5	0.50	20	60		
39	Riffle	53	7.5	0.17	31.8	10		
40	Pool	43	30	0.50	12.8	15		foot bridge over
41	Pool	23	17.7	1.75	119.4	50		two submerged weirs
42	Riffle	26.7	17	0.25	26.8	15		defined by two broken weirs
43	Pool	32.5	16.8	1.00	109.4	70		
44	Riffle	35	11.7	0.25	79.2	80		
45	Pool	25	12.8	0.83	41.2	20		under Alpine rd.
46	Riffle	25	12.8	0.25	17	50		
47	Pool	35	22	2.17	199.3	80		under ped bridge
48	Riffle	14	5.8	0.25	20.5	90		
49	Pool	27	14	0.50	130.2	30		
50	Riffle	27	11.9	0.33	41.3	10		
51	Pool	52	29	1.75	23.8	5		
52	Pool	31	17	1.50	241	40		
53	Pool	31	27	1.00	135	25		
54	Riffle	35	4.8	0.17	19	40		
55	Pool	24.5	10.4	1.00	66.2	40		weir between these 2 pools

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Gradient	Comments
56	Pool	25	16	2.00	89.6	15		
57	Riffle	37.2	16	0.33	110.3	40		
58	Pool	23.4	16.5	0.83	342.2	40		
59	Riffle	15	5.2	0.25	45	80		
60	Pool	26.2	12.7	0.67	37.2	40		
61	Riffle	26.2	10.6	0.08	3	20		USGS gage weir
62	Pool	32.8	27.6	1.00	36.8	30		5 foot bar center
63	Riffle	19.2	12.8	0.17	19.8	50		
64	Run	20.5	11.2	0.33	30.4	60		
65	Riffle	20.5	11.2	0.33	41.3	60		
66	Pool	21	14	0.67	30.5	30		
67	Riffle	12	4.5	0.25	53.8	80		
68	Pool	36	24.2	2.33	165.2	50		
69	Riffle	42	4	0.17	17.1	40		
70	Pool	32	19.8	2.50	163	25		
71	Riffle	29	8.6	0.33	83.1	20		
72	Pool	40	28	3.00	190	25		
73	Riffle	38	4.3	0.17	25.9	15		
74	Pool	32.9	17	2.00	155.7	50		
75	Riffle	52	10	0.33	81.3	75		dryside of channel
76	Pool	37.2	22	1.25	161.2	40		
77	Riffle	38	12	0.33	10.3	50		
78	Pool	35.4	28	1.25	180.2	70		
79	Riffle	37.4	18	0.17	28.6	15		
80	Pool	34	28	1.00	268.4	40		maximum depth 7 feet at stone weir
81	Pool	22	16.8	0.83	158.2	30		
82	Riffle	18.2	14.5	0.17	14.2	20		
83	Pool	15.6	9.8	1.33	85.2	80		
84	Riffle	31.4	9.3	0.17	31.7	75		
85	Pool	21	14	3.00	215	30		
86	Riffle	26.5	15.2	0.33	43.3	20		
87	Pool	29	18	2.33	271	60		
88	Riffle	40.6	5	0.33	120.2	65		stagnant side; channel parallels weir
89	Pool	29.6	25	0.75	470.2	25		
90	Riffle	49.2	18	0.33	141.1	25		
91	Pool	55	52	4.00	148.7	10		Lagunitas Dam downstream pool
92	Pool	29	26	3.00	66	15		Lagunitas Dam upstream pool
93	Riffle	32	1	0.08	49	10		trenched channel/ photos taken/Gravel sample 5/23/05
94	Pool	29.2	13	0.50	175.6	35		
95	Riffle	46.6	18.2	0.17	110.9	30		
96	Pool	32.5	28.5	2.25	439.2	25		
97	Riffle	44	23.2	0.25	57.1	30		
98	Pool	38.2	31.4	2.00	291.2	40		
99	Riffle	27	4.6	0.25	44.4	5		
100	Pool	18.2	13.4	1.83	124.7	20		
101	Riffle	32	2	0.17	25.8	15		
102	Pool	40	16.2	2.00	98.2	80		
103	Riffle	39.6	23.2	0.33	43.4	95		
104	Pool	26.5	22.8	0.83	173	30		
105	Riffle	27	9	0.25	43	20		confluence with Los Trancos
106	Pool	26.2	18.4	0.83	96.2	70		bridge crossing
107	Riffle	25	10.6	0.17	28.2	16		
108	Pool	24.2	13.4	0.83	41.7	50		
109	Riffle	24	11	0.08	27.3	80		
110	Pool	23	114.5	0.83	207.7	30		
111	Riffle	30	10	0.42	53.3	85		
112	Pool	27	23.5	1.50	250	70		

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
1	Riffle	45	12	0.2	34.8	30	low water level makes it hard to identify habitat
2	Riffle	20	20	0.2	21.6	30	
3	Run	20	20	0.5	77	80	Gravel in here
4	Pool	25	22	1.0	17	80	
5	Riffle	15	5	0.5	52	60	
6	Pool	25	15	1.5	27	60	Pool below ped bridge at Piers Lane
7	Riffle	25	10	0.5	21	60	
8	Pool	15	10	1.0	12	90	
9	Run	15	5	0.5	51	70	
10	Riffle	50	10	0.3	95	80	
11	Pool	50	15	3.0	48	70	under first weir - passage block
12	Run	25	10	1.0	177	90	gravel here
13	Riffle	25	3	0.3	25	50	
14	Run	25	5	0.5	24	50	
15	Pool	25	15	1.5	15	90	
16	Riffle	25	10	0.5	99	50	
17	Pool	20	15	3.0	37.5	70	2nd weir; pool temp. 57 °F at 9:30 am
18	Run	30	10	0.5	31	70	
19	Riffle	30	5	0.3	40	80	Gravel
20	Pool	40	10	0.8	30	70	
21	Run	25	5	0.5	49	70	
22	Riffle	20	3	0.3	57	50	Gravel
23	Run	30	3	0.3	50	80	
24	Riffle	30	3	0.3	40	80	
25	Pool	50	20	1.0	37	60	Gravel - split channel u/s end of pool
26	Riffle	25	3	0.5	64	50	
27	Pool	50	10	1.0	21	50	
28	Riffle	30	2	0.3	25	80	
29	Pool	30	6	1.5	63	30	undercut bank and LWD pile
30	Riffle	30	3	0.5	44	90	
31	Pool	25	10	0.5	33	30	
32	Riffle	25	3	0.3	20	50	gravel (small amount)
33	Pool	30	5	1.5	40	50	culvert opens into creek
34	Run	30	5	0.5	40	30	
35	Pool	30	5	1.0	27	70	
36	Riffle	50	5	0.5	53	70	
37	Pool	50	7	0.5	22	80	creek divides - measured west channel
38	Riffle	25	1	0.1	27	80	some gravel
39	Pool	30	10	1.5	59	80	
40	Riffle	30	6	0.3	21	50	
41	Pool	30	8	1.5	22	30	
42	Run	30	8	1.5	22	30	
43	Riffle	50	3	0.5	66	50	
44	Run	50	8	0.5	58	80	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
45	Pool	40	8	1.0	24	50	
46	Riffle	40	5	0.5	43	50	under bridge (Alpine Road)
47	Run	25	10	1.0	64	50	LWD on bank
48	Riffle	25	5	0.5	39	70	Gravel
49	Pool	25	5	1.0	49	30	Temp probe
50	Riffle	50	2	0.3	26	80	
51	Pool	50	10	1.5	32	40	Below 1st weir under 280 bridge
52	Pool	25	8	1.5	14	50	Above 1st small weir
53	Riffle	30	8	0.3	103	90	Under 280 bridge
54	Run	30	15	1.5	9	100	Under bridge - below 2nd small weir
55	Riffle	50	3	1.0	50	100	Above 2nd weir to 3rd weir (cobble)
56	Pool	50	10	2.0	17	100	Below 3rd weir
57	Pool	50	1	0.3	51	50	Above 3rd weir
58	Pool	50	8	1.0	63	50	Above 4th weir
59	Riffle	30	0.5	0.0	37	50	Dry - Cobble
60	Pool	40	5	0.5	47	50	
61	Riffle	40	1	0.3	66	60	Eroded bank and LWD/ under bridge
62	Run	50	3	0.5	121	60	
63	Riffle	65	2	0.5	86	30	Grading bank
64	Run	50	3	0.5	83	30	Cobble LWD, eroding bank
65	Riffle	50	5	0.5	70	70	
66	Run	25	2	0.3	48	60	Gravel, 2nd logjam
67	Riffle	30	3	0.5	94	70	Gravel, some erosion
68	Pool	25	3	0.5	14	70	Tree trunks in water
69	Run	50	4	0.5	49	30	Erosion on west side near road
70	Riffle	50	5	0.3	25	20	Tree trunks above water line (culvert)
71	Run	50	3	0.5	23	40	
72	Riffle	30	3	0.3	156	50	
73	Pool	30	5	0.5	31	50	Below nursery- Pool below lg root wad on east bank. Peat formation below root wad
74	Run	50	5	0.5	41	50	
75	Riffle	30	5	0.3	22	10	Gravel
76	Pool	30	3	0.3	23	10	Below bridge
77	Riffle	30	3	0.5	30	70	Gravel
78	Pool	30	5	1.5	56	50	Log jam across with manmade boulder wall
79	Riffle	50	3	0.5	60	40	Gravel
80	Run	30	5	0.5	22	60	
81	Riffle	40	5	0.5	13	10	
82	Pool	30	5	0.5	45	60	Roots exposed at bank; undercut bank
83	Riffle	50	5	0.3	50	60	
84	Run	30	3	0.5	23	70	
85	Riffle	30	2	0.2	17	50	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
86	Pool	40	5	1.0	23	30	
87	Riffle	70	1	0.2	31	20	Eroding bank on east side
88	Pool	50	15	1.5	60	10	Eroding bank on east side; logjam
89	Riffle	25	1	0.2	60	30	Eroding west bank (gravel)
90	Pool	25	3	1.0	45	50	
91	Riffle	25	6	0.5	45	50	
92	Pool	25	8	0.5	36	70	
93	Riffle	30	5	0.5	40	20	Cobble
94	Run	50	3	0.5	24	30	Erosion on west bank - roots
95	Riffle	50	3	0.5	142	50	Cobble
96	Run	30	8	0.5	32	40	
97	Riffle	40	3	0.5	44	70	Cobble
98	Run	40	5	0.5	38	50	
99	Riffle	40	3	0.5	51	70	Cobble
100	Pool	40	5	0.5	28	50	Cobble-Concrete block at top of pool
101	Riffle	40	5	0.5	72	70	Cobble
102	Pool	40	8	0.5	106	70	
103	Riffle	40	5	0.5	77	50	
104	Pool	40	10	2.0	38	50	
105	Riffle	40	5	0.5	50	50	
106	Pool	40	10	1.5	41	70	
107	Riffle	50	5	0.2	13	70	
108	Pool	60	5	1.0	40	70	Cobble
109	Riffle	75	5	0.2	31	70	
110	Pool	50	15	1.0	104	70	Eroding bank on east to barrier; Cobble (across from Washington Mutual & Shell)/Exposed roots creating barrier
111	Run	50	5	1.0	58	70	
112	Riffle	50	5	0.3	85	70	Cobble
113	Run	30	15	0.5	40	30	
114	Riffle	50	3	0.2	26	30	
115	Run	40	5	1.0	25	70	Cobble
116	Riffle	30	10	0.5	140	70	Cobble
117	Pool	50	15	1.0	49	80	Culvert at d/s end; roots along east bank
118	Riffle	40	5	0.5	58	50	Cobble
119	Pool	50	15	1.0	51	50	Eroded walls (cobble)
120	Riffle	50	2	0.2	11	50	
121	Pool	50	10	1.5	32	50	Cobble
122	Riffle	40	5	0.5	40	70	
123	Pool	30	16	2.0	79	60	Erosion on west bank
124	Riffle	25	5	1.0	34	90	Erosion on west bank
125	Run	30	15	1.0	51	70	
126	Riffle	50	15	0.5	60	60	Cobble
127	Pool	50	15	1.5	86	40	Culvert/Cobble
128	Riffle	35	5	0.3	42	50	
129	Run	30	15	0.5	45	50	At tennis court

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
130	Pool	30	15	0.5	36	50	d/s of bridge at tennis court
131	Riffle	30	3	0.3	42	50	Under bridge at tennis court
132	Run	30	5	0.5	41	50	Cobble
133	Riffle	30	10	0.3	21	50	
134	Run	30	6	0.5	52	50	
135	Riffle	40	3	0.3	20	50	Cobble
136	Pool	40	15	1.0	26	70	
137	Run	35	5	0.5	65	50	Cobble
138	Riffle	30	3	0.2	22	50	
139	Pool	30	5	2.0	24	50	
140	Riffle	30	15	0.2	17	50	
141	Pool	40	10	1.0	30	80	
142	Run	40	10	1.0	64	80	
143	Riffle	30	5	0.3	24	30	
144	Run	30	3	0.5	80	50	
145	Pool	30	3	0.5	20	50	
146	Riffle	30	2	0.3	17	70	
147	Run	30	3	0.5	72	70	
148	Riffle	40	2	0.5	57	80	
149	Pool	45	10	1.0	91	60	
150	Riffle	40	5	0.5	88	40	
151	Run	30	15	0.5	39	50	
152	Riffle	35	3	0.5	84	30	
153	Pool	35	15	1.0	15	40	
154	Run	25	3	1.0	46	30	
155	Riffle	25	10	0.5	33	60	
156	Pool	30	15	1.0	20	40	
157	Run	30	15	0.4	46	40	
158	Pool	30	15	1.0	35	40	
159	Riffle	30	5	0.5	37	20	
160	Pool	45	10	1.0	17	20	
161	Riffle	40	5	0.5	92	30	
162	Pool	35	15	1.0	59	30	
163	Riffle	45	10	0.5	33	50	
164	Run	45	5	0.5	52	80	Gravel; Dead cottonwood branch covering creek
165	Riffle	45	5	0.5	45	30	Gravel
166	Pool	30	10	1.5	32	20	
167	Riffle	25	10	0.3	26	20	
168	Pool	25	15	1.0	28	80	Tree overhanging
169	Riffle	35	15	0.5	140	30	Cobble
170	Pool	35	15	1.0	38	30	Tree overhanging
171	Riffle	35	0	0.0	30	40	Dry
172	Pool	35	0	0.0	66	20	Dry Cobble
173	Riffle	40	0	0.0	176	70	Cobble
174	Pool	40	3	0.5	87	50	
175	Riffle	45	1.5	0.2	56	60	Cobble
176	Pool	45	5	1.0	33	70	
177	Riffle	40	1	0.2	7	70	
178	Pool	40	8	1.0	12	70	
179	Riffle	40	1	0.1	26	30	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
180	Pool	35	20	2.0	34	50	
181	Riffle	25	11.8	0.2	117	90	Redid this section 11/18 in notebook
182	Run	25	8	0.4	56.5	75	
183	Pool	22	9.5	1.0	63	70	
184	Riffle	18	13.8	0.2	26.4	20	
185	Pool	26	9	1.0	44	85	Pool d/s of ballpark fence
186	Riffle	24	15	0.3	51.3	60	
187	Pool	28	14	0.8	91.5	75	
188	Riffle	36.5	9.7	0.4	41	90	
189	Run	28.8	10.2	0.3	33.9	80	
190	Pool	28	7.6	1.0	24.5	20	Scour pool around two large rootwads
191	Riffle	26	4	0.3	11	70	
192	Pool	29	6.5	0.5	19	60	
193	Riffle	29	12.2	0.2	19.5	45	
194	Pool	27	9	0.8	79.9	50	
195	Riffle	30.2	7.2	0.2	23.7	80	
196	Pool	31	8.4	0.4	20.6	70	
197	Riffle	23	3.6	0.2	10.1	40	
198	Run	20	5	0.4	25.9	50	
199	Riffle	31	4	0.2	47.3	65	Split by 10-foot gravel bar
200	Pool	26	12.5	1.5	43.4	60	Massive erosion of west bank
201	Run	26	6.2	0.4	30.2	80	
202	Riffle	22.5	8.2	0.2	17	70	
203	Pool	20	7.8	0.8	30.5	100	
204	Riffle	32	5.6	0.2	42.5	30	LWD at end of reach spanning channel (DBH 59")
205	Pool	35	6.5	0.5	30.6	40	
206	Riffle	31	6	0.2	12.2	20	
207	Pool	22	8.9	1.0	37.8	75	
208	Riffle	20	6.5	0.2	47	30	
209	Pool	29	7.2	1.0	34	90	eroded bank
210	Run	18	8.6	0.3	32.9	40	
211	Pool	21	5.2	0.9	17	60	
212	Riffle	16	8	0.2	33.2	70	
213	Pool	26	9.7	1.0	38.9	100	
214	Run	15	4.2	0.3	42.7	95	
215	Riffle	18	6.5	0.2	13.8	45	
216	Run	23	8.3	0.2	61.7	65	
217	Pool	32	7.2	0.8	29.1	70	
218	Riffle	28	5.5	0.1	25.1	60	
219	Pool	16	9.1	0.8	30	100	
220	Riffle	17.5	4.4	0.2	13.2	95	
221	Pool	24	6.7	0.8	31.2	100	
222	Riffle	27	8.4	0.2	47.5	80	
223	Run	25	4.6	0.3	17.5	70	
224	Riffle	25	3.2	0.1	10.6	60	
225	Pool	27	6.8	1.0	20.5	80	eroding bank on east (20' high)
226	Riffle	26.5	10.2	0.1	6.5	60	
227	Pool	24	8.5	0.5	49.5	40	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
228	Riffle	31	4.6	0.2	52	40	
229	Pool	20	10.5	1.0	35.2	70	
230	Riffle	18	6.1	0.3	31.5	60	
231	Pool	26	9.8	0.8	45	60	
232	Riffle	22	6.7	0.3	4.8	100	
233	Pool	24	8.7	0.5	48.5	60	
234	Riffle	18	4.1	0.3	27.3	75	
235	Pool	21.5	9.3	0.7	35.5	60	Needs seds analysis during next field period - did 12/13/04; salamanders in pool
236	Run	21.5	4.2	0.6	43	20	
237	Riffle	22	7.3	0.25	66.3	40	
238	Pool	22	8.6	1.0	30.1	30	
239	Riffle	25	6.8	0.2	15.4	30	
240	Run	30	6.2	0.3	59.8	40	
241	Riffle	30	7.4	0.1	7.3	50	
242	Pool	50	7	1.4	39.7	50	Erosion on east bank
243	Riffle	50	4.5	0.2	17.5	60	Huge logjam in channel
244	Pool	30	15	2.0	13	70	Pool under debris jam
245	Riffle	40	16.4	0.2	81.2	40	7' bar in middle
246	Pool	25	12.2	1.0	45	40	LWD in pool
247	Riffle	25	5	0.4	71.3	40	
248	Run	25	6	0.5	20.8	60	Appears to be filled pool
249	Riffle	25	7	0.2	99.1	60	1st 20' boulder riffle, rest cobble/gravel riffle
250	Run	25	4	0.4	29.7	60	
251	Riffle	35	9	0.3	18.8	70	2' bar embedded w/sediment
252	Run	45	6.5	0.8	29.5	50	Scoured around 3 downed stumps
253	Riffle	50	20.5	0.4	83.7	30	11' bar in middle
254	Pool	25	11	1.5	42.7	40	Sediment sample-eroding bank on east side of channel
255	Run	40	6	0.4	58.6	30	
256	Pool	30	9	1.5	19.4	50	log jam
257	Riffle	35	7	0.2	101	40	
258	Run	40	5	0.2	85.4	30	
259	Pool	40	6	0.6	18.5	50	
260	Riffle	30.4	11	0.3	71.8	60	2' bar in middle
261	Pool	35	8	1.2	29.7	30	
262	Riffle	30	5	0.2	33.6	30	
263	Run	30	6	0.4	41.5	40	
264	Riffle	25	5	0.4	74.1	20	
265	Pool	30	6	1.2	33.4	40	log jam (LWD)
266	Riffle	30	4	0.3	50.8	30	
267	Pool	40	6	0.8	31.4	40	Down tree
268	Riffle	25	4.5	0.1	13	40	
269	Pool	25	8	1.0	33	30	eroding bank on east side of channel
270	Riffle	25	5	0.2	58.1	60	
271	Pool	25	5.5	0.8	28.4	60	
272	Riffle	25	8	0.1	12.5	20	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
273	Run	25	6	0.5	40.8	50	
274	Riffle	25	4	0.4	26	70	
275	Pool	30	6	1.0	31.5	70	
276	Riffle	30	7.5	0.2	10.4	50	Culvert in east bank
277	Run	25	5	0.6	26.4	80	
278	Riffle	30	9	0.2	89.9	50	LWD present in channel
279	Pool	50	7.5	1.4	34.6	30	
280	Riffle	50	6	0.2	65.8	40	Huge LWD w/log jam spanning entire channel
281	Pool	50	27	1.8	20	100	Caused by LWD above
282	Riffle	40	8	0.3	63.4	60	
283	Pool	50	7	0.6	43	60	Some LWD in pool
284	Riffle	50	6	0.2	10	60	
285	Pool	50	7	0.8	25.8	60	
286	Riffle	30	12	0.2	15	70	
287	Pool	45	6	0.8	49.8	50	
288	Riffle	50	5	0.4	64.5	70	
289	Run	30	8	0.5	66	30	
290	Riffle	30	6	0.3	188.3	50	
291	Run	40	10	0.3	32.5	80	
292	Pool	40	3	0.8	25.4	90	
293	Riffle	40	7.5	0.3	164.6	70	
294	Pool	40	5	1.0	34.1	60	
295	Run	45	5	0.4	26.4	50	
296	Riffle	40	6	0.3	18.9	60	
297	Pool	30	6.5	0.8	29.5	70	
298	Riffle	30	8	0.3	67.5	70	some LWD eroded bank
299	Pool	45	6.5	1.4	42.6	50	eroded bank
300	Run	45	5	0.8	59.7	50	
301	Pool	45	6	0.8	20.2	50	
302	Riffle	50	7	0.3	71	70	LWD across channel

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Percent Canopy Cover (%)	Comments
303	Pool	40	5	0.5	23.6	70	
304	Riffle	45	10	0.2	158.3	50	culvert
305	Run	45	6	0.5	31.4	40	
306	Riffle	30	6	0.3	39.3	60	
307	Run	40	7	0.3	28.8	70	tributary entering here
308	Riffle	40	5	0.3	99.3	80	
309	Pool	40	6	1.0	34.6	70	
310	Riffle	50	6	0.3	22	80	
311	Run	50	6	0.4	17.5	85	
312	Riffle	50	5	0.3	129.4	70	
313	Run	50	12	0.5	31.5	70	
314	Riffle	40	6	0.3	100.8	60	
315	Pool	45	10	0.8	31.5	60	sed sample - below orange house on horse ranch
316	Riffle	40	9	0.2	10.4	10	
317	Pool	50	7	0.8	31.5	50	
318	Riffle	60	5	0.3	63.8	70	at ranch road
319	Pool	45	10	0.8	43.3	50	
320	Run	35	7	0.2	53.7	20	
321	Riffle	30	6	0.2	78.3	50	
322	Pool	40	5	1.0	40.3	80	under horse bridge at ranch
323	Riffle	50	3	0.2	9.7	60	
324	Pool	50	5	0.8	20.6	60	
325	Riffle	50	8	0.2	9.2	60	
326	Pool	50	6	0.8	20.9	60	sediment sample-on horse ranch u/s of road thru creek
327	Riffle	40	8	0.2	37.4	50	
328	Pool	50	8.5	1.0	56.3	30	corner pool below green house
329	Riffle	50	8	0.2	48.3	50	
330	Run	30	7	0.5	51	50	
331	Pool	30	10	0.8	12.6	30	LWD in channel
332	Riffle	40	10	0.2	138.2	30	
333	Pool	30	12	1.5	70.7	60	LWD across channel
334	Riffle	40	10	0.2	98.2	60	
335	Run	30	7	0.5	22.9	50	
336	Riffle	45	6	0.4	194.2	30	large root wad in channel
337	Run	40	6	0.3	34.8	20	
338	Riffle	40	7	0.2	111.6	40	
339	Pool	50	12	2.0	19.8	20	pool below ladder @ Felt Lake Diversion structure
340	Pool	45	14	1.0	41	60	pool above ladder @ Felt Lake Diversion structure
341	Riffle	25	4	0.3	43.7	60	
342	Pool	25	4	1.0	11.6	50	
343	Riffle	35	7	0.2	55	30	large tree trunk across channel
344	Pool	45	12	1.5	37.8	40	At gage - sediment sample
345	Riffle	50	7	0.3	86.2	40	Measured riffle to bridge. Riffle continues u/s of bridge.
Average		35.0	7.3	0.6	15771.6	55.2	

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Substrate
1	Pool	31.8	23.5	0.125	84.8	Gravel 40%
2	Riffle	43.5	0	0.000	9.9	Pebble 80%
3	Pool	32	13.2	0.108	138.6	Gravel 40%
4	Riffle	16.5	10.4	0.083	14.4	Cobble 80%
5	Pool	15.5	3.7	0.250	55.3	Cobble 70%
6	Riffle	6	2.5	0.083	62.8	Cobble 70%
7	Pool	45	37	2.000	242.5	Gravel 60%
8	Pool	23	17.2	1.000	89.2	Gravel 60%
9	Riffle	56	9.8	0.167	55	Cobble 60%
10	Pool	50	20	4.000	239.5	Gravel 80%
11	Riffle	16.7	9.2	0.167	26	Pebble 60%
12	Pool	30.6	28.8	0.217	224	Gravel 70%
13	Riffle	45	31	0.167	52.4	Cobble 40%
14	Pool	44.8	17	0.133	180	Cobble 40%
15	Run	32	23.6	1.000	394	Cobble 50%
16	Riffle	44	8.8	0.250	153	Cobble 60%
17	Run	17.4	14.5	0.750	151	Cobble 70%
18	Riffle	18.4	8.4	0.250	31	Boulder 50%
19	Pool	19	8.6	1.167	71.8	Gravel 60%
20	Riffle	22.7	8.5	0.167	33.6	Pebble 60%
21	Pool	27.2	23	1.667	638.1	Gravel 70%
22	Riffle	33.8	11	0.25	66.4	Cobble 40%
23	Pool	32	22	2.00	96	Gravel 70%
24	Riffle	45	17	0.60	22	Boulder 40%
25	Pool	45	9.6	1.30	63	Cobble 40%
26	Riffle	45	15	0.30	174.2	Cobble 40%
27	Run	24.6	19	1.00	68.5	Gravel 40%
28	Pool	45	24	2.90	101	Gravel 40%
29	Riffle	25	7	0.50	48.7	Cobble 40%
30	Pool	35	10	2.00	174.6	Gravel 80%
31	Riffle	30.4	15	0.33	140.1	Cobble 40%
32	Pool	44.5	38	1.50	225	Pebble 70%
33	Riffle	15	15	0.17	33.4	Cobble 70%
34	Pool	33.2	22.5	0.50	293	Gravel 70%
35	Riffle	23.2	3	0.17	128.7	Boulder 80%
36	Pool	20.5	16.3	1.75	130.8	Gravel 40%
37	Riffle	47	2	0.08	15	Boulder 60%
38	Pool	17	6.5	0.50	20	Gravel 50%
39	Riffle	53	7.5	0.17	31.8	Pebble 70%
40	Pool	43	30	0.50	12.8	Gravel 50%
41	Pool	23	17.7	1.75	119.4	Gravel 70%
42	Riffle	26.7	17	0.25	26.8	Boulder 50%
43	Pool	32.5	16.8	1.00	109.4	Gravel 80%
44	Riffle	35	11.7	0.25	79.2	Pebble 50%
45	Pool	25	12.8	0.83	41.2	Pebble 50%
46	Riffle	25	12.8	0.25	17	Cobble 50%
47	Pool	35	22	2.17	199.3	Gravel 60%
48	Riffle	14	5.8	0.25	20.5	Cobble 40%

49	Pool	27	14	0.50	130.2	Gravel 40%
50	Riffle	27	11.9	0.33	41.3	Pebble 60%
51	Pool	52	29	1.75	23.8	Pebble 40%
52	Pool	31	17	1.50	241	Gravel 80%
53	Pool	31	27	1.00	135	Gravel 80%
54	Riffle	35	4.8	0.17	19	Boulder 50%
55	Pool	24.5	10.4	1.00	66.2	Gravel 40%
56	Pool	25	16	2.00	89.6	Gravel 50%
57	Riffle	37.2	16	0.33	110.3	Gravel 80%
58	Pool	23.4	16.5	0.83	342.2	Gravel 60%
59	Riffle	15	5.2	0.25	45	Pebble 70%
60	Pool	26.2	12.7	0.67	37.2	Pebble 50%
61	Riffle	26.2	10.6	0.08	3	Artificial
62	Pool	32.8	27.6	1.00	36.8	Gravel 80%
63	Riffle	19.2	12.8	0.17	19.8	Cobble 50%
64	Run	20.5	11.2	0.33	30.4	Cobble 40%
65	Riffle	20.5	11.2	0.33	41.3	Pebble 40%
66	Pool	21	14	0.67	30.5	Pebble 50%
67	Riffle	12	4.5	0.25	53.8	Pebble 40%
68	Pool	36	24.2	2.33	165.2	Gravel 40%
69	Riffle	42	4	0.17	17.1	Cobble 40%
70	Pool	32	19.8	2.50	163	Cobble 40%
71	Riffle	29	8.6	0.33	83.1	Cobble 40%
72	Pool	40	28	3.00	190	Cobble 40%
73	Riffle	38	4.3	0.17	25.9	Cobble 60%
74	Pool	32.9	17	2.00	155.7	Cobble 40%
75	Riffle	52	10	0.33	81.3	Cobble 60%
76	Pool	37.2	22	1.25	161.2	Gravel 70%
77	Riffle	38	12	0.33	10.3	Pebble 60%
78	Pool	35.4	28	1.25	180.2	Gravel 80%
79	Riffle	37.4	18	0.17	28.6	Cobble 60%
80	Pool	34	28	1.00	268.4	Sand 60%
81	Pool	22	16.8	0.83	158.2	Cobble 40%
82	Riffle	18.2	14.5	0.17	14.2	Cobble 40%
83	Pool	15.6	9.8	1.33	85.2	Gravel 70%
84	Riffle	31.4	9.3	0.17	31.7	Cobble 50%
85	Pool	21	14	3.00	215	Gravel 60%
86	Riffle	26.5	15.2	0.33	43.3	Cobble 50%
87	Pool	29	18	2.33	271	Gravel 70%
88	Riffle	40.6	5	0.33	120.2	Pebble 50%
89	Pool	29.6	25	0.75	470.2	Gravel 40%
90	Riffle	49.2	18	0.33	141.1	Cobble 50%
91	Pool	55	52	4.00	148.7	Gravel 70%
92	Pool	29	26	3.00	66	Gravel 80%
93	Riffle	32	1	0.08	49	Gravel 70%
94	Pool	29.2	13	0.50	175.6	Gravel 80%
95	Riffle	46.6	18.2	0.17	110.9	Pebble 70%
96	Pool	32.5	28.5	2.25	439.2	Pebble 50%/Sand 40%
97	Riffle	44	23.2	0.25	57.1	Pebble 50%
98	Pool	38.2	31.4	2.00	291.2	Gravel 60%
99	Riffle	27	4.6	0.25	44.4	Cobble 70%
100	Pool	18.2	13.4	1.83	124.7	Gravel 40%

101	Riffle	32	2	0.17	25.8	Pebble 60%
102	Pool	40	16.2	2.00	98.2	Gravel 50%
103	Riffle	39.6	23.2	0.33	43.4	Cobble 40%
104	Pool	26.5	22.8	0.83	173	Gravel 40%
105	Riffle	27	9	0.25	43	Cobble 50%
106	Pool	26.2	18.4	0.83	96.2	Gravel 40%
107	Riffle	25	10.6	0.17	28.2	Cobble 40%
108	Pool	24.2	13.4	0.83	41.7	Cobble 40%
109	Riffle	24	11	0.08	27.3	Cobble 40%
110	Pool	23	114.5	0.83	207.7	Sand 40%
111	Riffle	30	10	0.42	53.3	Cobble 40%
112	Pool	27	23.5	1.50	250	Gravel 50%
		31.07321	16.54911	0.867708	12575.8	

Los Trancos Creek

Site Number	Habitat Unit	Average Bankfull Width (feet)	Average Wetted Width (feet)	Average Depth (feet)	Length of Unit (feet)	Substrate
1	Riffle	45	12	0.2	34.8	Gravel 40%
2	Riffle	20	20	0.2	21.6	Gravel 40%
3	Run	20	20	0.5	77	Gravel 70%
4	Pool	25	22	1.0	17	Gravel 60%
5	Riffle	15	5	0.5	52	Cobble 60%
6	Pool	25	15	1.5	27	Gravel 40%/Sand 40%
7	Riffle	25	10	0.5	21	Pebble 50%
8	Pool	15	10	1.0	12	Gravel 70%
9	Run	15	5	0.5	51	Sand 40%
10	Riffle	50	10	0.3	95	Cobble 40%
11	Pool	50	15	3.0	48	Gravel 80%
12	Run	25	10	1.0	177	Pebble 40%
13	Riffle	25	3	0.3	25	Pebble 50%
14	Run	25	5	0.5	24	Pebble 50%
15	Pool	25	15	1.5	15	Gravel 50%
16	Riffle	25	10	0.5	99	Cobble 40%
17	Pool	20	15	3.0	37.5	Gravel 80%
18	Run	30	10	0.5	31	Pebble 40%
19	Riffle	30	5	0.3	40	Cobble 40%
20	Pool	40	10	0.8	30	Gravel 40%
21	Run	25	5	0.5	49	Pebble 50%
22	Riffle	20	3	0.3	57	Gravel 80%
23	Run	30	3	0.3	50	Gravel 80%
24	Riffle	30	3	0.3	40	Cobble 50%
25	Pool	50	20	1.0	37	Gravel 80%
26	Riffle	25	3	0.5	64	Cobble 40%/Pebble 40%
27	Pool	50	10	1.0	21	Gravel 40%
28	Riffle	30	2	0.3	25	Cobble 40%
29	Pool	30	6	1.5	63	Gravel 60%
30	Riffle	30	3	0.5	44	Pebble 50%
31	Pool	25	10	0.5	33	Gravel 80%
32	Riffle	25	3	0.3	20	Pebble 40%
33	Pool	30	5	1.5	40	Pebble 40%
34	Run	30	5	0.5	40	Pebble 40%
35	Pool	30	5	1.0	27	Gravel 40%
36	Riffle	50	5	0.5	53	Cobble 40%
37	Pool	50	7	0.5	22	Gravel 70%
38	Riffle	25	1	0.1	27	Cobble 40%
39	Pool	30	10	1.5	59	Gravel 80%
40	Riffle	30	6	0.3	21	Pebble 70%
41	Pool	30	8	1.5	22	Gravel 70%
42	Run	30	8	1.5	22	Gravel 80%
43	Riffle	50	3	0.5	66	Pebble 70%
44	Run	50	8	0.5	58	Gravel 70%
45	Pool	40	8	1.0	24	Gravel 80%
46	Riffle	40	5	0.5	43	Cobble 60%
47	Run	25	10	1.0	64	Gravel 40%/Pebble 40%

48	Riffle	25	5	0.5	39	Pebble 40%
49	Pool	25	5	1.0	49	Gravel 90%
50	Riffle	50	2	0.3	26	Cobble 40%
51	Pool	50	10	1.5	32	Gravel 60%
52	Pool	25	8	1.5	14	Gravel 60%
53	Riffle	30	8	0.3	103	Cobble 40%
54	Run	30	15	1.5	9	Gravel 40%
55	Riffle	50	3	1.0	50	Gravel 50%
56	Pool	50	10	2.0	17	Gravel 80%
57	Pool	50	1	0.3	51	Gravel 80%
58	Pool	50	8	1.0	63	Gravel 80%
59	Riffle	30	0.5	0.0	37	Pebble 40%
60	Pool	40	5	0.5	47	Gravel 80%
61	Riffle	40	1	0.3	66	Cobble 60%
62	Run	50	3	0.5	121	Gravel 60%
63	Riffle	65	2	0.5	86	Cobble 50%
64	Run	50	3	0.5	83	Gravel 80%
65	Riffle	50	5	0.5	70	Gravel 30%
66	Run	25	2	0.3	48	Gravel 60%
67	Riffle	30	3	0.5	94	Pebble 70%
68	Pool	25	3	0.5	14	Gravel 80%
69	Run	50	4	0.5	49	Gravel 60%
70	Riffle	50	5	0.3	25	Pebble 50%
71	Run	50	3	0.5	23	Pebble 50%
72	Riffle	30	3	0.3	156	Gravel 40%
73	Pool	30	5	0.5	31	Gravel 80%
74	Run	50	5	0.5	41	Gravel 60%
75	Riffle	30	5	0.3	22	Cobble 40%
76	Pool	30	3	0.3	23	Gravel 80%
77	Riffle	30	3	0.5	30	Gravel 80%
78	Pool	30	5	1.5	56	Gravel 80%
79	Riffle	50	3	0.5	60	Pebble 40%
80	Run	30	5	0.5	22	Cobble 40%
81	Riffle	40	5	0.5	13	Cobble 40%
82	Pool	30	5	0.5	45	Gravel 80%
83	Riffle	50	5	0.3	50	Cobble 50%
84	Run	30	3	0.5	23	Gravel 60%
85	Riffle	30	2	0.2	17	Cobble 60%
86	Pool	40	5	1.0	23	Gravel 90%
87	Riffle	70	1	0.2	31	Gravel 80%
88	Pool	50	15	1.5	60	Gravel 70%
89	Riffle	25	1	0.2	60	Cobble 50%
90	Pool	25	3	1.0	45	Gravel 70%
91	Riffle	25	6	0.5	45	Pebble 40%
92	Pool	25	8	0.5	36	Gravel 90%
93	Riffle	30	5	0.5	40	Cobble 40%
94	Run	50	3	0.5	24	Gravel 70%
95	Riffle	50	3	0.5	142	Boulder 40%
96	Run	30	8	0.5	32	Gravel 40%
97	Riffle	40	3	0.5	44	Pebble 50%
98	Run	40	5	0.5	38	Gravel 50%
99	Riffle	40	3	0.5	51	Pebble 50%

100	Pool	40	5	0.5	28	Gravel 70%
101	Riffle	40	5	0.5	72	Pebble 40%
102	Pool	40	8	0.5	106	Gravel 90%
103	Riffle	40	5	0.5	77	Cobble 40%
104	Pool	40	10	2.0	38	Gravel 50%/sand 40%
105	Riffle	40	5	0.5	50	Cobble 50%
106	Pool	40	10	1.5	41	Gravel 50%
107	Riffle	50	5	0.2	13	Cobble 40%
108	Pool	60	5	1.0	40	Gravel 60%
109	Riffle	75	5	0.2	31	Cobble 50%
110	Pool	50	15	1.0	104	Gravel 80%
111	Run	50	5	1.0	58	Gravel 50% sand 40%
112	Riffle	50	5	0.3	85	Pebble 50%
113	Run	30	15	0.5	40	Pebble 40%
114	Riffle	50	3	0.2	26	Gravel 50%
115	Run	40	5	1.0	25	Gravel 60%
116	Riffle	30	10	0.5	140	Gravel 50%
117	Pool	50	15	1.0	49	Gravel 80%
118	Riffle	40	5	0.5	58	Pebble 50%
119	Pool	50	15	1.0	51	Gravel 80%
120	Riffle	50	2	0.2	11	Cobble 70%
121	Pool	50	10	1.5	32	Gravel 80%
122	Riffle	40	5	0.5	40	Cobble 40%
123	Pool	30	16	2.0	79	Gravel 40%
124	Riffle	25	5	1.0	34	Cobble 50%
125	Run	30	15	1.0	51	Gravel 80%
126	Riffle	50	15	0.5	60	Gravel 40%
127	Pool	50	15	1.5	86	Gravel 80%
128	Riffle	35	5	0.3	42	Cobble 50%
129	Run	30	15	0.5	45	Gravel 60%
130	Pool	30	15	0.5	36	Gravel 90%
131	Riffle	30	3	0.3	42	Pebble 60%
132	Run	30	5	0.5	41	Gravel 70%
133	Riffle	30	10	0.3	21	Gravel 60%
134	Run	30	6	0.5	52	Gravel 60%
135	Riffle	40	3	0.3	20	Pebble 60%
136	Pool	40	15	1.0	26	Gravel 50%
137	Run	35	5	0.5	65	Pebble 50%
138	Riffle	30	3	0.2	22	Pebble 50%
139	Pool	30	5	2.0	24	Gravel 80%
140	Riffle	30	15	0.2	17	Pebble 60%
141	Pool	40	10	1.0	30	Gravel 50%
142	Run	40	10	1.0	64	Gravel 60%
143	Riffle	30	5	0.3	24	Cobble 40%
144	Run	30	3	0.5	80	Gravel 70%/Bedrock 30%
145	Pool	30	3	0.5	20	Gravel 60%
146	Riffle	30	2	0.3	17	Bedrock 70%
147	Run	30	3	0.5	72	Bedrock 40%
148	Riffle	40	2	0.5	57	Bedrock 50%
149	Pool	45	10	1.0	91	Gravel 70%
150	Riffle	40	5	0.5	88	Pebble 40%
151	Run	30	15	0.5	39	Gravel 50%

152	Riffle	35	3	0.5	84	Bedrock 70%
153	Pool	35	15	1.0	15	Gravel 70%
154	Run	25	3	1.0	46	Gravel 70%
155	Riffle	25	10	0.5	33	Pebble 40%
156	Pool	30	15	1.0	20	Gravel 70%
157	Run	30	15	0.4	46	Bedrock 80%
158	Pool	30	15	1.0	35	Gravel 80%
159	Riffle	30	5	0.5	37	Cobble 50%
160	Pool	45	10	1.0	17	Gravel 80%
161	Riffle	40	5	0.5	92	Cobble 40%
162	Pool	35	15	1.0	59	Gravel 80%
163	Riffle	45	10	0.5	33	Cobble 40%
164	Run	45	5	0.5	52	Gravel 80%
165	Riffle	45	5	0.5	45	Cobble 40%
166	Pool	30	10	1.5	32	Gravel 80%
167	Riffle	25	10	0.3	26	Pebble 40%
168	Pool	25	15	1.0	28	Gravel 70%
169	Riffle	35	15	0.5	140	Gravel 50%
170	Pool	35	15	1.0	38	Gravel 80%
171	Riffle	35	0	0.0	30	Pebble 50%
172	Pool	35	0	0.0	66	Gravel 70%
173	Riffle	40	0	0.0	176	Cobble 40%
174	Pool	40	3	0.5	87	Gravel 80%
175	Riffle	45	1.5	0.2	56	Gravel 70%
176	Pool	45	5	1.0	33	Gravel 70%
177	Riffle	40	1	0.2	7	Pebble 50%
178	Pool	40	8	1.0	12	Gravel 70%
179	Riffle	40	1	0.1	26	Bedrock 80%
180	Pool	35	20	2.0	34	Gravel 40%
181	Riffle	25	11.8	0.2	117	Cobble 40%
182	Run	25	8	0.4	56.5	Gravel 40%
183	Pool	22	9.5	1.0	63	Gravel 80%
184	Riffle	18	13.8	0.2	26.4	Pebble 50%
185	Pool	26	9	1.0	44	Gravel 50%
186	Riffle	24	15	0.3	51.3	Pebble 50%
187	Pool	28	14	0.8	91.5	Gravel 50%
188	Riffle	36.5	9.7	0.4	41	Cobble 40%
189	Run	28.8	10.2	0.3	33.9	Pebble 50%
190	Pool	28	7.6	1.0	24.5	Gravel 50%
191	Riffle	26	4	0.3	11	Pebble 60%
192	Pool	29	6.5	0.5	19	Gravel 70%
193	Riffle	29	12.2	0.2	19.5	Gravel 70%
194	Pool	27	9	0.8	79.9	Pebble 60%
195	Riffle	30.2	7.2	0.2	23.7	Pebble 60%
196	Pool	31	8.4	0.4	20.6	Pebble 60%
197	Riffle	23	3.6	0.2	10.1	Pebble 60%
198	Run	20	5	0.4	25.9	Pebble 50%
199	Riffle	31	4	0.2	47.3	Pebble 50%
200	Pool	26	12.5	1.5	43.4	Gravel 80%
201	Run	26	6.2	0.4	30.2	Gravel 50%
202	Riffle	22.5	8.2	0.2	17	Pebble 50%
203	Pool	20	7.8	0.8	30.5	Gravel 80%

204	Riffle	32	5.6	0.2	42.5	Pebble 70%
205	Pool	35	6.5	0.5	30.6	Pebble 50%
206	Riffle	31	6	0.2	12.2	Pebble 60%
207	Pool	22	8.9	1.0	37.8	Gravel 50%
208	Riffle	20	6.5	0.2	47	Cobble 40%
209	Pool	29	7.2	1.0	34	Gravel 60%
210	Run	18	8.6	0.3	32.9	Gravel 50%
211	Pool	21	5.2	0.9	17	Gravel 50%
212	Riffle	16	8	0.2	33.2	Cobble 50%
213	Pool	26	9.7	1.0	38.9	Gravel 60%
214	Run	15	4.2	0.3	42.7	Gravel 60%
215	Riffle	18	6.5	0.2	13.8	Pebble 60%
216	Run	23	8.3	0.2	61.7	Pebble 40%
217	Pool	32	7.2	0.8	29.1	Sand 40%
218	Riffle	28	5.5	0.1	25.1	Pebble 60%
219	Pool	16	9.1	0.8	30	Gravel 70%
220	Riffle	17.5	4.4	0.2	13.2	Pebble 50%
221	Pool	24	6.7	0.8	31.2	Gravel 70%
222	Riffle	27	8.4	0.2	47.5	Pebble 50%
223	Run	25	4.6	0.3	17.5	Gravel 80%
224	Riffle	25	3.2	0.1	10.6	Pebble 50%
225	Pool	27	6.8	1.0	20.5	Gravel 40%
226	Riffle	26.5	10.2	0.1	6.5	Pebble 70%
227	Pool	24	8.5	0.5	49.5	Gravel 60%
228	Riffle	31	4.6	0.2	52	Pebble 60%
229	Pool	20	10.5	1.0	35.2	Gravel 50%
230	Riffle	18	6.1	0.3	31.5	Pebble 60%
231	Pool	26	9.8	0.8	45	Gravel 80%
232	Riffle	22	6.7	0.3	4.8	Pebble 50%
233	Pool	24	8.7	0.5	48.5	Gravel 50%
234	Riffle	18	4.1	0.3	27.3	Pebble 50%
235	Pool	21.5	9.3	0.7	35.5	Gravel 70%
236	Run	21.5	4.2	0.6	43	Gravel 50%
237	Riffle	22	7.3	0.25	66.3	Cobble 50%
238	Pool	22	8.6	1.0	30.1	Gravel 80%
239	Riffle	25	6.8	0.2	15.4	Pebble 50%
240	Run	30	6.2	0.3	59.8	Gravel 50%
241	Riffle	30	7.4	0.1	7.3	Pebble 50%
242	Pool	50	7	1.4	39.7	Gravel 50%
243	Riffle	50	4.5	0.2	17.5	Pebble 40%
244	Pool	30	15	2.0	13	Gravel 80%
245	Riffle	40	16.4	0.2	81.2	Pebble 50%
246	Pool	25	12.2	1.0	45	Sand 50%
247	Riffle	25	5	0.4	71.3	Cobble 40%
248	Run	25	6	0.5	20.8	Gravel 70%
249	Riffle	25	7	0.2	99.1	Gravel 60%
250	Run	25	4	0.4	29.7	Pebble 40%
251	Riffle	35	9	0.3	18.8	Pebble 40%
252	Run	45	6.5	0.8	29.5	Gravel 80%
253	Riffle	50	20.5	0.4	83.7	Pebble 40%
254	Pool	25	11	1.5	42.7	Gravel 50%
255	Run	40	6	0.4	58.6	Gravel 90%

256	Pool	30	9	1.5	19.4	Gravel 80%
257	Riffle	35	7	0.2	101	Pebble 40%
258	Run	40	5	0.2	85.4	Gravel 40%
259	Pool	40	6	0.6	18.5	Gravel 40%
260	Riffle	30.4	11	0.3	71.8	Pebble 50%
261	Pool	35	8	1.2	29.7	Gravel 70%
262	Riffle	30	5	0.2	33.6	Pebble 50%
263	Run	30	6	0.4	41.5	Pebble 50%
264	Riffle	25	5	0.4	74.1	Pebble 50%
265	Pool	30	6	1.2	33.4	Gravel 60%
266	Riffle	30	4	0.3	50.8	Pebble 50%
267	Pool	40	6	0.8	31.4	Gravel 80%
268	Riffle	25	4.5	0.1	13	Pebble 60%
269	Pool	25	8	1.0	33	Gravel 50%
270	Riffle	25	5	0.2	58.1	Pebble 60%
271	Pool	25	5.5	0.8	28.4	Pebble 60%
272	Riffle	25	8	0.1	12.5	Pebble 50%
273	Run	25	6	0.5	40.8	Gravel 50%
274	Riffle	25	4	0.4	26	Pebble 50%
275	Pool	30	6	1.0	31.5	Gravel 70%
276	Riffle	30	7.5	0.2	10.4	Pebble 50%
277	Run	25	5	0.6	26.4	Gravel 60%
278	Riffle	30	9	0.2	89.9	Cobble 40%
279	Pool	50	7.5	1.4	34.6	Gravel 70%
280	Riffle	50	6	0.2	65.8	Pebble 50%
281	Pool	50	27	1.8	20	Gravel 50%
282	Riffle	40	8	0.3	63.4	Pebble 50%
283	Pool	50	7	0.6	43	Gravel 70%
284	Riffle	50	6	0.2	10	Pebble 60%
285	Pool	50	7	0.8	25.8	Pebble 60%
286	Riffle	30	12	0.2	15	Pebble 60%
287	Pool	45	6	0.8	49.8	Gravel 40%
288	Riffle	50	5	0.4	64.5	Pebble 40%
289	Run	30	8	0.5	66	Gravel 50%
290	Riffle	30	6	0.3	188.3	Cobble 40%
291	Run	40	10	0.3	32.5	Gravel 40%
292	Pool	40	3	0.8	25.4	Gravel 60%
293	Riffle	40	7.5	0.3	164.6	Cobble 50%
294	Pool	40	5	1.0	34.1	Gravel 50%
295	Run	45	5	0.4	26.4	Pebble 40%
296	Riffle	40	6	0.3	18.9	Cobble 50%
297	Pool	30	6.5	0.8	29.5	Gravel 70%
298	Riffle	30	8	0.3	67.5	Pebble 40%
299	Pool	45	6.5	1.4	42.6	Gravel 80%
300	Run	45	5	0.8	59.7	Pebble 50%
301	Pool	45	6	0.8	20.2	Pebble 50%
302	Riffle	50	7	0.3	71	Pebble 50%
303	Pool	40	5	0.5	23.6	Gravel 60%
304	Riffle	45	10	0.2	158.3	Cobble 50%
305	Run	45	6	0.5	31.4	Pebble 50%
306	Riffle	30	6	0.3	39.3	Pebble 50%
307	Run	40	7	0.3	28.8	Pebble 50%

308	Riffle	40	5	0.3	99.3	Pebble 60%
309	Pool	40	6	1.0	34.6	Gravel 40%
310	Riffle	50	6	0.3	22	Pebble 50%
311	Run	50	6	0.4	17.5	Pebble 50%
312	Riffle	50	5	0.3	129.4	Cobble 40%
313	Run	50	12	0.5	31.5	Gravel 40%
314	Riffle	40	6	0.3	100.8	Pebble 50%
315	Pool	45	10	0.8	31.5	Gravel 80%
316	Riffle	40	9	0.2	10.4	Pebble 60%
317	Pool	50	7	0.8	31.5	Sand 50%
318	Riffle	60	5	0.3	63.8	Pebble 50%
319	Pool	45	10	0.8	43.3	Sand 60%
320	Run	35	7	0.2	53.7	Gravel 50%
321	Riffle	30	6	0.2	78.3	Pebble 60%
322	Pool	40	5	1.0	40.3	Sand 40%
323	Riffle	50	3	0.2	9.7	Gravel 40%
324	Pool	50	5	0.8	20.6	Gravel 60%
325	Riffle	50	8	0.2	9.2	Gravel 40%
326	Pool	50	6	0.8	20.9	Gravel 80%
327	Riffle	40	8	0.2	37.4	Pebble 50%
328	Pool	50	8.5	1.0	56.3	Sand 50%
329	Riffle	50	8	0.2	48.3	Cobble 40%
330	Run	30	7	0.5	51	Pebble 40%
331	Pool	30	10	0.8	12.6	Sand 50%
332	Riffle	40	10	0.2	138.2	Cobble 50%
333	Pool	30	12	1.5	70.7	Gravel 60%
334	Riffle	40	10	0.2	98.2	Boulder 40%
335	Run	30	7	0.5	22.9	Gravel 40%
336	Riffle	45	6	0.4	194.2	Cobble 40%
337	Run	40	6	0.3	34.8	Gravel 60%
338	Riffle	40	7	0.2	111.6	Gravel 70%
339	Pool	50	12	2.0	19.8	Gravel 90%
340	Pool	45	14	1.0	41	Gravel 60%
341	Riffle	25	4	0.3	43.7	Gravel 80%
342	Pool	25	4	1.0	11.6	Gravel 80%
343	Riffle	35	7	0.2	55	Gravel 60%
344	Pool	45	12	1.5	37.8	Gravel 40%
345	Riffle	50	7	0.3	86.2	Pebble 50%

Date: 6/21/05 and 6/27/05
 Monitoring Team
 Member Names: D Maniscalco and J Peters

San Francisquito Creek

Location (Habitat Unit)	Habitat Feature	Length of Feature (feet)	Photo ID #'s	Diameter of feature (LWD) Height of Feature (eroded bank) feet	GPS Coordinates and Comments
Riff2-Pool3	Erosion	65	256-257	15	37 26.031 122 11.095 South bank
Pool3-Pool5	"	234	258-259	25	37 26.024 122 11.113 South bank
Pool 7	"	12	260	25	37 26.019 122 11.293 South bank
Pool 10	"	60	261,262	25	37 25.912 122 11.302 So bank
Pool 10	"	60	263	25	37 25.912 122 11.425 So bank
Pool 14	"	71.6	264	25	37 25.904 122 11.425 So bank
Pool 23	"	32	265-266	25	37 25.758 122 11.389
Riff24-Pool25	"	85	397	30	Left bank below Sand Hill bridge
Pool36	"	130	399-400	5	Rt bank - restoration site
Pool 43	"	40	401	15	left bank above pool filling site
Pool 80	"	90	402	8	left bank
Pool 81	"	150	403	25	left bank
Pool85-Riff 86	"	120	404	8	right bank
Pool87	"	85	405-406	8	right bank
Pool89	"	60	407	8	right bank
Pool89	"	150	408	6	left bank
Pool92	"	66	409	40	left bank
Pool96	"	90	410	15	left bank
pool98	"	90	411	25	left bank
pool 106	"	40	412	8	left bank
		87 average		18 average	
		1731 total			

total length of channel SF - 12,576 ft.
 in one direction

25152 both banks

0.068806 6.880566158 about 7% of banks are unstable

Date: 6/22/05 through
6/23/05

Los Trancos
Creek

All banks determined by looking upstream

Monitoring Team Member
Names: D Maniscalco and
J Peters

Location (Habitat Unit)	Habitat Feature	Length of Feature (feet)	Photo ID #'s	Height of Feature (eroded bank) feet
Run3 - Riff 5	Erosion	150	267-269	15
Riff 7	"	30	270	15
Riff 10-Pool 11	"	115	271-272	8
Pool 11	"	50	273	12
Run 12	"	105	274-275	10
Run 12-Pool 15	"	140	276	5
Riff 16	"	20	277	15
Riff 24-Pool 25	"	77	278	10
Riff 26- Pool 27	"	180	279-280	5
Riff 30- Riff 32	"	145	281-282	6
Pool 35- Riff 36	"	45	283-284	15
Pool 39	"	59	285	4
Pool 39	"	44	286	6
Pool 41- run 42	"	44	287	6
Riff 48 - Pool 49	"	30	288	4
Run 51	"	32	289	6
Riff 61	"	66	290	6
Riff 63	"	80	291-292	15
Run 64	"	60	293	8
Riff 67	"	15	294	6
Pool 68 - Run 71	"	111	295-297	15
Riff 72- Run 74	"	120	298-299	6
Pool 73	"	15	300	8
Pool 82	"	45	301	10
Riff 85- Pool 86	"	40	302	6
Riff 89- Riff 91	"	130	303	15
Run 94- Riff 95	"	104	304-305	10
Run 98 - Pool 100	"	85	306	10
Pool 100- Pool 102	"	132	307-308	8
Riff 101- Pool 102	"	198	309	10
Riff 103	"	30	310-311	8
Riff 103- Pool 104	"	40	312	10
Pool 104- Riff 105	"	88	313	6
Pool 106-Pool 108	"	65	314	15
Riff 109- Pool 110	"	135	315-316	25
Run 111	"	32	317	20
Riff 112 - Riff 116	"	210	318-319	20
Pool 117-Pool 121	"	201	320-322	25
Pool 123-Run 125	"	138	323-324	20
Riff 126-Pool 127	"	80	325	10

Pool 127	"	86	326	8
Run 129-Riff 131	"	123	327	8
Riff 133-Run 137	"	139	329	8
Riff 133	"	21	328	25
Run 142	"	64	330-331	10
Riff 148- Riff 150	"	110	332	15
Riff 150	"	50	333	10
Riff 152	"	40	334	10
Riff 152-Riff 155	"	154	335	15
Riff 152	"	75	336	15
Riff 161	"	40	337	15
Pool 162-Run 164	"	102	338	15
Riff 165- Riff 167	"	103	339	15
Pool 172	"	66	340	10
Riff 173	"	20	341	6
Pool 174	"	45	342	6
Pool 176-Riff 177	"	60	343	6
Riff 181	"	40	344	10
Pool 185	"	44	345	10
Riff 186-Pool 187	"	101	346	12
Pool 187-Run 189	"	180	347	8
Riff 188-Riff 191	"	119	348	10
Riff 191-Riff 195	"	154	349	8
Run 198	"	26	350	10
Riff 199-Pool 200	"	58	351	8
Pool 205-Pool 207	"	71	352	8
Riff 208	"	75	353	8
Pool 211-Pool 213	"	78	354	15
Riff 215	"	29	355	15
Run 214-Riff 216	"	56	356	15
Pool 219	"	25	357	15
Riff 220	"	44	358	15
Riff 224-Pool 227	"	100	359	10
Riff 228-Riff 230	"	118	361	10
Riff 230-Riff 232	"	81	362	10
Pool 233	"	25	363	10
Pool 233	"	25	364	15
Run 236-Riff 237	"	63	365	10
Riff 237-Run 240	"	111	366	8
Riff 241-Riff 243	"	56	367	10
Riff 241-Riff 274	"	330	368	15
Pool 246	"	45	369	8
Riff 249	"	45	370	10
Run 250-Riff 251	"	40	371	8
Riff 253-Pool 254	"	103	373	6
Run 255-Pool 256	"	63	374	8
Riff 257-Run 258	"	121	375	7
Riff 257-Riff 260	"	169	376	8
Riff 260- Pool 261	"	70	377	15
Riff 262-Riff 266	"	182	378	10
Riff 264	"	74	379	8

Riff 266-Riff 270	"	182	380	8
Pool 267-Pool 269	"	80	381	8
Riff 270- Riff 278	"	272	382	8
Riff 278-Riff 280	"	89	383	8
Riff 278-Riff 280	"	45	384	8
Riff 280-Pool 285	"	267	385	8
Pool 285-Pool 287	"	91	386	8
Riff 290	"	45	387	8
Run 291-Pool 292	"	78	388	8
Riff 293-Riff 296	"	245	389	8
Pool 297	"	20	390	6
Riff 298-Pool 299	"	75	391	10
Run 300- Riff 302	"	40	392	5
Pool 303-Riff 304	"	123	393	6
Pool 303-Riff 310	"	437	394	8
Run 311-Riff 314	"	166	395	15
Riff 314-Pool 315	"	106	396	8
Pool 317-318	"	95	no photo	8
Pool 322	"	40	"	8
Pool 322-Riff 327	"	188	"	6
Pool 328	"	40	"	6
Riff 329	"	48	"	8
Pool 331-Riff 332	"	88	"	10
Riff 332- Pool 333	"	161	"	8
Riff 334-Run 335	"	73	"	8
Riff 336	"	80	"	8
Run 337	"	35	"	10
Run 337-Riff 338	"	146	"	25
Pool 339	"	20	"	15
Pool 340	"	75	"	6
Pool 342-Riff 343	"	67	"	8
Pool 344-Riff 345	"	112	"	10
		92		10
		11334	total	

total length of channel LT- 15,772 ft
in one direction

31544 both banks

0.359307634 35.93076338

GPS Coordinates and Comments

37 24.805 122 11.535 Left bank looking u/s

Left bank

Left bank 37 24.780 122 11.514

37 24.767 122 11.542 Left bank

37 24.767 122 11.542 Above weir

37 24.742 122 11.563

right bank

left bank

right bank

37 24.673 122 11.632 left bank

right bank - culvert opening into creek

left bank

right bank

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on road - right bank

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right bank
average

about 36% of banks are unstable

