SANTA YNEZ RIVER WATERSHED
APPENDICES

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APPENDIX 2: COMMENTS AND LANDMARKS

LOWER SANTA YNEZ COMMENTS AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

Lower Santa Ynez River Comments

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYSTRT001	0001	0	Start of Survey, Santa Ynez Reach 1 Subreach A [PAGE: Sheet units SYSTRT001 through SYSTRT010 are SYSTRTP01. MB Channel Morphology = Dune Ripple. No riffles, deep glides with multiple mid channel pools, a CWD pool, and a trench pool. Deep pools with depths of 4ft and over. Water extremely high.] Length determined using GPS. GPS= SYSTRT001
SYSTRT002	0002	528	Unit starts at side channel and is a glide with deep sections. GPS=SYSTRT002
SYSTRT002.1	0002.1	798	Disconnected pools LB. GPS= SYSTRT02.1
SYSTRT002.2	0002.2	798	Almost dried up but still connects.
SYSTRT002.3	0002.3	798	Pool depth RB near Reeds.
SYSTRT002.4	0002.4	798	Almost dry but still connects, stagnant water.
SYSTRT002.5	0002.5	798	
SYSTRT002.6	0002.6	798	Reconnects to main channel.
SYSTRT003	0003	798	Pool and glide similar.
SYSTRT004	0004	848	Two pools connected. Max depth = 5+ ft.
SYSTRT005	0005	933	RB side channel diverts at top of unit.
SYSTRT006	0006	1223	Unit with deep sections (3ft).
SYSTRT007	0007	1292	Pool created by dune outcropping.
SYSTRT008	0008	1347	RB Cattails holding bank intact.
SYSTRT009	0009	1412	Meandering trench. Max depth = 5+ ft.
SYSTRT010	0010	1672	Max depth = 5+ ft.
SYSTRT011	0011	1754	[PAGE: Sheet units SYSTRT011 through SYSTRT019 are SYSTRTP02. MB Channel Morphology = Dune Ripple.] GPS= SYSTRT011
SYSTRT012	0012	1834	
SYSTRT013	0013	1886	
SYSTRT014	0014	1993	
SYSTRT015	0015	2055	LB tree in channel.
SYSTRT016	0016	2095	
SYSTRT017	0017	2187	LB Trib. GPS= SYTRBLB01
SYSTRT018	0018	2277	Deep sections on the RB from LWD. Max depth = 4.5+
SYSTRT018.1	0018.1	2523	18.1 RB enters unit 18 20ft up from start. Max depth = 4.5+ ft.
SYSTRT019	0019	2523	
SYSTRT020	0020	2605	[PAGE: Sheet units SYSTRT020 through SYSTRT20.2 are SYSTRTP03. Three pools created by bridge, riffles created beneath bridge by riprap.] GPS= SYSTRT020 Middle pool with crest composed of both gravel and sand. Max depth= 6+ ft.
SYSTRT020.1	0020.1	2680	LB pool. Max depth= 5+ ft.
SYSTRT020.2	0020.2	2680	RB pool. Max depth= 6+ ft. Bridge: 55 ft between pillars; pillars 1 ft wide and surrounded by riprap. 8 total pillars. Bridge length is 500ft.
SYVB001	0021	2680	[PAGE: GPS lengths were approximated. Sheet units SYVB001 through SYVB010 are SYVBP01. MB Channel Morphology = Dune Ripple. Marsh sections in beginning of unit, semi deep long glides, and deep pools with depths of 4ft or greater.] GPS= SYVBRDG1

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYVB002	0022	2766	
SYVB003	0023	3117	Collapsed beaver dam creating small riffle. GPS= SYVBBVR01
SYVB004	0024	3302	Trench pool in middle of channel. RB deepest, LB shallow run separated by 60ft long sand bar. GPS= SYVB004
SYVB005	0025	3586	Some good SWD LB, lots of cattails both banks. Deep sections 4+ ft but not definite pool. Mostly 2.2 ft deep b/c of sand dunes. Pool without definitive crest. GPS= SYVB005
SYVB006	0026	4246	Downed tree creating pool. Good coverage. Max depth= 5+ ft. GPS= SYVB006
SYVB007	0027	4306	Good terrestrial vegetation and SWD. RB lots of downed trees. Cattails abundant LB.
SYVB008	0028	4754	GPS= SYVB008
SYVB009	0029	4892	Glide into trench pool. Too deep to survey, measure, or cross. GPS= SYVB009
SYVB010	0030	5069	Max depth= 6+ ft. Pool very deep and not passable. Good coverage, Root wad scour-like LB, crest not distinguishable. GPS= SYVB010
SYVB011	0031	5199	[PAGE: Sheet units SYVB011 through SYVB019 are SYVBP02. MB Channel Morphology = Dune Ripple.] Really deep pocket, glide with average depth of 4ft. GPS= SYVB011
SYVB012	0032	5344	Depth created by narrowness of channel, very deep glide. Max depth= 4+ ft.
SYVB013	0033	5432	GPS= SYVB013
SYVB014	0034	5679	RB scour, max depth= 6+ ft.
SYVB015	0035	5745	GPS= SYVB015
SYVB016	0036	5955	Downed Cattails causing riffle, downed tree providing good coverage. GPS= SYVB016
SYVB017	0037	6043	Good coverage LB, Cattails RB.
SYVB018	0038	6149	RB braided side channel, downed tree LB. Somewhat scoured after downed tree.
SYVB019	0039	6263	GPS= SYVB019
SYVB020	0040	6353	[PAGE: Sheet units SYVB020 through SYVB029 are SYVBP03. MB Channel Morphology is Dune Ripple. Deep pools over 4ft deep and long semi deep glides (2-3ft) present.] RB shallow pool. Max depth= 6+ ft. GPS= SYVB020
SYVB021	0041	6426	LB braided channel, sand bar LB, good coverage RB, downed trees, sandy crest.
SYVB022	0042	6540	Pool connects to root wad pool without transition. Good coverage over pool.
SYVB023	0043	6621	
SYVB024	0044	6704	LB root wad scour, Cattails RB.
SYVB025	0045	6760	
SYVB026	0046	6926	Downed tree RB adding to depth. Good coverage RB. Max depth= 5+ ft.
SYVB027	0047	7056	Downed tree, good coverage. Small area with depth 4+ ft around tree.
SYVB028	0048	7148	Depth LB, downed tree RB, good coverage but no depth RB.
SYVB029	0049	7211	Lots of downed trees RB.
SYVB030	0050	7347	[PAGE: Sheet units SYVB030 through SYVB038 are SYVBP04. MB Channel Morphology = Dune Ripple. Long semi deep glide and deep pools present.] Good coverage RB. Downed trees and Cattails present. Fallen Cattails creating riffles. GPS= SYVB030
SYVB031	0051	7457	Downed Reeds creating bubble curtain/riffle.

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYVB032	0052	7728	Possible collapsed beaver dam.
SYVB033	0053	7859	GPS= SYVBTRB01 Trib enters, stopped glide at trib.
SYVB034	0054	8221	SWD and terrestrial vegetation creating coverage LB.
SYVB035	0055	8421	Cattails present both banks.
SYVB036	0056	8559	Good terrestrial vegetation coverage both banks. 2ft deep long glide with small sand dune.
SYVB036.1	0056.1	9081	Secondary channel pool disconnected from main channel.
SYVB037	0057	9081	GPS= SYVB037 Some gravel, fallen tree RB. Flood plane debris RB. Arroyo Chubs in small pool RB. Some bank failure LB. Second point in long unit is GPS= SYVB037B
SYVB038	0058	9961	Remnants of man made structure possibly a bridge creating scour.
SYVB039	0059	10001	[PAGE: Sheet units SYVB039 through SYVB047.1 are SYVBP05. MB Channel Morphology is Dune Ripple. Long semi deep glides (2-3ft) and deep pools present. Some gravel present, usually mixed in with Cattails and debris creating very small transverse riffles or were dried up.] Possible collapsed beaver dam RB. GPS= SYVB039
SYVB040	0060	10099	
SYVB041	0061	10221	Pool created by downed debris and tree stump.
SYVB042	0062	10273	GPS= SYVB042
SYVB043	0063	10597	GPS= SYVB043
SYVB044	0064	10657	Debris causing small riffle and bubble curtain. GPS= SYVB044
SYVB045	0065	10810	Meandering pool around bank debris creates pool. Pool has no definite crest.
SYVB046	0066	10890	GPS= SYVB046 Small riffle in middle of glide caused by debris. Gravel present in riffle. GPS point SYVB046B is second point in long unit.
SYVB047	0067	12075	Gravel in crest but sandy. Log in channel creating riffle RB.
SYVB047.1	0067.1	12147	Sand bar splits unit downstream and SYVB047.1 and SYVB048 converge at top of SYVB047.
SYVB048	0068	12147	[PAGE: Sheet units SYVB048 through SYVB057 are SYVBP06. MB Channel Morphology = Dune Ripple. RB confined.] Unit connects directly with SYVB047. Pool has no crest and riffles created debris at top of pool. Max depth = 4.5+ ft. GPS= SYVB048
SYVB049	0069	12252	Glide depth changing from bank to bank but not more than 4ft. GPS= SYVB049
SYVB050	0070	12639	GPS= SYVB050
SYVB051	0071	12687	GPS= SYVB051
SYVB052	0072	12843	Sandy crest.
SYVB053	0073	12903	Narrow trench pool with shallow spots.
SYVB054	0074	13139	Braided side channel LB. Some good terrestrial vegetation coverage over pool.
SYVB055	0075	13390	GPS= SYVB055
SYVB056	0076	13495	Trib enters channel at GPS= SYVBTRB02
SYVB057	0077	13581	Fallen tree with debris creating somewhat scoured RB. Cattails present LB. Unit ends at GPS= SYVB058. End of SY1SRA (Lat: 34.40.857; Long: 120.31.268)
Unsurveyed Unit	0078	13701	Distance from GPS point SYVB058 to SYFSH001 estimated using TOPO. Unsurveyed Santa Ynez Reach 1 Subreach B.
SYFSH001	0079	24834	End of SY1SRB, Start of SY1SRC. [PAGE: Sheet units SYFSH001 through SYFSH008 are SYFSHP01. MB Channel Morphology = Dune Ripple. All pools are meandering trench pools, slow moving with interspersed sand dunes/bars. Large sand bars and dunes, heavy vegetation including Cattails and some Arundo.] Slight beaver dam,

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
			Arundo DS and RB, Cape Ivy RB, Cattails present, pool RB, run LB, semi split channel connected with braids. GPS= SYFSH001
SYFSH001.1	0079.1	24912	Turbulence caused by plants and low flow.
SYFSH001.2	0079.2	24912	Braided runs.
SYFSH002	0080	24912	Pool ends beneath bridge. Braided runs LB. RB deepest section of pool. Max depth = 7+ ft.
SYFSH003	0081	25064	Large natural bottom bridge, 43ft wide, 4 concrete pillars. GPS= SYFLORBRG
SYFSH004	0082	25136	Arundo, BB present. Unit ends at sandbar. Long meandering trench pool with sand banks, slow flow and little variation, trench pool splits occasionally by sand bars with isolated run sections.
SYFSH005	0083	25567	Sand bar splits unit. GPS= SYFSH005
SYFSH006	0084	25597	Trench pool-like
SYFSH007	0085	25667	
SYFSH008	0086	25834	
SYFSH009	0087	25996	[PAGE: MB Channel Morphology = Dune Ripple. All pools are meandering trench pools, slow moving with interspersed sand dunes/bars. Large sand bars and dunes, heavy vegetation including Cattails and some Arundo. Willow, Mulefat, small fish, and tadpoles present. Sheet units SYFSH009 through SYFSH009.9 are SYFSHP02.] GPS= SYFSH009
SYFSH009.1	0087.1	26457	
SYFSH009.2	0087.2	26457	Arundo LB.
SYFSH009.3	0087.3	26457	Length estimated using GPS. Some small pools. GPS= SYFSH009.3
SYFSH009.4	0087.4	26457	GPS= SYFSH009.4
SYFSH009.5	0087.5	26457	
SYFSH009.6	0087.6	26457	
SYFSH009.7	0087.7	26457	
SYFSH009.8	0087.8	26457	Fish, tadpoles.
SYFSH009.9	0087.9	26457	
SYFSH009.10	0087.10	26457	[PAGE: Sheet units SYFSH009.10 through SYFSH009.14 are SYFSHP02A.] GPS= SYFSH009.10
SYFSH009.11	0087.11	26457	
SYFSH009.12	0087.12	26457	
SYFSH009.13	0087.13	26457	
SYFSH009.14	0087.14	26457	Connects with main stem at top of unit. GPS= SYFSH009.TOP
SYFSH010	0088	26457	[PAGE: Sheet units SYFSH010 through SYFSH019 are SYFSHP03. MB Channel Morphology = Dune Ripple. Long meandering trench like pools and root wad formed pools.] GPS= SYFSH010
SYFSH011	0089	26540	Turbulence created by vegetation, slope, and channel.
SYFSH012	0090	26575	Max depth = 5+ ft.
SYFSH013	0091	26644	
SYFSH014	0092	26674	Long meandering trench pool.
SYFSH015	0093	26870	Narrowness, slope, and flow creates turbulence.
SYFSH016	0094	26924	Arundo LB.
SYFSH017	0095	26999	RB root wad.
SYFSH018	0096	27066	LB root wad.
SYFSH019	0097	27133	RB root wad. RB side channel enters at top of unit. Meandering corner/root wad/mid-channel/confluence pool LB (see pics).
SYFSH020	0098	27187	[PAGE: Sheet units SYFSH020 through SYFSH029 are SYFSHP04. MB Channel Morphology is Dune Ripple.] Long narrow trench. GPS= SYFSH020

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYFSH021	0099	27315	GPS= SYSANMIGCFL GPS= SYFSH009.TOP San Miguelito confluence connects from LB, also connects with side channel SYFSH009.TOP.
SYFSH022	0100	27473	
SYFSH023	0101	27498	
SYFSH024	0102	27523	
SYFSH025	0103	27718	Transverse riffle RB to LB.
SYFSH026	0104	27793	
SYFSH027	0105	27928	More gravel, wide channel, shallowness creates turbulence. Large gravel bars in unit.
SYFSH028	0106	28256	May fly.
SYFSH029	0107	28384	
SYFSH030	0108	28464	[PAGE: Sheet units SYFSH030 through SYFSH039 are SYFSHP05. MB Channel Morphology is Dune Ripple.] Arundo LB. GPS= SYFSH030
SYFSH031	0109	28676	More gravel/cobble. Channel divided by gravel and sand bars.
SYFSH032	0110	28918	
SYFSH033	0111	29143	Arundo LB, massive sand/gravel bar in unit.
SYFSH034	0112	29288	
SYFSH035	0113	29506	
SYFSH036	0114	29596	
SYFSH037	0115	29878	
SYFSH038	0116	30068	
SYFSH039	0117	30167	Unit ends at GPS= SYFSH040. End of SY1SRC
Unsurveyed Unit	0118	30198	Unsurveyed area between GPS points SYFSH001 and SYVANCE001. Unsurveyed SY1SRD.
SYVANCE001	0119	35266	Start of SY1SRE. [PAGE: Sheet units SYVANCE001 through SYVANCE003 are SYVANCEP01. MB Channel Morphology is Dune Ripple. Dune Ripple upstream and downstream with no pools.] 316 BFW, ATV trails RB, braided glide, transverse riffles between braided channel. GPS= SYVANCE001
SYVANCE002	0120	36454	GPS= SYVANCE002 Transverse riffle, braided side channel LB.
SYVANCE003	0121	36694	GPS= SYVANCE003 Unit ends at GPS= SYHWY1BRG1. Homeless encampments present. Length determined using GPS. End of SY1SRE.
Unsurveyed Unit	122	37486	Distance from SYHWY1BRG1 to SYRB001 estimated using TOPO. Unsurveyed SY1SRF.
SYRB001	0123	39958	Start of SY1SRG. [PAGE: Sheet units SYRB001 and SYRB002 are SYRBP01. MB Channel Morphology = Dune Ripple.] Unit begins @ RB, semi corner pool, no crest, not too deep. GPS= SYRB001
SYRB002	0124	40222	GPS= SYRB002 Car in stream 300ft upstream. ATV tracks, dry side channels, Unit ends at GPS= SYRB002.B
SYRP001	0125	42862	[PAGE: Sheet units SYRP001 through SYRP005 are SYRPP01. MB Channel Morphology = Dune Ripple.] Large sand bar in unit. GPS= SYRP001
SYRP001.1	0125.1	43443	GPS= SYRP001.1
SYRP001.2	0125.2	43443	Good SWD and terrestrial vegetation RB with some depth but not enough to be classified as a pool.
SYRP001.3	0125.3	43443	Starts to reconnect to main but some side channel continues.
SYRP001.4	0125.4	43443	
SYRP001.5	0125.5	43443	Reconnects to main channel.
SYRP002	0126	43443	Some good terrestrial vegetation and SWD over unit. Some depth but not enough to be classified as a pool.

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYRP003	0127	43664	
SYRP004	0128	43911	Glide LB, riffle RB, bamboo like vegetation RB, plastic trash can in water RB.
SYRP005	0129	44062	Good SWD and terrestrial vegetation cover, unit is a long glide.
SYRP006	0130	44854	[PAGE: Sheet units SYRP006 through SYRP009.6 are SYRPP02. MB Channel Morphology = Dune Ripple.] GPS= SYRP006
SYRP007	0131	44949	Good SWD RB over pool.
SYRP008	0132	45203	Sand bars with gravel causing riffles.
SYRP009	0133	45471	
SYRP009.1	0133.1	45845	GPS= SYRP009.1
SYRP009.2	0133.2	45845	Very little coverage if any.
SYRP009.3	0133.3	45845	Side channel is small and shallow and has minimal coverage.
SYRP009.4	0133.4	45845	
SYRP009.5	0133.5	45845	
SYRP009.6	0133.6	45845	Small pool RB, side channel no longer connected to channel.
SYRP009.7	0133.7	45845	[PAGE: Sheet units SYRP009.7 through SYRP014 are SYRPP03. MB Channel Morphology = Dune Ripple. Strong currents throughout page.] Side channel dried out considerably from past day. Mostly dry with small pools. GPS= SYRP009.7
SYRP009.8	0133.8	45845	Reconnects with main channel, sand bar island, pool-like section in middle of glide, sand dunes throughout.
SYRP010	0134	45845	Good current throughout pool on RB.
SYRP011	0135	46025	Metal fencing in water in root wad that adds to scour, good coverage over pool, fast current, some gravel in crest.
SYRP012	0136	46066	Crest sandy, pool depth switches from bank to bank.
SYRP013	0137	46181	Concrete drainage cylinders LB.
SYRP013.1	0137.1	46227	Multiple concrete drainage cylinders LB. GPS= SYRP013.1
SYRP013.2	0137.2	46227	Dry area of side channel.
SYRP013.3	0137.3	46227	Side channel reconnects with main channel in this unit.
SYRP014	0138	46227	Wooden plank caught in debris adding to scour.
SYRP015	0139	46263	[PAGE: Sheet units SYRP015 through SYRP021.3 are SYRPP04. MB Channel Morphology = Dune Ripple. Confined LB, unconfined RB.] Root wad scour both banks. GPS= SYRP015
SYRP016	0140	46299	
SYRP017	0141	46432	Root wad scour LB, decent SWD and terrestrial vegetation coverage RB.
SYRP018	0142	46478	Side channel reconnects with main stem in this unit.
SYRP019	0143	46640	Small transverse riffle at center of unit with runs on both sides. Some small cobble in riffle.
SYRP020	0144	46696	
SYRP021	0145	46784	
SYRP021.1	0145.1	46808	GPS= SYRP021.1 Some large cobble in riffle.
SYRP021.2	0145.2	46808	
SYRP021.3	0145.3	46808	Side channel reconnects to main channel.
SYRP022	0146	46808	PAGE: Sheet units SYRP022 through SYRP031 are SYRPP05. MB Channel Morphology = Dune Ripple w/a small section that resembled a pool riffle but returned to dune ripple characteristics.] Good SWD coverage LB with some bubble curtain. GPS= SYRP022
SYRP023	0147	46869	Swift current over pool with substantial bubble curtain.
SYRP024	0148	46902	
SYRP025	0149	47105	
SYRP026	0150	47262	Small transverse riffle LB, glide RB.
SYRP027	0151	47327	

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYRP028	0152	47358	Plastic chair in water, two transverse riffles w/glides on both sides.
SYRP029	0153	47510	
SYRP030	0154	47653	Car in water RB which creates scour not boulder. Shopping cart in crest. Crest has decent gravel.
SYRP031	0155	47684	Very sandy with sand dunes throughout unit.
SYRP032	0156	47779	[PAGE: Sheet units SYRP032 through SYRP041 are SYRPP06. MB Channel Morphology = Dune Ripple.] Good SWD LB. 3 transverse riffles with gravel bars in between. GPS= SYRP032
SYRP033	0157	47899	
SYRP034	0158	48125	Good SWD coverage over pool LB.
SYRP035	0159	48171	Good SWD and terrestrial vegetation coverage LB.
SYRP036	0160	48219	Good gravel.
SYRP037	0161	48347	
SYRP038	0162	48959	Shampoo hanging from a plastic bag in tree. Fence LB.
SYRP039	0163	49062	Fence LB. Part of fence has collapsed. Some SWD and terrestrial vegetation coverage LB.
SYRP040	0164	49520	Good SWD and terrestrial vegetation coverage over pool. Crest is very sandy.
SYRP041	0165	49621	Very sandy with lots of sand dunes throughout unit.
SYRP042	0166	49872	[PAGE: Sheet units SYRP042 through SYRP048 are SYRPP07. MB Channel Morphology = Pool Riffle.] Some gravel but mostly sand, good coverage over pool RB. GPS= SYRP042
SYRP043	0167	49930	
SYRP044	0168	50057	
SYRP045	0169	50133	Tire in water.
SYRP045.1	0169.1	50575	GPS= SYRP045.1
SYRP045.2	0169.2	50575	Sand and gravel bar island.
SYRP045.3	0169.3	50575	Good SWD and terrestrial vegetation coverage.
SYRP046	0170	50575	Crest a little sandy but pretty decent. Good coverage over pool LB.
SYRP047	0171	50669	
SYRP048	0172	50844	
SYRP049	0173	50964	[PAGE: Sheet units SYRP049 through SYRP058 are SYRPP08. MB Channel Morphology = Pool Riffle.] Pool has good coverage from both SWD and undercut bank RB. GPS= SYRP049
SYRP050	0174	50992	Sandy crest.
SYRP051	0175	51056	Sand bar, metal box LB, tire in water.
SYRP052	0176	51601	Good undercut bank LB.
SYRP053	0177	51650	Good SWD RB.
SYRP054	0178	51788	
SYRP055	0179	51824	
SYRP056	0180	52352	Good undercut bank RB, good current, root wad pool switches from RB to LB.
SYRP057	0181	52491	Water washed away large parts of bank RB.
SYRP058	0182	52578	Very fast current.
SYRP059	0183	52620	[PAGE: Sheet units SYRP059 through SYRP061 are SYRPP09. MB Channel Morphology = Pool Riffle.] Strong current over pool, some good coverage. GPS= SYRP059
SYRP060	0184	52645	Riffle has strong current.
SYRP061	0185	52674	State Highway 246. Bridge concrete support pillars in stream RB. 80 ft wide pillar to pillar where water is present. Stream 60ft wide. Total length of bridge in stream bed is 260 feet. 4 concrete pillars in stream bed. Pillars = 2ft * 32 ft. Natural bottom. GPS= SYRPBRDG
SYRP062	0186	52726	[PAGE: Flow and water levels look down from past week. Sheet

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
			units SYRP062 through SYRP069 are SYRPP10. MB Channel Morphology = Pool Riffle.] Sand bar LB splits water, riffle over sand bar. GPS= SYRP062
SYRP063	0187	52902	
SYRP064	0188	52984	Very small riffle LB.
SYRP065	0189	53464	
SYRP066	0190	53632	
SYRP067	0191	53743	Good LWD RB on bank with a little in water, small riffle LB
SYRP068	0192	53782	
SYRP069	0193	53812	Unit ends at GPS= SYRP070 (Lat: 34.38.421; Long: 120.25.781) End of Santa Ynez Reach 1, Start of Santa Ynez Reach 2.
Unsurveyed Area	0194	54098	Unsurveyed area known as the Narrows. Distance between points SYRP070 and SY06001 was estimated using TOPO. Unsurveyed SY2SRA.
SY06001	0195	91386	Start of Santa Ynez Reach 2 Subreach B. [PAGE: Sheet units SY06001 through SY06010 are SY06P01. MB Channel Morphology = Pool Riffle. Dirt road runs continuously along LB, algae covering stream bed, lots of aquatic insects. 3-spine Stickleback, Arroyo Chub, and some unknown fish seen. Frogs heard. Macroinverts seen included snails and leeches.] Crossing creates riffle. GPS= SY06AZ01 Arizona crossing at the top of unit. Road crosses from LB to RB. GPS= SY06001
SY06002	0196	91487	Gravel bar RB.
SY06003	0197	91591	
SY06004	0198	91623	Gravel bar LB. Pool created somewhat by LWD, RB root wad added to scour but mostly 4.2, some gravel in crest.
SY06005	0199	91744	Gravel bar LB.
SY06006	0200	91809	
SY06007	0201	91877	
SY06008	0202	92058	Shallow LB, algae on crest, crest mostly sand with some gravel.
SY06009	0203	92156	
SY06010	0204	92366	
SY06011	0205	92475	[PAGE: Sheet units SY06011 through SY06013.7 are SY06P02. MB Channel Morphology = Pool Riffle. Construction RB. BFW is extra large with road running through LB in stream bed.] GPS= SY06011
SY06012	0206	92754	
SY06013	0207	92914	LB road cuts through 013.1 side channel.
SY06013.1	0207.1	93002	Side channel enters from LB.
SY06013.2	0207.2	93002	
SY06013.3	0207.3	93002	
SY06013.4	0207.4	93002	Fish and frogs in unit.
SY06013.5	0207.5	93002	
SY06013.6	0207.6	93002	Arundo LB, murky water, lots of algae.
SY06013.7	0207.7	93002	
SY06013.8	0207.8	93002	[PAGE: Sheet units SY06013.8 through SY06019 are SY06P03. MB Channel Morphology = Pool Riffle. Road in between LB side channel.] GPS= SY06013.8
SY06013.9	0207.9	93002	
SY06013.10	0207.10	93002	Side channel connected at Arizona Crossing habitat unit SY06020.
SY06014	0208	93002	
SY06015	0209	93190	

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SY06016	0210	93288	Multiple islands/gravel bars, braided riffle with islands in between. Good gravel throughout unit.
SY06016.1	0210.1	93428	Side channel connected at riffle unit 18.
SY06017	0211	93588	
SY06018	0212	93777	
SY06019	0213	93190	Pool created by Arizona crossing. 4 x 2.5 diameter pipes. 56 x 28 width longer than length.
SY06020	0214	93805	[PAGE Sheet units SY06020 through SY06027 are SY06P04. MB Channel Morphology = Pool Riffle.] Arizona Crossing with 4 corrugated metal with concrete pipes creating a plunge pool. 45 width of road. Large fish approx 5+ seen beneath SY06AZ02 in pool. GPS= SY06AZ02
SY06021	0215	93822	Dam created by road crossing, road LB, unit run-like.
SY06022	0216	94222	GPS= SY06AZ03 AZ Crossing has total length of 105 ft, 86 ft of it in the stream. AZ Crossing crosses from RB to LB.
SY06023	0217	94362	
SY06023.1	0217.1	94555	Pool enters SY06023 from LB.
SY06023.2	0217.2	94555	Marshy, dry spots, stagnant, lots of algae.
SY06024	0218	94555	
SY06025	0219	94689	
SY06026	0220	94956	
SY06027	0221	95117	LB deep, RB shallow. Semi corner/confluence pool, SY06023.1 enters from LB, SY06024 from RB.
SY06027.1	0221.1	95298	[PAGE: Sheet units SY06027.1 through SY06027.10 are SY06P04A.] Unit SY06023.1 enters SY06023 @ top of unit from LB 73ft up, substrate is very hard like concrete, slight plunge. GPS= SY06027.1
SY06027.2	0221.2	95298	Substrate very hard in crest.
SY06027.3	0221.3	95298	Very narrow, hard channel construction both banks, gravel being moved, @ 161ft small plunge.
SY06027.4	0221.4	95298	Fish in unit, log at top.
SY06027.5	0221.5	95298	
SY06027.6	0221.6	95298	
SY06027.7	0221.7	95298	
SY06027.8	0221.8	95298	Algae on crest, constructed pool log.
SY06027.9	0221.9	95298	GPS= SY06AZ05B Road 23 x 35ft. AZ = 2 piers 2.6 = diameter.
SY06027.10	0221.10	95298	LB constructed and altered for AZ crossing.
SY06028	0222	95298	[PAGE: Sheet units SY06028 through SY06034 are SY06P05. MB Channel Morphology = Pool Riffle.] Road RB. GPS= SY06027.1
SY06029	0223	95493	181ft up in stream is AZ Crossing.
SY06030	0224	95674	GPS= SY06AZ04 LB and RB AZ Crossing. AZ Crossing measures 32 x 56, its a riffle/run.
SY06031	0225	95764	
SY06032	0226	95888	Lots of algae on rocks.
SY06033	0227	96008	Algae covering crest, rocks clean beneath.
SY06034	0228	96141	RB root wad scour, algae covering crest.
SY06035	0229	96238	[PAGE: Sheet units SY06035 through SY06043 are SY06P06. MB Channel Morphology = Pool Riffle.] Owner of adjacent property moved river and put road through two channels. River passes under road through two large drainage pipes. Owner also built up banks to move the river to the other side. GPS= SY06035
SY06036	0230	96404	Grass island present. GPS= SY06AZ05
SY06037	0231	96524	

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SY06038	0232	96726	GPS= SY06038
SY06039	0233	96972	
SY06040	0234	97292	Some gravel and little bit of small cobble but very sandy. Good SWD coverage. Adjacent owner LB looks to have pushed sand/gravel into river creating plateau (about 1.6ft deep) on LB side.
SY06041	0235	97498	
SY06042	0236	97638	
SY06043	0237	97748	Root wad pool- kind of a sandbar w/debris and a little root wad creating pool. Probably would have been a shallow mid channel if root wad structure was not present.
SY06044	0238	97778	[PAGE: Sheet units SY06044 through SY06052 are SY06P07. MB Channel Morphology = Pool Riffle.] GPS= SY06044
SY06045	0239	97909	
SY06046	0240	97984	Sandy crest.
SY06047	0241	98164	Concrete pieces create scour not boulders.
SY06048	0242	98234	Very large bedrock present in water RB.
SY06048.1	0242.1	98261	GPS= SY06048.1
SY06049	0243	98261	
SY06050	0244	98296	
SY06051	0245	98317	Side channel SY06048.1 reconnects to main channel.
SY06052	0246	98372	Sandy crest.
SY06053	0247	98520	[PAGE: Sheet units SY06053 through SY06059 are SY06P08. MB Channel Morphology = Pool Riffle. ATV trail RB.] GPS= SY06053. 28 ft transverse riffle.
SY06054	0248	98548	
SY06055	0249	98705	
SY06056	0250	98783	
SY06057	0251	98848	Sandy crest
SY06057.1	0251.1	98900	GPS= SY06057.1 Pool very deep. Max depth = 6+
SY06057.2	0251.2	98900	Multi channel due to bedrock, very braided, shallow LB, cascade like LB.
SY06057.3	0251.3	98900	Plunge pool starts in middle of trench pool unit SY06059. Bedrock plunge. Unit wider than long.
SY06058	0252	98900	
SY06059	0253	99035	Concrete on bedrock, concrete in water. Trench pool with bedrock both banks and braided RB. Willows and Cattails present.
SY06060	0254	99284	[PAGE: Sheet units SY06060 through SY06065 are SY06P09. Bedrock forced channel from SY06060 to SY06063, marsh from SY06063 and up, braided channel.] GPS= SY06060 Bedrock sheet/riffle.
SY06061	0255	99317	LB dammed pool, RB riffle (beaver).
SY06062	0256	99379	Small pools, wide riffle, sections of bedrock, heavy vegetation.
SY06062.1	0256.1	99444	062.2.1 enters RB, huge boulder RB, beaver dam RB, heavy Cattails, max depth = 6+.
SY06062.2	0256.2	99444	
SY06062.2.1	0256.2.1	99444	GPS= SY06062.2.1 Slow moving pool-like section. Unit connects with SY06065.1 Length determined by GPS.
SY06062.3	0256.3	99444	Beaver dam.
SY06063	0257	99444	Beaver dam LB. GPS= SY06063
SY06064	0258	99638	Top of unit beaver dam, heavy Cattails.
SY06065	0259	99722	GPS= SY06065 Beaver dam, top of unit 062.3 enters unit SY06065 100 ft up on RB via beaver plunge. Deep trench pool ends at GPS= SY06065TOP

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SY06065.1	0259.1	100297	[PAGE: Sheet units SY06065.1 through SY06070 are SY06P10. Marsh area, runs with riffles, Willows, thick Cattails, deep trench pool from SY06065 to SY06065TOP.] GPS= SY06065.1LB LB side channel dries up.
SY06065.2	0259.2	100297	GPS= SY06065.2 Not associated with SY06065.1, side channel enters from RB. Length determined by GPS.
SY06066	0260	100297	Marsh area, 2 pools with thick Cattails LB, transverse riffles, runs, willows in the middle, RB open. Max depth = 4+ Length determined by GPS. GPS= SY06066
SY06067	0261	100406	GPS= SY06067 Pools with runs and riffles both sides. Depth of pool tail crest was .8 with embeddedness of a 5 and sand as substrate.
SY06068	0262	100655	GPS= SY06068 Sandy crest, Cattails both banks.
SY06069	0263	100809	Gravel channel RB, Cattails run both banks with deep, open channel. GPS= SY06069
SY06069.1	0263.1	101229	GPS= SY06069.1 LB side channel. Length determined by GPS.
SY06069.2	0263.2	101229	GPS= SY06069.2DRY to GPS = SY06069.2TOP
SY06070	0264	101229	GPS= SY06070 Wetted width at beaver dam is 95 ft. Unit SY06069 ends at beaver dam. Braided channels. GPS= SY06070B same, less veg, deep channel RB, LB run. Max depth = 5+ ft . Unit too deep to wade.
SY06071	0265	102355	[PAGE: Sheet units SY06071 through SY06078 are SY06P11. MB Channel Morphology = Marsh until unit SY06072, pool riffle from 072 and up.] GPS= SY06071 Open floodplain, thick Cattails, still marsh but no deep channel through middle, slightly more open, wetted width= 74ft. Runs and riffles at the end of the unit.
SY06072	0266	102797	Beaver dam at top of unit, unit created by beaver dam, thick Cattails, no real crest, crest goes in to marsh. GPS= SY06072
SY06073	0267	102930	Dammed pool at bend, trench pool until SY06074. GPS= SY06073
SY06073.1	0267.1	103486	LB run side channel enters damned pool.
SY06073.2	0267.2	103486	
SY06074	0268	103486	GPS= SY06074
SY06075	0269	103571	Crest has some decent gravel but too much sand and algae.
SY06076	0270	103696	
SY06077	0271	103782	
SY06078	0272	103972	
SY06079	0273	104088	[PAGE: Sheet units SY06079 through SY06085 are SY0612. MB Channel Morphology = Pool Riffle.] Pool crest too sandy. GPS= SY06079
SY06080	0274	104198	Trees RB provide minimal coverage.
SY06080.1	0274.1	104388	Gravel bar in middle of side channel, decent terrestrial vegetation coverage, some small cobble present. GPS= SY06080.1
SY06080.2	0274.2	104388	Terrestrial vegetation LB creating ok coverage.
SY06081	0275	104388	Thick aquatic vegetation in unit, beaver dam at top of unit.
SY06081.1	0275.1	104570	GPS= SY06081.1
SY06082	0276	104570	Thick aquatic vegetation, good terrestrial vegetation coverage RB and undercut bank section.
SY06083	0277	104685	Cattails in run.
SY06084	0278	104715	Good coverage from hanging terrestrial vegetation with SWD and undercut banks RB.
SY06085	0279	104795	Side channel SY06081.1 reenters this channel in this unit.
SY06086	0280	104925	[PAGE: Sheet units SY06086 through SY06095 are SY06P13. MB

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
			Channel Morphology = Pool Riffle.] GPS= SY06086
SY06087	0281	105125	Very good coverage LB from overhanging terrestrial vegetation.
SY06088	0282	105181	Cattails RB, pool shifts from LB to RB and back to LB. Good coverage LB from overhanging terrestrial vegetation.
SY06089	0283	105526	Beaver dam collapsed creating some scour due to increased velocity of water.
SY06090	0284	105586	
SY06091	0285	105621	
SY06092	0286	105661	Riffle-like water LB that runs adjacent to pool.
SY06093	0287	105679	Riffle-like water LB that runs adjacent to pool. Unit is wider than it is long.
SY06094	0288	105704	
SY06095	0289	105804	Sandbar splits riffle, bedrock RB.
SY06096	0290	105852	[PAGE: Sheet units SY06096 through SY06105 are SY06P14. MB Channel Morphology = Pool Riffle.] GPS= SY06096
SY06097	0291	105887	GPS= SY06097.1
SY06097.1	0291.1	105941	[Page: Sheet units SY06097.1 through SY06097.10 are SY06P16]. Wetted marsh RB of side channel. GPS= SY06097.1
SY06097.2	0291.2	105941	
SY06097.3	0291.3	105941	
SY06097.4	0291.4	105941	
SY06097.5	0291.5	105941	Brush appears to be burned on RB.
SY06097.6	0291.6	105941	Sand bar with vegetation splits riffle, good coverage from aquatic veg, terrestrial veg, and SWD RB.
SY06097.7	0291.7	105941	Gravel at bottom of pool.
SY06097.8	0291.8	105941	Small 2in fish seen.
SY06097.9	0291.9	105941	
SY06097.10	0291.10	105941	Good SWD coverage on RB.
SY06097.11	0291.11	105941	[PAGE: Sheet units SY06097.11 through SY06097.13 and units SY06112 through SY06118 are SY06P17. MB Channel Morphology = Pool Riffle.] Good SWD and root wad coverage RB. GPS= SY06097.11
SY06097.12	0291.12	105941	Transverse riffle (wider than long) splits run.
SY06097.13	0291.13	105941	
SY06098	0292	105941	Lots of aquatic vegetation.
SY06099	0293	106095	Thick aquatic vegetation, Cattails RB.
SY06100	0294	106263	
SY06101	0295	106311	Thick aquatic vegetation throughout unit, some small cobble and boulder present.
SY06102	0296	106406	
SY06103	0297	106481	Thick aquatic vegetation, terrestrial vegetation, and SWD provide pretty good coverage in this unit.
SY06104	0298	106676	
SY06105	0299	106766	
SY06106	0300	106926	[PAGE: Sheet units SY06106 through SY06111 are SY06P15. MB Channel Morphology = Pool Riffle.] GPS= SY06106 Concrete cylinder LB.
SY06107	0301	106979	Root wad pool RB
SY06108	0302	107064	Root wad pool LB.
SY06109	0303	107103	
SY06109.1	0303.1	107132	GPS= SY06109.1
SY06109.2	0303.2	107132	Good SWD LB.
SY06109.3	0303.3	107132	

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SY06109.4	0303.4	107132	
SY06110	0304	107132	Side channel reconnects to main channel in this unit.
SY06111	0305	107187	Side channel SY06097 (0291) reconnects here.
SY06112	0306	107323	Side channel reconnects to main. GPS= SY06112
SY06113	0307	107385	
SY06114	0308	107517	
SY06115	0309	107626	Crest completely covered by aquatic vegetation.
SY06116	0310	107795	Sand bar with vegetation splits riffle.
SY06117	0311	107975	Good SWD RB.
SY06118	0312	108152	Depth switches from center of stream to RB.
SY06119	0313	108348	[PAGE: Sheet units SY06119 through SY06128 are SY06P18. MB Channel Morphology = Pool Riffle.] GPS= SY06119
SY06120	0314	108438	Good SWD over root wad pool RB, 3 root wad pools all located RB.
SY06121	0315	108659	Concrete cylinder in water.
SY06122	0316	108744	Sandy crest.
SY06123	0317	108835	AZ Crossing under water. GPS= SY06AZ06
SY06124	0318	108953	Crest covered with algae.
SY06125	0319	109026	
SY06126	0320	109058	SY06126 separated from SY06125 by beaver dam. Pool tail crest depth was estimated.
SY06127	0321	109105	
SY06128	0322	109149	Good SWD RB.
SY06129	0323	109211	[PAGE: Sheet units SY06129 through SY06138 are SY06P19. MB Channel Morphology = Pool Riffle.] GPS= SY06129
SY06130	0324	109287	
SY06131	0325	109342	Beaver dam outlet causes riffle.
SY06132	0326	109387	Good SWD RB, few boulders at bottom of pool.
SY06133	0327	109571	
SY06134	0328	109607	Small amount of good SWD LB.
SY06135	0329	109674	
SY06136	0330	109697	Broken up beaver dam.
SY06137	0331	109760	
SY06138	0332	109850	Riffle RB, run-like LB, drainage pipe LB.
SY06139	0333	109920	[PAGE: Sheet units SY06139 through SY06146 are SY06P20. MB Channel Morphology = Pool Riffle. Lots of Cattails on RB.] Stagnant pool not connected. Marsh LB, large downed tree LB. GPS= SY06139
SY06140	0334	110038	
SY06141	0335	110084	Gravel bar with vegetation splits riffle.
SY06142	0336	110568	Bedrock LB, 1.5in fish seen.
SY06143	0337	110801	Rebar causing scour not log. SWD on top of rebar, rebar also on RB but no scour.
SY06144	0338	110859	
SY06144.1	0338.1	110887	Good SWD coverage LB. GPS= SY06144.1
SY06144.2	0338.2	110887	Good SWD and terrestrial vegetation on LB for entire run.
SY06145	0339	110887	Side channel reconnects to main.
SY06146	0340	111100	Good SWD coverage, fairly sandy crest, riffle RB, side pool LB.
SY06147	0341	111142	[PAGE: Sheet units SY06147 through SY06154 are SY06P21. MB Channel Morphology = Pool Riffle. Cattails RB.] Good SWD LB. GPS= SY06147
SY06148	0342	111342	Good SWD over pool with a slight undercut bank. Max depth of pool is estimated.
SY06149	0343	111532	

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SY06150	0344	111594	2 Log scour pools LB with good SWD coverage and some undercut bank. Max depth of pool is estimated.
SY06151	0345	111748	Gravel bar RB.
SY06152	0346	111863	
SY06152.1	0346.1	111938	GPS= SY06152.1
SY06152.2	0346.2	111938	Reconnects to main channel.
SY06153	0347	111938	Crest a little sandy but pretty good, good SWD LB. Root wad splits channel. Good coverage present.
SY06154	0348	112020	
SY06155	0349	112043	[PAGE: Sheet units SY06155 through SY06164 are SY06P22. MB Channel Morphology = Pool Riffle.] Good SWD coverage RB. Good gravel present. Max depth = 6+ft. GPS= SY06155
SY06156	0350	112131	
SY06157	0351	112293	
SY06158	0352	112427	Good SWD RB.
SY06159	0353	112537	
SY06160	0354	112581	
SY06161	0355	112648	LB root wad. Good SWD coverage.
SY06162	0356	112687	Crest not bad, some small cobble mixed in with a little sand.
SY06163	0357	112755	Sandy crest, plunge near RB of beaver dam. Beaver dam separates units SY06163 and SY06164.
SY06164	0358	112791	
SY06165	0359	112875	PAGE: Sheet units SY06165 through SY06174 are SY06P23. MB Channel Morphology = Pool Riffle.] Good SWD RB over water. GPS= SY06165
SY06166	0360	112948	Stagnant water RB.
SY06167	0361	113051	
SY06168	0362	113086	Some SWD LB, ok terrestrial vegetation RB.
SY06169	0363	113124	Vegetation island splits riffle, tire in water.
SY06170	0364	113179	
SY06171	0365	113232	Beaver dam broke open creating strong currents that almost create a plunge.
SY06172	0366	113260	Large Reeds RB.
SY06173	0367	113395	Good SWD RB entire side.
SY06174	0368	113438	Good SWD RB. Max depth = 6+
SY06175	0369	113571	[PAGE: Sheet units SY06175 through SY06184 are SY06P24. MB Channel Morphology = Pool Riffle.] Tire LB. GPS= SY06175
SY06176	0370	113603	Good SWD LB covering water. Riffle gets deeper on LB side under SWD but not as deep as a pool.
SY06177	0371	113767	Crest sandy, tire LB, good SWD RB. Max depth = 6+
SY06178	0372	113874	Some large cobble present as well.
SY06179	0373	114136	
SY06180	0374	114164	
SY06181	0375	114190	Corner pool with root wad RB causing additional scour.
SY06182	0376	114298	
SY06183	0377	114352	Good terrestrial vegetation and SWD RB.
SY06184	0378	114465	Cattails LB.
SY06185	0379	114539	[PAGE: Sheet units SY06185 through SY06193.1 are SY06P25. MB Channel Morphology = Pool Riffle.] Crest a little sandy but ok. Cattails on both banks. GPS= SY06185
SY06186	0380	114673	
SY06187	0381	114915	Ok terrestrial vegetation, aquatic vegetation, and SWD coverage RB

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
			over pool.
SY06188	0382	115096	
SY06189	0383	115144	Cattails on both banks. Pool max depth = 5+ ft.
SY06190	0384	115372	
SY06191	0385	115423	Some SWD LB, Cattails RB.
SY06192	0386	115528	Good SWD RB over pool, Cattails present.
SY06193	0387	115753	
SY06193.1	0387.1	115753	Good SWD RB, Downed terrestrial vegetation creating good coverage and a little bubble curtain present. GPS= SY06193.1
SY06194	0388	115753	[PAGE: Sheet units SY06194 through SY06203 are SY06P26. MB Channel Morphology = Pool Riffle.] Side channel reconnects to main channel in this unit, good SWD LB over pool, metal roofing in water LB. GPS= SY06194
SY06195	0389	115959	
SY06196	0390	115982	Some good SWD LB.
SY06197	0391	116181	Sandy crest.
SY06198	0392	116255	
SY06199	0393	116288	Beaver dam present with riffle over it.
SY06200	0394	116308	Long deep pool with majority 3ft and deeper. Max depth = 8+ft. Terrestrial vegetation in water, good SWD both banks.
SY06201	0395	116708	
SY06202	0396	116803	
SY06203	0397	116918	Cattails both banks.
SY06204	0398	116958	[PAGE: Sheet units SY06204 through SY06213 are SY06P27. MB Channel Morphology = Pool Riffle. Units 204 through 210 have lots of Cattails both banks.] Cattails both banks. GPS= SY06204
SY06205	0399	117058	Crest very sandy
SY06206	0400	117107	
SY06207	0401	117218	
SY06208	0402	117293	Crest sandy with algae covering it.
SY06209	0403	117430	
SY06210	0404	117470	Very long and deep pool. Max depth = 10+ ft.
SY06211	0405	117810	Bedrock LB, Mid-channel pool RB. Max depth = 7.5+ ft.
SY06212	0406	117885	Bedrock LB entire side. Max depth = 5+ ft.
SY06213	0407	118016	Bedrock LB, boulders LB side in water. Max depth = 5+. Unit ends at GPS= SY06214. (Lat: 34.36.571; Long: 120.18.387) End of SY2SRC
Unsurveyed Area	0408	118116	Length of unsurveyed area between points SY06214 and SYAR001 was estimated by GPS and TOPO. SY2SRC
SYAR001	0409	136317	Start of Lower Santa Ynez Reach 2 Subreach D[PAGE: Sheet units SYAR001 through SYAR010 are SYARP01. MB Channel Morphology = First half of units had a lot of Cattails and a somewhat marsh-like condition. The second half had pool-riffle.] Cattails both banks, pool somewhat run-like but deep with no defined crest. GPS= SYAR001
SYAR002	0410	136410	Cattails both banks and in stream.
SYAR003	0411	136519	Cattails LB, good coverage RB, multiple log scours forming one continuous pool.
SYAR004	0412	136596	Somewhat marsh-like, crest sandy but some gravel.
SYAR005	0413	136669	
SYAR006	0414	136718	GPS= SYARTRIB Trib enters main channel on LB. Cattails RB. Crest has some gravel, picnic table LB, small transverse riffle into pool.

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYAR007	0415	136899	
SYAR008	0416	136936	Grass island, Cattails RB.
SYAR009	0417	136985	Bedrock LB, Cattails RB.
SYAR010	0418	137186	Multiple log scours LB with one being in the middle. Crest not bad, a little sandy. Bedrock LB under downed trees. Unit ends at GPS= SYAR011 End of SY2SRD
Unsurveyed area	0419	137434	Length of unsurveyed area between points SYAR011 and SYFLG001 was estimated using TOPO and GPS. SY2SRE
SYFLG001	0420	162382	Start of Santa Ynez Reach 2 Subreach F[PAGE: Sheet units SYFLG001 through SYFLG009 are SYFLGP01. MB Channel Morphology = Dune ripple for the 1st half of habitat data and then switches to pool riffle. Road runs along LB.] GPS= SYFLG001. Beaver dam, high water clarity, May Fly present, pool turns around corner. GPS= SYFLGAZ01 Gravel and boulder placed in river for Arizona crossing. Road cross from LB to RB. Pool ends at AZ crossing. Max depth = 5+
SYFLG001.1	0420.1	162815	Side channel enters 80ft from AZ crossing. Side channel dries out.
SYFLG002	0421	162815	Max depth = 8+
SYFLG003	0422	162899	Boulders present.
SYFLG004	0423	163002	Good coverage RB.
SYFLG005	0424	163160	Riffle through Cattails, beaver dam creates riffle. Lots of swarming May Flies.
SYFLG006	0425	163218	Sandy crest. Long, deep, glide-like pool. Downed trees LB provide really good coverage (SWD/LWD/terrestrial). Max depth = 5+
SYFLG007	0426	163458	Downed trees LB provide really good coverage (SWD/LWD/terrestrial).
SYFLG008	0427	163716	Good coverage LB provided by SWD, LWD, terrestrial vegetation and root wad.
SYFLG009	0428	163814	Sandy crest, good coverage LB. GPS= SYFLG009
SYFLG010	0429	163958	[PAGE: Sheet units SYFLG010 through SYFLG018 are SYFLGP02. MB Channel Morphology = Pool Riffle.] GPS= SYFLG010
SYFLG011	0430	164008	Crest a little sandy, good terrestrial coverage over pool.
SYFLG012	0431	164057	Riffle running through willows. Some large cobble present.
SYFLG013	0432	164222	Good gravel. Some large cobble present. 119 ft Flag Ave Bridge. Natural bottom bridge. Width is 43 ft. 100 ft between concrete pillars. Bridge 35ft wide. Some good SWD, root wad, and terrestrial vegetation coverage over pool. GPS= SYFLAG BRG
SYFLG014	0433	164454	Gravel and boulders also present.
SYFLG015	0434	164501	
SYFLG016	0435	164571	Transverse riffle creates pool. Riffle included in unit because it is wider than it is long. Transverse riffle composed of mainly large and small cobble.
SYFLG017	0436	164611	Caddisfly observed. Concrete in river.
SYFLG018	0437	164753	Unit ends at GPS= SYFLG019 End of SY2SRF
Unsurveyed Area	0438	164793	Unsurveyed area between GPS points SYFLG019 and SYRFA001. Unsurveyed Santa Ynez Reach 3 Subreach A.
SYRFA001	439	197505	Start of Lower Santa Ynez Reach 3 Subreach B. [PAGE: Sheet units SYRFA001 through SYRFA009 are SYRFAP01. Pool-Riffle Channel Morphology.] Mid-channel pool LB. Transverse riffle in the middle of unit. Run RB split by gravel bars with terrestrial vegetation. GPS= SYRFA001
SYRFA002	440	197746	Transverse riffle splits run at top of unit and then gravel bar with

LOWER SANTA YNEZ WATERSHED COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
			vegetation splits run on RB and in middle of channel and riffle on LB.
SYRFA003	441	197909	Good coverage LB over pool.
SYRFA004	442	198005	Saw 4 to 5 fish around 6 – 10 inches in length. Max depth = 5+
SYRFA005	443	198281	
SYRFA006	444	198397	Transverse riffle throughout unit. Plastic pipes run perpendicular to water from bank to bank and secured with rebar. 84 ft long.
SYRFA007	445	198695	Good LWD/SWD RB. Plastic pipes in this unit as well.
SYRFA008	446	198745	Great coverage RB over pool. LWD from downed tree with large amounts of SWD and terrestrial vegetation on top of it. Another cluster of SWD RB just upstream. 5 fish around 12 – 20 inches long seen.
SYRFA009	447	198847	
SYRFA010	448	198936	[PAGE: Sheet units SYRFA010 through SYRFA015 are SYRFAP02. Pool-Riffle Channel Morphology.] GPS= SYRFA010
SYRFA011	449	198981	GPS= SYRFATRAP Small SWD pockets downstream of trap.
SYRFA012	450	199158	Pool crest estimated because it was too close to the trap. Good coverage over pool RB.
SYRFA013	451	199194	
SYRFA014	452	199326	Run continues a little farther downstream from start of riffle.
SYRFA015	453	199441	Bedrock scour LB. Somewhat like a bedrock trench pool LB. Bedrock LB and in middle giving it trench pool characteristics. The scour is around the entire structure and is very deep.
SYRFA016	454	199604	Bank erosion RB. GPS= SYRFA016
SYRFA016.1	454.1	200048	[PAGE: Sheet units SYRFA016.1 through SYRFA016.10 are SYRFAP03.] GPS= SYRFA16.1
SYRFA016.2	454.2	200048	Transverse riffle splits run. Very small bedrock section in channel.
SYRFA016.3	454.3	200048	Sandy crest.
SYRFA016.4	454.4	200048	Good coverage over pool.
SYRFA016.4.1	454.4.1	200048	[Sheet units SYRFA016.4.1 through SYRFA019 are SYRFAP04. Pool-Riffle Channel Morphology.] GPS= SYRFA16.4.1
SYRFA016.4.2	454.4.2	200048	Good coverage LB.
SYRFA016.4.3	454.4.3	200048	
SYRFA016.4.4	454.4.4	200048	Gravel bar splits run. RB side goes dry.
SYRFA016.4.5	454.4.5	200048	Length estimated using GPS. GPS= SYRFA016.4.5
SYRFA016.4.6	454.4.6	200048	Tadpoles. GPS= SYRFA016.4.6
SYRFA016.5	454.5	200048	
SYRFA016.6	454.6	200048	
SYRFA016.7	454.7	200048	Almost dry but ground still damp.
SYRFA016.8	454.8	200048	Stagnant water. Pool characteristics but deep enough to be classified as pool.
SYRFA016.9	454.9	200048	Side channel dries up.
SYRFA016.10	454.10	200048	Small run reconnecting to main channel.
SYRFA017	455	200048	GPS= SYRFA017
SYRFA018	456	200197	Main pool RB. Good coverage over provided by LWD, SWD, terrestrial vegetation, and root wad. Small pool LB.
SYRFA019	457	200314	Erosion RB, good coverage. Unit ends at GPS= SYRFA020

Salsipuedes Creek Comments

SALSIPUEDES CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed Unit	0001	0	
SPCA001	0002	3257	[PAGE: SPCAP01, MB Channel Type: Pool Riffle; however channel highly confined w/ deeply incised clay & sand banks that were eroding into creek. See pics.] Bedrock ledge is sand, RB erosion just downstream, bank in stream pic, murky water, and concrete chunks in unit. GPS= SPCA001
SPCA002	0003	3323	Unit ends under Santa Rosa Bridge.
SPCA003	0004	3376	SWD island at end of unit. GPS= SPCASRB01
SPCA004	0005	3446	Good spawning gravel.
SPCA005	0006	3512	Good spawning gravel.
SPCA006	0007	3582	Erosion.
SPCA007	0008	3614	Undercut RB.
SPCA008	0009	3646	2 pools with small crest midway, good crest for spawning, short riffle connecting pools.
SPCA009	0010	3770	
SPCA010	0011	3901	Crest has too much sand, clay on banks.
SPCA011	0012	4053	[SPCAP02: Page: MB Channel Type: Pool Riffle.] Cachuma fish trap in crest. GPS= SPCA011
SPCA012	0013	4083	Crest estimated. Erosion LB.
SPCA013	0014	4234	
SPCA014	0015	4283	Run-like for most of pool, sand filled crest, mostly sand with some gravel.
SPCA015	0016	4483	Another corner bend, not deep enough for a pool.
SPCA016	0017	4548	Gravel bar at top of unit, good spawning gravel throughout.
SPCA017	0018	4632	
SPCA018	0019	4681	Murky water.
SPCA019	0020	4698	Murky water for cover.
SPCA020	0021	4722	Long riffle/run almost half of unit, crest not good.
SPCA021	0022	4795	[SPCAP03: MB Channel Type: Pool Riffle Channel Type.] Gravel bar RB, LB erosion. GPS= SPCA021
SPCA022	0023	4990	Eroded LB/crest, machinery in unit, deepest part RB scour.
SPCA023	0024	5078	Runnish pool, sand filled.
SPCA024	0025	5211	
SPCA025	0026	5261	Gravel bar RB.
SPCA026	0027	5343	*Pic taken. Deeply incised clay RB
SPCA027	0028	5408	Crest mostly sand.
SPCA028	0029	5452	Riffle split by gravel bar.
SPCA029	0030	5500	
SPCA030	0031	5529	Transverse riffle.
SPCA031	0032	5564	[SPCAP04: MB Channel Type: Pool-Riffle with bedrock forced step pool at unit SPCA036 through unit SPCA037.] 6in fish seen, crest not suitable for spawning. GPS= SPCA031
SPCA032	0033	5704	Dominant sediment is clay.
SPCA033	0034	5780	
SPCA034	0035	5814	Crest very sandy.
SPCA035	0036	5905	
SPCA036	0037	5930	Very poor spawning gravel.
SPCA037	0038	5987	
SPCA038	0039	6137	Substrate moves from bedrock to gravel, good spawning gravel.
SPCA039	0040	6258	
SPCA040	0041	6369	
SPCA041	0042	6481	[SPCAP05: MB Channel Type: Pool-Riffle.] Other notes: Water clarity has

SALSIPUEDES CREEK COMMENTS			
			increased, flow slightly decreased. GPS= SPCA041
SPCA042	0043	6668	
SPCA043	0044	6730	Transverse riffle creating left bank pool, pool sandy, small cobble present in riffle.
SPCA044	0045	6797	
SPCA045	0046	7176	
SPCA046	0047	7290	Crest small cobble but almost completely covered in sand. Clay RB, pool switches from bank to bank.
SPCA047	0048	7485	Too much sand in crest, clay RB.
SPCA048	0049	7537	
SPCA049	0050	7587	Clay RB creating scour.
SPCA050	0051	7685	
SPCA051	0052	7782	[SPCAP06: Pool-riffle entering bedrock forced channel at SPCA053.] Other Notes: Crawdad, crest a little too sandy. GPS= SPCA051
SPCA052	0053	7968	
SPCA053	0054	8004	Not a good crest, extreme bubble curtain, very good pool, entering bedrock forced channel.
SPCA054	0055	8124	
SPCA055	0056	8182	
SPCA056	0057	8236	Bedrock right bank
SPCA057	0058	8331	Gravel bar in middle of pool.
SPCA058	0059	8375	Bedrock sheet with transverse riffle.
SPCA059	0060	8424	
SPCA060	0061	8720	
SPCA061	0062	8773	[SPCAP07: MB Channel Type: Bedrock Channel Type, bedrock bounded on both sides.] Other notes: Bedrock bounded channel type, crest is a little sandy. GPS= SPCA061
SPCA062	0063	8856	
SPCA063	0064	8892	Bedrock sheet plunge, sheet is wider than long.
SPCA064	0065	8930	Crest is bedrock holding sand and gravel sub dominate.
SPCA065	0066	9024	
SPCA066	0067	9082	
SPCA067	0068	9132	
SPCA068	0069	9163	Decent spawning gravel.
SPCA069	0070	9241	Crest is too sandy.
SPCA070	0071	9341	Good spawning gravel.
SPCA071	0072	9408	[SPCAP08: MB Channel Type: Bedrock to Pool-Riffle channel type. Bedrock channel type ends at SPCA072. Channel type turns into a pool riffle channel type that is highly confined.] Other Notes: Stickleback seen. GPS=SPCA071
SPCA072	0073	9562	Fallen concrete structure, RB gravel bar, left to right scour pool, no crest
SPCA073	0074	9676	Small gravel bar, good spawning gravel.
SPCA074	0075	9713	
SPCA075	0076	9816	Debris. Good crest.
SPCA076	0077	9850	Pool created by fallen bridge.
SPCA077	0078	9890	
SPCA078	0079	10030	
SPCA079	0080	10108	Root wad pool.
SPCA080	0081	10161	
SPCA081	0082	10187	[SPCAP09: MB Channel Type: Pool Riffle.] Other notes: Transverse riffle enters pool. GPS=SPCA081
SPCA082	0083	10257	Transverse riffle.
SPCA083	0084	10285	Fallen tree on LB of lateral scour.
SPCA084	0085	10337	
SPCA085	0086	10520	2 corner pools combining.

SALSIPUEDES CREEK COMMENTS			
SPCA086	0087	10650	
SPCA087	0088	10705	Gravel bar in mid creating left bank channel almost pool.
SPCA088	0089	10812	Root wad causes RB pool.
SPCA089	0090	10992	
SPCA090	0091	11059	Left bank erosion control boulders.
SPCA091	0092	11232	[SPCAP10: MB Channel Type: Pool Riffle, highly confined w/ lots of forced pools.] Gravel covered in sand. GPS= SPCA091
SPCA092	0093	11282	
SPCA093	0094	11420	Clay secondary substrate.
SPCA094	0095	11485	
SPCA095	0096	11670	
SPCA096	0097	11756	
SPCA097	0098	11866	
SPCA098	0099	11929	
SPCA099	0100	12079	
SPCA100	0101	12199	
SPCA101	0102	12241	[SPCAP11: MB Channel Type: Pool Riffle Channel Type.] GPS= SPCA101
SPCA102	0103	12420	Old fencing debris in unit.
SPCA103	0104	12502	
SPCA104	0105	12572	Pool very run-like.
SPCA105	0106	12692	
SPCA106	0107	12773	
SPCA107	0108	12826	
SPCA108	0109	12869	
SPCA109	0110	12967	Tree scoured, barbed wire fence in water.
SPCA110	0111	13073	
SPCA111	0112	13139	[SPCAP12: MB Channel Type: Pool Riffle.] Other Notes: Crest too sandy, concrete slab creating pool and coverage. GPS= SPCA111
SPCA112	0113	13227	Some gravel in crest but due to excessive sand it is considered a 4. Buried concrete.
SPCA113	0114	13297	Transverse riffle connecting 112 to 114.
SPCA114	0115	13327	Trailer in unit (LB), crest has excessive sand, Pampas grass (LB).
SPCA115	0116	13465	
SPCA116	0117	13540	Crest has some small cobble present, good spawning gravel.
SPCA117	0118	13600	
SPCA118	0119	13620	Decent spawning gravel, right bank overhanging tree.
SPCA119	0120	13669	
SPCA120	0121	13697	
SPCA121	0122	13799	[SPCAP13: MB Channel Type: Pool Riffle. Page notes: Highway 1 left bank throughout page, cattle in area.] Other Notes: Sandy crest. GPS= SPCA121
SPCA122	0123	13929	LB erosion boulder, Pampas grass (LB).
SPCA123	0124	13989	Concrete in sand bar with bedrock that separate two pools.
SPCA124	0125	14091	Concrete slab right bank.
SPCA125	0126	14141	Crest excessive sand.
SPCA126	0127	14237	Concrete LB.
SPCA127	0128	14267	Crest excessive sand.
SPCA128	0129	14381	
SPCA129	0130	14403	
SPCA130	0131	14431	
SPCA131	0132	14480	[SPCAP014: MB Channel Type: Pool Riffle to Bedrock at 137.] Other Notes: RB bedrock, crest excessive sand. GPS= SPCA131
SPCA132	0133	14588	
SPCA133	0134	14618	Crest too sandy.
SPCA134	0135	14654	Some clay LB.

SALSIPUEDES CREEK COMMENTS			
SPCA135	0136	14691	
SPCA136	0137	14723	Pool RB stagnant
SPCA137	0138	14805	
SPCA138	0139	14978	Fallen tree in unit.
SPCA139	0140	15017	Bedrock plunge, top of unit passable.
SPCA140	0141	15130	Unit impassable, climbed up hill, went around.
SPCA141	0142	15290	[SPCAP15: MB Channel Type: Bedrock, but later units influenced by the bridge structure from units 148-150.] Other Notes: GPS= SPCA141. Unit 140 impassable, forced to climb out of stream and walk downstream.
SPCA142	0143	15336	Pool filled with sand.
SPCA143	0144	15527	Manure in stream
SPCA144	0145	15578	Crest – silt with gravel, silt, cattle/road access RB, sandbar, manure in stream.
SPCA145	0146	15650	Unit impassable, crest too sandy. Bedrock plunge, bank too steep, pool to deep.
SPCA146	0147	15760	Bedrock crest.
SPCA147	0148	15805	Bedrock scourish.
SPCA148	0149	15870	Plunge pool caused by concrete rip rap apron. Max depth estimated at 6ft or greater.
SPCA149	0150	15988	Substrate concrete with little bedrock. Dammed pool created by rip rap, concrete bridge apron and fish ladder.
SPCA150	0151	16008	Crest is bedrock. Constructed pool with GPS= SALPHHW01 bridge apron.
SPCA151	0152	16112	[SPCAP16: Pool Riffle Channel Morphology.] GPS= SPCA151
SPCA152	0153	16232	Pool crest very sandy.
SPCA153	0154	16388	Good gravel bar RB.
SPCA154	0155	16433	
SPCA155	0156	16501	Good spawning gravel.
SPCA156	0157	16554	
SPCA157	0158	16626	
SPCA158	0159	16638	
SPCA159	0160	16684	
SPCA160	0161	16731	
SPCA161	0162	16806	[SPCAP17: MB Channel Type: Pool Riffle.] GPS= SPCA161
SPCA162	0163	16869	Pampas grass.
SPCA163	0164	16970	Crest a little sandy.
SPCA164	0165	17079	
SPCA165	0166	17191	Transverse riffle.
SPCA166	0167	17220	A lot of sand in crest.
SPCA167	0168	17294	Transverse riffle.
SPCA168	0169	17323	
SPCA169	0170	17417	
SPCA170	0171	17438	
SPCA171	0172	17571	[SPCAP18: MB Channel Type: Pool Riffle.] GPS= SPCA171
SPCA172	0173	17609	Sandy small cobble crest.
SPCA173	0174	17716	Gravel bar separates flow.
SPCA174	0175	17791	Extremely sandy crest.
SPCA175	0176	17937	
SPCA176	0177	17994	Pool-like unit.
SPCA177	0178	18083	Pampas Grass LB, gravel bar RB @ turn.
SPCA178	0179	18158	
SPCA179	0180	18196	Sandy crest. GPS= SPCA179
SPCA180	0181	18312	
SPCA181	0182	18423	[SPCAP19: MB Channel Type: Pool Riffle.] GPS= SPCA181
SPCA182	0183	18501	

SALSIPUEDES CREEK COMMENTS			
SPCA183	0184	18599	
SPCA184	0185	18656	
SPCA185	0186	18711	Some gravel in crest but very sandy.
SPCA186	0187	18771	Some large cobble.
SPCA187	0188	18811	Some nice gravel but a lot of sand.
SPCA187.1	0188.1	18898	Side channel enters 187 from RB, near LB outcrops large gravel bar splits.
SPCA188	0189	18898	Fallen tree LB, gravel bar.
SPCA189	0190	18926	
SPCA190	0191	18943	[SPCAP20: MB Channel Type: Pool Riffle.] Other Notes; Vegetation included Willow, Oak, Cottonwood, Chinaberry, Hollyberry. Sandy crest. GPS=SPCA190
SPCA191	0192	18979	
SPCA192	0193	19018	Good crest small cobble.
SPCA193	0194	19094	
SPCA194	0195	19157	
SPCA195	0196	19300	Crest almost sand bar like, large bedrock – good pool.
SPCA196	0197	19384	Barbed wire in water.
SPCA197	0198	19474	LB cattle access, bad smell, manure in water, stickleback.
SPCA198	0199	19639	
SPCA199	0200	19675	
SPCA200	0201	19768	[SPCAP21: Pool Riffle Channel Morphology.] GPS= SPCA200
SPCA201	0202	19787	Small crest, concrete, bedrock.
SPCA202	0203	19939	Concrete fish ladder RB, plunge 4ft jump, 7ft max depth.
SPCA203	0204	19974	Constructed damn pool, bedrock on sides. GPS= SPCJUL01
SPCA204	0205	20114	Almost trench pool.
SPCA205	0206	20245	Gravel bar.
SPCA206	0207	20293	Sandy with gravel crest. Max depth estimated at 8+ ft.
SPCA207	0208	20378	
SPCA208	0209	20401	
SPCA209	0210	20476	
SPCA210	0211	20559	[SPCAP22: MB Channel Type: Pool Riffle.] GPS= SPCA210
SPCA211	0212	20607	
SPCA212	0213	20678	Some bedrock present on corner wall but not making a pool.
SPCA213	0214	20763	
SPCA214	0215	20949	Gravel bar RB.
SPCA215	0216	21006	Transverse riffle, veggie in stream bed.
SPCA216	0217	21045	Good crest, good coverage.
SPCA217	0218	21129	
SPCA218	0219	21249	3 gravel bars, good coverage, and exposed substrate.
SPCA219	0220	21370	LWD on RB.
SPCA220	0221	21426	[SPCAP23: MB Channel Type: Pool Riffle.] Other Notes: Stickleback. GPS= SPCA220
SPCA221	0222	21513	
SPCA222	0223	21556	Lots of swd both banks.
SPCA223	0224	21623	
SPCA224	0225	21667	
SPCA225	0226	21707	
SPCA226	0227	21752	
SPCA227	0228	21808	
SPCA228	0229	21898	Crest a little sandy.
SPCA229	0230	21960	
SPCA230	0231	22009	[SPCAP24: Channel Type: Pool Riffle.] Other Notes: Some bedrock present LB. GPS= SPCA230
SPCA231	0232	22121	Transverse riffle.
SPCA232	0233	22153	Small fish present, species unknown, not stickleback.

SALSIPUEDES CREEK COMMENTS			
SPCA233	0234	22261	LWD in water.
SPCA233.1	0234.1	22436	Side channel RB. GPS= SPCA233.1
SPCA233.2	0234.2	22436	
SPCA234	0235	22436	Side channel joins main channel. Sandy crest.
SPCA235	0236	22467	Sandy crest.
SPCA236	0237	22539	
SPCA237	0238	22571	Decent crest. El Jaro enters LB. GPS= SPCAELJCFL
SPCB238	0239	22679	No access.
SPCB239	0240	32341	[SPCB01: MB Channel Type: Pool Riffle. Page: Trees growing/fallen in stream, murky water, heavy veg/canopy.] Other Notes: Tire in unit, low flow, blackberry, willow RB. GPS= SPCB239
SPCB240	0241	32399	Trees fallen across unit.
SPCB241	0242	32495	1.7ft plunge at top of unit, RB drainage trib enters.
SPCB242	0243	32525	Trees in unit.
SPCB243	0244	32551	Muddy.
SPCB244	0245	32636	
SPCB245	0246	32653	LB erosion in pool.
SPCB246	0247	32686	LB erosion, fallen cattails, debris in unit.
SPCB247	0248	32706	Slight plunge creates pool, fallen log LB in pool, some cobble in unit, bacteria on top of still water.
SPCB248	0249	32800	
SPCB249	0250	32813	[SPCBP02: MB Channel Type: Pool Riffle.] Other Notes: Giant palm LB, pool trench like really deep next to bank. GPS= SPCB249
SPCB250	0251	32854	
SPCB251	0252	32884	
SPCB252	0253	33008	Ok gravel, best we've seen in this section.
SPCB253	0254	33023	Tree fallen through unit.
SPCB254	0255	33066	
SPCB255	0256	33116	
SPCB256	0257	33139	
SPCB257	0258	33233	Log creating plunge, CWD pool.
SPCB258	0259	33271	Difficult to cross, 5ft high plunge into pool, fallen tree in unit.
SPCB259	0260	33368	[SPCBP03: MB Channel Type: Pool-Riffle. PAGE: lots of vegetation/fallen trees throughout, muddy water/substrate, smells of manure and horses. Alders, Willows, Blackberry present.] Other Notes: Plunge causing plunge pool 5ft drop, passable with flow. GPS=SPCB259
SPCB260	0261	33373	
SPCB261	0262	33442	
SPCB262	0263	33458	
SPCB262.1	0263.1	33520	Shallow, tree fallen through unit, tree in the middle of sand bar.
SPCB263	0264	33520	
SPCB264	0265	33599	
SPCB265	0266	33620	Tree in unit.
SPCB266	0267	33686	
SPCB267	0268	33713	
SPCB268	0269	33768	[SPCBP04: MB Channel Type: Pool Riffle.] GPS=SPCB268
SPCB269	0270	33801	RB Trib 8ft up. GPS=SPCBTRB01
SPCB270	0271	33932	Fallen tree across stream, run is pool-like.
SPCB271	0272	33949	Fallen trees.
SPCB272	0273	34003	
SPCB273	0274	34045	
SPCB274	0275	34069	
SPCB275	0276	34099	Sandy crest but best we've seen.
SPCB276	0277	34122	Lots of fallen trees.
SPCB277	0278	34243	

SALSIPUEDES CREEK COMMENTS			
SPCB278	0279	34314	[SPCBP05: MB Channel Type: Pool Riffle.] Other Notes: Horse manure LB, trees in unit. GPS= SPCB278
SPCB279	0280	34346	
SPCB280	0281	34371	
SPCB281	0282	34410	
SPCB282	0283	34426	
SPCB283	0284	34468	Massive log jam.
SPCB284	0285	34526	
SPCB285	0286	34556	
SPCB286	0287	34581	Large frog/toad.
SPCB287	0288	34633	Trees in unit.
SPCB288	0289	34666	[SPCBP06 MB Channel Morphology is Pool Riffle. PAGE: horse manure smell.] Other Notes: Massive log jam creating pool, concrete in unit. GPS= SPCB288
SPCB289	0290	34690	
SPCB290	0291	34702	Trees in unit.
SPCB291	0292	34749	
SPCB292	0293	34762	Trees in unit.
SPCB293	0294	34785	
SPCB294	0295	34805	
SPCB295	0296	34822	
SPCB296	0297	34838	Top of unit is blocked by tree forming a cascade.
SPCB297	0298	34850	Tributary enters LB 50 ft up. GPS=SPCBTRB02
SPCB298	0299	35055	[SPCBP07. MB Channel Morphology = Pool Riffle.] Other Notes: 30 ft cascade created by log jam, unit passable with flow. GPS= SPCB298
SPCB299	0300	35058	Possible road access LB.
SPCB300	0301	35094	
SPCB301	0302	35193	
SPCB302	0303	35234	
SPCB303	0304	35258	
SPCB304	0305	35282	
SPCB305	0306	35360	Log and pipe in unit.
SPCB306	0307	35395	Trees in unit.
SPCB307	0308	35547	
SPCB308	0309	35630	[SPCBP08. MB Channel Morphology = Pool Riffle.] GPS= SPCB308
SPCB309	0310	35644	Pipe in unit, some boulders present.
SPCB310	0311	35685	Wood jam creating plunge.
SPCB311	0312	35712	3.8ft plunge passable with flow.
SPCB312	0313	35716	Impassable unit created by log jam, pool created by structure (large boulder/bedrock on both banks, water runs through crevice between bedrock).
SPCB313	0314	35769	[SPCBP09. MB Channel Morphology = Pool Riffle.] Log jam at end of cascade. GPS= SPCB313
SPCB314	0315	35834	GPS= SPCBBRDG1
SPCB315	0316	35863	Bridge near office creating scour.
SPCB316	0317	35912	Down fence on right bank.
SPCB317	0318	35934	
SPCB318	0319	35953	
SPCB319	0320	35972	
SPCB320	0321	35994	Drainage from property above into stream on LB.
SPCB321	0322	36010	
SPCB322	0323	36047	
SPCB323	0324	36072	[SPCBP10. MB Channel Morphology = Pool Riffle.] GPS= SPCB323
SPCB324	0325	36085	
SPCB325	0326	36096	Left bank drainage from property above, metal object in stream LB.

SALSIPUEDES CREEK COMMENTS			
SPCB326	0327	36130	Gravel/cobble bar left bank, Cattails present on right bank.
SPCB327	0328	36162	Collapsed fence right bank.
SPCB328	0329	36253	Gravel/cobble bar RB.
SPCB329	0330	36284	Down fencing right bank.
SPCB330	0331	36339	Gravel island, terrestrial vegetation crosses stream bed.
SPCB331	0332	36354	Gravel bar right bank, unit has pool-like characteristics but shallow with max depth measured at 1.6ft.
SPCB332	0333	36400	
SPCB333	0334	36438	[SPCBP11. MB Channel Morphology = Pool Riffle.] GPS=SPCB333
SPCB334	0335	36505	Almost plunge pool like but not deep.
SPCB335	0336	36545	
SPCB336	0337	36564	Cattails in water.
SPCB337	0338	36601	Bridge with concrete right and left bank. GPS=SPCBBRDG2
SPCB338	0339	36663	
SPCB339	0340	36709	
SPCB340	0341	36739	
SPCB341	0342	36760	
SPCB342	0343	36791	
SPCB343	0344	36813	[SPCBP12. MB Channel Morphology = Pool Riffle.] Concrete object in water, concrete slab in water. GPS= SPCB343
SPCB344	0345	36915	Circular concrete object almost creating a pool, small gravel bar LB.
SPCB345	0346	36955	
SPCB346	0347	36968	Rusted metal in water.
SPCB347	0348	36994	Plunge pool characteristics but shallow with max depth measured at 1.5ft.
SPCB348	0349	37056	Log in stream almost dam like
SPCB349	0350	37070	
SPCB350	0351	37088	
SPCB351	0352	37130	
SPCB352	0353	37184	Lots of SWD fully covering water.
SPCB353	0354	37249	[SPCBP13. MB Channel Morphology = Pool Riffle.] GPS= SPCB353
SPCB354	0355	37278	
SPCB355	0356	37301	
SPCB356	0357	37305	
SPCB357	0358	37316	
SPCB358	0359	37326	SWD/terrestrial vegetation covering water.
SPCB359	0360	37368	
SPCB360	0361	37386	
SPCB361	0362	37403	Good gravel.
SPCB362	0363	37426	Farm equipment in water.
SPCB363	0364	37473	[SPCBP14. MB Channel Morphology = Pool Riffle.] GPS= SPCB363
SPCB364	0365	37489	
SPCB365	0366	37512	Lots of SWD in water RB.
SPCB366	0367	37550	Pretty good gravel, water a little low.
SPCB367	0368	37560	
SPCB368	0369	37574	
SPCB369	0370	37584	
SPCB370	0371	37607	
SPCB371	0372	37620	
SPCB372	0373	37666	Bone in water (cow?) Lots of SWD across and in water, rebar in water.
SPCB373	0374	37680	[SPCBP15. MB Channel Morphology = Pool Riffle.] Lots of SWD and terrestrial vegetation providing coverage. GPS= SPCB373
SPCB374	0375	37724	Pretty good gravel, low water levels.
SPCB375	0376	37744	Drainage pipe left bank.
SPCB376	0377	37782	Concrete in water, concrete ring and tarp right bank, farm equipment left bank.

SALSIPUEDES CREEK COMMENTS			
SPCB377	0378	37806	
SPCB378	0379	37824	
SPCB379	0380	37846	
SPCB380	0381	37871	Cow bones left bank.
SPCB381	0382	37891	
SPCB382	0383	37908	
SPCB383	0384	37927	[SPCBP16. MB Channel Morphology = Pool Riffle.] Good LWD and SWD coverage. GPS= SPCB383
SPCB384	0385	37962	
SPCB385	0386	37976	
SPCB386	0387	38000	
SPCB387	0388	38021	
SPCB388	0389	38046	Good terrestrial vegetation and SWD coverage.
SPCB389	0390	38059	
SPCB390	0391	38095	
SPCB391	0392	38117	
SPCB392	0393	38140	Terrestrial vegetation and SWD providing good coverage.
SPCB393	0394	38175	[SPCBP17. MB Channel Morphology = Pool Riffle.] GPS= SPCB393
SPCB394	0395	38209	
SPCB395	0396	38263	
SPCB396	0397	38273	
SPCB397	0398	38282	LB SWD/LWD creating a dam like structure but with no pool.
SPCB398	0399	38303	
SPCB399	0400	38355	
SPCB400	0401	38409	Good SWD coverage.
SPCB401	0402	38436	LB LWD that looks like it might fall down into the water.
SPCB402	0403	38509	Bones left bank.
SPCB403	0404	38544	[SPCBP18. MB Channel Morphology = Pool Riffle.] GPS= SPCB403
SPCB404	0405	38587	Rusted equipment left bank, good small woody debris right bank.
SPCB405	0406	38658	
SPCB406	0407	38699	
SPCB407	0408	38705	Bone right bank, good SWD coverage.
SPCB408	0409	38728	
SPCB409	0410	38733	
SPCB410	0411	38745	
SPCB411	0412	38766	
SPCB412	0413	38792	
SPCB413	0414	38804	[SPCBP19. MB Channel Morphology = Pool Riffle.] GPS= SPCB413
SPCB414	0415	38829	
SPCB415	0416	38836	Large drainage pipe left bank with large cobble around it.
SPCB416	0417	38887	
SPCB417	0418	38909	Lots of small woody debris and some large woody debris right bank.
SPCB418	0419	38961	Starting to see some large cobble.
SPCB419	0420	38981	Bone in water, trench pool characteristics but not deep.
SPCB420	0421	39023	Bone left bank.
SPCB421	0422	39057	
SPCB422	0423	39139	
SPCB423	0424	39158	[SPCBP20. MB Channel Morphology = Pool Riffle.] GPS= SPCB423
SPCB424	0425	39205	Good terrestrial vegetation right bank. (Gooseberry?)
SPCB425	0426	39235	
SPCB426	0427	39280	
SPCB427	0428	39302	Piece of fence in water.
SPCB428	0429	39324	
SPCB429	0430	39361	

SALSIPUEDES CREEK COMMENTS			
SPCB430	0431	39393	
SPCB431	0432	39426	
SPCB432	0433	39464	
SPCB433	0434	39478	[SPCBP21. MB Channel Morphology = Pool Riffle w/ no pools.] LWD crosses both banks. GPS= SPCB433
SPCB434	0435	39490	Some large cobble present.
SPCB435	0436	39598	
SPCB436	0437	39637	Plunge pool characteristics but shallow with max depth measured at 1.1ft.
SPCB437	0438	39690	
SPCB438	0439	39730	Channel walls getting less steep.
SPCB439	0440	39795	LWD crosses both banks.
SPCB440	0441	39845	Observing more variety of vegetation now that channel walls are less steep.
SPCB441	0442	39888	
SPCB442	0443	39940	
SPCB443	0444	40024	[SPCBP22. MB Channel Morphology = Pool Riffle.] Good SWD right bank. GPS= SPCB443
SPCB444	0445	40064	
SPCB445	0446	40086	Large Oak tree left bank with roots in water.
SPCB446	0447	40105	
SPCB447	0448	40135	
SPCB448	0449	40151	
SPCB449	0450	40179	
SPCB450	0451	40236	Large oak trees both banks.
SPCB451	0452	40284	
SPCB452	0453	40314	Good SWD LB.

El Jaro Creek Comments

EL JARO CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed Area	0001	0	Unsurveyed El Jaro Reach 1 between GPS points SPAELJCFL and EJIS001
EJIS001	0002	15578	Start of El Jaro Surveyed Reach 1[PAGE: Sheet units EJIS001 through EJIS011 are EJISP01. MB Channel Morphology = Pool-Riffle. Bars not very well defined.] GPS= EJIS001
EJIS002	0003	15705	Pool switches from LB to RB.
EJIS003	0004	15769	
EJIS004	0005	15804	Good coverage RB.
EJIS005	0006	15835	Good SWD RB.
EJIS006	0007	15870	
EJIS007	0008	15947	5in fish seen. Trib enters main channel from RB. GPS= EJISTRIB01
EJIS008	0009	15999	Good gravel but crest not well defined. Bedrock LB.
EJIS009	0010	16097	Good SWD coverage and downed tree LB.
EJIS010	0011	16194	Bedrock LB.
EJIS011	0012	16354	[PAGE: Sheet units EJIS011 through EJIS020 are EJISP02. MB Channel Morphology = Pool-Riffle with bars not well defined and lacking shape.] GPS= EJIS011
EJIS012	0013	16423	Trib enters main channel from LB. Boulders in stream LB. Metal drainage pipe LB. GPS= EJISTRIB02
EJIS013	0014	16513	
EJIS014	0015	16581	Good terrestrial vegetation coverage LB, partially downed tree.
EJIS015	0016	16636	Rebar RB.
EJIS016	0017	16736	

EL JARO CREEK COMMENTS			
EJIS017	0018	16891	Sandy crest, not well defined shape, some small cobble present.
EJIS018	0019	16958	
EJIS019	0020	17099	Bedrock RB, good terrestrial vegetation and SWD coverage LB, downed tree.
EJIS020	0021	17213	Terrestrial vegetation island splits riffle.
EJIS021	0022	17316	[PAGE: Sheet units EJIS021 through EJIS030 are EJISP03. MB Channel Morphology = Pool-Riffle.] GPS= EJIS021
EJIS022	0023	17477	
EJIS023	0024	17529	Bedrock RB.
EJIS024	0025	17601	Bedrock RB.
EJIS025	0026	17689	Bedrock scour RB.
EJIS026	0027	17730	
EJIS027	0028	17806	Large cobble/boulder at bottom of pool, bank failure LB.
EJIS028	0029	17855	
EJIS029	0030	17916	
EJIS030	0031	17949	Quick moving riffle with lots of bubble curtain. Good coverage provided by SWD and terrestrial vegetation, downed tree both banks.
EJIS031	0032	18057	[PAGE: Sheet units EJIS031 through EJIS040 are EJISP04. MB Channel Morphology = Pool-Riffle.] Bedrock LB. GPS= EJIS031
EJIS032	0033	18202	Quick moving riffle with lots of bubble curtain.
EJIS033	0034	18257	Trib enters main channel from LB. Boulder at bottom of pool. GPS= EJISTRIB03
EJIS034	0035	18335	Cattails RB, good SWD coverage over pool.
EJIS035	0036	18401	
EJIS036	0037	18491	Some small and large cobble in crest.
EJIS037	0038	18525	LWD RB not in water, rebar in water.
EJIS038	0039	18557	
EJIS039	0040	18680	
EJIS040	0041	18787	Bedrock RB at end of pool. Pool depth on LB side.
EJIS041	0042	18860	[PAGE: Sheet units EJIS041 through EJIS050 are EJISP05. MB Channel Morphology = Pool-Riffle.] Bedrock RB and in stream. GPS= EJIS041
EJIS042	0043	18912	Bedrock RB.
EJIS043	0044	18984	Some good terrestrial vegetation and SWD coverage with bubble curtain. Bedrock RB.
EJIS044	0045	19035	Good coverage from LWD/root wad LB. Downed tree, bedrock RB and in stream, upstream portion riffle like.
EJIS045	0046	19320	Small cobble/boulder mixed in crest. Boulders LB, Bedrock RB.
EJIS046	0047	19401	HW1 LB, drainage pipe LB.
EJIS047	0048	19431	Crest sandy.
EJIS048	0049	19489	Little SWD coverage LB.
EJIS049	0050	19537	Good SWD/ terrestrial vegetation coverage LB. Poolish LB, some good SWD coverage RB.
EJIS050	0051	19610	Terrestrial vegetation/gravel bar island splits riffle. Downed tree at top of riffle on island.
EJIS051	0052	19711	[PAGE: Sheet Units EJIS051 through EJIS060 are EJISP06. MB Channel Morphology = Pool-Riffle. Pools with boulders at the bottom of pools; sands dominate but some boulders present at bottom.] Good LWD/SWD/terrestrial vegetation over pool with bubble curtain. RB riffle/ LB log scour separated by downed tree on gravel/cobble bar. GPS= EJIS051
EJIS052	0053	19806	Bedrock and boulders RB enhancing scour. GPS= EJISTRIB04
EJIS053	0054	19959	Good terrestrial vegetation/SWD coverage RB. Bedrock creating riffle.
EJIS054	0055	20006	
EJIS055	0056	20065	LWD RB creating scour and root wad LB creating scour.
EJIS056	0057	20111	Good terrestrial vegetation/SWD coverage with bubble curtain over pool.
EJIS057	0058	20166	
EJIS058	0059	20224	

EL JARO CREEK COMMENTS			
EJIS059	0060	20268	Good coverage provided by terrestrial vegetation/SWD LB over pool. Boulders in pool.
EJIS060	0061	20333	
EJIS061	0062	20441	[PAGE: Sheet units EJIS061 through EJIS070 are EJISP07. MB Channel Morphology =EJISP07+08 combined=Pool-Riffle.] LWD LB. GPS= EJIS061
EJIS062	0063	20535	
EJIS063	0064	20608	
EJIS064	0065	20741	Max depth = 4.5+ ft.
EJIS065	0066	20824	Sand bar with downed tree splits riffle RB.
EJIS066	0067	20847	Sand bar with fallen tree splits unit. Downed fencing hanging from cliff RB. Boulders line RB.
EJIS067	0068	21015	Good SWD coverage over pool.
EJIS068	0069	21065	Boulders line RB
EJIS069	0070	21113	Bedrock RB enhances scour.
EJIS070	0071	21205	GPS= EJISTRIB05
EJIS071	0072	21289	[PAGE: Sheet units EJIS071 through EJIS075 are EJISP08. MB Channel Morphology = Pool-Riffle.] GPS= EJIS071
EJIS072	0073	21317	Good SWD/LWD coverage RB. Rebar RB.
EJIS073	0074	21363	Gravel bar with downed tree splits riffle.
EJIS074	0075	21468	
EJIS075	0076	21658	
EJIS076	0077	21710	[PAGE: Sheet units EJIS076 through EJIS085 are EJISP09. MB Channel Morphology = Pool-Riffle. Cascade-like section begins @ the end of the reach and continues through the next page.] Bedrock RB. GPS= EJIS076
EJIS077	0078	21770	Bridge 152ft by 40 ft wide. Natural bottom with rocks held to the bank by wire fencing. Rocks look like large cobble sized pieces of concrete with some gravel and small cobble mixed. The rocks proceed up the bank till the concrete pillar. 2 concrete pillars outside of wetted channel. Erosion control mostly used on RB but also partially on LB.
EJIS078	0079	21872	Rocks for bridge erosion still attached to RB and partially on LB.
EJIS079	0080	21919	
EJIS080	0081	21941	SWD/ terrestrial vegetation both banks near pool depth.
EJIS081	0082	21986	
EJIS082	0083	22032	Fallen tree at top of gravel bar with vegetation splits riffle.
EJIS083	0084	22095	Los Amoles Creek enters El Jaro via left bank. Los Amoles appears to have habitat that is possibly suitable for Steelhead. Good SWD/terrestrial vegetation coverage over pool LB. GPS= ELJLAMOCFL
EJIS084	0085	22165	LWD bank to bank bottom of unit.
EJIS085	0086	22273	Boulders along LB. Lots of erosion LB.
EJIS086	0087	22307	[PAGE: Sheet Units EJIS086 through EJIS095 are EJISP10. MB Channel Morphology = Beginning of unit cascade, then switches to pool riffle.] Large boulders (4-6ft) located on LB. Series of boulder scours. GPS= EJIS086
EJIS087	0088	22393	Large boulders LB.
EJIS088	0089	22410	2 boulder scours LB downstream, mid-channel boulder upstream.
EJIS089	0090	22463	Large boulder (10ft) and 4ft, great coverage LB.
EJIS090	0091	22487	Some boulders still present.
EJIS091	0092	22540	2 boulders both banks, LB greater depth.
EJIS092	0093	22587	
EJIS093	0094	22670	Rebar in pool.
EJIS094	0095	22731	
EJIS095	0096	22908	Somewhat trench like.
EJIS096	0097	22993	[PAGE: Sheet Units EJIS096 through EJIS105 are EJISP11. MB Channel Morphology = Pool Riffle.] GPS= EJIS096
EJIS097	0098	23186	Gravel/sand bar splits riffle.

EL JARO CREEK COMMENTS			
EJIS098	0099	23221	
EJIS099	0100	23293	
EJIS100	0101	23305	Erosion LB, good SWD coverage.
EJIS101	0102	23427	Downed tree at top of encloses riffle, good SWD coverage, erosion LB.
EJIS102	0103	23498	Erosion LB.
EJIS103	0104	23567	Good SWD coverage RB, SWD creating undercut bank structure.
EJIS104	0105	23657	
EJIS105	0106	23736	Root scour with SWD LB, undercut bank upstream from root scour.
EJIS106	0107	23774	[PAGE: Sheet Units EJIS106 through EJIS115 are EJISP12. MB Channel Morphology = Pool Riffle.] Erosion LB. GPS= EJIS106
EJIS107	0108	23957	Lots of erosion LB.
EJIS108	0109	23993	Good terrestrial vegetation coverage over pool LB. Erosion LB.
EJIS109	0110	24027	
EJIS110	0111	24082	
EJIS111	0112	24134	
EJIS112	0113	24170	
EJIS113	0114	24204	
EJIS114	0115	24268	Some log and root scour but not deep enough to be classified as a pool.
EJIS115	0116	24402	Erosion LB. 1 inch fish.
EJIS116	0117	24463	[PAGE: Sheet units EJIS116 through EJIS125 are EJISP13. MB Channel Morphology = Pool Riffle.] Unit glide-like. GPS= EJIS116
EJIS117	0118	24497	Good SWD/terrestrial vegetation coverage over pool LB, some terrestrial vegetation coverage RB.
EJIS118	0119	24531	
EJIS119	0120	24570	LWD bank to bank creating scour, somewhat dam like.
EJIS120	0121	24599	
EJIS121	0122	24671	LWD scour with terrestrial vegetation above providing good coverage.
EJIS122	0123	24771	Root mass of LWD creating scour, good coverage.
EJIS123	0124	24803	
EJIS124	0125	24845	
EJIS125	0126	24871	
EJIS126	0127	24988	[PAGE: Sheet Units EJIS126 through EJIS130 are EJISP14. MB Channel Morphology = Pool Riffle.] LWD/SWD creating scour with small riffle at top of unit. GPS= EJIS126
EJIS127	0128	25043	LWD LB, not deep enough for a pool.
EJIS128	0129	25137	
EJIS129	0130	25199	Bedrock scour RB, erosion switches to RB.
EJIS130	0131	25261	GPS= EJISB001 at end of unit. Bedrock RB.
EJISB001	0132	25303	[PAGE: Sheet units EJISB001 through EJISB010 are EJISBP01. MB Channel Morphology = Pool Riffle.] GPS= EJISB001
EJISB002	0133	25331	
EJISB003	0134	25389	
EJISB004	0135	25438	Downed trees both banks. Good terrestrial vegetation coverage.
EJISB005	0136	25514	
EJISB006	0137	25591	
EJISB007	0138	25610	Fallen trees both banks. Turtle (6in) seen.
EJISB008	0139	25758	Sand bar with gravel splits riffle. Good coverage from SWD and terrestrial vegetation. Downed trees both banks.
EJISB009	0140	25793	Really good terrestrial vegetation and SWD coverage over pool.
EJISB010	0141	25833	
EJISB011	0142	25866	[PAGE: Sheet units EJISB011 through EJISB020 are EJISBP02. MB Channel Morphology = Pool Riffle.] GPS= EJISB011
EJISB012	0143	25954	Good coverage over pool, a great root mass with SWD and terrestrial vegetation RB.
EJISB013	0144	25983	Root wad LB, LWD over pool.

EL JARO CREEK COMMENTS			
EJISB014	0145	26021	Downed tree RB with good coverage. Unit has depth but not enough for a pool.
EJISB015	0146	26139	
EJISB016	0147	26194	
EJISB017	0148	26237	Gravel/sand bar splits riffle with downed tree.
EJISB018	0149	26294	Good gravel a little far from pool. Depth is on LB side.
EJISB019	0150	26364	Root/log scour like LB but not deep enough to be classified as a pool.
EJISB020	0151	26412	
EJISB021	0152	26461	[PAGE: Sheet units EJISB021 through EJISB029 are EJISBP03. MB Channel Morphology = Pool Riffle.] Good LWD LB. Unit not deep enough to be considered a pool. GPS= EJISB021
EJIS022	0153	26511	
EJIS023	0154	26531	
EJIS024	0155	26553	Great coverage over pool RB provided by LWD/SWD/terrestrial vegetation.
EJIS025	0156	26597	
EJIS025.1	0156.1	26700	Transverse riffle into pool. LWD provides great coverage LB. Large downed tree. GPS= EJISB025.1
EJIS026	0157	26700	
EJIS027	0158	26741	Downed tree almost from bank to bank. Good coverage provided by SWD, root wad, and terrestrial vegetation.
EJIS028	0159	26763	
EJIS029	0160	26816	
EJIS030	0161	26837	[PAGE: Sheet units EJISB030 through EJISB039 are EJISBP04. MB Channel Morphology = Pool Riffle.] Good LWD RB, good coverage both banks. GPS= EJISB030
EJIS031	0162	26904	
EJIS032	0163	26975	Good root mass coverage.
EJIS033	0164	27021	
EJIS034	0165	27073	LWD almost bank to bank. Tree fell over riffle creating pool.
EJIS035	0166	27119	
EJIS036	0167	27184	
EJIS037	0168	27239	Bedrock LB
EJIS038	0169	27377	
EJIS039	0170	27414	LWD RB above water, some undercut bank, not deep enough for a pool.
EJIS040	0171	27542	[PAGE: Sheet units EJISB040 through EJISB049 are EJISBP05. MB Channel Morphology = Pool Riffle.] GPS= EJISB040
EJIS041	0172	27568	Good SWD and terrestrial vegetation coverage over pool RB.
EJIS042	0173	27616	
EJIS043	0174	27656	Boulders present.
EJIS044	0175	27717	4in fish seen but too fast to identify, bedrock LB.
EJIS045	0176	27811	A little bedrock RB.
EJIS046	0177	27848	Bedrock RB and bottom, LB sand, gravel present as well.
EJIS047	0178	27937	Plastic drainage pipe RB, 3.5in fish.
EJIS048	0179	27994	Bedrock RB.
EJIS049	0180	28030	Bedrock LB and in water.
EJIS050	0181	28129	[PAGE: Sheet units EJISB050 through EJISB059 are EJISBP06. MB Channel Morphology = Pool Riffle.] GPS= EJISB050
EJIS051	0182	28187	
EJIS052	0183	28239	Good terrestrial coverage LB over pool.
EJIS053	0184	28274	Mid-channel pool extends up LB into root wad pool.
EJIS054	0185	28325	Bedrock RB
EJIS055	0186	28380	Good SWD and terrestrial coverage over pool. Multiple fallen trees in unit. Transverse riffle at end of pool.
EJIS056	0187	28427	Gravel bar splits riffle.
EJIS057	0188	28489	Lots of erosion left bank.

EL JARO CREEK COMMENTS			
EJIS058	0189	28518	Mud boulders LB enhance scour. Tribs on both banks with the larger trib entering on RB. GPS= EJISBTRIB01
EJIS059	0190	28622	Good coverage provided by roots and terrestrial vegetation LB.
EJIS060	0191	28691	[PAGE: Sheet units EJISB060 through EJSB065.4 are EJISBP07. MB Channel Morphology = Pool Riffle.] GPS= EJISB060
EJIS061	0192	28719	
EJIS062	0193	28752	
EJIS063	0194	28792	
EJIS064	0195	28853	Root wad and trees enhance depth.
EJIS065	0196	28895	
EJIS065.1	0196.1	28935	Stagnant water in pool. GPS= EJISB065.1
EJIS065.2	0196.2	28935	Cow bone LB.
EJIS065.3	0196.3	28935	
EJIS065.4	0196.4	28935	Side channel reconnects with main channel.
EJIS066	0197	28935	Sheet units EJISB066 through EJIS075 are EJISBP08. MB Channel Morphology = Pool Riffle.] GPS= EJISB066
EJIS067	0198	28958	Good coverage provided by SWD and root wad over pool RB.
EJIS068	0199	28990	Crest sandy.
EJIS069	0200	29005	Good SWD/LWD coverage over pool LB.
EJIS070	0201	29089	
EJIS071	0202	29145	Plunge-like from riffle.
EJIS072	0203	29238	
EJIS073	0204	29304	Root wad pool switching from bank to bank. 5+ lb root wad. Good coverage provided by SWD/LWD/root.
EJIS074	0205	29386	
EJIS075	0206	29417	
EJIS076	0207	29440	[PAGE: Sheet units EJISB076 through EJISB083. MB Channel Morphology = Pool Riffle.] GPS= EJISB076
EJIS077	0208	29457	
EJIS077.1	0208.1	29494	Good coverage over pool.
EJIS077.2	0208.2	29494	Reconnects to main.
EJIS078	0209	29494	
EJIS079	0210	29545	LWD RB over water causing channel to split into side channel.
EJIS080	0211	29585	Sand bar with vegetation.
EJIS081	0212	29605	Sand bar splits riffle, downed tree at top of unit.
EJIS082	0213	29636	
EJIS083	0214	29668	
EJIS084	0215	29687	[PAGE: Sheet units EJISB084 through EJISB094 are EJISBP10+P11. MB Channel Morphology = Pool Riffle.] Pool depth LB, good coverage provided by SWD over pool. GPS= EJISB084
EJIS085	0216	29812	
EJIS086	0217	29835	Trib entering main channel on LB. GPS= EJISBTRIB02
EJIS087	0218	29893	Some undercut bank in RB pool, good root/SWD/terrestrial coverage over pool RB.
EJIS088	0219	29932	Root wad LB, great LWD coverage LB.
EJIS089	0220	30011	Large cobble also present.
EJIS090	0221	30074	
EJIS091	0222	30125	
EJIS092	0223	30179	Great root/LWD/SWD coverage LB. Root wad pool switches bank to bank.
EJIS093	0224	30253	
EJIS094	0225	30279	EJISBP11. GPS= EJISB094 End of property @ end of riffle. End of survey at EJISB095 (Lat: 34.32.603; Long: 102.21.424)

Nojoqui Creek Comments

NOJOQUI CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed area	0001	0	Unsurveyed Reach 1 between GPS points SYNJCFL and SYNJ001
SYNJ001	0002	35415	Start of Nojoqui Survey Reach 2 [PAGE: Sheet units SYNJ001 through SYNJ010 are SYNJP01. MB Channel Morphology = Pool-Riffle.] GPS= SYNJ001
SYNJ002	0003	35446	Lots of erosion RB.
SYNJ003	0004	35520	
SYNJ004	0005	35612	Erosion LB. Multiple root masses LB.
SYNJ005	0006	35632	Good terrestrial vegetation coverage at top of unit over pool.
SYNJ006	0007	35689	
SYNJ007	0008	35712	Good coverage provided by root wad, terrestrial vegetation and SWD RB. Erosion LB.
SYNJ008	0009	35748	Erosion RB.
SYNJ009	0010	35774	Erosion RB.
SYNJ010	0011	35819	Erosion switches to LB. Good coverage provided by root mass at top of unit.
SYNJ011	0012	35849	[PAGE: Sheet units SYNJ011 through SYNJ020 are SYNJP02. MB Channel Morphology = Pool-Riffle. SYNJ011 through SYNJ016 have erosion LB.] Transverse riffle into pool. Root wad LB with good coverage. GPS= SYNJ011
SYNJ012	0013	35893	
SYNJ013	0014	35931	
SYNJ014	0015	35963	Root wad LB.
SYNJ015	0016	36002	
SYNJ016	0017	36053	LWD LB. Root mass LB. Lots of erosion LB.
SYNJ017	0018	36230	
SYNJ018	0019	36271	Island splits riffle.
SYNJ019	0020	36308	Root wad LB. No depth.
SYNJ020	0021	36351	Riffle RB. Run LB. Channel split by island. Some large cobble present.
SYNJ021	0022	36431	[PAGE: Sheet units SYNJ021 through SYNJ025 are SYNJP03. MB Channel Morphology = Pool-Riffle with Cascade section.] GPS= SYNJ021
SYNJ022	0023	36515	Large tree splits riffle at bottom of unit. LWD LB. Small pools throughout unit. One pool as deep as 4ft due to large boulder. Pools have no crest. SWD/root wad coverage both RB and LB. Large boulders throughout unit. Erosion both banks.
SYNJ023	0024	36903	Large boulders LB.
SYNJ024	0025	36961	Boulders RB. Erosion RB.
SYNJ025	0026	37014	Boulders RB. Erosion RB.
SYNJA001	0027	37052	[PAGE: Sheet units SYNJA001 through SYNJA010 are SYNJAP01. MB Channel Morphology = Pool Riffle. Lots of bank failure.] Other Notes: Large boulders RB. GPS= SYNJA001.
SYNJA002	0028	37092	Erosion boulders RB. Three drainage pipes RB with boulders underneath.
SYNJA003	0029	37125	
SYNJA004	0030	37175	2 root wad scour pools that connect.
SYNJA005	0031	37259	
SYNJA006	0032	37283	Very sandy crest. Good root mass RB, pieces of carpet in water RB.
SYNJA007	0033	37343	Boulders RB. Velocity of water slows in the middle of riffle and then speeds back up.
SYNJA008	0034	37581	Probably root wad scour pool when water level is higher. (see pics).
SYNJA009	0035	37661	Large boulder LB. Concrete in water.
SYNJA010	0036	37743	Large concrete pieces LB.
SYNJA011	0037	37790	[PAGE: Sheet units SYNJA011 through SYNJA020 are SYNJAP02. MB

NOJOQUI CREEK COMMENTS			
			Channel Morphology = Pool-Riffle.] Other Notes: Good LWD coverage LB. GPS= SYNJA011
SYNJA012	0038	37997	
SYNJA013	0039	38127	
SYNJA014	0040	38244	
SYNJA015	0041	38349	Good SWD coverage both banks.
SYNJA016	0042	38428	Crest sandy. Plunge pool caused by concrete ledge in streambed.
SYNJA017	0043	38464	Manmade waterfall with concrete bottom. See pics
SYNJA018	0044	38474	Rebar LB in water, boulders both banks.
SYNJA019	0045	38487	Bridge = 40ft long, 15 ft wide. Natural bottom with two metal pillars in water. Concrete bridge foundation outside of water. Boulders both banks. GPS= SYNJABRDG01
SYNJA020	0046	38502	Boulders RB. Good terrestrial coverage RB over pool.
SYNJA021	0047	38542	[PAGE: Sheet units SYNJA021 through SYNJA030 are SYNJAP03. MB Channel Morphology = Pool-Riffle.] Other notes: Riffle/transverse riffle. GPS= SYNJA021
SYNJA022	0048	38585	Huge root mass LB with good coverage.
SYNJA023	0049	38620	
SYNJA024	0050	38716	
SYNJA025	0051	38751	Downed fencing. Good coverage RB provided by root mass and terrestrial vegetation. See pic.
SYNJA026	0052	38793	Huge root wad LB with good coverage.
SYNJA027	0053	38846	Terrestrial islands RB within gravel bars.
SYNJA028	0054	39009	Good coverage RB. Downed trees both banks. Root mass/LWD LB.
SYNJA029	0055	39062	Huge downed tree in unit. Ground water spring leaks into stream LB. See pics.
SYNJA030	0056	39204	Some pockets of good gravel with some small cobble. Good coverage over pool.
SYNJA031	0057	39258	[PAGE: Sheet units SYNJA031 through SYNJA035 are SYNJAP04. MB Channel Morphology = Pool-Riffle.] Other Notes: Downed tree in water. GPS= SYNJA031
SYNJA032	0058	39313	Good coverage RB provided by root wad and terrestrial vegetation.
SYNJA033	0059	39355	Nojoqui and Falls connect here. Good terrestrial vegetation and SWD coverage bank to bank. GPS= SYNJA033
SYNJA034	0060	39474	
SYNJA035	0061	39494	Bridge has 4ft diameter pipes for water to flow through. Bridge 17ft * 39 ft wide. Concrete both banks broken up. Concrete pieces surround pipes. See pics.
SYNJB001	0062	39533	[PAGE: Sheet units SYNJB001 through SYNJB010 are SYNJBP01. MB Channel Morphology = Pool-Riffle transitioning into Step Pool with no pools.] Other Notes: Unit covered with poison oak. GPS= SYNJBBRDG01 Trib: GPS= SYNJBTRIB01
SYNJB002	0063	39715	Boulders both banks for erosion.
SYNJB003	0064	39730	Concrete in stream and on LB. Some boulder present.
SYNJB004	0065	39823	
SYNJB005	0066	39837	Good amount of boulder present.
SYNJB006	0067	40095	
SYNJB007	0068	40112	Lots of poison oak.
SYNJB008	0069	40289	Concrete and boulders in stream and on LB. Possible collapsed bridge or overpass.
SYNJB009	0070	40404	Metal piping in stream, concrete creating waterfall.
SYNJB010	0071	40480	3 plastic pipes in stream (7.2 ft length and 1.5 ft diameter).
SYNJB011	0072	40572	[PAGE: Sheet units SYNJB011 through SYNJB020 are SYNJBP02. MB Channel Morphology = Step Pool. Units had pool characteristics but not deep enough for any unit to be considered a pool. Poison oak throughout

NOJOQUI CREEK COMMENTS			
			preventing access to stream in some sections.] Other Notes: LWD LB partially in water. GPS= SYNJB011
SYNJB012	0073	40740	Metal piping crosses both banks above water. Good LWD coverage throughout.
SYNJB013	0074	41152	Lots of poison oak preventing access. GPS= SYNJB013
SYNJB014	0075	41488	Good LWD coverage LB. Good SWD and terrestrial vegetation coverage throughout. Boulders built up on both banks for erosion control. Dry tributary. GPS= SYNJBTRIB02 GPS= SYNJB014
SYNJB015	0076	41839	Boulders built up on both banks for erosion control. Downed tree from bank to bank. Lots of good terrestrial vegetation coverage, boulder coverage, and bubble curtain coverage. GPS= SYNJB015
SYNJB016	0077	41980	GPS= SYNJB016
SYNJB017	0078	42136	Width 6ft, 6ft from bridge to bottom. Length of bridge is 14ft. Bridge 14*6ft with natural bottom. GPS= SYNJBBRDG02
SYNJB018	0079	42142	GPS= SYNJBTRIB03 Dry trib. GPS= SYNJB018
SYNJB019	0080	42336	6ft high. 15ft long, 6 ft wide natural bottom bridge. SYNJBBRDG03
SYNJB020	0081	42342	
SYNJB021	0082	42391	[PAGE: Sheet units SYNJB021 through SYNJB028 are SYNJBP03. MB Channel Morphology = Step Pool.] GPS= SYNJB021
SYNJB022	0083	42413	Boulders both banks. See pics.
SYNJB023	0084	42429	
SYNJB024	0085	42512	Plunge pool under bridge. Bridge length 15ft. Height is 9ft to bottom of plunge pool, 6ft for the rest. Width 6 ft.
SYNJB025	0086	42518	SWD coverage both banks. Creek entrenched.
SYNJB026	0087	42623	Pieces of LWD RB.
SYNJB027	0088	42650	Bedrock LB. Bedrock creating plunge. 5ft plunge
SYNJB028	0089	42670	Bedrock RB and LB. Huge waterfall at end of unit. Travertine present. See pics. End of unit = GPS= SYNJB029

UPPER SANTA YNEZ COMMENTS AND LANDMARKS

The following landmarks and possible problem sites were noted. All distances are approximate and taken from the beginning of the survey reach.

Cachuma Creek Comments

Cachuma Creek Comments (CAC)			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed area	0001	0	Unsurveyed reach between GPS points CACCFL and CAC001.
CAC001	0002	38273	PAGE: Sheet units CAC001 through CAC010 = CACP01. MB Channel Morphology = Step Pool with some Plane Bed characteristics. GPS = CAC001
CAC002	0003	38319	Highly vegetated, narrow channel with overhanging branches. Mule fat, Sycamores and Oaks common throughout page.
CAC003	0004	38343	Gravel is cemented in, very hard to move.
CAC006	0007	38385	Large tree in riffle creating good cover.
CAC007	0008	38403	Cascade seperates 2 runs at 51ft into the unit.
CAC008	0009	38487	2 trees in pool, creating excellent cover.
CAC010	0011	38523	Run with one step around 12 ft into unit (small cascade).
CAC011	0012	38596	PAGE: Sheet units CAC011 through CAC020 = CACP02. MB Channel Morphology = Step Pool, not regularly spaced pools, some plane bed characteristics. Other notes: Unit is step run starting with shorter steps, then longer steps at end. GPS = CAC011
CAC012	0013	38745	Tree down in unit with lots of vegetation in water.
CAC013	0014	38790	Gravel cemented in, cannot move.
CAC014	0015	38813	Lots of leaf litter in the water.
CAC015	0016	38857	Oaks, sycamores, and alders common along banks.
CAC017	0018	38947	Bedrock vertical wall into creek left bank.
CAC019	0020	39019	Erosion left bank, overhanging bank at end of unit.
CAC020	0021	39109	Dry side channel right bank 28ft into unit.
CAC021	0022	39232	PAGE: Sheet units CAC021 through CAC030 = CACP03. MB Channel Morphology = Step Pool. GPS = CAC021
CAC022	0023	39264	Left bank eroding and undercut.
CAC025	0026	39399	Tree down in channel at start of unit.
CAC027	0028	39478	Small cascade 30ft into unit.
CAC028	0029	39635	Tree down at start of unit, right bank eroding at end of unit.
CAC029	0030	39671	Right bank eroding.
CAC030	0031	39695	Large portion of gravel is cemented, some moveable.
CAC031	0032	39713	PAGE: Sheet units CAC031 through CAC040 = CACP04. MB Channel Morphology = Step Pool with no pools. GPS = CAC031
CAC032	0033	39740	Bedrock left bank.
CAC037	0038	39985	Left bank eroding with roots coming out. High gradient riffle at very end of unit with dammed section from downed trees in creek.
CAC039	0040	40254	Willow roots in channel create a step like structure.
CAC041	0042	40332	PAGE: Sheet units CAC041 through CAC050 = CACP05. MB Channel Morphology = Step-Pool. Other notes: Unit has some gravel cemented at crest. GPS = CAC041
CAC044	0045	40430	Good spawning gravel, not cemented. Leaf litter in piles in pool.
CAC047	0048	40562	Gravel cannot be moved, overhanging tree roots.
CAC048	0049	40585	Tree crosses mid unit.
CAC051	0052	40700	PAGE: Sheet units CAC051 through CAC060 = CACP06. MB Channel Morphology = Step Pool. Other notes: unit has partially cemented gravel. GPS = CAC051
CAC052	0053	40718	Many downed branches and large amounts of leaf litter.

Cachuma Creek Comments (CAC)			
CAC056	0057	40889	Small cascade at start of pool. Good spawning gravel.
CAC060	0061	41038	Bedrock located on left bank.
CAC061	0062	41091	PAGE: Sheet units CAC061 through CAC070 =CACP07. MB Channel Morphology = Step-Pool. Other notes: GPS = CAC061. Tributary at very beginning of unit left bank. GPS = CACTRIB1. Dry at confluence but some wet areas farther up. Side channel (dry) parallels unit.
CAC063	0064	41232	Cemented gravel. Undercut left bank from erosion.
CAC067	0068	41342	Unit covered in algae and leaves.
CAC069	0070	41371	LWD in pool creating good cover.
CAC071	0072	41422	PAGE: Sheet units CAC071 through CAC080 = CACP08. MB Channel Morphology = Step Pool. GPS = CAC071
CAC075	0076	41622	Riffle covered in Willow roots.
CAC076	0077	41641	Tree down in unit with water flowing over.
CAC079	0080	41725	Good spawning gravel.
CAC081	0082	41806	PAGE: Sheet units CAC081 through CAC090 = CACP09. MB Channel Morphology = Step Pool. GPS = CAC081
CAC084	0085	41954	Deep step runs, almost step pools.
CAC088	0089	42100	57ft into unit, metal drainage pipe on right bank. Just after drainage pipe is a right bank tributary. Did not notice on first pass (dry at confluence). Noticed on road and followed down to creek. It is flowing most of the way. Very steep on both sides of road. GPS = CACTRIB2. California treefrog in unit
CAC089	0090	42240	Some bedrock and erosion at end of unit.
CAC091	0092	42403	PAGE: Sheet units CAC091 through CAC097 = CACP10. MB Channel morphology = Step Pool. Other notes: Dry side channel along left bank of unit, also flowing right bank side channel. GPS = CAC091
CAC091.1	0092.1	42569	GPS = CAC091.1
CAC091.3	0092.3	42569	Dry side channel splits on right bank.
CAC092	0093	42569	Side channel re-connects with main.
CAC096	0097	42697	Cemented gravel at pool tail crest.
CAC098	0099	42731	PAGE: Sheet units CAC098 through CAC107 = CACP11. MB Channel Morphology = Step Pool. Alders, Sycamores, and Oaks common throughout page. GPS = CAC098
CAC099	0100	42827	Tail crest substrate cemented, hard to move.
CAC104	0105	43050	Long deep section.
CAC108	0109	43240	PAGE: Sheet units CAC108 through CAC117 = CACP12. MB Channel Morphology = Step Pool. GPS = CAC108
CAC109	0110	43272	Large step, small cascade (2ft) 83 ft into unit.
CAC110	0111	43401	Only one pool over 2ft, others around 1.5ft in step pool series
CAC115	0116	43621	2.5ft cascade (plunge) into pool.
CAC116	0117	43639	Shallow pools but step pool type habitat.
CAC118	0119	43820	PAGE: Sheet units CAC118 through CAC127 = CACP13. MB Channel Morphology = Step Pool. Other Notes: Unit is step pool with 3 pools. Max depths: 1st: 2.1ft, 2nd: 2.0ft, 3rd: 2.1ft. Log down in top pool. GPS = CAC118
CAC121	0122	43932	2 pools. Max depths: 1st: 2.0ft, 2nd: 1.7ft.
CAC124	0125	44097	Happy Canyon Road crossing. Has a boulder cascade on downstream side that is 18ft long and provides easier passage of trout up to road level. Road plunge is 2.5ft, water depth under plunge is .8ft deep. Total road width is 55ft, wetted width is 25ft, road length is 14ft. GPS = HAPPYCYNRD
CAC125	0126	44129	Confluence with Lion Canyon Creek. GPS = LIONCYNTRIB, Lion Canyon Creek appears larger than Cachuma Creek at this point.
CAC128	0129	44247	PAGE: Sheet units CAC128 through CAC137 = CACP14. MB Channel Morphology = Step Pool. Page was difficult to survey due to overgrown vegetation. GPS = CAC128
CAC138	0139	44794	PAGE: Sheet units CAC138 through CAC147 = CACP15. MB Channel Morphology = Step Pool. GPS = CAC138

Cachuma Creek Comments (CAC)			
CAC139	0140	44814	Gravel is cemented down.
CAC140	0141	44830	A lot of vegetation over creek and leaf litter in creek, next several units.
CAC141	0142	44865	A lot of vegetation over creek and leaf litter in creek.
CAC144	0145	44966	Side channel at start of unit, not surveyed, too overgrown and not much water. 70ft into unit, steps closer together, more like step pool without any pools.
CAC146	0147	45166	3ft plunge between two boulders. Good spawning gravel.
CAC148	0149	45222	PAGE: Sheet units CAC148 through CAC157 = CACP16. MB Channel Morphology = Step Pool. Other notes: 118ft into unit, steps much higher (2-3ft). GPS = CAC148
CAC149	0150	45443	Vegetation covering channel.
CAC150	0151	45477	Vegetation covering channel. Large amounts of mulefat, oak, and other vegetation in channel.
CAC157	0158	45880	Waterfall into bedrock causing pool. 3.8ft plunge. Crest dry.
CAC158	0159	45893	PAGE: Sheet units CAC158 through CAC167 = CACP17. MB Channel Morphology = Step Pool. GPS = CAC158
CAC159	0160	45912	Small pool.
CAC161	0162	45944	Coniferous trees present on creek.
CAC162	0163	46004	One step 2ft, from .5ft deep pool.
CAC164	0165	46174	2.5ft plunge. Toyons on left bank.
CAC166	0167	46209	3ft plunge with resting small step, depth 1.4ft, shallow pools.
CAC168	0169	46341	PAGE: Sheet units CAC168 through CAC177 = CACP18. MB Channel Morphology = Step-Pool. Channel goes from confined to moderately confined to some unconfined areas. Other notes: Dry side channel left bank, water coming in 47ft up left bank. Too vegetated to survey, most likely a side channel. At end of unit, water may go underground or just under heavy brush. Difficult to tell, flowing on upper side. GPS = CAC168
CAC169	0170	46403	Dry side channel or tributary left bank. May cross road. GPS = CAC169
CAC171	0172	46520	Bedrock right bank 60ft up. Step pool like but very shallow pool areas.
CAC172	0173	46692	Coniferous tree right bank.
CAC178	0179	46934	PAGE: Sheet units CAC178 through CAC187 = CACP19. MB Channel Morphology = Step Pool. Other notes: Bedrock left bank at end of unit. GPS = CAC178
CAC182	0183	47050	Side channel RB that reconnects with main channel in unit CAC184
CAC186	0187	47243	1st step, in step run created by a tree, .9ft plunge.
CAC188	0189	47364	PAGE: Sheet units CAC188 through CAC197 = CACP20. MB Channel Morphology = Step-Pool. Other notes: 76ft into unit large boulder splits water flow. GPS = CAC188
CAC189	0190	47585	Side channel split at start of unit. Left bank dry. GPS = CAC189
CAC190	0191	47627	Side channel re-enters at start of unit.
CAC192	0193	47701	3ft plunge into 1.8ft pool.
CAC197	0198	47927	Metal drainage pipe left bank from road.
CAC198	0199	47972	PAGE: Sheet units CAC198 through CAC207 = CACP21. MB Channel Morphology = Step-Pool. Other notes: Channel is split by island, same habitat on both sides. GPS = CAC198
CAC199	0200	48001	Bedrock left bank.
CAC200	0201	48025	Bedrock left bank.
CAC201	0202	48044	Bedrock waterfall, height 3ft, length 5ft. Most likely not a barrier; has a resting spot 1ft up. 2nd step max depth .8ft.
CAC202	0203	48082	3ft plunge, 2ft deep pool.
CAC205	0206	48172	One step pool, clearly defined by boulder steps both sides.
CAC206	0207	48189	Very high gradient, no water connecting steps. May be step pool at high flow. GPS = CAC206
CAC208	0209	48272	PAGE: CACP12. MB Channel Morphology = Step-Pool. Stopped survey due to too much overgrown vegetation. Channel appears to continue as confined step-pool to near Cachuma Saddle. GPS = CAC208. GPS = CACDRY

Cachuma Creek Comments (CAC)			
CAC212	0213	48507	Dry side channel 55ft up, reenters 133ft up. Downed large pine tree 221ft up. Bedrock starts right bank 200ft up and continues to 340ft. 355ft up a 2ft plunge into 1.4ft pool. Took GPS point at apparent trib CACTRIB4. Too overgrown to continue survey in stream from this point. 420ft into step run unit CAC212.
CAC213	0214	48927	Unsurveyed reach from GPS points CACTRIB4 to CACDRY. Notes: CACTRIBRD: right bank trib, point taken from road, creek is still flowing, channel is very narrow and overgrown. Hcrd: road on opposite side of creek. CACTRIBRD2: creek still flowing, changes from B to A channel. CACTRIBRD3: creek still flowing. CACTRIBRD4: tributary goes under the road, creek still flowing. Drove up to dry point (CACDRY: 34.43.482N; 119.55.096W). Sections all along the way that could be high gradient and block anadromy. Channel at CACDRY was only about two feet wide with large cobble.

Santa Cruz Creek Comments

Santa Cruz Creek Comments (SC)			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed area	0001	0	Unsurveyed unit
SC001	0002	54853	PAGE: Sheet units SC001 through SC010 = SCP01. MB Channel Morphology = Step Pool with multiple bedrock pools separated by riffles. Water Boatman, Cattails, and Willows throughout page. Other notes: 07/09/12: Walked down to near start of survey. Oncorhynchus mykiss observed: 2-4in: 150, 6-9in: 30, 10-13in: 10. Observed 5 Western Pond Turtles and (8) 2 Striped Garter Snakes. 07/10/12: Ca Treefrog tadpoles and Caddisfly larvae in unit. Erosion on left bank 130ft into unit. GPS = SC001
SC002	0003	55241	Algae covering pool. Western Pond Turtle.
SC004	0005	55326	Dragonfly larvae. Algae covered. Native snails.
SC006	0007	55414	(2) 2 Striped Garters, Water Striders, CA Treefrog tadpoles, young Tamarisk.
SC008	0009	55555	CA Treefrog tadpoles, Water Boatman, Native Snails.
SC011	0012	55854	PAGE: Sheet units SC011 through SC020 = SCP02. MB Channel Morphology = Step Pool. Only bedrock scour pools. CA Treefrog tadpoles throughout. Alders, Willows, Cottonwoods. Other notes: Seep on left bank at end of unit. GPS = SC011
SC012	0013	56033	Sandy crest. Big Leaf Maple. (3) 3in Oncorhynchus mykiss.
SC015	0016	56293	Tufa on right bank with seep. Large undercut bedrock. 2 Striped Garter.
SC016	0017	56362	(2) 3in O. mykiss. (1) 2 Striped Garter.
SC020	0021	56698	(9) 2-3in O. mykiss.
SC021	0022	56727	PAGE: Sheet units SC021 through SC030 = SCP03. MB Channel Morphology = Step Pool. All bedrock pools. GPS = SC021
SC022	0023	56784	(12) 2-4in O. mykiss.
SC023	0024	56826	O. mykiss: 2-3in: 4, 9in: 1, 10in: 1.
SC025	0026	56984	(1) 3in O. mykiss. California King Snake.
SC026	0027	57015	2 Striped Garter.
SC028	0028	57126	Possible sulphur related bacteria. White strings in water. See pic.
SC030	0031	57296	Riffle split by island. Sulphur smell. Hot pink bacteria.
SC031	0032	57357	PAGE: Sheet units SC031 through SC037 = SCP04. MB Channel Morphology = Step Pool. Bedrock scour pools. CA Treefrog tadpoles throughout. Other notes: (2) 6-8in O. mykiss observed in unit. GPS = SC031
SC032	0033	57395	Split by island with transverse riffle.
SC033	0034	57551	(1) 3in O. mykiss.
SC036	0037	57829	2 Striped Garter.

SC038	0039	58044	PAGE: Sheet units SC038 through SC047 = SCP05. MB Channel Morphology = Step Pool. Bedrock pools + Mid-channel. GPS = SC038
SC042	0043	58320	Bedrock left bank. (1) 2in O. mykiss.
SC043	0044	58344	Going toward step pool.
SC044	0045	58426	O. mykiss: 3in: 1, 5in: 1.
SC045	0046	58476	One step.
SC048	0049	58655	PAGE: Sheet units SC048 through SC057 = SCP06. MB Channel Morphology = Step Pool. Bedrock pools. CA Treefrog tadpoles throughout. GPS = SC048
SC049	0050	58729	2 Striped Garter.
SC050	0051	58852	Toe biter.
SC053	0054	58973	Deer Grass creates island.
SC055	0056	59197	O. mykiss: 2in: 1, 3in: 1, 7in: 1.
SC056	0057	59288	O. mykiss: 3in: 1, 4in: 1, 6in: 1.
SC058	0059	59715	PAGE: Sheet units SC058 through SC067 = SCP07. MB Channel Morphology = Step Pool. Other notes: 3 Toe biters in unit. GPS = SC058
SC062	0063	60081	Left bank trib, SCTRIB1, flowing water. (8) 3in O. mykiss. GPS = SCTRIB1
SC065	0066	60363	O. mykiss: 3in: 2, 9in: 1.
SC067	0068	60504	(4) 3in O. mykiss.
SC068	0069	60539	PAGE: Sheet units SC068 through SC077 = SCP08. MB Channel Morphology = Step Pool. Bedrock Pools. GPS = SC068
SC069	0070	60692	Bedrock left bank at end of unit.
SC071	0072	60906	Live Willow tree in pool, good cover. (6) 3in O. mykiss.
SC076	0077	61186	Covered in algae. Sulphur smell starts. Seep at end of unit. Dead Cattails around sulphur seep.
SC078	0079	61375	PAGE: Sheet units SC078 through SC087 = SCP07. MB Channel Morphology = Step Pool. Bedrock pools. CA Treefrog tadpoles throughout. GPS = SC078
SC080	0081	61481	Sulphur seep in bedrock right bank. O. mykiss: 4in: 1, 12in: 1. See pic
SC082	0083	61619	(1) 3in O. mykiss.
SC083	0084	61865	Last 40ft of unit has bedrock along bottom of channel.
SC086	0087	62056	(1) 3in O. mykiss. Saw large fish in unit the day before.
SC088	0089	62314	PAGE: Sheet units SC088 through SC097 = SCP10. MB Channel Morphology = Step Pool. GPS = SC088
SC091	0092	62623	Sulphur seep.
SC093	0094	62870	O. mykiss: 3in: 20+, 6in: 1.
SC095	0096	63039	2 Striped Garter.
SC097	0098	63274	End day.
SC098	0099	63383	PAGE: Sheet units SC098 through SC107 = SCP11. MB Channel Morphology = Step Pool. All bedrock pools. Mulefat, Cattails, Sandbar Willow, Red Willow, Arroyo Willow, Alder, Cottonwoods, and Big Leaf Maple throughout. Other notes. (1) 3in O. mykiss in unit. GPS = SC098
SC099	0100	63417	(1) 6in O. mykiss.
SC104	0105	63855	Large tree down across and in unit. (9) 3in O. mykiss.
SC108	0109	64103	PAGE: Sheet units SC108 through SC117 = SCP12. MB Channel Morphology = Step Pool. Bedrock Pools. GPS = SC108
SC113	0114	64422	(1) 6in O. mykiss.
SC114	0115	64495	(1) 3in O. mykiss.
SC117	0118	64756	Red Legged Frog (hike back day before). (1) 3in O. mykiss.
SC118	0119	64839	PAGE: Sheet units SC118 through SC127 = SCP13. MB Channel Morphology = Step Pool. GPS = SC118
SC121	0122	65046	Big Leaf Maple down in unit.
SC124	0125	65335	O. mykiss: 2in: 1, 3in: 10, 4in: 4.
SC128	0129	65600	PAGE: Sheet units SC128 through SC137 = SCP14. MB Channel Morphology = Step Pool. CA Treefrog tadpoles throughout. GPS = SC128
SC129	0130	65841	Lots of wrack piled up at end of unit. See pic. (10) 3in O. mykiss. Western

			Pond Turtle.
SC130	0131	65886	O. mykiss: 2in: 3, 3in: 1.
SC133	0134	66191	(3) 3in O. mykiss.
SC134	0135	66355	Some deep sections between boulders.
SC138	0139	66673	PAGE: Sheet units SC138 through SC147 = SCP15. MB Channel Morphology = Step Pool. GPS = SC138
SC139	0140	66795	Trail to campsite. CA Treefrog tadpoles. (5) 3in O. mykiss.
SC140	0141	66953	(1) 2in O. mykiss.
SC141	0142	67057	O. mykiss: 2in: 2, 3in: 1.
SC142	0143	67100	Gravel is sandy. O. mykiss: 2-3in: 15, 4in: 1, 6in: 1.
SC144	0145	67207	Shallow, step pool like. Max 1.6ft.
SC146	0147	67338	(3) 2in O. mykiss.
SC147	0148	67398	(3) 2in O. mykiss.
SC148	0149	67462	PAGE: Sheet units SC148 through SC157 = SCP16. MB Channel Morphology = Step Pool. GPS = SC148
SC149	0150	67535	(3) 2in O. mykiss.
SC150	0151	67598	O. mykiss: 2in: 3, 3in: 5, 4in: 1, 7in: 1.
SC151	0152	67642	Bedrock left bank and in channel. O. mykiss: 2in: 2, 3in: 9.
SC152	0153	67716	(3) 3in O. mykiss.
SC153	0154	67834	(1) 7in O. mykiss.
SC154	0155	67871	2 Striped Garter.
SC155	0156	68021	Road crossing. GPS = SCRD1. No impact on passage. (2) 2in O. mykiss.
SC156	0157	68102	(4) 2in O. mykiss.
SC158	0159	68294	Sheet units SC158 through SC167 = SCP17. MB Channel Morphology = Step Pool. GPS = SC158
SC160	0161	68440	(1) 2in O. mykiss.
SC161	0162	68517	(4) 2in O. mykiss.
SC164	0165	68789	(3) 2in O. mykiss.
SC166	0167	68919	2 Striped Garter.
SC168	0169	69140	PAGE: Sheet units SC168 through SC177 = SCP18. MB Channel Morphology = Step Pool. GPS = SC168
SC171	0172	69509	(2) 2 Striped Garters.
SC173	0174	69701	(1) 2in O. mykiss.
SC177	0178	69964	(1) 2in O. mykiss.
SC178	0179	70020	PAGE: Sheet units SC178 through SC187 = SCP19. MB Channel Morphology = Step Pool. Other notes: O. mykiss in unit: 2in: 2, 3in: 38, 6in: 4, 8in: 1, 10in: 2, 12in: 1. GPS = SC178
SC179	0180	70083	Some nice spawning gravel. O. mykiss: 2in: 3, 3in: 4.
SC180	0181	70314	(10) 2in O. mykiss.
SC183	0184	70597	O. mykiss: 2in: 2, 3in: 1, 10in: 1.
SC184	0185	70647	O. mykiss: 2in: 10, 6in: 1.
SC185	0186	70681	4 pools, shallow.
SC186	0187	70758	(1) 2 Striped Garter. O. mykiss: 2in: 6, 8in: 1.
SC187	0188	70979	(2) 2 Striped Garter. (3) 2in O. mykiss.
SC188	0189	71020	PAGE: Sheet units SC188 through SC197 = SCP20. MB Channel Morphology = Step Pool. Other notes: (2) 2 Striped Garters. (5) 3in O. mykiss. GPS = SC188
SC189	0190	71102	O. mykiss: 2in: 6, 3in: 3
SC190	0191	71144	Good undercut boulders. (2) 2in O. mykiss.
SC193	0194	71272	O. mykiss: 2in: 5, 3in: 2.
SC194	0195	71313	(10) 2in O. mykiss.
SC195	0196	71404	Boulder and bedrock. 2 Striped Garter. O. mykiss: 2-4in: 50, 6-8in: 10, 10in: 1.
SC196	0197	71477	(8) 3in O. mykiss.
SC197	0198	71544	O. mykiss: 3in: 20, 11in: 1. See pic.
SC198	0199	71616	PAGE: Sheet units SC198 through SC207 = SCP21. MB Channel

			Morphology = Step Pool. Other notes: (28) 2in O. mykiss. GPS = SC198
SC199	0200	71731	(16) 2in O. mykiss.
SC200	0201	71800	7ft undercut boulder. (30) 2in O. mykiss.
SC201	0202	71875	(10) 2in O. mykiss.
SC202	0203	71917	(1) 2 Striped Garter. O. mykiss: 2in: 10, 3in: 10, 5in: 1.
SC203	0204	71972	(1) 4in O. mykiss.
SC205	0206	72058	(10) 2in O. mykiss.
SC206	0207	72109	(4) 3in O. mykiss.
SC208	0209	77283	PAGE: Sheet units SC208 through SC217 = SCP22. MB Channel Morphology = Step Pool. Other notes: (1) 2in O. mykiss. GPS = SC208
SC209	0210	72347	2 Striped Garter. O. mykiss: 2in: 20, 3in: 10, 4in: 6, 6in: 3, 10in: 1, 12in: 1.
SC211	0212	72437	(1) 2 Striped Garter. (6) 2in O. mykiss.
SC212	0213	72541	2 sequential pools. Western Pond Turtle. O. mykiss: 3in: 40, 6in: 3, 8in: 1, 10in: 2, 12in: 2.
SC215	0216	72728	O. mykiss: 2in: 20, 3in: 10, 6in: 1.
SC217	0218	72876	(2) 2 Striped Garter. O. mykiss: 2in: 4, 4in: 2, 3in: 6.
SC218	0219	73018	PAGE: Sheet units SC218 through SC227 = SCP23. MB Channel Morphology = Step Pool. GPS = SC218
SC220	0221	73104	O. mykiss: 6in: 1, 10in: 1.
SC223	0224	73254	(8) 2in O. mykiss.
SC224	0225	73354	O. mykiss: 2in: 15, 4in: 1.
SC225	0226	73423	(15) 2in O. mykiss.
SC226	0227	73496	Plunge = 2.7ft to water surface. (3) 3in O. mykiss.
SC227	0228	73514	End day. O. mykiss: 2in: 2, 3in: 3.
SC228	0229	73594	PAGE: Sheet units SC228 and SC229 = SCP24. MB Channel Morphology = Step Pool. Other notes: Very good spawning gravel in unit. O. mykiss: 2-3in: 35, 4in: 4, 6in: 4. GPS = SC228
SC229	0230	73667	Good gravel going into bedrock pool below. (2) 2 Striped Garters. O. mykiss: 2-3in: 150, 4in: 1, 6in: 4. End of main Santa Cruz. Split of West and East Fork.

East Fork Santa Cruz Creek Comments

East Fork Santa Cruz Comments (SCEF)			
Habitat Unit	Database Unit	Position (ft)	Comments
SCEF001	0001	0	PAGE: Sheet units SCEF001 through SCEF004 = SCEFP01. MB Channel Morphology = Step Pool. Other notes: Plunge at split = 3.3ft. Oncorhynchus mykiss: 2-3in: 50. GPS = SCEF001
SCEF002	0002	95	Max depths: 1st pool: 2.2ft, 2nd pool: 5.6ft. (1) 2 Striped Garter. O. mykiss: 2-3in: 40, 4in: 3, 6in: 4.
SCEF004	0004	183	Stoecker barrier. Plunge = 11ft. SCEFBAR01 (Lat: 34.38.504; Long: 119.45.012)
SCEF005	0005	237	PAGE: Sheet units SCEF005 through SCEF014 = SCEFP02. MB Channel Morphology = Step Pool with bedrock sections. CA Treefrog tadpoles present throughout. Other notes: Max depths: 1st pool: 2.4ft, 2nd pool: 2.6ft. (1) 2 Striped Garter. GPS = SCEF005
SCEF007	0007	339	Bedrock step pool. Max depths: 1st pool: 1.4ft, 2nd pool: 2.0ft, 3rd pool: 2.4ft, 4th pool: 2.8ft. (2) 2 Striped Garter. CA Treefrog tadpoles.
SCEF009	0009	508	CA Treefrog tadpoles.
SCEF011	0011	586	Sandy cemented gravel. (1) 2 Striped Garter
SCEF012	0012	618	Max depths: 1st pool: 1.6ft, 2nd pool: 2.3ft, 3rd pool: 1.9ft, 4th pool: 2.5ft. (2) 2 Striped Garter.
SCEF014	0014	740	Bedrock step pool. Max depths: 1st pool: 2.9ft, 2nd pool: 3.1ft.
SCEF015	0015	798	PAGE: Sheet units SCEF015 through SCEF024 = SCEFP03. MB Channel Morphology = Step Pool. GPS = SCEF015

SCEF016	0016	870	Dry section at very start (<10ft). Could be step pool with more water. (3) 2 Striped Garter.
SCEF017	0017	1239	(2) 2 Striped Garter.
SCEF019	0019	1304	(1) 2 Striped Garter.
SCEF023	0023	1446	Very short dry sections. Bedrock right bank. (1) 2 Striped Garter.
SCEF024	0024	1704	Good undercut bedrock and boulder coverage.
SCEF025	0025	1730	PAGE: Sheet units SCEF025 through SCEF034 = SCEFP04. MB Channel Morphology = Step Pool. CA Treefrog tadpoles throughout. GPS = SCEF025
SCEF026	0026	1780	CA Treefrogs, (1) 2 Striped Garter.
SCEF028	0028	1859	Max depths: 1st pool: 2.7ft, 2nd pool: 4.0ft, 3rd pool: 3.4ft. (2) 2 Striped Garter.
SCEF030	0030	1967	(1) 2 Striped Garter.
SCEF031	0031	2051	Tree down on crest.
SCEF033	0033	2245	Cemented gravel at crest.
SCEF034	0034	2303	(1) 2 Striped Garter. End day.
SCEF035	0035	2340	PAGE: Sheet units SCEF035 through SCEF044 = SCEFP05. MB Channel Morphology = Step Pool. CA Treefrog tadpoles and juveniles throughout. GPS = SCEF035
SCEF043	0043	2665	Bedrock sheet with some boulders. (1) 2 Striped Garter Snake.
SCEF044	0044	2708	10ft bedrock sheet between pools 1 and 2, boulder waterfall between pools 3 and 4. Max depths: 1st pool: 3.2ft, 2nd pool: 1.3ft, 3rd pool: 1.1ft, 4th pool: 1.6ft, 5th pool: 4.2ft, 6th pool: 1.8ft, 7th pool: 2.6ft, 8th pool: 4.0ft. 1 dead 2 Striped Garter Snake.
SCEF045	0045	2973	PAGE: Sheet units SCEF045 through SCEF054 = SCEFP06. MB Channel Morphology = Step Pool with all bedrock pools. GPS = SCEF045
SCEF046	0046	3252	Crest is cemented.
SCEF048	0048	3351	LWD. Small bedrock sheet at end.
SCEF049	0049	3421	(2) 2 Striped Garter Snakes.
SCEF051	0051	3732	(2) 2 Striped Garter.
SCEF053	0053	3835	(1) 2 Striped Garter.
SCEF054	0054	3869	(1) 2 Striped Garter.
SCEF055	0055	4085	PAGE: Sheet units SCEF055 through SCEF064 = SCEFP07. MB Channel Morphology = Step Pool with mostly bedrock pools. CA Treefrog tadpoles and juveniles throughout. Other notes: Waterfall at end, plunge = 8.5ft. Good cover in pool. (4) 2 Striped Garters. GPS = SCEF055
SCEF057	0057	4283	(1) 2 Striped Garter.
SCEF059	0059	4372	Cemented gravel at start.
SCEF063	0063	4712	(1) 2 Striped Garter.
SCEF065	0065	4797	PAGE: Sheet units SCEF065 through SCEF074 = SCEFP08. MB Channel Morphology = Step Pool. CA Treefrog tadpoles and juveniles throughout. GPS = SCEF065
SCEF066	0066	4852	Max Depths: 1st pool: 2.8ft, 2nd pool: 2.7ft.
SCEF067	0067	4891	(1) 2 Striped Garter.
SCEF069	0069	5067	Bedrock right bank, hillslope erosion.
SCEF075	0075	5393	PAGE: Sheet units SCEF075 through SCEF084 = SCEFP09. MB Channel Morphology = Step Pool. Other notes: (1) 2 Striped Garter. GPS = SCEF075
SCEF079	0079	5769	(2) 2 Striped Garters.
SCEF084	0084	6198	Max depths: 1st pool: 2.6ft, 2nd pool: 2.0ft, 3rd pool: 1.6ft. (1) 2 Striped Garter.
SCEF085	0085	6284	PAGE: Sheet units SCEF085 through SCEF094 = SCEFP10. MB Channel Morphology = Step Pool. CA Treefrog tadpoles and juveniles common. GPS = SCEF085
SCEF086	0086	6414	Max depths: 1st pool: 3.5ft, 2nd pool: 1.8ft, 3rd pool: 2.4ft. (1) 2 Striped Garter.
SCEF089	0089	6604	Max depths: 1st pool: 2.1ft, 2nd pool: 3.8ft.
SCEF092	0092	6804	(1) 2 Striped Garter.

SCEF093	0093	7085	Max depths: 1st pool: 2.7ft, 2nd pool: 2.2ft, 3rd pool: 1.2ft, 4th pool: 1.8ft.
SCEF095	0095	7365	PAGE: Sheet units SCEF095 through SCEF104 = SCEFP11. MB Channel Morphology = Step Pool. CA Treefrog tadpoles and juveniles throughout. Toebiters common. Other notes: Max depths: 1st pool: 3.8ft, 2nd pool: 1.4ft. GPS = SCEF095
SCEF096	0096	7435	May be step pool at higher flow. Dry at end of unit.
SCEF097	0097	7818	Isolated stagnant pools. Max depths: 1st pool: 1.3ft, 2nd pool: 3ft. (3) 2 Striped Garter Snakes.
SCEF098	0098	7958	With intermittent dry areas.
SCEF100	0100	8028	Dry section at end. 15ft, intermittent dry.
SCEF101	0101	8106	(2) 2 Striped Garter.
SCEF105	0105	8508	PAGE: Sheet units SCEF105 through SCEF114 = SCEFP12. MB Channel Morphology = Step Pool. GPS = SCEF105
SCEF108	0108	8773	Max depths: 1st pool: 2.4ft, 2nd pool: 2.1ft, 3rd pool: 2.3ft, 4th pool: 1.2ft.
SCEF110	0110	8936	(2) 2 Striped Garter.
SCEF111	0111	8989	(1) 2 Striped Garter.
SCEF115	0115	9198	PAGE: Sheet units SCEF115 through SCEF124 = SCEFP13. MB Channel Morphology = Step Pool. Other notes: Depths are borderline step pool. (2) 2 Striped Garter Snakes. GPS = SCEF115
SCEF117	0117	9439	Max depths: 1st pool: 2.4ft, 2nd pool: 1.8ft, 3rd pool: 2.3ft. (2) 2 Striped Garter.
SCEF119	0119	9741	Max depths: 1st pool: 3.0ft, 2nd pool: 3.4ft, 3rd pool: 3.9ft.
SCEF122	0122	9937	Max depths: 1st pool: 3.1ft, 2nd pool: 2.9ft, 3rd pool: 1.5ft, 4th pool: 1.6ft, 5th pool: 1.6ft, 6th pool: 2.7ft.
SCEF124	0124	10175	Max depths: 1st pool: 4.7ft, 2nd pool: 2.6ft.
SCEF125	0125	10267	PAGE: Sheet units SCEF125 through SCEF134 = SCEFP14. MB Channel Morphology = Step Pool. GPS = SCEF125
SCEF128	0128	10724	Max depths: 1st pool: 2.5ft, 2nd pool: 1.5ft, 3rd pool: 1.9ft, 4th pool: 2.2ft, 5th pool: 1.6ft. Steep gradient.
SCEF130	0130	10908	Max depths: 1st pool: 2.8ft, 2nd pool: 1.5ft, 3rd pool: 1.1ft, 4th pool: 3.0ft.
SCEF134	0134	11122	Max depths: 1st pool: 2.5ft, 2nd pool: 2.1ft, 3rd pool: 2.4ft, 4th pool: 2.1ft. Ended survey at SCEF135 (Lat:34.39.298; Long:119.43.562)

West Fork Santa Cruz Creek Comments

West Fork Santa Cruz Comments (SCWF)			
Habitat Unit	Database Unit	Position (ft)	Comments
SCWF001	0001	0	PAGE: Sheet units SCWF001 through SCWF010 = SCWFP01. MB Channel Morphology = Step Pool with a lot of bedrock. Some dry sections present. West Fork very little flow, most coming from East Fork Santa Cruz. Sycamores, Cottonwoods, Alders, and Oaks common throughout page. Other notes: (10) 2-3 inch Oncorhynchus mykiss observed in unit. GPS = SCWF001
SCWF003	0003	60	2 bedrock step pools. Max depths: 1st pool = 4ft, 2nd pool = 1.8ft. (10) 2-3 inch O.m. observed.
SCWF005	0005	159	(4) 2-3 inch O.m. observed.
SCWF006	0006	192	O. mykiss: 2-3in: 20, 6in: 1.
SCWF007	0007	259	All bedrock at start. (6) 2-3 inch O.m. observed.
SCWF008	0008	333	Dry unit.
SCWF009	0009	395	Isolated water. O. mykiss: 2-3in: 10, 5-6in: 2.
SCWF011	0011	458	PAGE: Sheet units SCWF011 through SCWF020 = SCWFP02. MB Channel Morphology = Step pool. Heavily bedrock influenced. Bear prints common throughout. Other notes: Very little flow. GPS = SCWF011
SCWF012	0012	483	Very shallow pools. Max depths: 1st pool = 1.2ft, 2nd pool = 1.6ft, 3rd pool = 3.3ft, 4th pool = 3.0ft, 5th pool = 2.4ft, 6th pool = 2.4ft, 7th pool = 1.6ft, 8th

			pool = 2.4ft, 9th pool = 2.2ft, 10th pool = 3.8ft. Plunges between pools are currently barriers due to low water. O. mykiss: 2-3in: 50, 4-5in: 6, 6in: 8. (1) 2 Striped Garter.
SCWF013	0013	856	Larger bedrock scour pool than previous. O. mykiss: 2-3in: 10, 4in: 2, 6in: 4, 8in: 1.
SCWF015	0015	963	O. mykiss: 2-3in: 5, 4in: 2, 6in: 1, 8in: 1.
SCWF017	0017	1096	Series of bedrock step pools. Max depths: 1st pool = 4.1ft, 2nd pool = 3ft, 3rd pool = 2.9ft, 4th pool = 2.5ft. Plunge between 3rd and 4th pools is barrier at current flow = 4.1ft. O. mykiss: 2-3in: 6, 4in: 1, 6in: 5, 8in: 2. Baby Western Pond Turtle and one Racer Snake.
SCWF019	0019	1333	O. mykiss: 2-3in: 4, 4in: 1, 6in: 1.
SCWF021	0021	1421	PAGE: Sheet units SCWF021 through SCWF030 = SCWFP03. MB Channel Morphology = Step pool. CA Treefrog tadpoles abundant. GPS = SCWF021
SCWF022	0022	1533	Bedrock step pools. Max depths: 1st pool = 2.6ft, 2nd pool = 3.6ft, 3rd pool = 1.9ft. O. mykiss: 2-3in: 3, 6in: 2.
SCWF023	0023	1638	Channel opens up a little.
SCWF025	0025	1871	Good undercut bank coverage. O. mykiss: 2-3in: 10, 6in: 2.
SCWF026	0026	1957	(2) 3in O. mykiss. (1) 2 Striped Garter Snake.
SCWF028	0028	2272	Cattails. Dead rat. (1) 2 Striped Garter.
SCWF031	0031	2472	PAGE: Sheet units SCWF031 through SCWF040 = SCWFP04. MB Channel Morphology = Step pool. Other notes: O. mykiss in unit: 2-3in: 20, 6in: 1. GPS = SCWF031
SCWF036	0036	2724	O. mykiss: 2-3in: 5, 6in: 1.
SCWF038	0038	2818	(10) 2-3 inch O. mykiss.
SCWF039	0039	2890	(1) 2-3 inch O. mykiss.
SCWF040	0040	3033	(3) 2-3 inch O. mykiss.
SCWF041	0041	3048	PAGE: Sheet units SCWF041 through SCWF050 = SCWFP05. MB Channel Morphology = Step pool with bedrock sections. Other notes: (2) 3 inch O. mykiss. GPS = SCWF041
SCWF042	0042	3204	Good pool, undercut bedrock coverage. O. mykiss: 2-3in: 20, 6in: 3, 8in: 2, 12in: 1.
SCWF043	0043	3257	Bedrock both banks.
SCWF044	0044	3327	2 Striped Garter. O. mykiss: 2-3in: 20, 6in: 3, 8in: 3.
SCWF045	0045	3414	2 Striped Garter and (2) 2 inch O. mykiss.
SCWF046	0046	3615	2 bedrock scour pools connected. O. mykiss: 2-3in: 10, 4in: 3, 6in: 9, 8in: 1.
SCWF048	0048	3734	Max depths: 1st pool = 2.3ft, 2nd pool = 2.2ft. O. mykiss: 6in: 1, 12in: 1.
SCWF051	0051	4127	PAGE: Sheet units SCWF051 through SCWF060 = SCWFP06. MB Channel Morphology = Step Pool. Other Notes: O. mykiss in unit: 2in: 2, 6in: 1. GPS = SCWF051
SCWF053	0053	4209	Max depths: 1st pool = 2.8ft, 2nd pool = 1.8ft.
SCWF056	0056	4385	2 Striped Garter. O. mykiss: 2-3in: 6, 6in: 1.
SCWF057	0057	4420	2 Striped Garter.
SCWF058	0058	4553	O. mykiss: 2-3in: 5, 8in: 2, 10in: 1.
SCWF059	0059	4617	Seep left bank.
SCWF061	0061	4882	PAGE: Sheet units SCWF061 through SCWF070 = SCWFP07. MB Channel Morphology = Step pool w/ braided section that is mostly dry. Appears to be multiple channels, most dry, some stagnant water within units 67 through 70. GPS = SCWF061
SCWF062	0062	4951	Dry side channel. (5) 2-3 inch O. mykiss.
SCWF063	0063	4970	Deer Grass in channel.
SCWF065	0065	5155	Cattails along right bank.
SCWF070	0070	6275	(8) 2-3 inch O. mykiss.
SCWF071	0071	6595	PAGE: Sheet units SCWF071 through SCWF080 = SCWFP08. Braided for short section. Rosgen C type channel (between B and C). Braided channel, multiple channels, we followed majority of water. Cattails, Alders, Willows, and Deer Grass . GPS = SCWF071

SCWF073	0073	6666	End of unit dry section.
SCWF074	0074	6712	Dry unit. Boulder and cobble substrate. Multiple channels still present. Area dried since previous week.
SCWF080	0080	7232	Narrows to one main channel.
SCWF081	0081	7351	PAGE: Sheet units SCWF081 through SCWF090 = SCWFP09. MB Channel Morphology = Step Pool. Other notes: Some short dry sections. GPS = SCWF081
SCWF084	0084	7681	Deer Grass in channel.
SCWF086	0086	7720	Tree down in unit, good coverage. O. mykiss: 2-3in: 1, 4in: 1.
SCWF089	0089	7931	O. mykiss: 2-3in: 40, 5in: 2.
SCWF091	0091	8057	PAGE: Sheet units SCWF091 through SCWF100 = SCWFP10. MB Channel Morphology = Step Pool. Low water and flow. Cottonwoods, Willows, and Deer Grass common throughout. Other notes: O. mykiss in unit: 2-3in: 5, 4in: 1. GPS = SCWF091
SCWF093	0093	8247	(25) 2-3in O. mykiss.
SCWF094	0094	8284	Good boulder coverage. O. mykiss: 2-3in: 5, 4in: 3, 6in: 5, 7in: 1, 10in: 2.
SCWF096	0096	8403	O. mykiss: 2-3in: 5, 6in: 1.
SCWF098	0098	8568	O. mykiss: 2-3in: 5, 6in: 2, 10in: 1.
SCWF100	0100	8820	Possible dry left bank trib. (2) 2-3 inch O.m. observed within unit.
SCWF101	0101	8879	PAGE: Sheet units SCWF101 through SCWF110 = SCWFP11. Braided channel. Rosgen C Type Channel. GPS = SCWF101
SCWF102	0102	8913	O. mykiss: 2-3in: 10, 4in: 1, 5in: 1. 2 Striped Garter Snake eating 5 inch O.m. see pics.
SCWF103	0103	8936	O. mykiss: 2-3in: 10, 5-6in: 5, 8in: 2.
SCWF108	0108	9149	Dry section. Water starts in different channel.
SCWF109	0109	9189	O. mykiss: 2-3in: 20, 6in: 1.
SCWF110	0110	9321	O. mykiss: 2-3in: 5, 4in: 4, 6in: 2.
SCWF111	0111	9357	PAGE: Sheet units SCWF111 through SCWF120 = SCWFP12. MB Channel Morphology = Step Pool. Other notes: O. mykiss in unit: 2-3in: 30, 6in: 6. GPS = SCWF111
SCWF112	0112	9512	O. mykiss: 2-3in: 20, 4in: 15, 6in: 5, 10in: 1.
SCWF113	0113	9590	Some short dry sections. 2 Striped Garter. O. mykiss: 2-3in: 20, 4in: 1, 6in: 2.
SCWF115	0115	9925	O. mykiss: 2-3in: 10, 4in: 1, 6in: 1.
SCWF116	0116	9969	(5) 2-3in O. mykiss.
SCWF117	0117	10007	O. mykiss: 2-3in: 10, 4in: 2, 7in: 1.
SCWF119	0119	10148	O. mykiss: 2-3in: 30, 4in: 10, 6in: 4, 8in: 3, 10in: 1.
SCWF121	0121	10300	PAGE: Sheet units SCWF121 through SCWF130 = SCWFP13. MB Channel Morphology = Braided/Step Pool. Other notes: Dead 6 inch O. mykiss with snake coming out of its mouth, snake has orange underbelly with grey top. O. mykiss in unit: 2-3in: 30, 4in: 2. GPS = SCWF121
SCWF122	0122	10350	Dead 5 inch O. mykiss. O. mykiss: 2-3in: 20, 4in: 10, 6in: 2, 8in: 1.
SCWF123	0123	10425	Right bank side channel dry. (10) 2-3 inch O. mykiss.
SCWF124	0124	10691	O. mykiss: 2-3in: 4, 4in: 5, 6in: 2.
SCWF125	0125	10723	O. mykiss: 2-3in: 6, 4in: 2, 8in: 1.
SCWF126	0126	10834	O. mykiss: 2-3in: 10, 4in: 10, 6in: 3, 8in: 1, 12in: 1.
SCWF127	0127	10859	(10) 2 inch and (2) 4 inch O. mykiss.
SCWF128	0128	10942	O. mykiss: 2-3in: 20, 4in: 20, 6in: 4, 8in: 1.
SCWF129	0129	10984	O. mykiss: 2-3in: 40, 4in: 10, 5in: 1, 8in: 1.
SCWF130	0130	11121	O. mykiss: 2-3in: 10, 4in: 6, 8in: 1, 9in: 1.
SCWF131	0131	11140	PAGE: Sheet units SCWF131 through SCWF140 = SCWFP14. MB Channel Morphology = Step Pool. GPS = SCWF131
SCWF132	0132	11179	(1) 2 Striped Garter. O. mykiss: 2-3in: 20, 4in: 2, 6in: 1.
SCWF134	0134	11340	O. mykiss: 2-3in: 5, 4in: 10, 6in: 2
SCWF135	0135	11381	(10) 2-3 inch O. mykiss.
SCWF136	0136	11454	O. mykiss: 2-3in: 6, 4in: 5, 6in: 2, 8in: 1.
SCWF138	0138	11497	(2) 2-3 inch O.m. seen.

SCWF140	0140	11545	O. mykiss: 2-3in: 4, 4in: 10, 6in: 2.
SCWF141	0141	11584	PAGE: Sheet units SCWF141 through SCWF150 = SCWFP15. MB Channel Morphology = Step Pool. Channel more confined. Other notes: (2) 2-3 inch and (1) 4 inch O. mykiss inunit. GPS = SCWF141
SCWF145	0145	11732	2 Striped Garter Snake. (2) 2-3 inch and (1) 4 inch O. mykiss.
SCWF146	0146	11820	O. mykiss: 2-3in: 10, 4in: 10.
SCWF147	0147	11915	Bedrock sheet into pool. Good undercut bank coverage. O. mykiss: 2-3in: 10, 4in: 2, 6in: 4, 8in: 1.
SCWF148	0148	11994	Bedrock step run with short sheet at start of unit. Big boulders. O. mykiss: 2-3in: 20, 4in: 6.
SCWF151	0151	12240	PAGE: Sheet units SCWF151 through SCWF160 = SCWFP16. MB Channel Morphology = Step pool. GPS = SCWF151
SCWF154	0154	12367	O. mykiss: 2-3in: 2, 4in: 2.
SCWF155	0155	12524	O. mykiss: 2-3in: 10, 4in: 5.
SCWF158	0158	12695	O. mykiss: 2-3in: 10, 6in: 1.
SCWF159	0159	12733	O. mykiss: 2-3in: 10, 4in: 3, 5in: 1.
SCWF160	0160	12812	O. mykiss: 2-3in: 10, 4in: 10, 6in: 2.
SCWF161	0161	13050	PAGE: Sheet units SCWF161 through SCWF170 = SCWFP17. MB Channel Morphology = Step Pool. GPS = SCWF161
SCWF162	0162	13258	O. mykiss: 2-3in: 35, 4in: 15, 5in: 4, 6in: 1
SCWF165	0165	13594	Max depths: 1st pool: 3.4ft, 2nd pool: 2.4ft, 3rd pool: 2.6ft. O. mykiss: 2-3in: 10, 4in: 15, 6in: 5, 8in: 1.
SCWF166	0166	13663	(2) 2-3 inch O. mykiss.
SCWF167	0167	13740	Two bedrock steps, lowest step around 3ft, upper step 3.5 ft. Middle step area is 0.7ft, will not fill, low flow barrier. (1) 2 Striped Garter. O. mykiss: 2-3in: 20, 5in: 1.
SCWF168	0168	13786	Created by bedrock steps. Max depths: 1st pool = 4.2ft, 2nd pool = 3.7ft, 3rd pool = 2.2ft, 4th pool = .7ft, 5th pool = 3.8ft. End of step pool has bedrock chute which would be difficult/impossible during low to moderate flow. (1) 2 Striped Garter. O. mykiss: 2-3in: 50, 4in: 15, 6in: 6, 8in: 2, 10in: 1.
SCWF170	0170	14052	One 4 inch O. mykiss.
SCWF171	0171	14229	PAGE: Sheet units SCWF171 through SCWF180 = SCWFP18. MB Channel Morphology = Step Pool. GPS = SCWF171
SCWF174	0174	14325	Bedrock feature in channel splits flow. O. mykiss: 2-3in: 20, 4in: 6, 5in: 1, 6in: 1.
SCWF175	0175	14661	Bedrock sheet.
SCWF176	0176	14678	Bedrock steps. Max depths: 1st pool = 3.9ft, 2nd pool = 1.3ft, 3rd pool = 1.8ft, 4th pool = 1.4ft, 5th pool = 1.0ft, 6th pool = 1.1ft. Bedrock sheet between 3rd and 4th pool is around 15ft long. Another sheet between 4th and 5th pool, lower gradient. Steep, short sheet between 5th and 6th pool. O. mykiss: 2-3in: 20, 4in: 5, 6in: 5, 8in: 3.
SCWF177	0177	14814	Some bedrock sheet mixed in.
SCWF178	0178	14887	O. mykiss: 2-3in: 20, 4in: 2, 7in: 1.
SCWF179	0179	14910	(1) 6 inch O. mykiss.
SCWF181	0181	14994	PAGE: Sheet units SCWF181 through SCWF190 = SCWFP19. MB Channel Morphology = Step Pool with bedrock at the end. Other notes: O. mykiss in unit: 2-3in: 5, 4in: 10, 6in: 4. GPS = SCWF181
SCWF183	0183	15046	O. mykiss: 4in: 5, 6in: 4, 8in: 1.
SCWF186	0186	15133	O. mykiss: 2-3in: 60, 4in: 15, 6in: 1.
SCWF187	0187	15392	(20) 2-3 inch O. mykiss.
SCWF188	0188	15410	Bedrock step run with short sheets and riffles. Bedrock right bank and in channel. O. mykiss: 2-3in: 20, 5in: 1, 6in: 1.
SCWF189	0189	15653	O. mykiss: 2-3in: 10, 4in: 4, 6in: 2.
SCWF191	0191	15703	PAGE: Sheet units SCWF191 through SCWF200 = SCWFP20. MB Channel Morphology = Step Pool. Alders throughout along creek. GPS = SCWF191
SCWF192	0192	15747	O. mykiss: 2-3in: 10, 4in: 2, 6in: 1.

SCWF194	0194	15857	O. mykiss: 4in: 5, 6in: 2.
SCWF195	0195	15907	O. mykiss: 2-3in: 10, 4in: 3.
SCWF196	0196	16065	Tree across unit.
SCWF197	0197	16130	O. mykiss: 2-3in: 5, 4in: 4, 6in: 1.
SCWF199	0199	16214	O. mykiss: 2-3in: 10, 4in: 10, 6in: 3.
SCWF200	0200	16364	O. mykiss: 2-3in: 20, 4in: 10, 6in: 5.
SCWF201	0201	16406	PAGE: Sheet units SCWF201 through SCWF210 = SCWFP21. MB Channel Morphology = Step Pool. Other notes: Unit has some gravel. O. mykiss: 2-3in: 5, 6in: 1. GPS = SCWF201
SCWF202	0202	16463	(1) 2 Striped Garter Snake. O. mykiss: 2-3in: 10, 6in: 2, 8in: 1.
SCWF203	0203	16522	O. mykiss: 2-3in: 5, 4in: 10, 6in: 2, 8in: 1.
SCWF204	0204	16542	O. mykiss: 2-3in: 5, 6in: 2.
SCWF205	0205	16576	Steep cascade. Height 5.3ft.
SCWF207	0207	16618	(5) 2-3 inch O. mykiss.
SCWF208	0208	16648	Max depths: 1st pool = 2.4 ft, 2nd pool = 1.6ft. O. mykiss: 2-3in: 10, 6in: 1, 9in: 1.
SCWF210	0210	16721	Great coverage provided by undercut boulders and bubble curtain. Max depth estimated at 10ft. Waterfall approximately 5ft high. O. mykiss: 4in: 5, 6in: 4, 8in: 2, 12in:1.
SCWF211	0211	16766	PAGE: Sheet units SCWF211 through SCWF220 = SCWFP22. MB Channel Morphology = Step Pool. GPS = SCWF211
SCWF213	0213	16864	O. mykiss: 2-3in: 10, 4in: 2.
SCWF215	0215	16951	(1) 2 Striped Garter Snake. O. mykiss: 2-3in: 20, 4in: 10, 5in: 1.
SCWF216	0216	17282	O. mykiss: 2-3in: 15, 4in: 10, 6in: 2, 8in: 1.
SCWF220	0220	17501	(1) 6 inch O. mykiss.
SCWF221	0221	17615	PAGE: Sheet units SCWF221 through SCWF230 = SCWFP23. MB Channel Morphology = Step Pool. Other notes: (2) 2-3in O. mykiss. GPS = SCWF221
SCWF223	0223	17677	O. mykiss: 2-3in: 5, 4in: 2, 6in: 1.
SCWF224	0224	17698	O. mykiss: 2-3in: 10, 4in: 5, 6in: 3, 8in: 1.
SCWF226	0226	17775	O. mykiss: 2-3in: 5, 6in: 1.
SCWF228	0228	18001	O. mykiss: 2-3in: 6, 4in: 5.
SCWF230	0230	18112	(5) 4 inch O. mykiss.
SCWF231	0231	18162	Sheet units SCWF231 through SCWF240 = SCWFP24. MB Channel Morphology = Step pool. Other notes: O. mykiss in unit: 4in: 5, 6in: 2. GPS = SCWF231
SCWF232	0232	18203	Max depths: 1st pool = 2.4ft, 2nd pool = 2.2ft. O. mykiss: 2-3in: 5, 4in: 10.
SCWF233	0233	18267	O. mykiss: 2-3in: 5, 4in: 2.
SCWF235	0235	18565	O. mykiss: 4in: 1, 6in: 1.
SCWF236	0236	18605	O. mykiss: 2-3in: 5, 4in: 2, 6in: 1.
SCWF241	0241	18812	PAGE: Sheet units SCWF241 through SCWF250 = SCWFP25. MB Channel Morphology = Step Pool. GPS = SCWF241
SCWF242	0242	18876	Bedrock eroding. Waterfall in unit, plunge = 5ft, pool = 0.8ft.
SCWF243	0243	18951	(1) 2 Striped Garter. O. mykiss: 2-3in: 20, 4in: 10, 6in: 1.
SCWF245	0245	19165	(20) 2-3 inch O. mykiss.
SCWF247	0247	19238	(2) 4 inch O. mykiss.
SCWF249	0249	19314	O. mykiss: 4in: 1, 6in: 1.
SCWF250	0250	19366	3.5ft waterfall into unit. O. mykiss: 2-3in: 10, 4in: 10, 6in: 4.
SCWF251	0251	19400	PAGE: Sheet units SCWF251 through SCWF260 = SCWFP26. MB Channel Morphology = Step Pool. GPS = SCWF251
SCWF252	0252	19422	O. mykiss: 2-3in: 4, 6in: 1.
SCWF255	0255	19581	(2) 4in O. mykiss.
SCWF256	0256	19600	O. mykiss: 4in: 5, 6in: 1.
SCWF257	0257	19710	(10) 4in O. mykiss.
SCWF259	0259	19761	O. mykiss: 2-3in: 10, 6in: 1, 8in: 1.
SCWF260	0260	19821	Bedrock right bank. Bedrock step run. O. mykiss: 2-3in: 20, 4in: 15, 6in: 2.
SCWF261	0261	19950	PAGE: Sheet units SCWF261 through SCWF270 = SCWFP27. MB Channel

			Morphology = Bedrock with step pool characteristics. Fish will be trapped in pools during low to moderate flow. Other notes: Unit is bedrock plunge pool. Plunge = 4ft. O. mykiss: 2-3in: 10, 4in: 5, 6in: 4. GPS = SCWF261
SCWF262	0262	19969	Bedrock sheet rises 5.2ft over 25ft.
SCWF263	0263	19994	(1) 2 Striped Garter Snake. O. mykiss: 2-3in: 10, 4in: 3.
SCWF265	0265	20058	O. mykiss: 2-3in: 10, 10in: 1.
SCWF266	0266	20073	Boulder waterfall, height 3ft.
SCWF267	0267	20189	O. mykiss: 2-3in: 10, 8in: 2.
SCWF269	0269	20263	(5) 2-3in O. mykiss.
SCWF271	0271	20301	PAGE: Sheet units SCWF271 through SCWF280. MB Channel Morphology = Step Pool. Other notes: O. mykiss in unit: 4in: 5, 7in: 1. GPS = SCWF271
SCWF273	0273	20332	O. mykiss: 2-3in: 3, 6in: 1.
SCWF274	0274	20413	O. mykiss: 4in: 3, 6in: 1.
SCWF276	0276	20492	(1) 8in O. mykiss.
SCWF277	0277	20529	O. mykiss: 2-3in: 3, 4in: 1.
SCWF278	0278	20583	Max depths: 1st pool = 2.6ft, 2nd pool = 1.4ft. O. mykiss: 2-3in: 10, 4in: 5, 6in: 1, 10in: 1.
SCWF279	0279	20628	Bedrock cascade with boulders.
SCWF280	0280	20663	O. mykiss: 2-3in: 10, 6in: 1.
SCWF281	0281	20685	PAGE: Sheet units SCWF281 through SCWF288 = SCWFP29. MB Channel Morphology = Step Pool. Huge boulder step pools. GPS = SCWF281
SCWF282	0282	20698	O. mykiss: 2-3in: 10, 4in: 10.
SCWF283	0283	20768	O. mykiss: 2-3in: 10, 4in: 8, 6in: 5, 8in: 1.
SCWF285	0285	20835	Bedrock step pool, lower section deep sheet. Max depths: 1st pool: 2.7ft, 2nd pool: 3.1ft. One 2 Striped Garter. O. mykiss: 2-3in: 10, 4in: 10, 6in: 5, 8in: 1.
SCWF287	0287	20963	(3) 4 inch O. mykiss.
SCWF288	0288	20988	Large boulder and debris jam 15-20ft high with small step pools. Max depths: 1st pool: 3.6ft, 2nd pool: 1.6ft, 3rd pool: 1.8ft, 4th pool: 1.3ft, 5th pool: 2.0ft, 6th pool: 2.4ft, 7th pool: 2ft, 8th pool: 3.3ft, 9th pool: 1.1ft. O. mykiss: 2-3in: 10, 4in: 15, 6in: 4, 8in: 2. Stopped at GPS: SCWF289 (Lat: 34.40.680; Long: 119.47.017)

Upper Santa Ynez River Comments

Santa Ynez Upper Watershed Comments (SYA)			
Habitat Unit	Database Unit	Position (ft)	Comments
Unsurveyed area	0001	0	Unsurveyed area between GPS points SYA000 and SYA001.
SYA001	0002	24897	[SYAP01. Pool riffle channel morphology moving into a plane bed.] Other Notes: Survey began at property line, carcass found just above SYA002 possibly carp or catfish. Eucalyptus, Cottonwood, Willow, Sycamore, RB eucalyptus present. GPS= SYA001
SYA002	0003	24972	Crest dry, pool almost dry, arroyo chub. (mid-channel pool).
SYA003	0004	24989	
SYA004	0005	25369	Turbid water, good spawning gravel at crest, crest dry, fish (stickleback) tadpole, schools of fish possibly arroyo chub, slight algae present, bedrock at pool inlet, small isolated pool at inlet with fish. (left corner turn).
SYA005	0006	25664	Okay cobble, gravel.
SYA006	0007	25768	Algae in crest, horse tracks present, erosion left bank, lots of algae on pool bottom, (mid-channel pool).
SYA007	0008	25856	Crawdad.
SYA008	0009	25962	Left bank bedrock, tree tobacco left bank. (right corner turn).
SYA009	0010	26172	Transverse riffle.
SYA010	0011	26199	Lots of algae, crawdad (mid-channel pool).
SYA011	0012	26335	[SYAP02. Mostly plane-bed with long stretches of dry plane. Pool-riffle at

			the beginning moving into a plane-bed. Multiple dry sections throughout. BFW extremely wide, estimated at 150ft]. Other Notes: Mulefat, Cottonwood, Willow, Crawdad present. GPS= SYA011
SYA012	0013	26422	Bedrock left bank bottom 1/3 (Self formed pool).
SYA013	0014	26556	Distance- GPS waypoint SYA013A to waypoint SYA015A. subtract 20 for SYA0014. Paradise Canyon Trib was dry and entered from left bank. GPS=SYATRB01
SYA014	0015	27698	Tadpoles present. (bedrock forced pool after long dry sections).
SYA015	0016	27718	Mostly plane bed.
SYA016	0017	28642	Large fish, small fish, tadpole, 1 bass, bedrock at head, large cobble with small cobble at crest. (mid-channel pool with some bedrock but not bedrock formed). GPS=SYA016A
SYA017	0018	28829	Channel splits, dry left bank channel.
SYA018	0019	28855	Tadpoles present.
SYA019	0020	28905	
SYA020	0021	28999	Not much of a pool.
SYA021	0022	29021	[SYAP03. SYA021-SYA028; MB Channel type: Strange set of units with split main channel. Most likely a pool-riffle system moving into a plane bed. Channel narrows substantially versus SYAP02. Page units diagrammed on the habitat sheet.] GPS= SYA021
SYA022	0023	29048	Heavy vegetation.
SYA023	0024	29143	
SYA023.1	0024.1	29173	Bedrock at head of unit.
SYA023.2	0024.2	29173	Side channel actually is main channel on left side that dries up substantially, the right bank channel then connects with the main channel further down.
SYA024	0025	29173	Mostly a mid-channel pool, giant pool estimated 10-12 ft deep that looks like a fishing/swimming hole, observed large splash when approaching. (heron?). Some cobble in the crest of the pool but mostly boulder (RB) and bedrock (LB).
SYA025	0026	29529	Crest composed mainly of bedrock with some cobble present, right bank was bedrock. Fry unidentified, arroyo chub and stickleback present.
SYA026	0027	29696	
SYA027	0028	29752	Lots of algae on surface.
SYA028	0029	29826	
SYA029	0030	29880	[SYAP04. MB Channel Morphology = Plane Bed. BFW estimated at 75.] Heavy vegetation. GPS=SYA029
SYA030	0031	29963	
SYA031	0032	30005	
SYA032	0033	30040	
SYA033	0034	30125	Large fish in unit, numerous.
SYA034	0035	30188	Bedrock scour pool.
SYA035	0036	30207	Very wide riffle, heavy vegetation, thick cattails.
SYA036	0037	30282	One step during run.
SYA037	0038	30453	Dammed by one bedrock section that runs through the head of the pool. Massive fish possibly a carp.
SYA038	0039	30737	
SYA039	0040	30777	[SYAP05. Strange succession of pools as bedrock ran through the channel damming areas and creating scour in others. No channel type assigned. Series of pools created by strange bedrock section starts at SYA038 before entering multi-braided section started at unit SYA043. Bedrock strips ran perpendicular to the stream creating deep pools scoured out after each bedrock strip. Fish in all pools.] GPS=SYA039
SYA040	0041	30831	
SYA041	0042	30872	Trail runs through unit, bedrock dammed pool around six feet deep possibly deeper, bedrock extends through stream creating a partial dam.
SYA042	0043	31039	Eroded left bank.

SYA043	0044	31175	Bedrock at tail and head of unit, bedrock left bank.
SYA043.1	0044.1	31248	Thick vegetation in unit.
SYA043.2	0044.2	31248	Stagnant algae film over water.
SYA043.3	0044.3	31248	
SYA043.4	0044.4	31248	Stagnant algae film over water.
SYA043.5	0044.5	31248	
SYA043.6	0044.6	31248	[SYAP06+07. No channel morphology: large multi-braided area with numerous side channels. No BFW taken due to the side channels. Diagram on SYAP06 habitat sheet.] Left bank corner pool. GPS=SYA043.6
SYA043.7	0044.7	31248	There is a dry break between SYA43.6 and SYA47.1 that is connected by SYA43.7.
SYA044	0045	31248	Brief run in between.
SYA045	0046	31349	
SYA046	0047	31415	
SYA047	0048	31457	
SYA047.1	0048.1	31641	Secondary channel pool with fish present.
SYA048	0049	31641	Side channel blends into secondary channel pool. Tributary enters from LB with good flow. Tributary runs parallel to main stem of Santa Ynez for page.
SYA048.1	0049.1	31822	
SYA048.2	0049.2	31822	Bedrock at the head of unit.
SYA048.3	0049.3	31822	[SYAP06+P07. No channel morphology: large multi-braided area with numerous side channels. No BFW taken due to the side channels. Diagram on SYAP06 habitat sheet. Left bank tributary with good flow runs parallel to Santa Ynez main stem. Flow much lower than the last day surveyed in November.] GPS=SYA048.3
SYA048.4	0049.4	31822	Overflow from tributary, bedrock present thru unit (left bank), run sections in unit.
SYA048.5	0049.5	31822	Left bank water seep.
SYA048.6	0049.6	31822	Strange pool, left bank water seep.
SYA048.7	0049.7	31822	Slow flow, almost run, extremely thick vegetation. (Cattails).
SYA048.8	0049.8	31822	
SYA049	0050	31822	[SYAP08. No channel type: Huge multi-braided section with RB and LB side channels. No BFW taken.] Other Notes: Braided channel, main channel actually enters SYA048 from heavily vegetated left bank, Right bank side channel appears to be main channel but it's really the side channel. Transverse riffle present. Unit's width is greater than its length. GPS=SYA049
SYA050	0051	31855	Thick vegetation with algae and Cattails present.
SYA051	0052	31921	
SYA052	0053	31952	Large overflow, flood plain left bank.
SYA053	0054	31973	
SYA054	0055	32085	Lots of surface algae.
SYA055	0056	32140	
SYA056	0057	32171	Pools are the same unit.
SYA056.1	0057.1	32498	Huge backwater pool that leads to a LB side channel. End at unit where side channel enters, stagnant water.
SYA057	0058	32498	Same pool as SYA0056 with SYA0056.1 in between.
SYA058	0059	32659	[SYAP09. Large multi-braided channel. RB main channel, LB dry channel secondary channel pools. At 63, LB side channel enters main channel.] GPS=SYA058
SYA059	0060	32694	Heavy vegetated unit with Cattails present.
SYA060	0061	32717	Flow decreases.
SYA061	0062	32790	Barely any flow.
SYA062	0063	32860	Braided channel.
SYA063	0064	33039	Huge pool with lots of carp, dry crest.
SYA063.1	0064.1	33299	[SYAP09A.] Multiple dry channels. GPS=SYA063.1

SYA063.2	0064.2	33299	GPS=SYA063.2
SYA063.3	0064.3	33299	Pool. Some gravel. Tadpoles and fish present.
SYA063.4	0064.4	33299	GPS=SYA63.4 Enters stream at SYA79.3 GPS=SYA063.4B
SYA064	0065	33299	Gravel bar at tail crest, crest dry, good gravel, lots of algae cover, great pool.
SYA065	0066	33430	Left bank gravel bar, right bank bedrock. GPS= SYA065
SYA066	0067	33537	
SYA067	0068	33660	Unit ends at small transverse riffle.
SYA068	0069	33764	[SYAP10. Still braided. BFW = 38ft; however, LB contains many braided channels.] Other Notes: transverse riffle, dry braided channels in this area with perennial pools far off in left bank dry channels. Riffle is running at a left turn angle. GPS= SYA068
SYA069	0070	33784	Willows, Mulefat, Sycamore, Cottonwood.
SYA070	0071	33824	Some gravel.
SYA071	0072	33880	
SYA072	0073	33953	Algae on surface.
SYA073	0074	33997	
SYA074	0075	34025	Algae covering entire surface.
SYA075	0076	34053	
SYA076	0077	34073	Right bank old willow root creates scour.
SYA077	0078	34115	Algae on stream bed rocks, unusual pool could be a 5.3/5.1
SYA078	0079	34184	[SYAP11+11A. No channel type or BFW. LB side channel enters at unit SYA079. Side channel reconnects at SYA083 after Arizona Crossing; stream enters plane bed channel type at SYA086.] Other Notes: fish, tadpole seen, algae covering rocks, silt on rocks. GPS=SYA078
SYA079	0080	34374	Tiny riffle present where dry left bank side channel enters. GPS= SYA079.1=dry side channel that leads to pools.
SYA079.1	0080.1	34384	[SYAP11A.] Massive side channel dry with pool. GPS= SYA079.1
SYA079.2	0080.2	34384	
SYA079.3	0080.3	34384	
SYA079.4	0080.4	34384	Boulder, cobble, gravel crest, erosion left bank, trees in unit. Right bank breached by dry side channel.
SYA079.5	0080.5	34384	Enters SYA083 at GPS=SYA079.5B
SYA080	0081	34384	Not a good crest for spawning, mostly boulder.
SYA081	0082	34440	decreasing flow.
SYA082	0083	34460	Maybe a boulder pool with more flow, narrow channel.
SYA083	0084	34498	Side channel with pools diverts from left bank. GPS= SYA083 Length is SYA083 to SYAAZ01.
SYA084	0085	35184	Gravel bar pool created by Arizona crossing. Width greater than length. *92ft by 19ft.
SYA085	0086	35203	Arizona crossing at Ranger Station into Campground. 151 ft across bank damming the stream. Road is 13 ft wide. Downstream crest riprap is approximately 16.5 ft wide with a mild slope. GPS=SYAAZ01
SYA086	0087	35233	Extended run, decent gravel.
SYA087	0088	35577	Good spawning gravel.
SYA088	0089	35910	[SYAP12. MB Channel Morphology = Plane Bed.] GPS= SYA088
SYA089	0090	35958	Marsh extends on left bank.
SYA090	0091	36018	
SYA091	0092	36042	Run/riffle over vegetated.
SYA092	0093	36126	Extremely wide wetted width.
SYA093	0094	36238	Cattails throughout system.
SYA094	0095	36438	Transverse riffle.
SYA095	0096	36460	Heavily vegetated, Cattails everywhere.
SYA096	0097	36529	Heavily vegetated, wide channel.
SYA097	0098	36615	
SYA098	0099	36664	[SYAP13. MB Channel Morphology = Plane Bed.] GPS=SYA098
SYA099	0100	36735	

SYA100	0101	36792	Fish seen. Max depth estimated.
SYA101	0102	36829	2 transverse riffles with run in between.
SYA102	0103	36906	Left bank run. Bullfrog carcass.
SYA103	0104	36939	
SYA104	0105	36984	62 ft up there's a small transverse riffle. Bedrock present left bank.
SYA105	0106	37046	
SYA106	0107	37167	Step pool trib enters left bank. GPS=SYATRB02A
SYA107	0108	37230	Bedrock left bank.
SYA108	0109	37362	[SYAP14. Channel type cannot be determined as a result of extreme bedrock forced pools. Entire reach defined by LB bedrock; however, the channel is not bedrock forced.] GPS= SYA108
SYA109	0110	37388	Multiple boulders forming deep sections.
SYA110	0111	37450	
SYA111	0112	37477	
SYA112	0113	37500	Small dam created manmade.
SYA113	0114	37518	Small dam.
SYA114	0115	37595	
SYA115	0116	37738	
SYA116	0117	37787	Extremely large pool that is very deep >8ft against left bank bedrock that coincides with a huge bend in the streambed. Max depth estimated at 7+ ft.
SYA117	0118	38180	
SYA118	0119	38213	[SYAP15. Difficult section to assign a channel type. Pool-riffle mixed with plane bed from SYA118 until SYA123 where the channel becomes multi-braided once again.] GPS=SYA118
SYA119	0120	38283	
SYA120	0121	38305	
SYA120.1	0121.1	38390	
SYA121	0122	38390	Thick vegetation.
SYA122	0123	38490	Silt in pool.
SYA123	0124	38744	SYA123 added. Boulders mixed in with crest. Main channel enters from LB. RB side channel pools against bedrock. Max depth estimated at 10+ ft.
SYA123.1	0124.1	38881	[SYAP15A]. Large RB pool and side channel against bedrock; main stream channel comes in from LB.
SYA123.2	0124.2	38881	
SYA123.3	0124.3	38881	
SYA123.4	0124.4	38881	
SYA123.5	0124.5	38881	
SYA123.6	0124.6	38881	
SYA123.7	0124.7	38881	Massive bedrock scour pool
SYA123.8	0124.8	38881	Dry channel connects with SYA132
SYA124	0125	38881	Streambed altered in side channel.
SYA125	0126	38941	
SYA126	0127	39003	
SYA127	0128	39034	[SYAP16+16A. NO BFW or channel type. Difficult to determine channel type due to multiple braided side channels. Fine sediment transported from upstream and collected at bedrock geography. SYA132 is a huge pool created by the stream channel running into a large bedrock left turn. Boulder and clasts until unit 132 then transitioned into sand being dominant sediment. Page near Los Prietos Boys Camp.] Other Notes: Trees on side channel. GPS=SYA127
SYA128	0129	39106	
SYA129	0130	39200	
SYA130	0131	39232	
SYA131	0132	39266	
SYA132	0133	39366	Extremely large pool created by a turn in the stream channel forced by bedrock. Side channel comes in from LB at the top of unit. Dry side channel

			exits towards the RB at the end of the unit. 4 inch fish observed.
SYA132.1	0133.1	39816	Connects with SYA132 at top of SYA132 from LB
SYA132.2	0133.2	39816	No flow
SYA132.3	0133.3	39816	
SYA132.4	0133.4	39816	
SYA132.5	0133.5	39816	
SYA132.6	0133.6	39816	
SYA132.7	0133.7	39816	Connects with SYA136
SYA133	0134	39816	Unit comes in from RB, SYA132.1 comes in from LB.
SYA134	0135	39929	Long, run-like pool.
SYA135	0136	40308	Heavy vegetation.
SYA136	0137	40396	Silty, long and deep run/glide.
SYA137	0138	40676	[SYAP17. Arizona crossing at SYA138. No channel type or BFW due to massive pools as well as side channels and secondary pools connecting to main channel. Oso Creek enters from RB at SYA140.] GPS=SYA137
SYA138	0139	40770	GPS=SYAAZ02 14ft wide, 162ft from bank to bank. Arizona crossing wetted.
SYA139	0140	40784	Corner pool or bedrock scour. Sediment change present. Silt/sand filled before Arizona Crossing. Max depth estimated.
SYA140	0141	41404	Tributary comes into right bank, dry, GPS=SYATRB03. (Oso Creek).
SYA140.1	0141.1	41594	Side channel to SYA140. Connects with backwater pool, SYA142.1
SYA141	0142	41594	Heavy vegetation, side channel left bank, main channel RB.
SYA142	0143	41648	
SYA142.1	0143.1	41689	SYA142.1 connects via SYA140.1 to SYA140.
SYA143	0144	41689	Massive pool based against RB bedrock. Massive carp. Depth estimated.
SYA144	0145	42289	
SYA145	0146	42377	[SYAP18. MB Channel Morphology = Plane bed mixed pool-riffle.] GPS= SYA145
SYA146	0147	42405	
SYA147	0148	42452	Sections of run.
SYA148	0149	42692	Algae on rocks, small islands.
SYA149	0150	42820	
SYA150	0151	42989	Small islands.
SYA151	0152	43036	Thick Cattails, left bank heavily silted.
SYA152	0153	43082	Possibly bass in pool.
SYA153	0154	43098	
SYA154	0155	43161	Thick Cattails, run-like.
SYA155	0156	43191	[SYAP19. MB Channel Morphology = Pool-Riffle. Stream dried up for a while before SYA161. Low water table. Substrate change from large cobble/boulder to sand/gravel and small cobble in dry sections. Thick Cattails present.] GPS=SYA155
SYA156	0157	43248	Bedrock right bank, thick vegetation.
SYA157	0158	43278	
SYA157.1	0158.1	43365	Enters from LB. Goes dry and doesn't connect to main channel.
SYA158	0159	43365	Goes dry, thick vegetation.
SYA159	0160	43498	Extremely thick vegetation. GPS=SYA159
SYA160	0161	43674	GPS=SYA160
SYA161	0162	43735	Dead algae on rocks.
SYA162	0163	43826	Deep pool-like section, large tadpoles, fish, thick Cattails.
SYA163	0164	43909	GPS=SYA163
SYA164	0165	44024	[SYAP20. BFW = 55 at SYA155. Plane bed mixed pool-riffle; extended dry reaches of plane bed.] Narrow borderline pool. GPS=SYA164
SYA165	0166	44128	GPS=SYA165
SYA166	0167	44590	GPS=SYA166
SYA167	0168	44790	
SYA168	0169	44810	GPS= SYA168

SYA169	0170	44915	Flow present.
SYA170	0171	44988	
SYA171	0172	45002	
SYA172	0173	45083	GPS= SYA172 at start of unit; SYA172TRL where trail crosses unit; SYA172B where we ended unit although dry section continued on. (Lat: 34.32.471; Long: 119.45.438)
SYA173	0174	46926	PAGE: Sheet units SYA173 through SYA182 = SYAP21. MB Channel Morphology = Plane Bed. Other notes: Unit is dry with run type habitat. Multiple dry channels, 4-5 channels. Started where previous survey left off, in channel that appears to have had water most recently. Drainage pipe from road at GPS point SYA173A. One large dry pool by Sycamore tree. Willows, Oaks, Sycamores, and Mulefat common. Clover growing in stream channel. 2nd GPS point taken within unit at SYA173B. GPS = SYA173
SYA174	0175	49204	GPS = SYA174. Water starts with very wide run with bedrock left bank. Stickleback present.
SYA175	0176	49321	Lake-like units. Depth estimated at 7+.
SYA176	0177	49431	Carp and dead Catfish. Too deep, had to walk around. Depth estimated at 10+.
SYA177	0178	49672	End lake. GPS = SYA177
SYA179	0180	49837	Dead Crayfish, Chub seen.
SYA180	0181	49991	Dead Crayfish, algae covering bottom.
SYA182	0183	50084	Paradise Road Crossing. Width: 14ft, length across channel: 166ft. Channel is dry. Downstream steep apron: 3.8ft from where pool would form. Upstream: Road 1.4ft above stream. GPS = SYAAZ03
SYA183	0184	50109	PAGE: Sheet units SYA183 through SYA192 = SYAP22. MB Channel Morphology = Plane Bed with large dry sections. Other notes: Dry at the very start of unit. GPS = SYA183
SYA184	0185	50176	Bedrock right bank. Long strips of bedrock out into channel causes multiple pools. Cattails left bank.
SYA185	0186	50376	Bedrock right bank. Sunfish seen. Cattails covering entire channel 275ft in. Tadpoles present, 100+. The end of this may have been a side channel
SYA186	0187	50901	Length = Distance between GPS points SYA186 and SYA187. We may have been on side channel for end.
SYA187	0188	51026	GPS = SYA187
SYA188	0189	51061	Chub, lots of algae.
SYA189	0190	51169	Length = Distance between GPS points SYA189 and SYA190.
SYA190	0191	51303	Lake, large pool. Chub seen, great cover. GPS = SYA190. Depth estimated at 15ft.
SYA191	0192	51628	Length = Distance between GPS points SYA191 and SYA192.
SYA192	0193	53231	Chub, Bullfrog tadpoles. End day.
SYA193	0194	53591	PAGE: Sheet units SYA193 through SYA202 = YAP23. MB Channel Morphology = Plane Bed with large dry sections. Other notes: Dry section. GPS = SYA193
SYA194	0195	53638	Small wet section, would likely be a pool at higher flow, water is stagnant.
SYA196	0197	53704	Small, patchy dry run.
SYA197	0198	53810	Length = Distance between GPS points SYA197 and SYA198. Large boulders, would form good pools and habitat with water. Trail at GPS point SYACAMTRAIL.
SYA202	0203	56041	Lots of algae
SYA203	0204	56340	PAGE: Sheet units SYA203 through SYA212 = SYAP24. MB Channel Morphology = Plane Bed. Other notes: Unit has patchy water, some dry. GPS = SYA203
SYA204	0205	56605	Surface algae abundant.
SYA205	0206	56694	Would be good habitat with water. Large boulders. GPS = SYA205.
SYA206	0207	56957	2 turtles, Western Pond. Deep run with an average depth of 1.5ft.
SYA207	0208	57228	Trib runs into side channel to join main channel. Trib has flowing water.

			Approximately 300 ft up from SYATRIB1 are large chunks of concrete road in channel. GPS point taken within unit at SYA207A. Length determined using GPS and TOPO. GPS = SYATRIB1
SYA208	0209	58222	GPS = SYA208. Lake with bedrock right bank. Width is approximately 60ft. Lake seen on TOPO map. Very deep, can't get a good depth measurement. Depth likely 15-20ft, at least 10ft. Curved lake around pt. Great for trout, undercut bedrock and large boulders. Length determined using GPS and TOPO.
SYA210	0211	58706	Willows and grasses on bank.
SYA211	0212	58790	Through thick Willows, Cattails, and grass.
SYA212	0213	58881	Paradise Road crossing. Wetted width = 90ft, Total width = 170ft. Width = road length across stream channel. Length = 15ft (road width). Plunge downstream = 1ft. Depth at plunge = .7ft GPS = SYAAZ04
SYA213	0214	58896	PAGE: Sheet units SYA213 through SYA222 = SYAP25. MB Channel Morphology = Plane Bed. GPS = SYA213
SYA214	0215	58929	Very deep pool, depth estimated at 10+. Bedrock on left bank. Gravel point bar at bend. Undercut bedrock. Abundant invasive sweet clover. Length = Distance between GPS points SYA214 and SYA215.
SYA215	0216	59404	Deep run.
SYA217	0218	59943	Deep run with multiple boulder scour pools.
SYA218	0219	60057	Begins with heavy Willows, continues with Cattails.
SYA219	0220	60171	Paradise Road crossing. Road crosses channel for 108ft. Width of road is 14ft. Downstream side is a sloping apron and section of dry cobbles. GPS = SYAAZ05
SYA220	0221	60228	Very deep pool, depth estimated at 12+.
SYA221	0222	60493	Beaver activity.
SYA222	0223	60585	Cottonwoods on right bank. Very deep pool, depth estimated at 15+.
SYA223	0224	60997	PAGE: Sheet units SYA223 through SYA232 = SYAP26. MB Channel Morphology = Plane Bed. Other notes: GPS = SYA223. Unknown fish species present. Abundant algae. Right bank trib. GPS = SYATRIB2
SYA225	0226	61418	Abundant Cattails in channel. Willows and Mulefat on banks.
SYA226	0227	61608	Chubs present. 2 pools present upstream and downstream of boulder.
SYA227	0228	61657	Abundant Cattails in channel. 10+ dead crayfish.
SYA228	0229	62060	Cattails.
SYA229	0230	62088	Deep run.
SYA231	0232	62361	Cattails.
SYA233	0234	62426	PAGE: Sheet units SYA233 through SYA242 = SYAP27. MB Channel Morphology = Plane Bed. GPS = SYA233
SYA234	0235	62511	Carp.
SYA235	0236	62572	Cattails.
SYA242	0243	63163	Dead Crayfish. Depth = 6+.
SYA243	0244	63476	PAGE: SYAP28. MB Channel Morphology = Plane Bed. GPS = SYA243
SYA244	0245	63685	Paradise Road crossing. Road crosses stream for 133ft. Road is 14ft wide. Downstream height of 3.7ft with a sloping apron. GPS = SYAAZ06
SYA245	0246	63713	Mid-channel pool influenced by road crossing. Pool tail substrate is concrete. Multiple channels, main appears to be toward right side, is dry when crosses road. Left channel has water at road.
SYA245.1	0246.01	63964	Side channel left bank, has some stagnant water, terrestrial vegetation recently submerged.
SYA245.3	0246.03	63964	Side channel dries at end of unit.
SYA246	0247	63964	PAGE: Sheet units SYA246 through SYA255 = SYAP29. MB Channel Morphology = Plane Bed with dry sections and lake around corners. Other notes: Multiple channels, main appears to be toward right bank. It is dry when crosses road. Left channel has water at road. Main channel goes underground and crosses to right bank channel. GPS = SYA246
SYA247	0248	64033	Mulefat common with grasses and Cottonwoods.

SYA248	0249	64162	Some small water pockets less than 1 ft.
SYA249	0250	64383	Wetted channel gets very wide 100-200ft. Cattails, Mulefat in channel, Willows along edges. Generally shallow (1ft deep), some areas 1.5 - 2ft deep. Start seeing algae covering rocks around 820 ft into unit. Some small riffles within unit, not long enough to be units. Small beaver dam 1050ft into unit. Channel continues downstream to cross road.
SYA250	0251	65439	Water dammed by beaver dam, boulder scour pools.
SYA251	0252	65484	Deep run with average depth 2ft - 2.5ft.
SYA252	0253	65602	Channel deepens more for mid-channel pool.
SYA253	0254	65683	Cattails covering channel.
SYA254	0255	65797	Large lake-like pool. GPS = SYA254.
SYA255	0256	66298	Paradise Road crossing, included boulder section downstream. GPS = SYAAZ07. Trib comes in at road. GPS = SYATRIB3. Road is 14ft wide and crosses stream for total length of 90ft. Wetted length is 35ft. There is a gradually sloping apron on downstream side. Upstream edge is .8ft drop max.
SYA256	0257	66352	PAGE: Sheet units SYA256 through SYA265 = SYAP30. MB Channel Morphology = Bedrock with some Plane Bed at the beginning of the section. Other notes: Tree down in unit 112ft in. Very deep, 10ft, crest is road. GPS = SYA256
SYA257	0258	66697	Large deep boulder scour pool with multiple large boulders. Depth estimated at 10+. Deep undercut, great habitat, some bedrock into channel. Bedrock right bank, Sweet Clover both banks. Goes straight from mid-channel to boulder scour.
SYA259	0260	67128	Large bedrock scour and boulder scour pool. Bedrock right bank.
SYA260	0261	67421	Bedrock continues right bank. Water Striders.
SYA262	0263	67572	Small bedrock cascade 10ft into unit.
SYA266	0267	67898	PAGE: Sheet units SYA266 through SYA275 = SYAP31. MB Channel Morphology = Plane Bed with Bedrock sections. GPS = SYA266
SYA268	0269	68072	Small bedrock sheet 33ft into unit. 100ft in small riffle. 250ft into unit, boulder dam built for trail crossing. See pic. GPS = SYATRAIL.
SYA269	0270	68330	Right bank failure.
SYA271	0272	68411	Algae abundant. Lake-like large pool. Max depth estimated at 15+. GPS = SYA271.
SYA273	0274	68610	Bedrock left bank.
SYA274	0275	68621	Bedrock left bank. Long bedrock run with some small riffles.
SYA275	0276	68817	Red Rocks, bedrock left bank and in channel. Length = Distance between GPS points SYA275 and SYA276.
SYA276	0277	69305	PAGE: Sheet units SYA276 through SYA287 = SYAP32 and SYAP32A. MB Channel Morphology = Plane Bed. Channel has become slightly more confined, multiple channels at this point. Though 3-4 channels, 2-3 with some water, we surveyed the flowing water. GPS = SYA276
SYA278	0279	69382	Willows, Mulefat, Oaks, Cottonwoods, and Sycamores.
SYA279	0280	69428	Side channel left bank, starts dry then has water.
SYA279.1	0280.01	69455	Dry with a couple stagnant pools. GPS = SYA279.1
SYA279.2	0280.02	69455	2 Chub.
SYA279.4	0280.04	69455	Another side channel flows between main channel on right bank and left bank side channel, has one long run/pool with stagnant water (approximately 100ft).
SYA279.5	0280.05	69455	Tree down in unit, good cover.
SYA279.6	0280.06	69455	Stagnant pools, baby Bass (?).
SYA279.8	0280.08	69455	Bedrock run turns into gravel bottom. Side channel dries up.
SYA282	0283	69732	GPS = SYA282
SYA284	0285	69880	Multiple deep boulder scour areas, stays deep.
SYA286	0287	70126	Alders, Sycamores, side channel right bank with stagnant water runs parallel.
SYA288	0289	70358	PAGE: Sheet units SYA288 through SYA297 = SYAP33. MB Channel

			Morphology = Plane Bed with some step pool characteristics. Wide channel with multiple stream beds, we followed the flowing water. Main flow is moving between them. Other notes: Tree down in unit. Parallel channel split by small bar. GPS = SYA288
SYA289	0290	70457	Overlaps with previous run for approximately 60ft.
SYA290	0291	70586	Cattails in channel, Horsetails.
SYA292	0293	70806	Alders and Sycamores.
SYA293	0294	70850	Cattails in channel.
SYA296	0297	71194	Recently covered with water, tree down 360ft in unit.
SYA298	0299	71634	PAGE: Sheet units SYA298 through SYA307 = SYAP34. MB Channel Morphology = Plane Bed. GPS = SYA298
SYA301	0302	71864	Large lake-like pool. Very deep, depth estimated at 10+. Bedrock right bank.
SYA302	0303	72260	Channel moderately confined.
SYA304	0305	72599	Large pool.
SYA306	0307	72784	Large boulder scour pool. Length = Distance between GPS points SYA306 and SYA307. Depth estimated at 10+.
SYA308	0309	73312	PAGE: Sheet units SYA308 through SYA317 = YAP35. MB Channel Morphology = Plane Bed. Large bedrock pools with runs and riffles in between. Other notes: Hyla Regilla. GPS = SYA308
SYA311	0312	73407	Tree down in unit.
SYA314	0315	73574	Large bedrock lake. Length = distance between SYA314 and SYA315. Western Pond Turtle. Depth = 10+.
SYA317	0318	74491	Pool bottom covered in algae. End day.
SYA318	0319	74680	PAGE: Sheet units SYA318 through SYA327 = SYAP36. MB Channel Morphology = Plane Bed with large bedrock scour pools. Other notes: Parallel channel with stagnant, shallow pool. Unit has bedrock left bank. GPS = SYA318
SYA319	0320	74712	Bedrock left bank.
SYA322	0323	74849	Bedrock left bank. Wide boulder bottom. Two pools.
SYA324	0325	75218	Large tree down at end of unit. 2 channels leaving pool with left bank channel drying out with a few stagnant pools. Surveyed right bank.
SYA325	0326	75280	Channel widens.
SYA326	0327	75314	Channel widens and opens up, some deep spots (3ft) but not large compared to channel. Cattails 500ft into unit, covers channel. Changed from boulder to gravel 600ft.
SYA327	0328	76169	10 Carp, possible Trout seen. GPS = SYA327
SYA328	0329	76454	PAGE: Sheet units SYA328 through SYA337 = SYAP37. MB Channel Morphology = Plane Bed with bedrock scour pools. Other notes: Unit is large bedrock scour pool. Max depth = 10+. Beaver activity on left bank. Fish seen either Carp or Trout. GPS = SYA328
SYA329	0330	77037	GPS = SYA329
SYA332	0333	77253	Large pool, may have some bedrock influence.
SYA333	0334	77583	Some bedrock in channel. Beaver dam at end of unit. Chub at end.
SYA334	0335	77664	Dammed by bedrock and two beaver dams. Covered with silt.
SYA335	0336	77698	6 inch trout. Bedrock left bank. Baby chub. Max depth = 10+.
SYA336	0337	78166	GPS = SYA336
SYA338	0339	78485	PAGE: Sheet units SYA338 through SYA345 are SYAP38. MB Channel Morphology = Plane Bed with bedrock section. GPS = SYA338
SYA339	0340	78698	Bedrock in channel and on right bank.
SYA340	0341	78758	End of unit has transverse riffle, high gradient.
SYA341	0342	78807	Covered in moss and dead algae.
SYA343	0344	79192	Multiple channels, found one stagnant wetted.
SYA344	0345	79242	Newly wetted, covered in moss. GPS: SYA344A taken 155 ft into unit. Beaver dam 540 ft into unit.
SYA345	0346	80105	End day.
SYA345.1	0346.01	80620	PAGE: SYAP39A. Other notes: Beaver dam at end of unit. GPS = SYA345.1

SYA345.2	0346.02	80620	Beaver dam into long pool, deepest along left bank after area in front of dam. Pool tail substrate is beaver dam debris.
SYA345.3	0346.03	80620	Deep run with small beaver dams. Carp seen.
SYA345.4	0346.04	80620	Rocks covered in heavy silt, long pool dammed by grasses. Pool tail substrate is grass.
SYA345.5	0346.05	80620	Small beaver dam 50ft into unit. Heavy leaf litter. GPS = SYA345.5
SYA345.6	0346.06	80620	Water is stagnant.
SYA345.7	0346.07	80620	Water disappears. Multiple side channels we surveyed flowing along left bank.
SYA346	0347	80620	PAGE: Sheet units SYA346 through SYA354 = SYAP39. MB Channel Morphology = Plane Bed with multiple large channels, surveyed the two with significant water. Other notes: Unit is dry section between bedrock lake and dammed pool. GPS = SYA346
SYA347	0348	80720	Beaver dam at start of unit. Lots of chub. Long deep pool.
SYA349	0350	81687	Channel moves toward right bank.
SYA350	0351	81742	Low flow, only recently covered.
SYA354	0355	82223	Huge boulder scour pool with multiple boulder scours and some bedrock scour. End day. GPS = SYA355 at end of unit. (34.31.331N; 119.41.465W)
SYA355	0356	82459	Unsurveyed reach between GPS points SYA355 and SYA356. This includes private property surrounding the dam and the reservoir up to where the Santa Ynez was flowing into the dry section of the reservoir.
SYA356	0357	100720	PAGE: Sheet units SYA356 through SYA365 = SYAP40. MB Channel Morphology = Pool-Riffle. Other notes: One small bedrock area on right bank 300ft into unit. Left bank eroding 1400ft up. Left bank eroding, some stabilzation efforts at 1684ft up, turns into bedrock just upstream for approximately 100ft (hillslope sediment source). Channel narrows 2070ft, increased flow to around 6 CFS. Very open at beginning moving into more narrow channel with overhanging trees. 2580 ft up, LWD and SWD pile across channel. GPS = SYA356
SYA357	0358	103745	GPS = SYA357
SYA358	0359	103794	GPS = SYA358. Mono Creek confluence in this unit (SYMONOCFL)
SYA359	0360	105519	GPS = SYA359
SYA360	0361	105548	GPS = SYA360
SYA362	0363	105706	Chub seen.
SYA365	0366	105964	Unit ends at GPS = SYA366 (34.30.904N; 119.37.974W)
SYA366	0367	105987	PAGE: Sheet units SYA366 through SYA375 = SYAP41. MB Channel Morphology = Braided Channel. At least 3-4 channels with interchanging main. All Red Legged juveniles are confirmed, adults not definite, tadpoles likely. Other notes: Dry channel, sand and gravel at start. SYA366A: Wooded, winding creek. SYA366B: Channel opens up, more gravel. SYA366D: More cobble substrate with gravel. Cottonwood and Willows common, Cattails intermittent. Distance tracked by GPS. GPS = SYA366A
SYA367	0368	109608	50 small Arroyo Chub, <1cm.
SYA369	0370	109760	More than 500 Arroyo Chub. Small to medium (2-3") 1 dead Stickleback.
SYA370	0371	109905	300+ Chub. Maybe Stickleback? 1 Oncorhynchus mykiss (3")
SYA371	0372	109961	Boulders start 100ft into the unit. Algae on the surface. 200+ Chub. 10 Stickleback. (15) 2-3" O. mykiss.
SYA372	0373	110539	(10) 2-3" O. mykiss. 200 Chub.
SYA373	0374	110596	Unit dries.
SYA374	0375	110677	Unit tracked by GPS.
SYA375	0376	111364	300 Chub and some Stickleback. (5) 2-3" O. mykiss. 2 possible Red Legged Frogs.
SYA376	0377	111662	PAGE: Sheet units SYA376 through SYA385 = SYAP42. MB Channel Morphology = Braided. Plane bed where surveyed with water flowing along right bank of channel. GPS = SYA376
SYA377	0378	111794	200+ Arroyo Chub and Stickleback.

SYA378	0379	112035	Chub and Stickleback.
SYA383	0384	112480	Juvenile Red Legged Frog. 100+ Chub. (3) 2-3", (1) 6" O. mykiss.
SYA385	0386	112846	2 Red Legged Frog juveniles. Short dry section in middle. O. mykiss: 2-3in: 3, 5in: 1.
SYA386	0387	112993	General Comment: PAGE: Sheet units SYA386 through SYA395 = SYAP43. MB Channel Morphology = Braided. Multiple channels, we followed water, plane bed where surveyed. SYA386 started on 8/20, rest of page surveyed on 8/21. Other notes: Modified distance from GPS track. 1 stagnant pool with Chub and Stickleback. GPS: 386A, B, C, and D 8/20, 386E, F, G, and H 8/21. Mix of cobble, small boulders, sand, and gravel. Multiple channels, 4+ with large Oak woodland between channel, width approximately .1 miles or more. Attempted to follow main channel while checking others for water. 3 very small drying pools with most likely Chub and lots of snails upstream of 386H and just downstream of run. GPS = SYA386
SYA387	0388	122162	Around 1000 Chub. Bottom covered in dead algae.
SYA388	0389	122468	100 Chub.
SYA389	0390	122600	~ 1000 Chub.
SYA391	0392	123124	1000's of Chub. Possible Red Legged Frog.
SYA392	0393	123307	300 Chub.
SYA394	0395	123489	1 dead Stickleback. 1000's of Chub.
SYA395	0396	123645	Cattails and Willows in channel.
SYA396	0397	123847	PAGE: Sheet units SYA396 through SYA405 = SYAP44. MB Channel Morphology = Braided channel. Plane bed where surveyed. Alders, Cottonwoods, and Willows common throughout. Other notes: In unit: CA Tree Frogs, 100+ Chub, 3 Sunfish. GPS = SYA396
SYA398	0399	124370	1000's of Chub, 3 dead Chub.
SYA399	0400	124847	Around 500 Chub. 1 dead Stickleback.
SYA402	0403	125172	100ft into unit, Cattails covering channel. GPS: SYA402A. 1000's of Chub.
SYA403	0404	125348	500+ Chub.
SYA404	0405	125420	Cattails covering large portion of channel.
SYA405	0406	125571	Cattails in channel.
SYA406	0407	125707	PAGE: Sheet units SYA406 through SYA415 = SYAP45. MB Channel Morphology = Braided. Channel starts to narrow at very end of page where water starts next page. Other notes: 1000+ Chub, Stickleback present. GPS = SYA406
SYA407	0408	126471	Possible Red Legged Frog adult. 10 Stickleback, 100+ Chub. Dry side channel on right bank.
SYA410	0411	126760	500 Chub. 3 Stickleback. 2 possible Red Legged Frog tadpoles.
SYA412	0413	127496	Cattails throughout channel. All water coming from Agua Caliente. We stopped where Agua Caliente was about to cross the road and found another large channel to follow (dry). GPS = SYAAGUACAL
SYA413	0414	127650	GPS: SYA413 to SYA414. Multiple channels. 3 checked and dry. Cobble/boulder with some gravel areas. GPS SYA413B: shallow, stagnant pool, 5 Chub, 2 Stickleback.
SYA414	0415	128288	Covered in algae, dead algae, 10 Stickleback, 200 Chub.
SYA415	0416	128457	GPS: SYA415 - SYA416. Dry, multiple channels, checked across for water and followed the largest channel. Channel dry on right bank along road, we surveyed along the left bank. SYA415F: Deep/dry bedrock scour pools.
SYA416	0417	134736	PAGE: Sheet units SYA416 through SYA425 = SYAP46. MB Channel Morphology = Plane Bed. Channel more confined, close to B type channel, still low gradient. Other notes: Chub and Stickleback (100's) in unit. GPS = SYA416
SYA417	0418	134868	Chub and Stickleback (100's). Tree down in unit, good shelter.
SYA418	0419	134953	Chub and Stickleback. Possible Red Legged tadpoles (5).
SYA419	0420	135023	1 dead Stickleback. Chubs and Stickleback.
SYA424	0425	135483	100+ Chub.
SYA426	0427	135627	PAGE: Sheet units SYA426 through SYA435 = SYAP47. MB Channel

			Morphology = Plane Bed. Channel widens again, back to unconfined. Other notes: Poor GPS accuracy: +/- 76ft. GPS = SYA426
SYA427	0428	135935	Chub and Stickleback.
SYA429	0430	136138	O. mykiss: 7in: 1, 8in: 1. 200+ Chub. 1 dead Stickleback. 5 possible Red Legged tadpoles.
SYA430	0431	136236	Some very short dry sections starting.
SYA433	0434	136427	Good coverage, LWD and undercut banks. 200+ Chub. Red Legged Frog juveniles.
SYA434	0435	136715	Tree down across unit.
SYA435	0436	136766	Possible Red Legged Frog tadpoles.
SYA436	0437	136858	PAGE: Sheet units SYA436 through SYA445 = SYAP48. MB Channel Morphology = Plane Bed. Channel is wide and dry for majority of distance (unit 444). GPS = SYA436
SYA439	0440	137436	Around 1000 Chub. Stickleback, snails. Short dry section.
SYA440	0441	137670	Good undercut bank shelter. 1000's of Chub and Stickleback.
SYA441	0442	137802	Covered in dead algae.
SYA443	0444	137872	Isolated pool, no flow. 100 Chub.
SYA444	0445	137889	Small, shallow, stagnant pool at SYA444C. 2 beaver dams, 1 upstream of SYA444G, 2nd at SYA444H.
SYA446	0447	146183	PAGE: Sheet units SYA446 through SYA455 = SYAP49. MB Channel Morphology = Plane Bed. Channel more enclosed with trees, much higher cover. Water stagnant. GPS = SYA446
SYA447	0448	146206	Chub and Stickleback.
SYA451	0452	146667	40 Stickleback.
SYA453	0454	146930	50 Chub.
SYA455	0456	147220	Left bank failure. Chub and Stickleback. 1 Sunfish.
SYA456	0457	147332	PAGE: Sheet units SYA456 through SYA465 = SYAP50. MB Channel Morphology = Plane Bed. Other notes: Chub and Stickleback in unit. GPS = SYA456
SYA458	0459	147509	1 dead Stickleback.
SYA459	0460	147566	Concrete Camuesa Road crossing. Has concrete and boulder apron separated from road, downstream plunge from road to water is 3ft, water depth = 0.1ft. Road length across channel = 115ft. Wetted width = 25ft. Width of road = 16ft. GPS = SYACAMRD1
SYA460	0461	147596	Pool dammed by the road. Concrete tail crest. Very long. GPS = SYATRIB4
SYA464	0465	148364	1 dead Stickleback.
SYA466	0467	148538	PAGE: Sheet units SYA466 through SYA475 = SYAP51. MB Channel Morphology = Braided Channel. Plane Bed at start. GPS = SYA466
SYA467	0468	148578	Pacific Tree Frog (3).
SYA468	0469	148645	Undercut left bank.
SYA469	0470	148746	Chub.
SYA471	0472	149039	Chub and Stickleback.
SYA475	0476	149413	Stopped at water @ SYA476. Becomes braided.
SYA476	0477	152109	PAGE: Sheet units SYA476 through SYA485 = SYAP52. MB Channel Morphology = Plane Bed. Braided at the start. Other notes: Fox Creek left bank, water coming from Fox Creek, surveyed where water was in Santa Ynez channel. Unit has water height gauge. 100 Chub and Stickleback. GPS: SYA476
SYA477	0478	152336	Fox Creek goes off to left bank, leaving channel dry. Alder Creek comes in on left bank with pipe, dry, GPS = SYAALCFLS
SYA478	0479	156421	Juncal Road crossing, downstream rock and concrete apron 40 total stream length. Road is 14ft wide and length of 102ft. GPS = SYAJUNCRD
SYA480	0481	158974	Rattlesnake at start, 200+ Sunfish.
SYA482	0483	159370	100 Sunfish.
SYA484	0485	159712	Stagnant water, Pacific Treefrog.
SYA485	0486	159831	End of survey. GPS = SYAEND (Lat: 34.29.626; Long: 119.30.831)

Oso Creek Comments

OSO CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
SYOSO001	0001	0	[PAGE: Sheet units SYOSO001 through SYOSO010 are SYOSOP01. MB Channel Morphology = Plane Bed with some sections resembling step pool morphology with no pools. Channel type estimated as B4 using Rosgen Classification.] GPS= SYATRB03
SYOSO002	0002	77	GPS= SYOSOBRDG01 at top of unit. Natural bottom bridge, 22ft * 15ft. Concrete supports on both banks.
SYOSO003	0003	265	Boulders and large cobble RB.
SYOSO004	0004	315	
SYOSO005	0005	498	
SYOSO006	0006	536	Erosion LB.
SYOSO007	0007	686	Erosion switches from LB to RB.
SYOSO008	0008	727	Had a slight grade.
SYOSO009	0009	886	Concrete erosion wall RB toward bottom of unit.
SYOSO010	0010	1400	
SYOSO011	0011	1435	[PAGE: Sheet units SYOSO011 through SYOSO020 are SYOSOP02. MB Channel Morphology = Plane Bed.] GPS= SYOSO011.
SYOSO012	0012	1493	
SYOSO013	0013	1520	Gravel bar with vegetation splits riffle at the bottom of unit.
SYOSO014	0014	1720	
SYOSO015	0015	1750	
SYOSO016	0016	1842	Bedrock LB with tree.
SYOSO017	0017	1875	
SYOSO018	0018	1997	Small riffle under bridge. Natural bottom bridge 35ft * 16ft. Concrete supports both banks. GPS= SYOSOBRDG02
SYOSO019	0019	2064	Bedrock RB.
SYOSO020	0020	2108	
SYOSO021	0021	2160	[PAGE: Sheet units SYOSO021 through SYOSO030 are SYOSOP03. MB Channel Morphology = Plane Bed.] Bedrock RB. GPS=SYOSO021
SYOSO022	0022	2468	Bedrock RB.
SYOSO023	0023	2501	Bedrock RB bottom of unit. Long riffle.
SYOSO024	0024	3344	GPS= SYOSO024
SYOSO025	0025	3617	GPS= SYOSO025
SYOSO026	0026	3650	
SYOSO027	0027	3675	
SYOSO028	0028	3710	Erosion RB.
SYOSO029	0029	3826	
SYOSO030	0030	3852	GPS= SYOSOTRIB01DRY
SYOSO031	0031	4252	[PAGE: Sheet units SYOSO031 through SYOSO040 are SYOSOP04. MB Channel Morphology = Plane Bed. Long riffles with slight grade.] GPS= SYOSO031
SYOSO032	0032	4276	Boulders present.
SYOSO033	0033	4427	
SYOSO034	0034	4455	Parts of riffle had step run characteristics. Trib LB. GPS= SYOSOTRIB02
SYOSO035	0035	4570	Bedrock RB at bottom of unit.
SYOSO036	0036	4604	
SYOSO037	0037	4654	
SYOSO038	0038	4698	Some boulder present.
SYOSO039	0039	4784	Bottom of riffle had plunge characteristics but no depth.
SYOSO040	0040	4806	
SYOSO041	0041	5522	[PAGE: Sheet units SYOSO041 through SYOSO050 are SYOSOP05.

OSO CREEK COMMENTS			
			Channel Morphology = Plane Bed with a pool.] GPS= SYOSO041
SYOSO042	0042	5538	AZ crossing 77ft from bottom of unit. 21ft long and 15ft wide. Mostly large and small cobble. Concrete road both banks. GPS= SYOSOAZ01
SYOSO043	0043	5698	
SYOSO044	0044	5727	Some erosion LB.
SYOSO045	0045	5988	Bedrock LB secured with concrete for erosion. Scour around boulder at bottom of pool.
SYOSO046	0046	6006	No depth.
SYOSO047	0047	6033	6.5ft plunge from road above to top of water. 2ft plunge from concrete wall to water. 60 ft long and 16ft wide. 8ft between concrete wall and road. Water does not go through metal pipes, it goes over the concrete road. GPS= SYOSOBRDG03
SYOSO048	0048	6057	Trib RB. GPS= SYOSOTRIB03DRY .
SYOSO049	0049	6118	Metal pipe RB and LB near top.
SYOSO050	0050	6423	
SYOSO051	0051	6488	[PAGE: Sheet units SYOSO051 through SYOSO060 are SYOSOP06. MB Channel Morphology = Plane Bed.] GPS= SYOSO051
SYOSO052	0052	6918	
SYOSO053	0053	6950	Erosion RB. Plastic drainage pipe RB.
SYOSO054	0054	7149	Arizona crossing. 32 ft long and 14 ft wide. Concrete bottom. GPS= SYOSOAZ02
SYOSO055	0055	7163	
SYOSO056	0056	7215	
SYOSO057	0057	7237	
SYOSO058	0058	7366	Metal piping in stream at bottom of unit.
SYOSO059	0059	7432	Large boulder LB. Barb wire RB near bottom of unit. Metal piping and SWD in middle of unit.
SYOSO060	0060	7563	
SYOSO061	0061	7581	[PAGE: Units SYOSO061 through SYOSO070 are SYOSOP07. MB Channel Morphology = Plane Bed.] GPS= SYOSO061
SYOSO062	0062	7626	
SYOSO063	0063	7691	Metal piping RB. Some good terrestrial vegetation coverage.
SYOSO064	0064	7948	Large boulder LB. Good coverage provided by terrestrial vegetation.
SYOSO065	0065	7976	
SYOSO066	0066	8009	Good coverage provided by terrestrial vegetation.
SYOSO067	0067	8033	Large boulder LB. Good coverage from terrestrial vegetation. Metal piping both banks.
SYOSO068	0068	8216	Large boulders LB.
SYOSO069	0069	8245	Metal piping RB.
SYOSO070	0070	8455	Bedrock RB.
SYOSO071	0071	8482	[PAGE: Units SYOSO071 through SYOSO080 are SYOSOP08. MB Channel Morphology switches from plane bed to pool-riffle. The pool-riffle for pages 8 through 15 have larger grain size and don't have great crest shape. Also, most of the pools are boulder self-formed or bedrock forced pools.] Boulders present. Bedrock RB. GPS= SYOSO071
SYOSO072	0072	8511	
SYOSO073	0073	8612	Erosion control LB.
SYOSO074	0074	8642	
SYOSO075	0075	8658	Concrete wall LB. Broken concrete fragments in water.
SYOSO076	0076	8811	Bedrock RB. Some bedrock LB.
SYOSO077	0077	8839	Huge boulder LB. Concrete wall with drainage LB. Erosion RB.
SYOSO078	0078	8959	Bedrock with bedrock ledge RB. Erosion LB.
SYOSO079	0079	8994	Bedrock both banks.

OSO CREEK COMMENTS			
SYOSO080	0080	9049	Transverse riffle at top of pool. Bedrock both banks.
SYOSO081	0081	9068	[PAGE: Sheet units SYOSO081 through SYOSO090 are SYOSOP09. MB Channel Morphology = Pool-Riffle.] Bedrock both banks. 5.4ft plunge. GPS= SYOSO081
SYOSO082	0082	9099	Bedrock both banks 80ft to bottom of unit. Then, bedrock sections switch back and forth from bank to bank. LWD and downed tree RB. Concrete pieces RB at bottom of unit.
SYOSO083	0083	9348	Bedrock RB.
SYOSO084	0084	9368	Bedrock scour RB. Bedrock entire RB.
SYOSO085	0085	9388	Bedrock RB at bottom of unit. Bedrock LB at top of unit.
SYOSO086	0086	9937	Bedrock scour LB.
SYOSO087	0087	9955	Run RB. Riffle LB. Unit split by gravel bar with large cobble and boulder.
SYOSO088	0088	10016	Bedrock switches to RB.
SYOSO089	0089	10036	Bedrock RB.
SYOSO090	0090	10068	Bedrock RB.
SYOSO091	0091	10098	[PAGE: Sheet units SYOSO091 through SYOSO100 are SYOSOP10. Pool-Riffle Channel Morphology.] GPS= SYOSO091
SYOSO092	0092	10369	
SYOSO093	0093	10407	
SYOSO094	0094	10497	Bedrock RB. Sections of bedrock sheet LB.
SYOSO095	0095	10569	
SYOSO096	0096	10769	
SYOSO097	0097	10821	Trib at top of unit RB. Bedrock LB at top of unit. GPS= SYOSOTRIB04
SYOSO098	0098	10904	5ft plunge. Bedrock both banks.
SYOSO099	0099	10927	
SYOSO100	0100	10942	Bedrock both banks. Small section 1c for crest.
SYOSO101	0101	10967	[PAGE: Sheet units SYOSO101 through SYOSO110 are SYOSOP11. Pool-Riffle Channel Morphology.] GPS= SYOSO101
SYOSO102	0102	11263	
SYOSO103	0103	11297	
SYOSO104	0104	11356	Transverse riffle at top of pool.
SYOSO105	0105	11374	
SYOSO106	0106	11428	Transverse riffle at top. 3ft plunge. Huge boulders both banks.
SYOSO107	0107	11462	
SYOSO108	0108	11488	Large boulders LB.
SYOSO109	0109	11498	Boulders enhance depth both banks.
SYOSO110	0110	11513	Boulders LB
SYOSO111	0111	11523	[PAGE: Sheet units SYOSO111 through SYOSO120 are SYOSOP12. Pool-Riffle Channel Morphology.] Boulders both banks. GPS= SYOSO111
SYOSO112	0112	11545	
SYOSO113	0113	11598	Bedrock both banks.
SYOSO114	0114	11625	Bedrock LB.
SYOSO115	0115	11654	Bedrock LB.
SYOSO116	0116	11697	Bedrock RB.
SYOSO117	0117	11820	Bedrock scour LB. Large cobble in crest.
SYOSO118	0118	11836	
SYOSO119	0119	11870	
SYOSO120	0120	11902	
SYOSO121	0121	12032	[PAGE: Sheet units SYOSO121 through SYOSO130 are SYOSOP13. Pool-Riffle Channel Morphology.] Scour LB. GPS= SYOSO121
SYOSO122	0122	12061	
SYOSO123	0123	12223	
SYOSO124	0124	12249	
SYOSO125	0125	12299	Bedrock both banks.

OSO CREEK COMMENTS			
SYOSO126	0126	12320	Bedrock RB.
SYOSO127	0127	12450	Bedrock LB.
SYOSO128	0128	12473	
SYOSO129	0129	12496	Transverse riffle at top of unit.
SYOSO130	0130	12532	Erosion RB. GPS= SYOSOTRIB05DRY
SYOSO131	0131	12556	[PAGE: Sheet units SYOSO131 through SYOSO140 = SYOSOP14. Pool-Riffle Channel Morphology.] GPS= SYOSO131
SYOSO132	0132	12789	
SYOSO133	0133	12804	
SYOSO134	0134	12954	
SYOSO135	0135	12968	Boulders present.
SYOSO136	0136	13014	Bedrock LB. Small cobble in crest.
SYOSO137	0137	13029	
SYOSO138	0138	13049	Large boulders in unit. Gravel bar with vegetation splits riffle. RB dry 20ft to top.
SYOSO139	0139	13214	
SYOSO140	0140	13258	Bedrock LB.
SYOSO141	0141	13277	[PAGE: Sheet units SYOSO141 through SYOSO150 = SYOSOP15. Pool-Riffle Channel Morphology.] Bedrock LB. Erosion LB. Boulders present throughout unit. GPS= SYOSO141
SYOSO142	0142	13333	
SYOSO143	0143	13357	Boulders present throughout unit.
SYOSO144	0144	13464	
SYOSO145	0145	13485	Bedrock LB.
SYOSO146	0146	13572	
SYOSO147	0147	13624	Some erosion LB. Some boulders present.
SYOSO148	0148	13683	
SYOSO149	0149	13716	
SYOSO150	0150	13778	Bedrock RB.
SYOSO151	0151	13805	[PAGE: Sheet units SYOSO151 through SYOSO160 are SYOSOP16. Pool-Riffle Channel Morphology.] GPS= SYOSO151
SYOSO152	0152	13902	Multiple boulders LB.
SYOSO153	0153	13922	Some bedrock at bottom of riffle. Large boulder splits riffle.
SYOSO154	0154	13990	Bedrock RB, Large boulder LB.
SYOSO155	0155	14012	Bottom of riffle plunge-like but with no depth.
SYOSO156	0156	14125	Bedrock entire RB. Bedrock in stream and a little LB.
SYOSO157	0157	14141	
SYOSO158	0158	14177	
SYOSO159	0159	14205	
SYOSO160	0160	14337	Good coverage by root mass LB and boulder RB. Not deep enough for a pool.
SYOSO161	0161	14355	[PAGE: Sheet units SYOSO161 through SYOSO170 are SYOSOP17. Pool-Riffle Channel Morphology.] Some bedrock LB. GPS= SYOSO161
SYOSO162	0162	14408	LB boulders.
SYOSO163	0163	14428	
SYOSO164	0164	14470	Some boulders present.
SYOSO165	0165	14530	
SYOSO166	0166	14557	Good coverage provided by root mass both banks. Some boulders present.
SYOSO167	0167	14636	Bedrock scour RB.
SYOSO168	0168	14685	
SYOSO169	0169	14792	Some bedrock in stream.
SYOSO170	0170	14825	Bedrock LB at bottom of riffle. Waterfall trib LB. GPS= SYOSOTRIB06
SYOSO171	0171	14929	[PAGE: Sheet units SYOSO171 through SYOSO180 are SYOSOP18. Pool-Riffle Channel Morphology.] Bedrock RB. Good terrestrial vegetation coverage. GPS= SYOSO171

OSO CREEK COMMENTS			
SYOSO172	0172	14953	Bedrock RB.
SYOSO173	0173	15027	Bedrock scour RB.
SYOSO174	0174	15066	
SYOSO175	0175	15080	
SYOSO176	0176	15097	Some boulders present.
SYOSO177	0177	15146	LWD LB at bottom of unit. Large boulder in middle of stream. Not deep enough to be considered a pool.
SYOSO178	0178	15168	Some boulders present. Plunge characteristics in riffle but not deep enough for a pool.
SYOSO179	0179	15364	Bedrock LB.
SYOSO180	0180	15390	Bedrock LB. Small boulder in riffle.
SYOSO181	0181	15403	[PAGE: Sheet units SYOSO181 through SYOSO190 are SYOSOP19. Pool-Riffle Channel Morphology.] Bedrock entire LB. GPS= SYOSO181
SYOSO182	0182	15440	Bedrock LB and stream bed.
SYOSO183	0183	15512	Bedrock LB. Erosion LB.
SYOSO184	0184	15546	Trib LB 30ft from bottom of riffle. Boulder dominate near trib. GPS= SYOSOTRIB07
SYOSO185	0185	15654	
SYOSO186	0186	15689	
SYOSO187	0187	15714	
SYOSO188	0188	15754	
SYOSO189	0189	15820	
SYOSO190	0190	15836	Small bedrock sheet.
SYOSO191	0191	15853	[PAGE: Sheet units SYOSO191 through SYOSO200 are SYOSOP20. Pool-Riffle Channel Morphology.] Bedrock both banks. Stream bottom is sand. GPS= SYOSO191
SYOSO192	0192	15880	Bedrock in bed at bottom of unit and a little RB.
SYOSO193	0193	15931	Bedrock LB. Boulder scour in middle of channel.
SYOSO194	0194	15965	
SYOSO195	0195	15987	Riffle LB. Bedrock RB and in middle of unit. Good SWD/terrestrial coverage over pool.
SYOSO196	0196	16005	
SYOSO197	0197	16038	Bedrock sections enhance riffle. Bedrock LB and some RB. GPS= SYOSOTRIB08 near top LB.
SYOSO198	0198	16156	Boulder scour LB.
SYOSO199	0199	16166	
SYOSO200	0200	16196	
SYOSO201	0201	16210	[PAGE: Sheet units SYOSO201 through SYOSO210 are SYOSOP21. Pool-Riffle Channel Morphology.] GPS= SYOSO201 GPS= SYOSOTRIB09 at top of unit.
SYOSO202	0202	16239	
SYOSO203	0203	16270	
SYOSO204	0204	16284	
SYOSO205	0205	16388	2 pools divided. RB bedrock scour pool and LB scour pool divided by a sheet of bedrock.
SYOSO206	0206	16427	Bedrock at bottom of unit enhances riffle.
SYOSO207	0207	16458	Bedrock RB.
SYOSO208	0208	16482	Erosion RB. Boulders present.
SYOSO209	0209	16583	
SYOSO210	0210	16633	
SYOSO211	0211	16658	[PAGE: Sheet units SYOSO211 through SYOSO220 are SYOSOP22. Pool-Riffle with cascade section.] GPS= SYOSO211
SYOSO212	0212	16682	Bedrock RB
SYOSO213	0213	16701	Island with large boulder splits riffle. Bedrock in riffle.
SYOSO214	0214	16787	

OSO CREEK COMMENTS			
SYOSO215	0215	16802	
SYOSO216	0216	16820	
SYOSO217	0217	16838	Large boulder scour at bottom of cascade.
SYOSO218	0218	16853	Cascade. Bedrock both banks with small pools throughout.
SYOSO219	0219	16915	
SYOSO220	0220	16928	
SYOSO221	0221	16967	[PAGE: Sheet units SYOSO221 through SYOSO227 are SYOSOP23. Pool-Riffle Channel Morphology.] GPS= SYOSO221
SYOSO222	0222	17053	GPS= SYOSOTRIB10 Trib LB.
SYOSO223	0223	17072	Bedrock both banks.
SYOSO224	0224	17157	
SYOSO225	0225	17173	
SYOSO226	0226	17268	
SYOSO227	0227	17303	Unit impassable. Top plunge 7ft. Pool depth 4ft. Multiple plunges in between but not passable. Bottom plunge 15ft. Length of unit estimated using GPS. GPS= SYOSO227
SYOSO228	0228	17524	[PAGE: Sheet units SYOSO228 through SYOSO237 are SYOSOP24. Cascade section then Pool-Riffle with Step Pool section.] GPS= SYOSO228
SYOSO229	0229	17569	Bedrock both banks. Scour RB.
SYOSO230	0230	17589	Boulders and bedrock in steps.
SYOSO231	0231	17646	GPS= SYOSOSPLIT RB at top of unit.
SYOSO232	0232	17738	Erosion LB. Bedrock mixed in both banks.
SYOSO233	0233	17785	Bedrock RB. GPS= SYOSOTRAIL crosses middle of unit.
SYOSO234	0234	17879	Bedrock entire RB.
SYOSO235	0235	17893	Bedrock RB, some mixed in LB.
SYOSO236	0236	17923	Bedrock RB.
SYOSO237	0237	17936	Plunge 3ft. Great coverage. Bedrock both banks.
SYOSO238	0238	17953	[PAGE: Sheet units SYOSO238 through SYOSO247 are SYOSOP25. Pool Riffle Channel Morphology.] GPS= SYOSO238
SYOSO239	0239	17977	Riffle at top of unit. Scour around boulder under water. Great coverage.
SYOSO240	0240	17993	
SYOSO241	0241	18018	Erosion RB. Sandy crest.
SYOSO242	0242	18035	Riffle split by huge bedrock boulder with gravel bar behind it downstream. Smaller bedrock boulder at top of unit. Bedrock both banks.
SYOSO243	0243	18118	Plunge 2.4 ft. Fallen tree at top of unit. Great coverage provided by boulders, SWD, and bedrock ledges.
SYOSO244	0244	18142	
SYOSO245	0245	18153	Bedrock LB
SYOSO246	0246	18169	
SYOSO247	0247	18210	Plunge 2.5ft.
SYOSO248	0248	18221	[PAGE: Sheet units SYOSO248 through SYOSO257 are SYOSOP26. Step Pool Channel Morphology.] GPS= SYOSO248
SYOSO249	0249	18285	Erosion RB.
SYOSO250	0250	18310	
SYOSO251	0251	18352	
SYOSO252	0252	18404	
SYOSO253	0253	18432	Bedrock RB. Good coverage provided by SWD and terrestrial vegetation LB.
SYOSO254	0254	18463	Length of unit estimated using GPS. GPS= SYOSO254
SYOSO255	0255	18517	Bedrock LB. Erosion LB. Length of unit estimated using GPS. GPS= SYOSO255
SYOSO256	0256	18549	2 ft plunge. Bedrock. GPS= SYOSO256
SYOSO257	0257	18565	Sand and gravel in between steps. Steps composed of bedrock and large cobble.

OSO CREEK COMMENTS			
SYOSO258	0258	18611	[PAGE: Sheet units SYOSO258 through SYOSO267 are SYOSOP27. Step Pool Channel Morphology. Steep, nearly impassable units throughout page. Erosion both banks.] 7ft plunge. GPS= SYOSO258
SYOSO259	0259	18647	
SYOSO260	0260	18667	7.5 – 8ft plunge. Bedrock both banks. GPS= SYOSO260
SYOSO261	0261	18686	Bedrock both banks. GPS= SYOSO261
SYOSO262	0262	18718	Good coverage provided by SWD, boulder, and terrestrial vegetation. GPS= SYOSO262
SYOSO263	0263	18800	GPS= SYOSO263
SYOSO264	0264	18860	Bedrock plunge. 3.5ft plunge. GPS= SYOSO264
SYOSO265	0265	18887	Good coverage provided by bedrock, SWD, root wad, and bubble curtain. GPS= SYOSO265
SYOSO266	0266	18927	Bedrock ledges present. GPS= SYOSO266
SYOSO267	0267	18952	SWD at bottom before 10ft plunge. Good coverage. Sand/gravel in run. GPS= SYOSO267
SYOSO268	0268	19013	[PAGE: Sheet units SYOSO268 through SYOSO277 are SYOSOP28. Step Pool Channel Morphology.] GPS= SYOSO268
SYOSO269	0269	19023	GPS= SYOSO269
SYOSO270	0270	19043	
SYOSO271	0271	19075	Large cobble at top of unit. Good coverage.
SYOSO272	0272	19229	
SYOSO273	0273	19244	
SYOSO274	0274	19281	Metal Fencing LB, riffle-like in between steps.
SYOSO275	0275	19377	
SYOSO276	0276	19417	Steps composed of bedrock and large cobble. Good coverage.
SYOSO277	0277	19450	
SYOSO278	0278	19465	[PAGE: Sheet units SYOSO278 through SYOSO286 are SYOSOP29. Step Pool Channel Morphology. Erosion entire page.] Plunge 10ft. Very small pocket of 2C in crest. Good coverage provided by bubble curtain and bedrock. GPS= SYOSO278
SYOSO279	0279	19479	Plunge 4ft.
SYOSO279.1	0279.1	19495	GPS= SYOSO279.1
SYOSO280	0280	19495	Sand/small cobble in run. Step composed of large cobble, bedrock, and boulder.
SYOSO281	0281	19527	Top of riffle looks like plunge but with no depth.
SYOSO282	0282	19560	Plunge 3.5 ft. Sandy crest. Bedrock both banks. Bedrock plunge.
SYOSO283	0283	19574	
SYOSO284	0284	19592	Bedrock both banks.
SYOSO285	0285	19620	Good SWD coverage bank to bank.
SYOSO286	0286	19657	Plunge 2ft. Bedrock provides coverage.
SYOSO287	0287	19674	[PAGE: SYOSO287 through SYOSO296 are SYOSOP30. Step Pool Channel Morphology with no pools. Some hill slope/ some bank erosion.] Bedrock LB. GPS= SYOSO287
SYOSO288	0288	19725	Coverage provided by SWD and terrestrial vegetation.
SYOSO289	0289	19773	
SYOSO290	0290	19879	Bedrock both banks. Sand and gravel in runs. Some boulders present.
SYOSO291	0291	19941	
SYOSO292	0292	19963	
SYOSO293	0293	20021	
SYOSO294	0294	20051	Top of unit has bedrock sheet characteristics. Bedrock most of RB, some LB and bottom.
SYOSO295	0295	20112	Good coverage.
SYOSO296	0296	20163	Some pockets of good gravel and small cobble.
SYOSO297	0297	20299	[PAGE: Sheet units SYOSO297 through SYOSO306 are SYOSOP31. Step Pool Channel Morphology that moves into a Pool Riffle. Some hill

OSO CREEK COMMENTS			
			slope/ some bank erosion.] GPS= SYOSO297
SYOSO298	0298	20313	Island splits unit at bottom.
SYOSO299	0299	20404	Plunge 3.4ft.
SYOSO300	0300	20418	
SYOSO301	0301	20467	
SYOSO302	0302	20484	Bedrock RB.
SYOSO303	0303	20498	
SYOSO304	0304	20511	
SYOSO305	0305	20535	
SYOSO306	0306	20573	
SYOSO307	0307	20610	[PAGE: Sheet units SYOSO307 through SYOSO316 are SYOSOP32. Pool-Riffle Channel Morphology.] GPS= SYOSO307
SYOSO308	0308	20625	2.7ft plunge.
SYOSO309	0309	20665	
SYOSO310	0310	20678	
SYOSO311	0311	20731	2.6ft plunge. Bedrock LB.
SYOSO312	0312	20745	
SYOSO313	0313	20833	
SYOSO314	0314	20849	
SYOSO315	0315	20867	
SYOSO316	0316	20879	
SYOSO317	0317	20909	[PAGE: Sheet units SYOSO317 through SYOSO326 are SYOSOP33. Pool-Riffle Channel Morphology.] Boulder fully submerged underwater. GPS= SYOSO317
SYOSO318	0318	20918	
SYOSO319	0319	20950	Boulder fully submerged.
SYOSO320	0320	20966	
SYOSO321	0321	20990	
SYOSO322	0322	21010	Gravel bar splits riffle.
SYOSO323	0323	21188	
SYOSO324	0324	21200	
SYOSO325	0325	21225	
SYOSO326	0326	21235	Good root coverage RB at top of unit.
SYOSO327	0327	21300	[PAGE: Sheet units SYOSO327 through SYOSO336 are SYOSOP34. Pool-Riffle Channel Morphology.] Scour around submerged boulder. GPS= SYOSO327
SYOSO328	0328	21316	Good coverage provided by terrestrial vegetation and SWD.
SYOSO329	0329	21379	
SYOSO330	0330	21404	
SYOSO331	0331	21492	Erosion LB.
SYOSO332	0332	21513	Metal pipe RB.
SYOSO333	0333	21669	Transverse riffle at top of unit.
SYOSO334	0334	21681	Sandy crest.
SYOSO335	0335	21704	Erosion LB.
SYOSO336	0336	21729	
SYOSO337	0337	21743	[PAGE: Sheet units SYOSO337 through SYOSO346 are SYOSOP35. Pool-Riffle Channel Morphology.] GPS= SYOSO337
SYOSO338	0338	21823	
SYOSO339	0339	21838	Boulders at bottom of pool. Erosion LB.
SYOSO340	0340	21861	Run with lots of aquatic vegetation. Bedrock LB.
SYOSO341	0341	21934	Erosion RB. Root wads partially in stream.
SYOSO342	0342	21956	Bedrock RB.
SYOSO343	0343	21986	Eroded RB with root wad above water and also partially in water.
SYOSO344	0344	22003	
SYOSO345	0345	22012	Bedrock RB.

OSO CREEK COMMENTS			
SYOSO346	0346	22036	Bedrock RB and partially LB. End of unit at GPS= SYOSO347

Mono Creek Comments

MONO CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comment
MONO001	0001	0	PAGE: Sheet units MONO001 through MONO010 are MONOP01. MB Channel Morphology = Pool Riffle. Cottonwoods and Willows are common throughout. Other Notes: Unit starts at confluence with Santa Ynez River. Mono Creek enters the Santa Ynez River via the right bank. GPS = SYMONOCFL
MONO005	0005	820	Slightly deeper spot along left bank.
MONO006	0006	956	Creek split due to gravel island.
MONO011	0011	1546	PAGE: Sheet units MONO011 through MONO020 are MONOP02. MB Channel Morphology = Pool Riffle. Cottonwoods and Willows are common throughout. GPS = MONO011
MONO012	0012	1595	Gravel island splits creek.
MONO015	0015	1804	Wide left bank, sand and gravel present.
MONO016	0016	2029	Gravel island splits creek.
MONO018	0018	2238	Large sand island (around 40ft long) dividing 2 creek channels.
MONO021	0021	2627	PAGE: Sheet Units MONO021 through MONO030 are MONOP03. MB Channel Morphology = Pool Riffle. GPS = MONO021
MONO025	0025	3555	Willows and Cottonwoods continue on both banks.
MONO029	0029	4113	Eroding right bank.
MONO030	0030	4150	End day.
MONO031	0031	4198	PAGE: Sheet units MONO031 through MONO036 are MONOP04. MB Channel Morphology = Pool Riffle. Other Notes: Bedrock on right bank. GPS = MONO031
MONO032	0032	4240	Cottonwoods on both banks throughout.
MONO032.1	0032.01	4495	Island dividing stream into two channels, left channel = side channel.
MONO032.2	0032.02	4495	Willows along left bank.
MONO032.4	0032.04	4495	Side channel merges back with main channel. (Even split of two channels)
MONO033	0033	4495	Right bank slightly deeper. Starting to see small boulders.
MONO036	0036	4940	Left bank erosion. Lots of tadpoles (Bullfrog).
MONO037	0037	4982	PAGE: Sheet units MONO037 through MONO046 are MONOP05. MB Channel Morphology = Pool Riffle. GPS = MONO037
MONO038	0038	5014	Bedrock right bank. Nice undercut bank coverage.
MONO039	0039	5056	Lots of tadpoles present. Arroyo Chub seen.
MONO040	0040	5256	Arroyo Chub.
MONO041	0041	5322	Big root wad with good depth and coverage.
MONO046	0046	5541	5 ft deep plunge pool below Mono Debris Dam. The height of the dam from the top of the spillway to the plunge pool surface is approximately 20ft. The dam has an approximate width of 148 ft and length of 4ft. Concrete walls with sand on both banks away from the dam. See pics. GPS = MONODAM
MONO047	0047	5563	PAGE: Sheet units MONO047 through MONO050 are MONOP06. MB Channel Morphology for both P06 and P07 = Plane Bed with riffles. Substrate composition is more cobble dominated than gravel. Other Notes: Dammed pool is at top of Mono Dam with concrete as pool tail substrate. GPS = MONO047
MONO048	0048	5638	Left bank bedrock.
MONO049	0049	5698	Large tree down in unit.
MONO050	0050	6014	End of day.

MONO CREEK COMMENTS			
MONO051	0051	6373	PAGE: Sheet units MONO051 through MONO060 are MONOP07. MB Channel Morphology = Plane Bed with riffles. Substrate Composition is more cobble dominated than gravel. Other Notes: Cottonwoods and Willows throughout. GPS = MONO051
MONO052	0052	6582	Cottonwoods and Willows both sides.
MONO055	0055	6896	Unit has transverse riffle with small, shallow (less than 2ft deep) backwater pool
MONO056	0056	7027	Indian Creek dry channel right bank (GPS = MONOTRIB) followed by actual wetted Indian Creek confluence with Mono Creek via right bank (GPS = MONOINDCON). Transverse riffle located in between Indian Creek dry channel and Indian Creek confluence. GPS = MONOINDCON
MONO058	0058	7438	Small side channel that dries up on left bank.
MONO061	0061	7791	PAGE: Sheet units MONO061 through MONO070 are MONOP08. MB Channel Morphology = Plane Bed. GPS = MONO061
MONO062	0062	8119	Small transverse riffle approximately 100ft up.
MONO063	0063	8505	Cottonwoods and Willows continue.
MONO064	0064	8689	Arizona Crossing at Camuesa Road. The concrete road crossing has water going across top along right side. Width is 164ft, downstream height is 3ft, wetted width is 56ft, and length is 34ft. GPS = MONOCAMRD
MONO065	0065	8689	Willow dominant on both sides.
MONO068	0068	8723	Bedrock right bank, some water bugs present.
MONO071	0071	9657	PAGE: Sheet Units MONO071 through MONO080 are MONOP09. MB Channel Morphology = Plane Bed. Other Notes: Transverse riffle 30ft up in unit. GPS = MONO071
MONO073	0073	9999	Transverse riffle at 106ft, backwater (shallow).
MONO074	0074	10300	Cottonwoods continue.
MONO080	0080	10947	End of day.
MONO081	0081	11091	PAGE: Sheet units MONO081 through MONO090 are MONOP10. MB Channel Morphology = Plane Bed. GPS = MONO081
MONO084	0084	11429	Willows right bank, Cattails start.
MONO085	0085	11671	Cattails all in creek.
MONO086	0086	11749	Bedrock exposed on left bank.
MONO091	0091	12277	PAGE: Sheet units MONO091 through MONO101 are MONOP11 and MONOP11A. MB Channel Morphology = Plane Bed, becoming more steep with increasing large cobble and boulders. GPS = MONO091
MONO093	0093	12432	Side channel left bank.
MONO93.1	0093.01	12456	Side Channel. GPS = MONO093.1
MONO93.3	0093.03	12456	Covered in ice.
MONO93.5	0093.05	12456	Covered in ice.
MONO097	0097	12867	Side channel 93 reconnects with main.
MONO099	0099	13212	Bedrock right bank. Transverse riffle into pool.
MONO102	0102	13690	PAGE: Sheet units MONO102 through MONO111 are MONOP12. MB Channel Morphology = Plane Bed, becoming steeper with more boulders. GPS = MONO102
MONO105	0105	14289	Channel narrowing.
MONO108	0108	14572	Bedrock right bank starts.
MONO109	0109	14656	Blackfly larvae.
MONO110	0110	14702	Bedrock right bank ends.
MONO111	0111	14753	Dried side channel left bank.
MONO112	0112	14862	PAGE: Sheet units MONO112 through MONO120.1 are MONOP13. MB Channel Morphology = Plane Bed, moving into higher gradient toward Step Pool. Getting steeper with narrower channel.

MONO CREEK COMMENTS			
			GPS = MONO112
MONO117	0117	15303	Bedrock left bank.
MONO118	0118	15426	Cattails right bank. Bedrock left bank.
MONO120	0120	15590	Side channel right bank.
MONO120.1	0120.01	15661	GPS = MONO120.1
MONO120.2	0120.02	15661	PAGE: Sheet units MONO120.2 through MONO120.4 are MONOP13A.
MONO121	0121	15661	PAGE: Sheet units MONO121 through MONO130 are MONOP14. MB Channel Morphology = Plane Bed, moving toward Step Pool type stream. GPS = MONO121
MONO124	0124	16048	Bedrock all of left bank.
MONO125	0125	16435	Bedrock left bank.
MONO126	0126	16535	Bedrock left bank.
MONO127	0127	16641	Bedrock left bank.
MONO128	0128	16701	Bedrock left bank.
MONO129	0129	16746	Bedrock left bank.
MONO131	0131	16897	PAGE: Sheet units MONO131 through MONO140 are MONOP15. MB Channel Morphology = Plane Bed, moving into higher gradient Step Pool channel type. GPS = MONO131
MONO137	0137	17723	Bedrock hillside on left bank.
MONO138	0138	17822	Aquatic vegetation and willow root cover.
MONO139	0139	18009	Bedrock left bank.
MONO141	0141	18208	PAGE: Sheet units MONO141 through MONO150 are MONOP16. MB Channel Morphology = Plane Bed, moving into Step Pool channel type. GPS = MONO141
MONO144	0144	18461	Bedrock right bank.
MONO145	0145	18541	Willows dominant on banks.
MONO146	0146	18571	Small riffle at 211ft.
MONO147	0147	18898	Banks getting higher and steeper.
MONO151	0151	19028	PAGE: Sheet units MONO151 through MONO160 are MONOP17. MB Channel Morphology = Plane Bed, with some step pool areas. GPS = MONO151
MONO152	0152	19053	Cattails
MONO153	0153	19147	Nice undercut bedrock coverage. 2 bedrock pools with shallow section in between (3ft).
MONO154	0154	19223	Dried boulder side channel right bank.
MONO155	0155	19298	Hillslope source left bank.
MONO156	0156	19406	Bedrock left bank.
MONO157	0157	19444	Small cascade in part of unit.
MONO161	0161	19743	PAGE: Sheet units MONO161 through MONO170 are MONOP18. MB Channel Morphology = Plane Bed, moving into more boulder dominated step pool like habitat. GPS = MONO161
MONO162	0162	19771	Good undercut banks with overhanging willow roots. Cattails start at 60ft. Long deep section left bank.
MONO163	0163	19873	Bedrock right bank.
MONO164	0164	20092	Cattails.
MONO165	0165	20153	Water Boatmen throughout.
MONO170	0170	20455	Cattails. End of day.
MONO171	0171	20551	PAGE: Sheet units MONO171 through MONO180 are MONOP19. MB Channel Morphology = Plane Bed. Algae common throughout. Other Notes: Willows and Fremont Cottonwoods present. GPS = MONO171
MONO173	0173	20641	Pool all along bedrock left bank. Willows right bank.
MONO174	0174	20702	Water Boatmen common.
MONO177	0177	20877	Blackfly larvae 500+.

MONO CREEK COMMENTS			
MONO178	0178	20947	Low gradient step run, small steps.
MONO179	0179	21078	Blackfly larvae 500+.
MONO180	0180	21205	Bedrock right bank.
MONO181	0181	21268	PAGE: Sheet units MONO181 through MONO190 are MONOP20. MB Channel Morphology = Plane Bed. Algae and Mulefat common throughout. Other Notes: low gradient step run with very small steps.
MONO182	0182	21407	Water Boatmen still common.
MONO184	0184	21525	Slightly higher gradient.
MONO185	0185	21640	GPS = MONO185
MONO188	0188	22161	Transverse riffle going into pool.
MONO189	0189	22201	Low gradient step run.
MONO190	0190	22316	Side channel comes in at start of unit from left bank. It is dry with some small, stagnant pools. GPS = MONO190. Bobcat prints observed.
MONO191	0191	22456	PAGE: Sheet units MONO191 through MONO200 are MONOP21. MB Channel Morphology = Plane Bed. Blackfly larvae in riffle sections. Other Notes: Left bank eroding. GPS = MONO191
MONO192	0192	22520	SWD, small fallen tree, left bank eroding.
MONO193	0193	22710	Right bank eroding.
MONO196	0196	23211	GPS = MONO196
MONO197	0197	23353	Mulefat and Willows along edges.
MONO198	0198	23394	Bank failure all along right bank.
MONO199	0199	23574	Undercut right bank with overhanging roots.
MONO200	0200	23646	Transverse riffle 48ft up.
MONO201	0201	23733	PAGE: Sheet units MONO201 through MONO210 are MONOP22. MB Channel Morphology = Plane Bed. Other Notes: Cattails and Willows right bank. GPS = MONO201
MONO202	0202	23761	Bedrock starts at end of unit on left bank.
MONO203	0203	23813	Good undercut coverage left bank.
MONO205	0205	23985	GPS = MONO205
MONO207	0207	24180	MONOTRIB2 enters into dry side channel on right bank, trib is dry. GPS = MONOTRIB2
MONO209	0209	24360	Bedrock right bank.
MONO211	0211	24576	PAGE: Sheet units MONO211 through MONO222 are MONOP23 and MONOP24. Channel Morphology for MONOP23 and P24 = Plane Bed. GPS = MONO211
MONO212	0212	24614	Transverse riffle 58ft up.
MONO213.1	0213.01	24879	Side channel right bank. GPS = MONO213.1
MONO213.4	0213.04	24879	Small island with flowing water both sides.
MONO213.6	0213.06	24879	Cattails.
MONO213.8	0213.08	24879	GPS = MONO213.8 (taken mid unit).
MONO215	0215	24900	Dry side channel left bank.
MONO220	0220	25420	Side channel 213 re-enters stream on left bank.
MONO223	0223	25594	PAGE: Sheet units MONO223 through MONO232 are MONOP25. MB Channel Morphology = Plane Bed, with some step pool like areas. GPS = MONO223
MONO224	0224	25655	Island with both sides flowing through thick Cattails.
MONO225	0225	25745	Bedrock right bank eroding, Cattails left bank.
MONO226	0226	25886	Large bedrock wall right bank, deep pool starts on left bank and then narrows to bedrock bottom at end of pool. Hillslope (bedrock wall) source of sediment.
MONO228	0228	26127	Right bank bedrock continued.
MONO229	0229	26203	Right bank bedrock continues. Blackfly larvae present.
MONO230	0230	26241	Right bank bedrock.
MONO231	0231	26290	Side channel (dry). GPS = MONO231

MONO CREEK COMMENTS			
MONO233	0233	26433	PAGE: Sheet units MONO233 through MONO242 are MONOP26. MB Channel Morphology = Plane Bed, with some step pool like areas. Other Notes: Willows present. GPS = MONO233
MONO236	0236	26677	Bedrock left bank starts 88ft into unit.
MONO241	0241	27085	Bedrock left bank, small side channel creates small island.
MONO243	0243	27320	PAGE: Sheet units MONO243 through MONO252 are MONOP27. MB Channel Morphology = Plane Bed, with step pool like areas. Blackfly larvae throughout riffles. GPS = MONO243
MONO247	0247	27816	Pie Canyon Road crossing, natural bottom, no barrier. GPS = MONOPIECYN
MONO252	0252	28240	Right bank eroding, bank failure. End day.
MONO253	0253	28267	PAGE: Sheet units MONO253 through MONO262 are MONOP28. MB Channel Morphology = Plane Bed, with step pool like areas. Blackfly larvae continue in riffles. GPS = MONO253
MONO254	0254	28297	Bedrock right bank.
MONO259	0259	28922	Silt over large cobble.
MONO260	0260	29061	Road crossing, natural bottom, no barrier. GPS = MONORANCHRD1
MONO261	0261	29343	Left bank bedrock, sediment source from bedrock slope.
MONO262	0262	29443	Bedrock continues left bank.
MONO263	0263	29544	PAGE: Sheet units MONO263 through MONO272 are MONOP29. MB Channel Morphology = Plane Bed, moving toward step pool with areas of higher gradient and channel is becoming more confined. Much less tree cover on sides, mostly low shrubs. GPS = MONO263
MONO264	0264	29572	Left bank trib 56 ft into unit. GPS = MONOTRIB3
MONO266	0266	30010	Bedrock right bank.
MONO270	0270	30375	GPS = MONO270
MONO273	0273	30816	PAGE: Sheet units MONO273 through MONO282 are MONOP30. MB Channel Morphology = Plane Bed, moving into step pool. Some step pool like areas, increased step runs, becoming more confined. GPS = MONO273
MONO276	0276	31232	Bedrock left bank.
MONO278	0278	31392	Bedrock left bank.
MONO279	0279	31440	Bedrock left bank. Transverse riffle right bank into end of unit. Dry side channel at end of unit, rejoins approximately 30ft up.
MONO280	0280	31562	Small cascade at end.
MONO283	0283	31863	PAGE: Sheet units MONO283 through MONO292 are MONOP31. MB Channel Morphology = Plane Bed, with step pool areas. Other Notes: Cattails and Willows both banks. GPS = MONO283
MONO286	0286	32130	Willows and Cattails continue.
MONO287	0287	32202	Gravel embedded in loose sand, boulders covered in silt.
MONO289	0289	32351	Everything covered in layer of silt.
MONO292	0292	32588	Bank failure left bank.
MONO293	0293	32617	PAGE: Sheet units MONO293 through MONO302 are MONOP32. MB Channel Morphology = Plane Bed, with step pool like areas, step runs, and high-gradient riffle. Other Notes: Bedrock left bank, tree down 50ft in unit from bank failure. GPS = MONO293
MONO294	0294	32679	Cattails both banks.
MONO298	0298	32915	Transverse riffle comes in along right bank, bedrock left bank.
MONO299	0299	32940	2 channels with small island.
MONO301	0301	33067	Silt covering everything, bedrock left bank starts 140ft up.
MONO303	0303	33402	PAGE: Sheet units MONO303 through MONO312 are MONOP33. MB Channel Morphology = Plane Bed, moving into Step Pool. GPS = MONO303
MONO306	0306	33583	Bedrock all along bottom, in almost a step run configuration.
MONO312	0312	34002	Silt common around boulders and throughout section.

MONO CREEK COMMENTS			
MONO313	0313	34148	PAGE: Sheet units MONO313 through MONO322 are MONOP34. MB Channel Morphology = Plane Bed, with very step pool like sections especially at the end of page. Blackfly larvae in all riffles. Dead algae over all rocks. GPS = MONO313
MONO319	0319	34574	Large green algae mats.
MONO320	0320	34608	Algae throughout.
MONO321	0321	34667	Bedrock left bank.
MONO322	0322	34699	Bedrock continued left bank.
MONO323	0323	34729	PAGE: Sheet units MONO323 through MONO332 are MONOP35. MB Channel Morphology = Plane Bed, with step pool areas. GPS = MONO323
MONO324	0324	34767	Road crossing, natural bottom, stream level, no barrier. GPS = MONORANCHRD2
MONO327	0327	34987	Bedrock right bank.
MONO331	0331	35213	Large bank failure 430ft into unit with overhanging tree.
MONO333	0333	35844	PAGE: Sheet units MONO333 through MONO342 are MONOP36. MB Channel Morphology = Plane Bed, with higher gradient moving toward Step Pool. Channel is moderately confined near end of reach. GPS = MONO333
MONO336	0336	35913	Island, right side more of a run.
MONO342	0342	36373	Cattails in channel.
MONO343	0343	36444	PAGE: Sheet units MONO343 through MONO352 are MONOP37. MB Channel Morphology = Plane Bed, with step pool areas. Other Notes: Bedrock right bank, gravel covered in silt. GPS = MONO343
MONO345	0345	36546	Evidence of fire on bank at trail crossing.
MONO346	0346	36786	Left bank erosion.
MONO347	0347	36836	Bedrock left bank.
MONO348	0348	36894	Riffles coming at unit not large enough to be habitat unit.
MONO351	0351	37347	Transverse riffle 88ft up, Willows both banks.
MONO352	0352	37717	End day.
MONO353	0353	37787	PAGE: Sheet units MONO353 through MONO362 are MONOP38. MB Channel Morphology = Step-Pool, with some Plane Bed characteristics. Other Notes: Willows both banks. GPS = MONO353
MONO354	0354	37895	Lots of algae and willow roots in channel.
MONO355	0355	38064	Transverse riffle between two channels divided by very narrow island 88ft into unit.
MONO357	0357	38268	Mulefat both banks.
MONO359	0359	38362	Surface algae and branch down in unit. Eroding right bank.
MONO360	0360	38385	Bedrock in channel 106ft into unit.
MONO363	0363	38674	PAGE: Sheet units MONO363 through MONO372 are MONOP39. MB Channel Morphology = Step Pool. GPS = MONO363
MONO366	0366	38765	Multiple boulder scour pools in a row.
MONO373	0373	39183	PAGE: Sheet units MONO373 through MONO382 are MONOP40. MB Channel Morphology = Step-Pool. GPS = MONO373
MONO375	0375	39320	2 boulder scour pools.
MONO378	0378	39492	Bedrock left bank.
MONO380	0380	39667	Gravel hard to move, cemented.
MONO382	0382	39808	Step-pool like, very large boulders. Cascade into pool, small (2ft).
MONO383	0383	39833	PAGE: Sheet units MONO383 through MONO392 are MONOP41. MB Channel Morphology = Step-Pool. This page is almost all step-pool, but instead of clearly defined steps there are riffles separating pools. Mulefat common on banks, mostly short brush. Other Notes: Very large boulders in unit. GPS = MONO383
MONO393	0393	40165	PAGE: Sheet units MONO393 through MONO402 are MONOP42. MB Channel Morphology = Step-Pool. Mulefat dominant on banks,

MONO CREEK COMMENTS			
			some Sycamores. GPS = MONO393
MONO403	0403	40986	PAGE: Sheet units MONO403 through MONO412 are MONOP43. MB Channel Morphology = Step-Pool. GPS = MONO403
MONO406	0406	41097	Willows dominant right bank.
MONO407	0407	41181	Cattails in channel 35ft into unit.
MONO408	0408	41309	1.8ft plunge. Bedrock right bank. Algae common throughout next several units.
MONO409	0409	41324	Bedrock right bank.
MONO410	0410	41363	Cattails left bank with Mulefat. Bedrock right bank.
MONO413	0413	41731	PAGE: Sheet units MONO413 through MONO422 are MONOP44. MB Channel Morphology = Step-Pool. GPS = MONO413
MONO417	0417	42087	Left bank eroding.
MONO418	0418	42141	Cattails right bank, left bank erosion ending. 2 boulder scour pools with long, deep section in between.
MONO421	0421	42330	Trib left bank. GPS = MONOTRIB4
MONO423	0423	42576	PAGE: Sheet units MONO423 through MONO431 are MONOP45. MB Channel Morphology = Step-Pool. Other Notes: Cattails in channel at start of unit. GPS = MONO423
MONO426	0426	42855	Cattails along bank, some bedrock left bank.
MONO427	0427	42944	Bedrock left bank. Tree down in unit.
MONO429	0429	43059	Bedrock left bank and in channel.
MONO431	0431	43152	Side channel at start.
MONO431.1	0431.01	43261	GPS = MONO431.1
MONO431.2	0431.02	43261	Bedrock right bank.
MONO432	0432	43261	PAGE: Sheet units MONO432 through MONO441 are MONOP46. MB Channel Morphology = Step-Pool. Algae common throughout page. GPS = MONO432
MONO434	0434	43376	Bedrock right bank.
MONO435	0435	43450	Transverse riffle at end of unit.
MONO442	0442	43706	PAGE: Sheet units MONO442 through MONO448.3 are MONOP47. MB Channel Morphology = Step-Pool. GPS = MONO442
MONO443	0443	43762	Hyla Cadaverina.
MONO445	0445	43890	Small high gradient riffle at end of unit.
MONO448	0448	44027	Side channel left bank.
MONO448.1	0448.01	44133	GPS = MONO448.1
MONO449	0449	44133	PAGE: Sheet units MONO449 through MONO458 are MONOP48. MB Channel Morphology = Step-Pool. Other Notes. Side channel re-enters at end of unit. GPS = MONO449
MONO451	0451	44331	Dry trib LB (potential). GPS: MONOTRIB5
MONO453	0453	44494	2 consecutive boulder scour pools.
MONO459	0459	44772	PAGE: Sheet units MONO459 through MONO468 are MONOP49. MB Channel Morphology = Step-Pool. Channel is becoming more confined. Mulefat along banks. GPS = MONO459
MONO467	0467	45310	Left bank eroding.
MONO468	0468	45347	Left bank eroding.
MONO469	0469	45384	PAGE: Sheet units MONO469 through MONO478 are MONOP50. MB Channel Morphology = Step-Pool. GPS = MONO469
MONO471	0471	45558	Mulefat both banks, some Willows.
MONO478	0478	45826	Bedrock left bank.
MONO479	0479	45874	PAGE: Sheet units MONO479 through MONO488 are MONOP51. MB Channel Morphology = Step-Pool with some bedrock sections. GPS = MONO479
MONO480	0480	45893	2 consecutive bedrock scour pools.
MONO481	0481	45931	GPS = MONOTRIB6
MONO485	0485	46311	Bedrock both banks.

MONO CREEK COMMENTS			
MONO486	0486	46365	Bedrock both banks with boulders in channel.
MONO488	0488	46447	Bedrock left bank.
MONO489	0489	46503	PAGE: Sheet units MONO489 through MONO498 are MONOP52. MB Channel Morphology = Step-Pool. All pools are bedrock, bedrock section. Other Notes: Unit has bedrock both banks with undercut bedrock coverage. GPS = MONO489
MONO493	0493	46650	Channel narrowing and turning.
MONO495	0495	46851	Gravel is a little sandy, not great for spawning. Bedrock left bank.
MONO497	0497	46976	Bedrock left bank, Cattails right bank.
MONO498	0498	47030	Bedrock continues left bank.
MONO499	0499	47099	PAGE: Sheet units MONO499 through MONO508 are MONOP53. MB Channel Morphology = Step-Pool with bedrock heavily influencing the channel structure. Other Notes: Unit has bedrock left bank. GPS = MONO499
MONO501	0501	47203	Bedrock in channels and banks.
MONO505	0505	47293	Bedrock right bank.
MONO506	0506	47343	Bedrock step pools, 4 pools, max depth of pools are 2.2ft, 3ft, 3ft, and 4ft. Cascade into last step pool, cascade is 5ft tall with shallow resting, jump depth is 4 ft.
MONO507	0507	47463	Cascade 5ft high with 3 steps.
MONO508	0508	47471	Toe Biter with eggs on back. End day.
MONO509	0509	47536	PAGE: Sheet units MONO509 through MONO518 are MONOP54. MB Channel Morphology = Step Pool, heavily influenced by bedrock. Other Notes: Small 1ft plunge into pool, deepest spot not by plunge. Hyla Cadaverina. GPS = MONO509
MONO510	0510	47583	Bedrock step pools. Max depths: 1st: 1.8ft, 2nd: 2.1ft, 3rd: 1.8ft, 4th: 1.8ft, 5th: 2.1ft.
MONO514	0514	47829	Large bedrock and boulders.
MONO515	0515	47904	Plunge = 3ft, pool below = 1ft
MONO516	0516	47922	Bedrock step pools. Max depths: 1st: 2.0ft, 2nd: 4.0ft.
MONO518	0518	48009	Gravel difficult to move.
MONO519	0519	48033	PAGE: Sheet units MONO519 through MONO528 are MONOP55. MB Channel Morphology = Step Pool, heavily influenced by bedrock in channels. GPS = MONO519
MONO520	0520	48046	Small cobble hard to move.
MONO523	0523	48135	Bedrock comes up on each bank creating trench.
MONO529	0529	48714	PAGE: Sheet units MONO529 through MONO538 are MONOP56. MB Channel Morphology = Step Pool. GPS = MONO529
MONO534	0534	48966	Steep gradient, one small run around 6ft and some high gradient riffle mixed in.
MONO536	0536	49088	2 boulder scour pools in a row.
MONO539	0539	49197	PAGE: Sheet units MONO539 through MONO545 are MONOP57. MB Channel Morphology = Step Pool. Other Notes: Cattails both banks. Side channel at end of unit right bank. GPS = MONO539
MONO539.1	0539.1	49286	GPS = MONO539.1
MONO541	0541	49426	Bedrock right bank. Side channel leaves at end of unit.
MONO543	0543	49553	Bedrock right bank.
MONO546	0546	49688	PAGE: Sheet units MONO546 through MONO555 are MONOP58. MB Channel Morphology = Step Pool. GPS = MONO546
MONO548	0548	49886	Oaks, Willows, and Alders on banks.
MONO556	0556	50205	PAGE: Sheet units MONO556 through MONO565 are MONOP59. MB Channel Morphology = Step Pool. GPS = MONO556
MONO561	0561	50466	54ft into unit transverse riffle.
MONO562	0562	50604	Large deep undercut boulder.
MONO566	0566	50778	PAGE: Sheet units MONO566 through MONO575 are MONOP60.

MONO CREEK COMMENTS			
			MB Channel Morphology = Step Pool. GPS = MONO566
MONO573	0573	51240	Bedrock right bank.
MONO574	0574	51312	Trib right bank, some water flow. GPS = MONOTRIB7
MONO575	0575	51514	3 Hyla Cadaverina.
MONO576	0576	51580	PAGE: Sheet units MONO576 through MONO585 are MONOP61. MB Channel Morphology = Step Pool. GPS = MONO576
MONO577	0577	51668	Max Depths: 1st: 1.8ft, 2nd: 2.5ft.
MONO579	0579	51767	Hillslope erosion, some bedrock exposed right bank.
MONO586	0586	52139	PAGE: Sheet units MONO586 through MONO595 are MONOP62. MB Channel Morphology = Step Pool. GPS = MONO586
MONO592	0592	52525	5 Hyla Cadaverina
MONO593	0593	52549	Bedrock left bank.
MONO595	0595	52691	Series of pools separated by steps or short riffles. Max depths: 1st: 1.9ft, 2nd: 2ft, 3rd: 2.2ft, 4th: 2ft, 5th: 3.1ft, 6th: 2.4ft.
MONO596	0596	52927	PAGE: Sheet units MONO596 through MONO605 are MONOP63. MB Channel Morphology = Step Pool.
MONO600	0600	53062	2ft plunge in unit with 1.7 ft pool.
MONO605	0605	53351	Large bedrock scour pool with large boulders and bedrock right bank.
MONO606	0606	53464	PAGE: Sheet units MONO606 through MONOP615 are MONOP64. MB Channel Morphology = Step Pool. Other notes: Large boulders in unit. Plunge 2ft with pool 1.9ft below. Max depths: 1st: 2.3ft, 2nd: 2.2ft, 3rd: 3.5ft, 4th: 1.7ft. GPS = MONO606
MONO612	0612	54008	Oaks abundant left bank.
MONO614	0614	54300	Max depths: 1st: 2.4ft, 2nd: 2.4ft, 3rd: 2ft.
MONO616	0616	54410	PAGE: Sheet units MONO616 through MONO625 are MONOP65. MB Channel Morphology = Step Pool. GPS = MONO616
MONO620	0620	54636	Plunge = 4ft, pool = 2.6ft. Dry side channel left bank. Dry side channel may provide route around plunge.
MONO626	0626	54797	PAGE: Sheet units MONO626 through MONO635 are MONOP66. MB Channel Morphology = Step Pool. GPS = MONO626
MONO630	0630	55038	Max depths: 1st: 2.4ft, 2nd: 2.4ft
MONO631	0631	55098	Large bedrock pool with big boulders.
MONO633	0633	55211	Partial barrier. Plunge at top of cascade: 3.6ft, pool: .2ft, under high flow fish could get around.
MONO636	0636	55276	PAGE: Sheet units MONO636 through MONO645 are MONOP67. MB Channel Morphology = Step Pool. GPS = MONO636
MONO637	0637	55313	Bedrock right bank.
MONO641	0641	55552	Bedrock right bank.
MONO643	0643	55710	Max depths: 1st: 2.1ft, 2nd: 2.9ft, 3rd: 3.0ft. Plunge behind large boulder flows through small hole. see pics. Under high flow, fish may be able to get around.
MONO645	0645	55849	End day of survey. GPS = MONO646 (34.36.658 N; 119.35.377 W). Survey ended approximately 200ft from GPS: ST Narrows (34.36.650 N; 119.35.328 W).
MONO646	0646	55891	GPS = MONO646. Unsurveyed total length to reference reach #2 = 56276ft. Walked up to look for barriers. Habitat continued as step-pool. Found partial barrier 478 ft up, potential full barrier depending on how pool fills with high flow. Pool max = approximately 6ft, below plunge = 4ft, plunge height = 9ft. GPS = MONOBAR (34.36.679 N; 119.35.290 W).
MONO647	0647	112167	PAGE: Sheet units MONO647 through MONO656 = MONOP68. MB Channel Morphology = Pool-Riffle. Other notes: Started reach survey at left bank tributary confluence. Abundant bear tracks, overgrown with Willows. GPS = MONO647
MONO648	0648	112260	Silty crest. Willows both banks.

MONO CREEK COMMENTS			
MONO649	0649	112293	Willows everywhere.
MONO650	0650	112390	Silt covered crest.
MONO651	0651	112413	Some right bank erosion.
MONO652	0652	112457	Right bank bedrock.
MONO656	0656	112685	Woody debris in channel.
MONO657	0657	112819	PAGE: Sheet units MONO657 through MONO666 = MONOP69. MB Channel Morphology = Pool-Riffle. Unconfined to moderately confined, channel is very small. Willows covering both banks. Other notes: Fire road crosses unit, no effect on stream. GPS = MONO657
MONO658	0658	112880	Silt covered substrate.
MONO659	0659	112915	Small plunge at end of pool.
MONO660	0660	112934	Slightly less silted than previous units.
MONO662	0662	113120	Covered in downed trees.
MONO665	0665	113289	Bedrock starts left bank. Silted tail crest. Dead log in pool.
MONO667	0667	113371	PAGE: Sheet units MONO667 through MONO676 = MONOP70. MB Channel Morphology = Pool-Riffle. Unconfined to moderately confined channel. One small step pool section. Willows both banks all page. GPS = MONO667
MONO668	0668	113429	Small left bank side channel, stagnant water. Rd crosses 122ft into unit. GPS = MONOR2RD2
MONO673	0673	113776	Channel very overgrown.
MONO674	0674	113821	Some left bank failure.
MONO675	0675	114041	Cattails in channel.
MONO677	0677	114170	PAGE: Sheet units MONO677 through MONO686 = MONOP71. MB Channel Morphology = Step Pool. No pools, higher gradient than previous with more boulders. Willows both banks all page. Other notes: Thick aquatic vegetation in unit. GPS = MONO677
MONO678	0678	114198	Cattails in unit.
MONO681	0681	114312	Slightly higher gradient with increased boulders.
MONO682	0682	114447	Small riffle step in unit. Road crosses, GPS = MONOR2RD3
MONO683	0683	114591	Bedrock at end of unit left bank.
MONO685	0685	114700	Bedrock left bank. Cattails in channel (small). Cottonwoods right bank.
MONO686	0686	114910	Channel splits around debris island.
MONO687	0687	115017	PAGE: Sheet units MONO687 through MONO696 = MONOP72. MB Channel Morphology = Pool-Riffle. Willows both banks all page. GPS = MONO687
MONO690	0690	115173	Covered in aquatic vegetation. Cattails in channel.
MONO692	0692	115250	Cattails.
MONO694	0694	115360	Nice undercut bank.
MONO695	0695	115383	Right bank failure. Fire road crosses mid unit. GPS = MONOR2RD4
MONO697	0697	115806	PAGE: Sheet units MONO697 through MONO706 = MONOP73. MB Channel Morphology = Pool-Riffle. GPS = MONO697
MONO702	0702	116122	Western Toad.
MONO703	0703	116173	Very overgrown. Road crosses unit. GPS = MONOR2RD5
MONO706	0706	116658	Very overgrown.
MONO707	0707	116686	MONOP74. MB Channel Morphology = Pool-Riffle. Other notes: Road crosses stream 170ft in unit. GPS = MONOR2RD6 GPS = MONO707
MONO708	0708	116885	Pacific Tree Frog
MONO709	0709	116905	Missed left bank trib entrance, overgrown. End Reach 2 (34.39.939 N; 119.30.654 W)

Indian Creek Comments

INDIAN CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
IND001	0001	0	Sheet units IND001 through IND010 = INDP01. MB Channel Morphology = Pool-Riffle. Other notes: Unit starts at the confluence with Mono Creek (MONOINDCON). GPS = IND001
IND002	0002	88	Cottonwoods abundant with Willows.
IND005	0005	340	Side channel (dry) comes in at end of riffle (start of IND006).
IND007	0007	588	Cottonwoods and Willows continue to be abundant.
IND010	0010	828	Cottonwoods and Willows.
IND011	0011	932	PAGE: Sheet units IND011 through IND020 = INDP02. MB Channel Morphology = Pool-Riffle with no pools. Algae covered rocks common throughout. GPS = IND011
IND012	0012	978	Bank failure left bank.
IND014	0014	1310	Concrete Camuesa Road crossing. Total width = 51ft, wetted width = 12ft. Downstream road height = 1.0ft, even with stream on upstream side. GPS = CAMRD1
IND016	0016	1559	Cottonwoods are disappearing as dominant.
IND021	0021	1958	PAGE: Sheet units IND021 through IND030 = INDP03. MB Channel Morphology = Pool-Riffle, may be turning into plane bed. Other notes: LWD mid unit, not creating good habitat. GPS = IND021
IND022	0022	2010	Bedrock starts on right bank 100ft into unit.
IND023	0023	2222	Bedrock right bank and on 1/2 bottom of riffle.
IND024	0024	2336	Parallel to this unit is a small side channel that does not reconnect. Bedrock left bank.
IND025	0025	2370	Blackfly larvae 118 ft into unit, bedrock left bank.
IND026	0026	2506	Bedrock left bank.
IND028	0028	2605	Western Pond Turtle. Small cascade into pool. Pool created from large tree roots, has undercut bank with overhanging roots providing very good cover.
IND029	0029	2631	Lots of algae. Bedrock continues left bank.
IND031	0031	2775	PAGE: Sheet units IND031 through IND040 = INDP04. MB Channel Morphology = Pool-Riffle moving into plane bed. GPS = IND031
IND032	0032	2822	Bedrock continues on left bank.
IND033	0033	2894	Willows right bank.
IND034	0034	2938	Bedrock left bank.
IND035	0035	3032	Concrete Camuesa Rd crossing. Downstream pool depth = 1.7ft, road height (bottom of pool to top) = 2ft. Wetted width = 40ft, total width = 73ft. Length = 16ft. Barrier at low flows (moderate). GPS = CAMRD2
IND037	0037	3187	Bedrock right bank.
IND039	0039	3272	Creek splits around island, similar habitat both sides.
IND040	0040	3479	Concrete Camuesa Road crossing. Length: 14ft, total width: 69ft, wetted width: 48ft. Plunge pool depth = .7ft, road height = 1.2ft. Moderate barrier under low flow. GPS = CAMRD3
IND041	0041	3495	Page: Sheet units IND041 through IND050 = INDP05. MB Channel Morphology = Plane Bed with bedrock section in middle of subreach. Other notes: Willows on both banks, very abundant bedrock on right bank 300ft into unit. GPS = IND041
IND042	0042	3920	Bedrock right bank.
IND043	0043	4017	End of unit = start bedrock section until end of page.
IND044	0044	4134	Bedrock both sides and portion of bottom.
IND045	0045	4193	Bedrock on bottom.
IND046	0046	4242	Bedrock on bottom.
IND047	0047	4264	Bedrock on bottom.
IND048	0048	4276	Bedrock on bottom.

INDIAN CREEK COMMENTS			
IND049	0049	4296	Some bedrock still on bottom.
IND050	0050	4426	Bedrock left bank.
IND051	0051	4487	PAGE: Sheet units IND051 through IND060 = INDP06. MB Channel Morphology = Plane Bed with large bedrock sections. Bedrock throughout entire section and continuing, continued from IND043. GPS = IND051
IND052	0052	4517	Bedrock on bottom 500ft into unit.
IND054	0054	5198	Bedrock on right bank and bottom.
IND055	0055	5274	Right bank trib. GPS = INDTRIB1
IND056	0056	5322	Some bedrock still present on bottom.
IND059	0059	5608	Bedrock on right bank and some in channel.
IND060	0060	5633	End day.
IND061	0061	5713	PAGE: Sheet units IND061 through IND070 are INDP07. MB Channel Morphology = Plane Bed with a few step pool like areas.
IND062	0062	5803	Willows dominant right bank.
IND063	0063	5880	Bedrock left bank.
IND068	0068	6319	Plunge pool below weir. Concrete weir creating deep plunge pool, max depth = 7ft. Total width of weir: 110ft, length: 1.5ft. Plunge = 5ft (Top of weir to bottom). Cascade: 1.5ft from surface to top of obstacle. Not a significant barrier, only at very low flows. See pic. GPS = INDWEIR
IND069	0069	6352	Riffle up to weir, ice covering riffle.
IND070	0070	6419	Large hillslope erosion from bedrock.
IND071	0071	6577	PAGE: Sheet units IND071 through IND080 = INDP08. MB Channel Morphology = Plane Bed with some step pool like areas. Ice present on all still water. GPS = IND071
IND074	0074	6791	Bedrock starts on right bank 95ft up.
IND076	0076	7094	Willows on right bank.
IND078	0078	7140	Willows right bank.
IND079	0079	7162	Steep bedrock left bank depositing sediment.
IND081	0081	7394	PAGE: Sheet units IND081 through IND090 = INDP09. MB Channel Morphology = Plane Bed with some step pool. Channel is moderately confined to more confined in some areas. Other notes: Transverse riffle in unit. GPS = IND081
IND084	0084	7654	Bedrock left bank, some small bedrock sheets.
IND085	0085	7822	Bedrock on left bank and in channel. There is a dry side channel right bank.
IND086	0086	8090	Bedrock left bank. Channel becomes more confined.
IND089	0089	8210	Bedrock on left bank.
IND091	0091	8334	PAGE: Sheet units IND091 through IND100 = INDP10. MB Channel Morphology = Plane Bed with step pool areas. Other notes: Unit has bedrock right bank. GPS = IND091
IND092	0092	8489	Bedrock dividing two channels.
IND094	0094	8585	Bedrock scour with boulder also.
IND095	0095	8613	Bedrock left bank.
IND096	0096	8641	Small left bank side channel with no flowing water at start of unit.
IND099	0099	8935	Transverse riffle (small) at end of unit.
IND100	0100	9253	Right bank eroding.
IND101	0101	9445	PAGE: Sheet units IND101 through IND110 = INDP11. MB Channel Morphology = Bedrock. Bedrock very common in channel and banks. Other notes: Dry, large side channel that runs parallel to unit. GPS = IND101
IND102	0102	9621	Bedrock in channel and right bank.
IND103	0103	9667	Bedrock bottom run.
IND104	0104	9694	Bedrock right bank.
IND106	0106	9734	Bedrock bottom with boulders on top causing riffle.
IND107	0107	9761	Bedrock continues in channel.
IND111	0111	10029	PAGE: Sheet units IND111 through IND120 are INDP12. MB Channel Morphology = Plane Bed with bedrock sections. GPS = IND111

INDIAN CREEK COMMENTS			
IND113	0113	10216	Small island with Cattails creates pool. Cattails isolate pool from main portion of channel.
IND114	0114	10239	Bedrock starts left bank.
IND116	0116	10516	Bedrock left bank.
IND118	0118	10820	Bedrock both banks.
IND119	0119	10912	Bedrock both banks.
IND120	0120	10970	Bedrock both banks. End day.
IND121	0121	11155	PAGE: Sheet units IND121 through IND130 = INDP13. MB Channel Morphology = Plane Bed with bedrock sections. Other notes: Water boatmen and algae. GPS = IND121
IND122	0122	11195	Blackfly larvae.
IND124	0124	11622	Lots of algae, sheet with step run qualities.
IND126	0126	11827	Bedrock left bank. Small riffle 226ft in.
IND129	0129	12273	Creek splits around island at end of unit.
IND131	0131	12407	PAGE: Sheet units IND131 through IND140 = INDP14. MB Channel Morphology = Plane Bed with bedrock sections. GPS = IND131
IND132	0132	12727	Bedrock left bank.
IND135	0135	12941	Willows thick on right bank.
IND136	0136	13056	Bedrock right bank.
IND137	0137	13089	Bedrock right bank and in channel. Western Pond Turtle.
IND138	0138	13315	Some bedrock both banks.
IND140	0140	13414	Bedrock right bank.
IND141	0141	13588	PAGE: Sheet units IND141 through IND150 = INDP15. MB Channel Morphology = Plane Bed with bedrock sections. Bedrock common on one bank and sometimes in channel. Algae and Blackflies common throughout. Other notes: Unit covered in algae. GPS = IND141
IND142	0142	13741	Bedrock starts left bank.
IND143	0143	13893	Bedrock left bank.
IND144	0144	13939	Bedrock left bank, Willows right bank.
IND147	0147	14386	Willows continue right bank.
IND148	0148	14542	Bedrock left bank.
IND150	0150	14634	Algae and willow roots.
IND151	0151	14661	PAGE: Sheet units IND151 through IND160 = INDP16. MB Channel Morphology = Plane Bed with some bedrock sections. Algae and blackflies common throughout. Other notes: Unit has bedrock on left bank. GPS = IND151
IND152	0152	14696	Bedrock left bank.
IND153	0153	14736	Riffle splits around island 35ft into unit.
IND154	0154	14871	Transverse riffle (small) 130ft into unit.
IND161	0161	15298	PAGE: Sheet units IND161 through IND170 = INDP17. MB Channel Morphology = Plane Bed. Other notes: Right bank trib at beginning of unit. GPS = INDTRIB2. GPS = IND161
IND162	0162	15347	Bedrock left bank.
IND169	0169	15832	Bedrock right bank.
IND170	0170	16001	Bedrock right bank.
IND171	0171	16084	PAGE: Sheet units IND171 through IND180 = INDP18. MB Channel Morphology = Plane Bed with bedrock sections. Algae and Blackfly larvae common throughout. GPS = IND171
IND176	0176	16583	Water Boatman and Striders. Bedrock on left bank.
IND177	0177	16868	Channel becomes confined.
IND179	0179	16994	Bedrock on left bank.
IND180	0180	17031	Bedrock left bank. 2 Hyla Cadaverina.
IND181	0181	17160	PAGE: Sheet units IND181 through IND190 = INDP19. MB Channel Morphology = Plane Bed with bedrock highly influencing the channel. GPS = IND181

INDIAN CREEK COMMENTS			
IND183	0183	17288	Bedrock right bank.
IND184	0184	17348	Bedrock right bank. Hyla Cadaverina (10).
IND185	0185	17548	Bedrock right bank continues.
IND187	0187	17735	Bedrock both banks.
IND190	0190	17883	Bedrock both banks.
IND191	0191	17940	PAGE: Sheet units IND191 through IND200 = INDP20. MB Channel Morphology = Plane Bed with bedrock sections. Other notes: Bedrock both banks. GPS = IND191
IND192	0192	17967	Small high gradient riffle before pool.
IND194	0194	18012	Cascade at start of bedrock sheet. Plunge = 3ft with .5ft pool at bottom. Cascade is sloped, may be low flow barrier.
IND196	0196	18138	Bedrock left bank.
IND197	0197	18223	Blackfly larvae, wide channel.
IND198	0198	18322	Manzanitas right bank. Cattails at start of unit.
IND201	0201	18452	PAGE: Sheet units IND201 through IND210 = INDP21. MB Channel Morphology = Plane Bed with bedrock sections. Other notes: Willows both banks, Sycamores and Cottonwoods. GPS = IND201
IND202	0202	18488	Bedrock right bank.
IND203	0203	18546	Bedrock right bank.
IND205	0205	18792	Bedrock left bank.
IND206	0206	18825	Bedrock left bank.
IND207	0207	18917	Bedrock left bank.
IND208	0208	18963	Bedrock left bank.
IND210	0210	19062	Bedrock left bank, undercut bedrock.
IND211	0211	19103	PAGE: Sheet units IND211 through IND220 = INDP22. MB Channel Morphology = Plane Bed with some bedrock sections. GPS = IND211
IND215	0215	19351	Bedrock right bank.
IND216	0216	19402	Small riffle at start of run.
IND217	0217	19441	More trees: Oaks, Alders, Sycamores.
IND219	0219	19597	Good spawning gravel at end of unit.
IND221	0221	19814	PAGE: Sheet units IND221 through IND230 = INDP23. MB Channel Morphology = Plane Bed with some step pool characteristics. Other notes: Algae and Blackfly larvae present. GPS = IND221
IND222	0222	19975	Algae and Blackfly larvae.
IND223	0223	20081	Tree down in unit.
IND225	0225	20293	Willows left bank. Length of unit = distance between GPS points IND225 and IND226.
IND227	0227	20831	Length of unit = distance between GPS points IND227 and IND228.
IND231	0231	21290	PAGE: Sheet units IND231 through IND240 = INDP24. MB Channel Morphology = Plane Bed. GPS = IND231
IND233	0233	21468	Tree down in unit, LWD.
IND235	0235	21529	Willows and Willow roots in channel.
IND239	0239	21869	3 Hyla Cadaverina
IND241	0241	22035	PAGE: Sheet units IND241 through IND250 = INDP25. MB Channel Morphology = Plane Bed. GPS = IND241
IND242	0242	22152	Hyla Cadaverina.
IND243	0243	22273	Cattails, bedrock starts left bank.
IND245	0245	22341	Bedrock left bank.
IND247	0247	22423	Western Pond Turtle. Willow roots in pool.
IND249	0249	22496	Cattails and grass.
IND250	0250	22549	Oaks, Cottonwoods, Hyla Regila.
IND251	0251	22574	PAGE: Sheet units IND251 through IND260 = INDP26. MB Channel Morphology = Plane Bed. Channel becoming less confined near end of page.
IND252	0252	22619	Cattails.
IND254	0254	22702	Lots of grass in channel.

INDIAN CREEK COMMENTS			
IND255	0255	22727	Stagnant side channel. Very wooded, Oaks,Alders, Sycamores.
IND256	0256	22893	Water Boatman, Willow roots in channel.
IND260	0260	23089	Blackfly larvae.
IND261	0261	23250	PAGE: Sheet units IND261 through IND270 = INDP27. MB Channel Morphology = Plane Bed. Channel unconfined for this page, may change back soon. Other notes: Gravel is cemented down. GPS = IND261
IND265	0265	23368	Oaks, Cottonwoods, Manzanita, Sycamore.
IND266	0266	23482	Side channel, mostly dry with one stagnant pool.
IND268	0268	23819	Dried side channel has stagnant water in boulder formed pool. Hyla Regila.
IND270	0270	23975	Bedrock right bank. End day
IND271	0271	24118	PAGE: Sheet units IND271 through IND280 = INDP28. MB Channel Morphology = Plane Bed with some step pool like characteristics. GPS = IND271
IND274	0274	24227	Tree down in unit at start.
IND277	0277	24362	Cattails, Willows, Oaks, Cottonwoods on bank.
IND281	0281	24568	PAGE: Sheet units IND281 through IND290 = INDP29. MB Channel Morphology = Plane Bed with some step pool characteristics. GPS = IND281
IND283	0283	24745	Small undercut bedrock ledge, bedrock left bank.
IND284	0284	24786	Bedrock left bank.
IND285	0285	24816	Bedrock left bank.
IND286	0286	24849	Bedrock left bank.
IND287	0287	24922	Toyon, Sycamores.
IND291	0291	25395	PAGE: Sheet units IND291 through IND300 = INDP30. MB Channel Morphology = Step-Pool with some plane bed. GPS = IND291
IND293	0293	25542	Cattails left bank. Cobble cemented crest.
IND296	0296	25758	Large undercut boulders.
IND299	0299	25862	Tree down in pool, good LWD cover.
IND301	0301	25970	PAGE: Sheet units IND301 through IND310 = INDP31. MB Channel Morphology = Step Pool with some plane bed characteristics. GPS = IND301
IND303	0303	26204	Bedrock left bank.
IND304	0304	26276	Bedrock left bank, undercut.
IND307	0307	26641	Cattails, bedrock right bank.
IND309	0309	26719	Bedrock right bank.
IND311	0311	26834	PAGE: Sheet units IND311 through IND320 = INDP32. MB Channel Morphology = Plane Bed with step pool. GPS = IND311
IND312	0312	26949	Bedrock right bank.
IND314	0314	27105	Willow roots and undercut bank.
IND316	0316	27257	Bedrock left bank.
IND319	0319	27365	Bedrock left bank and in channel, 1st pool formed by bedrock in channel and tree down in channel. Heavily eroding bedrock. Cottonwoods, dead Gopher Snake.
IND320	0320	27494	Bedrock continues left bank. Side channel left bank 109ft into unit.
IND320.1	0320.01	27666	GPS = IND320.1
IND320.2	0320.02	27666	Cattails, bedrock left bank, Willows right bank.
IND320.4	0320.04	27666	Side channel re-enters main.
IND321	0321	27666	PAGE: Sheet units IND321 through IND330 = INDP33. MB Channel Morphology = Plane Bed with step pool. GPS = IND321
IND329	0329	28487	Bedrock right bank.
IND331	0331	28567	PAGE: Sheet units IND331 through IND340 = INDP34. MB Channel Morphology = Plane Bed with bedrock section. Other notes: Bedrock right bank in unit. GPS = IND331
IND332	0332	28638	Bedrock right bank, undercut bedrock around corner.
IND334	0334	28759	Bedrock in channel, extends out into next unit.
IND335	0335	28803	Bedrock coming up into channel.

INDIAN CREEK COMMENTS			
IND336	0336	28832	Cattails and Willows in channel. Bedrock left bank.
IND340	0340	29043	Bedrock right bank.
IND341	0341	29184	PAGE: Sheet units IND341 through IND350 = INDP35. MB Channel Morphology = Plane Bed with step pool. Other notes: Bedrock left bank. GPS = IND341
IND344	0344	29412	Cattails in channel, Willows on banks.
IND345	0345	29514	Bedrock in channels and left bank.
IND347	0347	29605	Bedrock left bank, large bedrock scour, multiple pools.
IND349	0349	29800	Channel separated by grass and sediment island.
IND351	0351	29967	PAGE: Sheet units IND351 through IND360 = INDP36. MB Channel Morphology = Plane Bed with step pools and bedrock sections. Other notes: Unit has bedrock left bank, dry side channel right bank. GPS = IND351
IND356	0356	30218	Bedrock right bank.
IND358	0358	30300	2 consecutive pools. 1st = 2.3ft, 2nd = 2.0ft.
IND360	0360	30376	Willows dominant left bank.
IND361	0361	30490	PAGE: Sheet units IND361 through IND370 = INDP37. MB Channel Morphology = Plane Bed with some bedrock sections. Other notes: Bedrock covering channel, not on banks. GPS = IND361
IND365	0365	30721	Bedrock on left bank.
IND368	0368	30937	Bedrock in channel.
IND369	0369	31095	Bedrock on right bank and in channel.
IND370	0370	31226	Bedrock right bank, Cattails left bank.
IND371	0371	31430	PAGE: Sheet units IND371 through IND380 = INDP38. MB Channel Morphology = Step Pool with bedrock and plane bed like sections. GPS = IND371
IND372	0372	31450	Bedrock step pools.
IND375	0375	31612	Unit starts with small cascade.
IND378	0378	31949	Cattails in channel.
IND380	0380	32112	Buckhorn Creek's confluence with Indian Creek. GPS = INDBUCKCFL
IND381	0381	32159	PAGE: Sheet units IND381 through IND390 = INDP39. MB Channel Morphology = Plane Bed. GPS = IND381
IND382	0382	32179	Willows both banks.
IND383	0383	32231	Mulefat.
IND384	0384	32274	Willows both banks, Mulefat.
IND388	0388	32470	Willows, Coast Live Oak, Mulefat.
IND390	0390	32582	End day.
IND391	0391	32685	PAGE: Sheet units IND391 through IND400 = INDP40. MB Channel Morphology = Step Pool with some plane bed qualities. Other notes: Cattails in channel. GPS = IND391
IND396	0396	32919	Good spawning gravel.
IND398	0398	33039	Bedrock right bank.
IND399	0399	33069	Bedrock right bank.
IND401	0401	33201	PAGE: Sheet units IND401 through IND410 = INDP41. MB Channel Morphology = Step Pool. Other notes: Unit has bedrock on right bank. GPS = IND401
IND402	0402	33228	Bedrock right bank.
IND404	0404	33318	Bedrock in channel with boulders.
IND405	0405	33351	1st pool = 2.3ft, 2nd pool = 2.6 ft.
IND408	0408	33498	Mulefat all along banks with Willows.
IND409	0409	33560	Steep right bank.
IND411	0411	33637	PAGE: Sheet units IND411 through IND420 = INDP42. MB Channel Morphology = Step-Pool with short bedrock section. GPS = IND411
IND413	0413	33752	Some bedrock in channel.
IND415	0415	34028	Bedrock step run, one side step pool like, one more like a run.
IND417	0417	34223	Western Pond Turtle.

INDIAN CREEK COMMENTS			
IND419	0419	34268	Willows on both banks.
IND421	0421	34341	PAGE: Sheet units IND421 through IND430 = INDP43. MB Channel Morphology = Step Pool with bedrock section. Willows and Mulefat common throughout. Manzanitas and Oaks higher up banks. Other notes: Small tree down in pool. GPS = IND421
IND422	0422	34371	Banks eroding both sides.
IND423	0423	34387	Bedrock on left bank. Willows on left bank with Willow roots in water. Cattails.
IND426	0426	34499	Only one pool but step pool configurations.
IND431	0431	34769	PAGE: Sheet units IND431 through IND437.3 = INDP44. MB Channel Morphology = Step Pool. GPS = IND431
IND433	0433	34858	Willows heavy both banks. Eroding right bank.
IND434	0434	35057	Cattails in channel.
IND437	0437	35213	Side channel on left bank. Side channel reconnects to the main channel at the end of this unit.
IND437.1	0437.01	35395	GPS = IND437.1
IND438	0438	35395	PAGE: Sheet units IND438 through IND447 = INDP45. MB Channel Morphology = Step Pool with plane bed sections. Other notes: Willows on right bank, Cattails. GPS = IND438
IND441	0441	35866	Cattails and grass in channel.
IND443	0443	36013	Willows dominant on left bank, Cattails also present on left bank.
IND444	0444	36058	Bedrock on right bank.
IND445	0445	36104	Cattails in channel.
IND446	0446	36166	Willow roots in channel.
IND448	0448	36242	PAGE: Sheet units IND448 through IND457 = INDP46. MB Channel Morphology = Step Pool with plane bed characteristics. GPS = IND448
IND449	0449	36279	Bedrock left bank, eroding into pool.
IND451	0451	36360	Bedrock left bank, eroding into pool.
IND455	0455	36681	Bedrock on right bank.
IND458	0458	36756	PAGE: Sheet units IND458 through IND467 = INDP47. MB Channel Morphology = Step Pool with some plane bed characteristics. GPS = IND458
IND461	0461	37020	Cattails at start.
IND462	0462	37075	Formed by presence of Cattails in channel.
IND463	0463	37160	Bedrock on left bank, Cattails on right bank.
IND466	0466	37404	Cattails in channel, Willows on banks.
IND467	0467	37567	Crest covered in Cattails.
IND468	0468	37625	PAGE: Sheet units IND468 through IND476 = INDP48. MB Channel Morphology = Step Pool with some plane bed characteristics. Other notes: Cattails in channel and Willows. GPS = IND468
IND469	0469	37689	Cattails continue.
IND470	0470	37743	Cattails continue.
IND472	0472	37844	Bedrock on right bank.
IND474	0474	37926	Cattails in channel 118ft in unit.
IND475	0475	38218	Willows both banks.
IND476	0476	38266	Good cover, undercut banks and root wads, some bedrock in channel.
IND477	0477	38348	Cattails covering channel.
IND478	0478	38374	PAGE: Sheet units IND478 through IND487 = INDP49. MB Channel Morphology = Plane Bed with some step pool characteristics. Other notes: Willows both banks. GPS = IND478
IND480	0480	38450	Bedrock on right bank.
IND481	0481	38500	Island at start of unit.
IND482	0482	38562	Bedrock on right bank.
IND488	0488	38925	PAGE: Sheet units IND488 through IND497 = INDP50. MB Channel Morphology = Plane Bed with some step pool characteristics. Other notes: Bedrock on left bank. GPS = IND488

INDIAN CREEK COMMENTS			
IND489	0489	38970	Bedrock left bank.
IND490	0490	39009	Bedrock continues on left bank.
IND491	0491	39040	Bedrock on left bank.
IND492	0492	39085	Bedrock on left bank.
IND495	0495	39279	Bedrock on right bank.
IND498	0498	39497	PAGE: Sheet units IND498 through IND507 = INDP51. MB Channel Morphology = Step Pool with plane bed characteristics. Oaks common on banks. Other notes: Cattails present. GPS = IND498
IND504	0504	39911	Side channel with stagnant water. Pool at start formed from flowing main channel.
IND508	0508	40069	PAGE: Sheet units IND508 through IND517 = INDP52. MB Channel Morphology = Step Pool with bedrock section. GPS = IND508
IND509	0509	40092	Bedrock left bank, Manzanitas and Oaks present.
IND511	0511	40186	High gradient riffle at start of unit. Bedrock on left bank.
IND513	0513	40273	Bedrock eroding on right bank.
IND516	0516	40469	Alders along banks.
IND518	0518	40681	PAGE: Sheet units IND518 through IND527 = INDP53. MB Channel Morphology = Step Pool. Oaks, Alders, Sycamores along banks. GPS = IND518
IND521	0521	40808	Step pool like, only one pool.
IND524	0524	40908	Almost step pool like.
IND527	0527	41006	End day.
IND528	0528	41057	PAGE: Sheet units IND528 through IND537 = INDP54. MB Channel Morphology = Step Pool. Other notes: Heavily vegetated, Mulefat, Poison Oak, Mugwort, Alders, Willow, Oaks. GPS = IND528
IND532	0532	41577	2 Striped Garter Snake.
IND536	0536	41818	Island splits riffle going into pool. Bedrock left bank.
IND538	0538	42095	PAGE: Sheet units IND538 through IND547 = INDP55. MB Channel Morphology = Step Pool. GPS = IND538
IND541	0541	42222	California Tree Frog.
IND547	0547	42673	Cattails mid unit.
IND548	0548	42828	PAGE: Sheet units IND548 through IND557 = INDP56. MB Channel Morphology = Step Pool with mostly bedrock pools. Other notes: CA Tree Frog. GPS = IND548
IND549	0549	43220	Bedrock on left bank. Two consecutive bedrock pools.
IND550	0550	43317	Bedrock in channel.
IND551	0551	43343	Good undercut bank coverage, bedrock in channel, two consecutive pools.
IND553	0553	43480	Pool largely silted in.
IND556	0556	43753	Cascade at the end of the unit. CA Tree Frog.
IND557	0557	43775	Bedrock crosses channel creating pool below it
IND558	0558	43806	PAGE: Sheet units IND558 through IND567 = INDP57. MB Channel Morphology = Step Pool. GPS = IND558
IND562	0562	44108	2 cascades around large boulders, pool mid-cascade with depth of 2.4ft.
IND563	0563	44135	Bedrock on left bank.
IND564	0564	44187	Willow roots mid unit.
IND565	0565	44293	Sandy tail crest.
IND567	0567	44425	At start of unit, mostly dry side channel with some stagnant water.
IND568	0568	44468	PAGE: Sheet units IND568 through IND575 = INDP58. MB Channel Morphology = Step Pool. GPS = IND568
IND573	0573	45002	Small side channel at end of unit. water seep. GPS = IND573
IND573.1	0573.01	45026	Tree in unit.
IND576	0576	45154	PAGE: Sheet units IND576 through IND585 = INDP59. MB Channel Morphology = Step Pool. GPS = IND576
IND577	0577	45220	Right bank side channel with mostly stagnant water.
IND580	0580	45423	Sandy gravel.

INDIAN CREEK COMMENTS			
IND581	0581	45455	GPS = IND581 (point taken mid unit)
IND584	0584	45979	Plunge at top of pool. Bedrock right bank.
IND585	0585	46021	CA Tree Frog
IND586	0586	46032	PAGE: Sheet units IND586 through IND592 = INDP60. MB Channel Morphology = Step Pool. GPS = IND586
IND588	0588	46133	CA Tree Frog.
IND590	0590	46256	Side channel reenters main channel.
IND591	0591	46318	Transverse riffle mid unit.
IND593	0593	46423	PAGE: Sheet units IND593 through IND602 = INDP61. MB Channel Morphology = Step Pool. Other notes: Two Striped Garter Snake in unit. GPS = IND593
IND598	0598	46618	2 cascades into 2 boulder scour pools. OK spawning gravel between pools.
IND600	0600	46662	Two Striped Garter Snake.
IND602	0602	46863	Western Pond Turtle.
IND603	0603	46893	PAGE: Sheet units IND603 through IND612 = INDP62. MB Channel Morphology = Step Pool. Oaks, Willows, Poison Oak, and Mulefat common. GPS = IND603
IND610	0610	47404	Right bank failure. Bedrock exposed. Sandy gravel.
IND612	0612	47544	Small cascade in unit, after 1st pool. Cadaverina.
IND613	0613	47607	PAGE: Sheet units IND613 through IND622 = INDP63. MB Channel Morphology = Step Pool. Other notes: CA Tree Frog in unit. GPS = IND613
IND615	0615	47868	2 Striped Garter Snake.
IND616	0616	48318	3ft plunge with resting pool.
IND617	0617	48332	Good large undercut boulders. Dead baby turtle (1 inch shell).
IND619	0619	48470	Max depths of step pools: 1st = 1.8ft, 2nd = 2ft, 3rd = 2.6ft, 4th = 3.5ft, 5th = 2.7ft. 4th pool had very good coverage. Cadaverina.
IND622	0622	48768	3 CA Tree Frogs.
IND623	0623	48779	PAGE: Sheet units IND623 through IND632 = INDP64. MB Channel Morphology = Step Pool. GPS = IND623
IND626	0626	48925	Boulder splits pool.
IND629	0629	49091	CA Tree Frog.
IND630	0630	49163	CA Tree Frog.
IND633	0633	49228	PAGE: Sheet units IND633 through IND642 = INDP65. MB Channel Morphology = Step Pool. GPS = IND633
IND636	0636	49338	Lots of large boulders. Two Striped Garter.
IND639	0639	49482	3.2ft plunge into pool. CA Tree Frog.
IND643	0643	49692	PAGE: Sheet units IND643 through IND652 = INDP66. MB Channel Morphology = Step Pool. GPS = IND643
IND646	0646	49897	Two Striped Garter.
IND649	0649	50135	Tree down in unit creating small pool, around 2ft deep.
IND651	0651	50337	Canyon very narrow. Cascade into pool. Sandy gravel. CA Tree Frog.
IND652	0652	50383	Cadaverina.
IND653	0653	50405	PAGE: Sheet units IND653 through IND662 = INDP67. MB Channel Morphology = Step Pool. GPS = IND653
IND657	0657	50708	Gravel is sandy.
IND658	0658	50743	Lots of debris in riffle.
IND660	0660	50943	Sandy gravel, cascade into unit.
IND663	0663	51175	PAGE: Sheet units IND663 through IND672 = INDP68. MB Channel Morphology = Step Pool. GPS = IND663
IND664	0664	51227	Small cascade at end of unit. Tree down in unit. bedrock. 2 consecutive pools.
IND665	0665	51312	3.2ft plunge at bottom, pool 1.5ft.
IND666	0666	51374	Right bank erosion.
IND670	0670	51778	Bedrock overhanging right bank.
IND673	0673	51961	PAGE: Sheet units IND673 through IND682 = INDP69. MB Channel Morphology = Step Pool. GPS = IND673

INDIAN CREEK COMMENTS			
IND674	0674	51998	2 CA Tree Frogs.
IND678	0678	52513	Heavy Cattails in channel.
IND680	0680	52724	Spawning gravel at tail covered by Cattails. Bedrock left bank. Cascade into pool.
IND681	0681	52826	2 CA Tree Frogs.
IND683	0683	52909	PAGE: Sheet units IND683 through IND692 = INDP70. MB Channel Morphology = Step Pool. GPS = IND683
IND687	0687	53188	Bedrock left bank.
IND688	0688	53307	Left bank erosion.
IND689	0689	53413	2 Striped Garter and 2 CA Tree Frogs.
IND692	0692	53596	4 CA Tree Frogs.
IND693	0693	53748	Ended habitat survey at GPS: IND693. Unit 693 is summary of habitat up to barrier. Length of unsurveyed unit determined by GPS. Heavy vegetation both banks. Two large bedrock pools. The rest mostly riffle and run. Two bedrock sheets. Walked to bedrock waterfall barrier. Pool below waterfall too deep to wade through. (GPS: Lat: 34.37.412; Long: 119.39.867) see pic.

Buckhorn Creek Comments

BUCKHORN CREEK COMMENTS			
Habitat Unit	Database Unit	Position (ft)	Comments
BUCK001	0001	0	PAGE: Sheet units BUCK001 through BUCK010 = BUCKP01. MB Channel Morphology = Pool-Riffle. Moderate gradient, not exactly pool-riffle. Other notes: GPS = INDBUCKCFL GPS = BUCK001
BUCK002	0002	11	Undercut bank with overhanging roots.
BUCK003	0003	31	Good spawning area at end of run.
BUCK011	0011	286	PAGE: Sheet units BUCK011 through BUCK018 = BUCKP02. MB Channel Morphology = Pool-Riffle. May be becoming step pool. Gradient is increasing slightly. GPS = BUCK011
BUCK013	0013	310	Right bank side channel. Water not flowing.
BUCK013.2	0013.2	590	Bedrock at end of unit. Erosion right bank.
BUCK015	0015	687	Higher gradient riffle at end.
BUCK019	0019	1011	PAGE: Sheet units BUCK019 through BUCK028 = BUCKP03. MB Channel Morphology = Pool-Riffle. GPS = BUCK019
BUCK021	0021	1096	Sandy gravel at crest. Good pool habitat, large undercut boulder.
BUCK022	0022	1129	CA Tree Frog and Western Pond Turtle.
BUCK025	0025	1338	Small riffles connect runs.
BUCK027	0027	1628	Good spawning gravel.
BUCK028	0028	1658	End day.
BUCK029	0029	1690	PAGE: Sheet units BUCK029 through BUCK038 = BUCKP04. MB Channel Morphology = Step Pool. Higher gradient with more boulders and large substrate than before. GPS = BUCK029
BUCK035	0035	2043	Erosion right bank 80ft into unit.
BUCK036	0036	2238	Juvenile Western Pond Turtle.
BUCK038	0038	2290	Bedrock on right bank.
BUCK039	0039	2312	PAGE: Sheet units BUCK039 through BUCK048 = BUCKP05. MB Channel Morphology = Step-Pool. GPS = BUCK039
BUCK043	0043	2464	Juvenile Western Pond Turtle (all have been approximately 4in)
BUCK045	0045	2667	Side channel right bank, stagnant water, evidence of recent high flow.
BUCK049	0049	3084	PAGE: Sheet units BUCK049 through BUCK058 = BUCKP06. MB Channel Morphology = Step Pool. GPS = BUCK049
BUCK050	0050	3136	Small plunge (1ft) into pool.
BUCK058	0058	3675	First pool has gravel tail then step pools with boulder crests. 3 steps with a run in the middle.

BUCKHORN CREEK COMMENTS			
BUCK059	0059	3717	Sheet units BUCK059 through BUCK068 = BUCKP07. MB Channel Morphology = Step Pool. GPS = BUCK059
BUCK065	0065	4346	SWD in channel, many branches have been recently broken off.
BUCK068	0068	4626	Dry side channel on left bank.
BUCK069	0069	4718	Sheet units BUCK069 through BUCK078 = BUCKP08. MB Channel Morphology = Step Pool. Erosion on right bank of unit. GPS = BUCK069
BUCK075	0075	5316	Tree down at end of unit.
BUCK077	0077	5434	Transverse riffle at end of unit.
BUCK079	0079	5598	PAGE: Sheet units BUCK079 through BUCK088 = BUCKP09. MB Channel Morphology = Step Pool. GPS = BUCK079
BUCK081	0081	5911	Western Pond Turtle. Good undercut bank coverage.
BUCK084	0084	6081	Western Pond Turtle. Lots of SWD, some LWD.
BUCK087	0087	6542	LWD across pool, some in the pool may influence scour.
BUCK088	0088	6572	Two Striped Garter Snake and 2 Pacific Tree Frogs.
BUCK089	0089	6717	PAGE: Sheet units BUCK089 through BUCK098 = BUCKP10. MB Channel Morphology = Step Pool. 3 CA treefrogs. GPS = BUCK089
BUCK093	0093	7043	Poison Oak heavy on both banks.
BUCK099	0099	7395	PAGE: Sheet units BUCK099 through BUCK108 = BUCKP11. MB Channel Morphology = Step Pool. GPS = BUCK099
BUCK103	0103	7656	Plunge height 3ft, partial barrier at low flow. Left Bank tributary, Buckhorn North Fork GPS = BUCKNFCFL
BUCK104	0104	7672	Bedrock or hard deposition on bottom of channel.
BUCK105	0105	7703	Bedrock or hard deposition on bottom of channel.
BUCK106	0106	7779	Bedrock or hard deposition on bottom of channel.
BUCK109	0109	8184	PAGE: Sheet units BUCK109 through BUCK118 = BUCKP12. MB Channel Morphology = Step Pool with bedrock substrate for some of reach. GPS = BUCK109
BUCK112	0112	8264	Bank failure 100ft into unit. Alders both banks.
BUCK113	0113	8441	Hardened bottom substrate, may not be bedrock.
BUCK114	0114	8461	Bank failure left bank.
BUCK116	0116	8628	Bedrock like substrate.
BUCK118	0118	8901	4ft plunge, barrier under low flow. Left bank erosion.
BUCK119	0119	8921	PAGE: Sheet units BUCK119 through BUCK128 = BUCKP13. MB Channel Morphology = Step Pool. Alders and Oaks along banks. GPS = BUCK119
BUCK127	0127	9348	Tree down, roots upturned in channel.
BUCK129	0129	9726	PAGE: Sheet units BUCK129 through BUCK138 = BUCKP14. MB Channel Morphology = Step Pool. Other notes: Log created. GPS = BUCK129
BUCK130	0130	9737	Left bank failure.
BUCK131	0131	9813	2ft step 55 ft into run.
BUCK133	0133	10409	Small bedrock sheet at end. Alders and Oaks. Water seep at end.
BUCK137	0137	10737	One step pool.
BUCK138	0138	10765	Bedrock step run.
BUCK139	0139	10957	PAGE: Sheet units BUCK139 through BUCK148 = BUCKP15. MB Channel Morphology = Step Pool. Channel becomes very overgrown this page. Dry sections start increasing. GPS = BUCK139
BUCK140	0140	11025	Two Striped Garter Snake.
BUCK144	0144	11537	Hard bedrock like substrate appears to be cemented boulders and cobble. Two plunge pools (2 pools) of cemented boulders and cobble. Undercut bank.
BUCK146	0146	11714	Toe Biter. Small bedrock section 100ft into unit. Flow lessens 1000ft into unit.
BUCK147	0147	12766	GPS = BUCK147, BUCK147A
BUCK148	0148	14018	Stagnant pools. GPS = BUCK148

BUCKHORN CREEK COMMENTS			
BUCK149	0149	14412	GPS = BUCK149. Water barely flowing. All water flowing from trib. GPS = BUCKTRIB2
BUCK150	0150	15019	Distance determined by GPS. Dry section up to barrier.

APPENDIX 3: LEVEL III AND LEVEL IV HABITAT UNITS

RIFFLE			
Low Gradient Riffle	(LGR)	[1.1]	{ 1}
High Gradient Riffle	(HGR)	[1.2]	{ 2}
CASCADE			
Cascade	(CAS)	[2.1]	{ 3}
Bedrock Sheet	(BRS)	[2.2]	{24}
FLATWATER			
Pocket Water	(POW)	[3.1]	{21}
Glide	(GLD)	[3.2]	{14}
Run	(RUN)	[3.3]	{15}
Step Run	(SRN)	[3.4]	{16}
Edgewater	(EDW)	[3.5]	{18}
MAIN CHANNEL POOLS			
Trench Pool	(TRP)	[4.1]	{ 8 }
Mid-Channel Pool	(MCP)	[4.2]	{17}
Channel Confluence Pool	(CCP)	[4.3]	{19}
Step Pool	(STP)	[4.4]	{23}
SCOUR POOLS			
Corner Pool	(CRP)	[5.1]	{22}
Lateral Scour Pool - Log Enhanced	(LSL)	[5.2]	{10}
Lateral Scour Pool - Root Wad Enhanced	(LSR)	[5.3]	{11}
Lateral Scour Pool - Bedrock Formed	(LSBk)	[5.4]	{12}
Lateral Scour Pool - Boulder Formed	(LSBo)	[5.5]	{20}
Plunge Pool	(PLP)	[5.6]	{ 9 }
BACKWATER POOLS			
Secondary Channel Pool	(SCP)	[6.1]	{ 4 }
Backwater Pool - Boulder Formed	(BPB)	[6.2]	{ 5 }
Backwater Pool - Root Wad Formed	(BPR)	[6.3]	{ 6 }
Backwater Pool - Log Formed	(BPL)	[6.4]	{ 7 }
Dammed Pool	(DPL)	[6.5]	{13}
ADDITIONAL UNIT DESIGNATIONS			
Dry	(DRY)	[7.0]	
Culvert	(CUL)	[8.0]	
Not Surveyed	(NS)	[9.0]	
Not Surveyed due to a marsh	(MAR)	[9.1]	

APPENDIX 4: M-B POOL FORMING AND CHANNEL MORPHOLOGY KEYS

Pool-Forming Mechanism

Subreach #:_____ Date/Time:_____

Stream:_____
T____R____S____ Surveyors:_____
Quad:_____ Lat ___ ___ ___ Long ___ ___ ___
Downstream Waypoint:_____ Upstream Waypoint:_____

Pool-Forming Mechanism	Enter Habitat Unit Number in Appropriate Row				
4. CWD Forced Pool					
5. Bedrock Self-Formed Pool					
6. Bedrock Forced Pool					
7. Constructed Forced Pool					
8. Constructed Pool					
9. Step Pool (Self Formed)					
10. Boulder Self-Formed Pool					
11. Self-Formed Pool					

Pool-Forming Mechanism	Enter Habitat Unit Number in Appropriate Row				
4. CWD Forced Pool					
5. Bedrock Self-Formed Pool					
6. Bedrock Forced Pool					
7. Constructed Forced Pool					
8. Constructed Pool					
9. Step Pool (Self Formed)					
10. Boulder Self-Formed Pool					
11. Self-Formed Pool					

Pool-Forming Mechanism	Enter Habitat Unit Number in Appropriate Row				
4. CWD Forced Pool					
5. Bedrock Self-Formed Pool					
6. Bedrock Forced Pool					
7. Constructed Forced Pool					
8. Constructed Pool					
9. Step Pool (Self Formed)					
10. Boulder Self-Formed Pool					
11. Self-Formed Pool					

Notes:

Self-Formed Channel Morphology

Subreach #: _____ Date:_____

Stream:_____

T____R____S____ Surveyors:_____

Quad:_____ Lat ___ ___ ___ Long ___ ___ ___

Downstream Waypoint:_____ Upstream Waypoint:_____

One entry per section. "Channel width" = bankfull width.

	Dune Ripple	**Pool-Riffle**	**Plane Bed**	**Step Pool**	**Cascade**	**Bedrock**
Predominant bed material (B-axis)						
Cohesive mud of silt (slimy or sticky)						
Sand (< 2mm)						
Gravel (2mm to 6cm)						
Gravel-Cobble (2mm to 6cm & 6cm to 26cm)						
Cobble-Boulder (6cm to 26cm & 26cm to 4m)						
Boulder (26cm to 4m)						
Bedrock (> 4m)						
Channel-Bed Pattern (10+ channel len.)						
Lateral oscillations						
Vertical oscillations						
Irregular						
Multilayered						
Random						
Featureless						
Dominant Roughness Elements[1]						
Sinuosity						
Bedrock (both banks, possibly bed)						
Steps[2] and Pools						
Dune or ripples (perpendicular to flow)						
Pools, bars, and riffles						
Clasts						
Banks						
Dominant Sediment Sources						
Debris-Flow source						
Hillslope source						
Bank-failure source						
Fluvial source						
Sediment Storage Elements						
Pocket storage						
Lee-and-stoss storage						
Step-pool storage (in pools and within steps)						
Overbank and/or Bedform storage						
Confinement						
Unconfined (floodplain ≥ 4 channel widths)						
Confined (floodplain < 2 channel widths)						
Moderately Confined (2 ≤ CW < 4)						
Pool Spacing						
No pools						
Less than 1 channel width						
1 to 4 channel widths						
5 to 7 channel widths						

Notes on back?

[1] Items dominating any interference with smooth laminar flow

[2] Large clasts organized into discrete channel-spanning accumulations that separate pools and finer material

APPENDIX 5: SURVEY GPS POINTS

LOWER SANTA YNEZ GPS POINTS

All latitudes and longitudes formatted using NAD 83, decimal degrees.

Lower Santa Ynez GPS Points

Lower Santa Ynez Watershed GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
N/A	SYRRBRG	N/A	N/A	N/A	34.69142	-120.60025	
N/A	SYFLDDAM	N/A	N/A	N/A	34.68697	-120.58728	
0	SYSTRT001	SYSTRTP01	1	1	34.67844	-120.56222	Start of Survey. Beginning of SY1SRA
528	SYSTRT002	SYSTRTP01	2	2	34.67759	-120.56096	
1754	SYSTRT011	SYSTRTP02	11	11	34.67594	-120.55721	
2187	SYSTRTTRIB01	SYSTRTP02	17	17	34.67663	-120.55580	Trib LB.
2605	SYSTRT020	SYSTRTP03	20	20	34.67750	-120.55470	
2680	SYVBRDG1	SYVBP01	1	21	34.67766	-120.55414	13th Street Bridge
3117	SYVBBVR01	SYVBP01	3	23	34.67768	-120.55301	Beaver dam.
3302	SYVB004	SYVBP01	4	24	34.67749	-120.55246	
3586	SYVB005	SYVBP01	5	25	34.67743	-120.55165	
4246	SYVB006	SYVBP01	6	26	34.67792	-120.54980	
4754	SYVB008	SYVBP01	8	28	34.67868	-120.54856	
4892	SYVB009	SYVBP01	9	29	34.67896	-120.54816	
5069	SYVB010	SYVBP01	10	30	34.67931	-120.54769	
5199	SYVB011	SYVBP02	11	31	34.67941	-120.54726	
5432	SYVB013	SYVBP02	13	33	34.67961	-120.54651	
5745	SYVB015	SYVBP02	15	35	34.68005	-120.54562	
5955	SYVB016	SYVBP02	16	36	34.68044	-120.54500	
6263	SYVB019	SYVBP02	19	39	34.68047	-120.54399	
6353	SYVB020	SYVBP03	20	40	34.68056	-120.54366	
7347	SYVB030	SYVBP04	30	50	34.68070	-120.54025	
7859	SYVBTRB01	SYVBP04	33	53	34.67991	-120.53748	
N/A	SYVBTRAIL	N/A	N/A	N/A	34.67907	-120.53750	
9081	SYVB037	SYVBP04	37	57	34.67891	-120.53445	
9081	SYVB037B	SYVBP04	37	57	34.67898	-120.53266	
9961	SYVB038	SYVBP04	38	58	34.67928	-120.53148	
10001	SYVB039	SYVBP05	39	59	34.67935	-120.53146	
10273	SYVB042	SYVBP05	42	62	34.67962	-120.53063	
10597	SYVB043	SYVBP05	43	63	34.67984	-120.52964	
10657	SYVB044	SYVBP05	44	64	34.67995	-120.52944	

Lower Santa Ynez Watershed GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
10890	SYVB046	SYVBP05	46	66	34.68007	-120.52874	
11479	SYVB046B	SYVBP05	46	66	34.68076	-120.52696	
12075	SYVB047	SYVBP05	47	67	34.68124	-120.52513	
12147	SYVB048	SYVBP06	48	68	34.68124	-120.52480	
12252	SYVB049	SYVBP06	49	69	34.68130	-120.52451	
12639	SYVB050	SYVBP06	50	70	34.68173	-120.52342	
12687	SYVB051	SYVBP06	51	71	34.68179	-120.52317	
13390	SYVB055	SYVBP06	55	75	34.68177	-120.52155	
13495	SYVBTRIB02	SYVBP06	56	76	34.68148	-120.52134	
13701	SYVB058	SYVBP06	57	77	34.68094	-120.52113	End of SY1SRA. Unsurveyed unit (SY1SRB) between points SYVB058 and SYFSH001
24834	SYFSH001	SYFSHP01	1	79	34.67195	-120.49380	Start of SY1SRC.
25064	SYFLORBRG	SYFSHP01	3	81	34.67201	-120.49293	Floridale Bridge
25567	SYFSH005	SYFSHP01	5	83	34.67166	-120.49172	
25996	SYFSH009	SYFSHP02	9	87	34.67050	-120.49119	
26457	SYFSH009.3	SYFSHP02	9.3	87.3	34.66859	-120.48988	
26457	SYFSH009.4	SYFSHP02	9.4	87.4	34.66795	-120.48935	
26457	SYFSH009.10	SYFSHP02A	9.1	87.1	34.66757	-120.48884	
26457	SYFSH009.TOP	SYFSHP02A	9.14	87.14	34.66739	-120.48859	Side channel connects with main channel
26457	SYFSH010	SYFSHP03	10	88	34.66925	-120.49054	
27187	SYFSH020	SYFSHP04	20	98	34.66807	-120.48877	
27315	SYSANMIGCFL	SYFSHP04	21	99	34.66741	-120.48853	San Miguelito confluence
28464	SYFSH030	SYFSHP05	30	108	34.66540	-120.48630	
30167	SYFSH040	SYFSHP05	39	117	34.66500	-120.48109	End of SY1SRC. Unsurveyed unit (SY1SRD) between points SYFSH040 and SYVANCE001
35266	SYVANCE001	SYVANCEP01	1	119	34.66898	-120.46558	Start of SY1SRE.
36454	SYVANCE002	SYVANCEP01	2	120	34.66855	-120.46172	
36694	SYVANCE003	SYVANCEP01	3	121	34.66842	-120.46088	
37486	SYHWY1BRG1	SYVANCEP01	3	121	34.66835	-120.45813	End of SY1SRE. Unsurveyed unit (SY1SRF) between points SYHWY1BRG1 and SYRB001. Highway 1 Bridge.
39958	SYRB001	SYRBP01	1	123	34.67247	-120.45060	Start of SY1SRG.
40222	SYRB002	SYRBP01	2	124	34.67265	-120.44972	
42862	SYRB002.B	SYRBP01	2	124	34.66762	-120.44363	
42862	SYRP001	SYRPP01	1	125	34.66752	-120.44324	
43443	SYRP001.1	SYRPP01	1.1	125.01	34.66726	-120.44277	
44854	SYRP006	SYRPP02	6	130	34.66289	-120.43992	

Lower Santa Ynez Watershed GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
45845	SYRP009.1	SYRPP02	9.1	133.01	34.66043	-120.43968	
45845	SYRP009.7	SYRPP03	9.7	133.07	34.66014	-120.43956	
46227	SYRP013.1	SYRPP03	13.1	137.01	34.65970	-120.44063	
46263	SYRP015	SYRPP04	15	139	34.65947	-120.44071	
46808	SYRP021.1	SYRPP04	21.1	145.01	34.65785	-120.44018	
46808	SYRP022	SYRPP05	22	146	34.65775	-120.44006	
47779	SYRP032	SYRPP06	32	156	34.65543	-120.43842	
49872	SYRP042	SYRPP07	42	166	34.65005	-120.43601	
50534	SYRP045.1	SYRPP07	45.1	169.01	34.64884	-120.43522	
50923	SYRP049	SYRPP08	49	173	34.64802	-120.43400	
52579	SYRP059	SYRPP09	59	183	34.64397	-120.43159	
52633	SYRPBRDG	SYRPP09	61	185	34.64383	-120.43175	Highway 246 Bridge.
52685	SYRP062	SYRPP10	62	186	34.64372	-120.43168	
54057	SYRP070	SYRPP10	69	193	34.64035	-120.42968	End of SY1SRG. Unsurveyed unit (SY2SRA) between points SYRP070 and SY06001
91345	SY06001	SY06P01	1	195	34.61891	-120.37918	Start of SY2SRB.
91345	SY06AZ01	SY06P01	1	195	34.61888	-120.37898	Arizona Crossing
92434	SY06011	SY06P02	11	205	34.61780	-120.37610	
92961	SY06013.8	SY06P03	13.8	207.08	34.61537	-120.37444	
93764	SY06AZ02	SY06P04	20	214	34.61501	-120.37347	Start of SY06P04, Arizona Crossing
94025	SY?SANTAROSA	SY06P04	21	215	34.61458	-120.37275	Possible stream access from Santa Rosa Road
94181	SY06AZ03	SY06P04	22	216	34.61408	-120.37215	Arizona Crossing
95257	SY06027.1	SY06P04A	27.1	221.01	34.61387	-120.36934	
95257	SY06AZ05B	SY06P04A	27.9	221.09	34.61505	-120.36631	Arizona Crossing with 2 pipes with 2.6 diameter for side channel passage.
95633	SY06AZ04	SY06P05	30	224	34.61450	-120.36873	Arizona Crossing
96197	SY06035	SY06P06	35	229	34.61540	-120.36715	
96363	SY06AZ05	SY06P06	36	230	34.61540	-120.36671	Natural bottom Arizona Crossing
N/A	SYCARG	N/A	N/A	N/A	34.61598	-120.36673	Cargasacchi property RB
96685	SY06038	SY06P06	38	232	34.61525	-120.36558	
97737	SY06044	SY06P07	44	238	34.61475	-120.36197	
98220	SY06048.1	SY06P07	48.1	242.1	34.61429	-120.36045	
98479	SY06053	SY06P08	53	247	34.61401	-120.35951	
98859	SY06057.1	SY06P08	57.1	251.01	34.61378	-120.35831	
99243	SY06060	SY06P09	60	254	34.61342	-120.35738	
99403	SY06062.2.1	SY06P09	62.2.1	256.02.01	34.61366	-120.35520	

Lower Santa Ynez Watershed GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
99444	SY06063	SY06P09	63	257	34.61312	-120.35640	
99681	SY06065	SY06P09	65	259	34.61322	-120.35545	
100256	SY06065.1LB	SY06P10	65.1	259.01	34.61313	-120.35475	Side channel LB
100256	SY06065.2	SY06P10	65.2	259.02	34.61364	-120.35449	
100256	SY06065TOP	SY06P09	65	259	34.61328	-120.35344	
100256	SY06066	SY06P10	66	260	34.61335	-120.35375	
100365	SY06067	SY06P10	67	261	34.61345	-120.35340	
100614	SY06068	SY06P10	68	262	34.61346	-120.35265	
100768	SY06069	SY06P10	69	263	34.61337	-120.35218	
101188	SY06069.1	SY06P10	69.1	263.1	34.61330	-120.35192	
101188	SY06069.2DRY	SY06P10	69.2	263.2	34.61311	-120.34984	
101188	SY06069.2TOP	SY06P10	69.2	263.2	34.61317	-120.34877	
101188	SY06070	SY06P10	70	264	34.61351	-120.35072	
102063	SY06070B	SY06P10	70	264	34.61306	-120.34777	
102314	SY06071	SY06P11	71	265	34.61260	-120.34719	
102756	SY06072	SY06P11	72	266	34.61206	-120.34583	Beaver dam.
102889	SY06073	SY06P11	73	267	34.61178	-120.34552	
103445	SY06074	SY06P11	74	268	34.61255	-120.34407	
104047	SY06079	SY06P12	79	273	34.61373	-120.34269	
104347	SY06080.1	SY06P12	80.1	274.01	34.61442	-120.34248	
104529	SY06081.1	SY06P12	81.1	275.01	34.61497	-120.34243	
104884	SY06086	SY06P13	86	280	34.61608	-120.34159	
105811	SY06096	SY06P14	96	290	34.61900	-120.33978	
105900	SY0697.1	SY06P16	97.1	291.1	34.61904	-120.33954	
105900	SY0697.11	SY06P17	97.11	291.11	34.61853	-120.33550	
106885	SY06106	SY06P15	106	300	34.61826	-120.33634	
107091	SY06109.1	SY06P15	109.1	303.01	34.61784	-120.33583	
N/A	SYRLAVINA	N/A	N/A	N/A	34.61688	-120.33260	
108397	SY06119	SY06P18	119	313	34.61570	-120.33243	
108794	SY06AZ06	SY06P18	123	317	34.61449	-120.33165	Arizona Crossing.
109170	SY06129	SY06P19	129	323	34.61399	-120.33073	
N/A	SY?VINEYARD	N/A	N/A	N/A	34.61322	-120.33023	
109879	SY06139	SY06P20	139	333	34.61278	-120.32875	
110846	SY06144.1	SY06P20	144.1	338.01	34.61320	-120.32546	
111101	SY06147	SY06P21	147	341	34.61341	-120.32446	
111897	SY06152.1	SY06P21	152.1	346.01	34.61453	-120.32235	
112002	SY06155	SY06P22	155	349	34.61483	-120.32229	

Lower Santa Ynez Watershed GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
112834	SY06165	SY06P23	165	359	34.61633	-120.32058	
113530	SY06175	SY06P24	175	369	34.61679	-120.31824	
114498	SY06185	SY06P25	185	379	34.61596	-120.31500	
115869	SY06193.1	SY06P25	193.1	387.01	34.61437	-120.31163	
115869	SY06194	SY06P26	194	388	34.61429	-120.31166	
116917	SY06204	SY06P27	204	398	34.61278	-120.30827	
118125	SY06214	SY06P27	213	407	34.60951	-120.30645	End of SY2SRB. Unsurveyed unit (SY2SRC) between points SY06214 and SYAR001
N/A	SY?MAIL	N/A	N/A	N/A	34.60965	-120.29393	
N/A	SY?SANTOS	N/A	N/A	N/A	34.60378	-120.27353	
136276	SYAR001	SYARP01	1	409	34.59673	-120.25457	Start of SY2SRD.
136677	SYARTRIB	SYARP01	6	414	34.59628	-120.25306	Trib LB.
137393	SYAR011	SYARP01	10	418	34.59630	-120.25060	End of SY2SRD. Unsurveyed area (SY2SRE) between points SYAR011 and SYFLG001
N/A	SYSTEELE	N/A	N/A	N/A	34.61677	-120.23852	
162341	SYFLG001	SYFLGP01	1	420	34.60636	-120.19993	Start of SY2SRF
162341	SYFLGAZ01	SYFLGP01	1	420	34.60641	-120.19858	Arizona Crossing
163773	SYFLG009	SYFLGP01	9	428	34.60671	-120.19535	
163917	SYFLG010	SYFLGP02	10	429	34.60688	-120.19489	
164222	SYFLAG BRG	SYFLGP02	13	432	34.60672	-120.19407	Avenue of Flags Bridge.
164752	SYFLG019	SYFLGP02	18	437	34.60686	-120.19213	End of unit SYFLG018 and SY2SRF (Unsurveyed area (SY3SRA) between points SYFLG019 and SYRFA001)
N/A	SYALISAL BRG	N/A	N/A	N/A	34.58487	-120.14493	Alisal Road Bridge
N/A	SYRFGBRG	N/A	N/A	N/A	34.58506	-120.10046	Refugio Road Bridge
197505	SYRFA001	SYRFAP01	1	439	34.58465	-120.10021	Start of SY3SRB
198936	SYRFA010	SYRFAP02	10	448	34.58316	-120.09369	
198981	SYRFAFISHTRAP	SYRFAP02	11	449	34.58297	-120.09343	
199604	SYRFA016	SYRFAP04	16	454	34.58215	-120.09199	
200048	SYRFA016.1	SYRFAP03	16.1	454.1	34.58196	-120.09190	
200048	SYRFA016.4.1	SYRFAP04	16.4.1	454.4.1	34.58156	-120.09149	
200048	SYRFA016.4.5	SYRFAP04	16.4.5	454.4.5	34.58193	-120.09051	
200048	SYRFA16.4.6	SYRFAP04	16.4.6	454.4.6	34.58236	-120.08874	
200048	SYRFA17	SYRFAP04	17	455	34.58247	-120.09067	
200429	SYRFA020	SYRFAP04	19	457	34.58255	-120.08931	SYRFA020 marks end of survey

Salsipuedes Creek GPS Points

Salsipuedes Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SPCCFL	N/A	N/A	N/A	34.62802	-120.41427	Salsipuedes confluence with Santa Ynez
N/A	SYRSALSI	N/A	N/A	N/A	34.62187	-120.42140	
3257	SPCA001	SPCAP01	1	2	34.62200	-120.42157	
3376	SPCASRB01	SPCAP01	3	4	34.62190	-120.42200	Santa Rosa Bridge
4053	SPCA011	SPCAP02	11	12	34.62058	-120.42375	
4795	SPCA021	SPCAP03	21	22	34.61908	-120.42453	
5564	SPCA031	SPCAP04	31	32	34.61738	-120.42445	
6481	SPCA041	SPCAP05	41	42	34.61517	-120.42507	
7782	SPCA051	SPCAP06	51	52	34.61230	-120.42423	
8773	SPCA061	SPCAP07	61	62	34.61235	-120.42212	
9408	SPCA071	SPCAP08	71	72	34.61128	-120.42070	
10187	SPCA081	SPCAP09	81	82	34.60982	-120.41892	
11232	SPCA091	SPCAP10	91	92	34.60701	-120.41786	
12241	SPCA101	SPCAP11	101	102	34.60441	-120.41718	
13139	SPCA111	SPCAP12	111	112	34.60200	-120.41645	
N/A	SPCRDACS01	N/A	N/A	N/A	34.60183	-120.41699	
13799	SPCA121	SPCAP13	121	122	34.60024	-120.41702	
14480	SPCA131	SPCAP14	131	132	34.59887	-120.41697	
15290	SPCA141	SPCAP15	141	142	34.59811	-120.41432	
16008	SYHWY1SALSI	N/A	N/A	N/A	34.59670	-120.41313	Point also known as SALPHW01.
16112	SPCA151	SPCAP16	151	152	34.59658	-120.41304	
16806	SPCA161	SPCAP17	161	162	34.59515	-120.41236	
17571	SPCA171	SPCAP18	171	172	34.59357	-120.41131	
18196	SPCA179	SPCAP18	179	180	34.59197	-120.41185	
18423	SPCA181	SPCAP19	181	182	34.59162	-120.41163	
18943	SPCA190	SPCAP20	190	191	34.59028	-120.41187	
19768	SPCA200	SPCAP21	200	201	34.58984	-120.40934	
N/A	SYJALSALSI1	N/A	N/A	N/A	34.58960	-120.40905	
19974	SPCJUL01	SPCAP21	203	203	34.58939	-120.40878	
20559	SPCA210	SPCAP22	210	211	34.58820	-120.40943	
21426	SPCA220	SPCAP23	220	221	34.58622	-120.40852	
22009	SPCA230	SPCAP24	230	231	34.58503	-120.40972	
22436	SPCA233.1	SPCAP24	233.0	234.01	34.58458	-120.40912	

Salsipuedes Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
			1				
22571	SPCAELJCFL	SPCAP24	237	238	34.58425	-120.40808	Salsipuedes confluence with El Jaro
N/A	SALPJUL01	N/A	N/A	N/A	34.56893	-120.41033	
N/A	SALPJUL02	N/A	N/A	N/A	34.56413	-120.40852	
32341	SPCB239	SPCBP01	239	240	34.56087	-120.40717	
N/A	SYFREERCH	N/A	N/A	N/A	34.56052	-120.40722	Freedom Ranch
32813	SPCB249	SPCBP02	249	250	34.55989	-120.40657	
33368	SPCB259	SPCBP03	259	260	34.55874	-120.40560	
33768	SPCB268	SPCBP04	268	269	34.55813	-120.40453	
33801	SPCBTRB01	SPCBP04	269	270	34.55790	-120.40429	
34314	SPCB278	SPCBP05	278	279	34.55697	-120.40396	
34666	SPCB288	SPCBP06	288	289	34.55631	-120.40472	
34850	SPCBTRB02	SPCBP06	297	298	34.55561	-120.40465	
35055	SPCB298	SPCBP07	298	299	34.55529	-120.40458	
35630	SPCB308	SPCBP08	308	309	34.55385	-120.40357	
35769	SPCB313	SPCBP09	313	314	34.55338	-120.40369	
35834	SPCBBRDG1	SPCBP09	314	315	34.55325	-120.40390	
36047	SPCB323	SPCBP10	323	324	34.55281	-120.40403	
36438	SPCB333	SPCBP11	333	334	34.55206	-120.40334	
36601	SPCBBRDG2	SPCBP11	337	338	34.55187	-120.40292	
36813	SPCB343	SPCBP12	343	344	34.55144	-120.40254	
37249	SPCB353	SPCBP13	353	354	34.55046	-120.40196	
37473	SPCB363	SPCBP14	363	364	34.55005	-120.40165	
37680	SPCB373	SPCBP15	373	374	34.54964	-120.40137	
37927	SPCB383	SPCBP16	383	384	34.54928	-120.40117	
38175	SPCB393	SPCBP17	393	394	34.54893	-120.40048	
38544	SPCB403	SPCBP18	403	404	34.54904	-120.39946	
38804	SPCB413	SPCBP19	413	414	34.54932	-120.39867	
39158	SPCB423	SPCBP20	423	424	34.54960	-120.39793	
39478	SPCB433	SPCBP21	433	434	34.54940	-120.39705	
40024	SPCB443	SPCBP22	443	444	34.54833	-120.39599	
40314	SPCB453END	SPCBP22	452	453	34.54759	-120.39547	
N/A	SPCBLWD	N/A	N/A	N/A	34.54718	-120.39521	

El Jaro Creek GPS Points

El Jaro Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SPAELJCFL	N/A	N/A	1	34.58425	-120.40808	El Jaro Confluence with Salsipuedes Creek, Start of unsurveyed area
8821	ELJHGH01	N/A	N/A	N/A	34.58347	-120.38512	Bridge Crossing
15778	EJIS001	EJISP01	1	2	34.57372	-120.37109	
15947	EJISTRIB01	EJISP01	7	8	34.57303	-120.37007	
16354	EJIS011	EJISP02	11	12	34.57212	-120.36983	
16423	EJISTRIB02	EJISP02	12	13	34.57187	-120.36987	Tributary enters main channel from LB.
17316	EJIS021	EJISP03	21	22	34.56959	-120.36883	
18057	EJIS031	EJISP04	31	32	34.56791	-120.36781	
18257	EJISTRIB03	EJISP04	33	34	34.56770	-120.36704	Tributary enters main channel from LB.
18860	EJIS041	EJISP05	41	42	34.56752	-120.36525	
19711	EJIS051	EJISP06	51	52	34.56578	-120.36449	
19806	EJISTRIB04	EJISP06	52	53	34.56582	-120.36410	
20441	EJIS061	EJISP07	61	62	34.56464	-120.36458	
21205	EJISTRIB05	EJISP07	70	71	34.56304	-120.36302	
21289	EJIS071	EJISP08	71	72	34.56301	-120.36312	
21710	EJIS076	EJISP09	76	77	34.56227	-120.36416	
21782	ELJHW0102	N/A	N/A	N/A	34.56228	-120.36449	Highway 1
22095	EJLAMOCFL	EJISP09	83	84	34.56161	-120.36531	El Jaro Confluence with Los Amoles Creek
22307	EJIS086	EJISP10	86	87	34.56115	-120.36509	
22993	EJIS096	EJISP11	96	97	34.55982	-120.36467	
23774	EJIS106	EJISP12	106	107	34.55788	-120.36562	
24463	EJIS116	EJISP13	116	117	34.55661	-120.36395	
24988	EJIS126	EJISP14	126	127	34.55568	-120.36292	
25303	EJISB001	EJISBP01	1	132	34.55514	-120.36227	
25866	EJISB011	EJISBP02	11	142	34.55372	-120.36163	
26461	EJISB021	EJISBP03	21	152	34.55223	-120.36100	
26700	EJISB025.1	EJISBP03	25.1	156.1	34.55177	-120.36040	
26837	EJISB030	EJISBP04	30	161	34.55154	-120.35983	
27542	EJISB040	EJISBP05	40	171	34.54972	-120.35910	
28129	EJISB050	EJISBP06	50	181	34.54811	-120.35948	

El Jaro Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
28158	EJISBTRIB01	EJISBP06	58	189	34.54679	-120.35863	
28691	EJISB060	EJISBP07	60	191	34.54648	-120.35848	
28935	EJISB065.1	EJISBP07	65.1	196.01	34.54608	-120.35786	
28935	EJISB066	EJISBP08	66	197	34.54606	-120.35789	
29440	EJISB076	EJISBP09	76	207	34.54499	-120.35863	
29687	EJISB084	EJISBP10	84	215	34.54431	-120.35867	
29835	EJISBTRIB02	EJISBP10	86	217	34.54389	-120.35831	
30279	EJISB094	EJISBP11	94	225	34.54344	-120.35714	
30314	EJISB095	EJISBP11	N/A	N/A	34.54338	-120.35707	End of El Jaro survey
31412	ELJHW0103	N/A	N/A	N/A	34.54189	-120.35451	
40918	ELJHW0104	N/A	N/A	N/A	34.52176	-120.33756	
54990	ELJHW0105	N/A	N/A	N/A	34.52454	-120.29918	

Nojoqui Creek GPS Points

Nojoqui Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SYNJCFL	N/A	N/A	1	34.60660	-120.19063	Nojoqui Creek confluence with Santa Ynez River
35415	SYNJ001	SYNJP01	1	2	34.53812	-120.18493	
35849	SYNJ011	SYNJP02	11	12	34.53743	-120.18478	
36431	SYNJ021	SYNJP03	21	22	34.53767	-120.18348	
37052	SYNJA001	SYNJAP01	1	27	34.53755	-120.18167	
37790	SYNJA011	SYNJAP02	11	37	34.53563	-120.18085	
38487	SYNJABRDG01	SYNJAP02	19	45	34.53543	-120.17883	
38542	SYNJA021	SYNJAP03	21	47	34.53550	-120.17852	
39258	SYNJA031	SYNJAP04	31	57	34.53510	-120.17650	
39355	SYNJA033	SYNJAP04	33	59	34.53545	-120.17632	
39533	SYNJBBRDG01	SYNJBP01	1	62	34.53517	-120.17595	Alisal Road Bridge
39533	SYNJBTRIB01	SYNJBP01	1	62	34.53475	-120.17572	
40572	SYNJB011	SYNJBP02	11	72	34.53232	-120.17603	
41152	SYNJB013	SYNJBP02	13	74	34.53080	-120.17608	
41488	SYNJB014	SYNJBP02	14	75	34.52995	-120.17570	
41488	SYNJBTRIB02	SYNJBP02	14	75	34.52977	-120.17537	

Nojoqui Creek GPS Points							
41839	SYNJB015	SYNJBP02	15	76	34.52962	120.17458	
41980	SYNJB016	SYNJBP02	16	77	34.52948	-120.17440	
42136	SYNJBBRDG02	SYNJBP02	17	78	34.52955	-120.17388	
42142	SYNJB018	SYNJBP02	18	79	34.52953	-120.17388	
42142	SYNJBTRIB03	SYNJBP02	18	79	34.52937	-120.17368	
42342	SYNJB020	SYNJBP02	20	81	34.52933	-120.17325	
42391	SYNJB021	SYNJBP03	21	82	34.52935	-120.17303	
42670	SYNJB029	SYNJBP03	28	89	34.52845	-120.17228	End of Nojoqui Creek survey

UPPER SANTA YNEZ SURVEY GPS POINTS

All latitudes and longitudes formatted using NAD 83, decimal degrees.

Cachuma Creek GPS Points

Cachuma Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	CACCFL	N/A	N/A	1	34.60632	-119.93691	Start of Cachuma Creek
38273	CAC001	CACP01	1	2	34.69173	-119.90709	Start of CACP01
38596	CAC011	CACP02	11	12	34.69153	-119.90788	Start of CACP02
39232	CAC021	CACP03	21	22	34.69259	-119.90937	Start of CACP03
39713	CAC031	CACP04	31	32	34.69388	-119.91000	Start of CACP04
40332	CAC041	CACP05	31	42	34.69535	-119.91034	Start of CACP05
40700	CAC051	CACP06	31	52	34.69615	-119.91094	Start of CACP06
41091	CAC061	CACP07	31	62	34.69721	-119.91157	Start of CACP07
41091	CACTRIB1	CACP07	31	62	34.69722	-119.91153	Trib at start of unit LB, dry but some wet areas further up
41422	CAC071	CACP08	31	72	34.69772	-119.91236	Start of CACP08
41806	CAC081	CACP09	31	82	34.69811	-119.91342	Start of CACP09
42100	CACTRIB2	CACP09	31	89	34.69859	-119.91448	Trib dry at Creek RB, flowing at Happy Canyon Road
42403	CAC091	CACP10	31	92	34.69916	-119.91462	Start of CACP10
42569	CAC091.1	CACP10	31	92.1	34.69918	-119.91468	Side channel on right bank
42731	CAC098	CACP11	31	99	34.69957	-119.91544	Start of CACP11
43420	CAC108	CACP12	31	109	34.70055	-119.91638	Start of CACP12
43820	CAC118	CACP13	31	119	34.70202	-119.91643	Start of CACP13
44097	HAPPYCYNRD	CACP13	31	125	34.70268	-119.91690	Happy Canyon Road crossing
44129	LIONCYNTRIB	CACP13	31	126	34.70281	-119.91707	Lion Canyon Creek Confluence
44247	CAC128	CACP14	31	129	34.70299	-119.91716	Start of CACP14
44794	CAC138	CACP15	31	139	34.70439	-119.91698	Start of CACP15
45222	CAC148	CACP16	31	149	34.70545	-119.91675	Start of CACP16
45893	CAC158	CACP17	31	159	34.70706	-119.91626	Start of CACP17
46341	CAC168	CACP18	31	169	34.70810	-119.91562	Start of CACP18
46403	CAC169	CACP18	31	170	34.70819	-119.91538	Possible trib LB
46934	CAC178	CACP19	31	179	34.70943	-119.91487	Start of CACP19
47364	CAC188	CACP20	31	189	34.71030	-119.91511	Start of CACP20
47585	CAC189	CACP20	31	190	34.71078	-119.91557	Side channel at start of unit.

Cachuma Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
47972	CAC198	CACP21	31	199	34.71167	-119.91540	Start of CACP21
48189	CAC206	CACP21	31	207	34.71222	-119.91548	Very high gradient, no water connecting steps
48272	CAC208	CACP22	31	209	34.71243	-119.91554	Start of CACP22
48927	CACTRIB4	CACP22	31	214	34.71371	-119.91494	Point taken at apparent trib, start of unsurveyed reach, too overgrown to survey
53121	CACDRY	CACP22	31	214	34.72470	-119.91827	Point at which Cachuma Creek is dry

Santa Cruz Creek GPS Points

Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SCCACFL	N/A	N/A	1	34.59141	-119.91456	Start of Santa Cruz Creek
54853	SC001	SCP01	1	2	34.63000	-119.78842	Start of SCP01
55854	SC011	SCP02	11	12	34.62980	-119.78610	Start of SCP02
56727	SC021	SCP03	21	22	34.63116	-119.78427	Start of SCP03
57357	SC031	SCP04	31	32	34.62943	-119.78369	Start of SCP04
58044	SC038	SCP05	38	39	34.62964	-119.78243	Start of SCP05
58655	SC048	SCP06	48	49	34.63064	-119.78076	Start of SCP06
59715	SC058	SCP07	58	59	34.62850	-119.78060	Start of SCP07
60081	SCTRIB1	SCP07	62	63	34.62857	-119.77941	Left bank trib with flowing water
60539	SC068	SCP08	68	69	34.62961	-119.77879	Start of SCP08
61375	SC078	SCP09	78	79	34.63154	-119.77814	Start of SCP09
62314	SC088	SCP10	88	89	34.63194	-119.77533	Start of SCP10
63383	SC098	SCP11	98	99	34.63258	-119.77254	Start of SCP11
64103	SC108	SCP12	108	109	34.63209	-119.77077	Start of SCP12
64839	SC118	SCP13	118	119	34.63179	-119.76938	Start of SCP13
65600	SC128	SCP14	128	129	34.63153	-119.76696	Start of SCP14
66673	SC138	SCP15	138	139	34.63144	-119.76411	Start of SCP15
67462	SC148	SCP16	148	149	34.63117	-119.76173	Start of SCP16
68021	SCRD1	SCP16	155	156	34.63265	-119.76098	Natural bottom road crossing within run unit.
68294	SC158	SCP17	158	159	34.63293	-119.76037	Start of SCP17

Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
68408	SCDRY1	N/A	N/A	N/A	34.63277	-119.76000	Dry area observed between SC158 and SC168 on 07.17.12
69140	SC168	SCP18	168	169	34.63335	-119.75817	Start of SCP18
70020	SC178	SCP19	178	179	34.63483	-119.75594	Start of SCP19
70630	SCDF1	N/A	N/A	N/A	34.63627	-119.75513	Dead O. mykiss observed between SC178 and SC188 on 07.17.12
70990	SCDRYEND	N/A	N/A	N/A	34.63641	-119.75405	End of dry area observed on 07.17.12
71020	SC188	SCP20	188	189	34.63639	-119.75387	Start of SCP20
71616	SC198	SCP21	198	199	34.63661	-119.75218	Start of SCP21
72283	SC208	SCP22	208	209	34.63823	-119.75131	Start of SCP22
73018	SC218	SCP23	218	219	34.63996	-119.75051	Start of SCP23
73594	SC228	SCP24	228	229	34.64126	-119.75135	Start of SCP24

East Fork Santa Cruz Creek GPS Points

East Fork Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SCEF001	SCEFP01	1	1	34.64166	-119.75096	Start of SCEFP01
183	SCEFBAR01	SCEFP01	4	4	34.64173	-119.75020	Stoecker Barrier, plunge = 11ft.
237	SCEF005	SCEFP02	5	5	34.64174	-119.75011	Start of SCEFP02
798	SCEF015	SCEFP03	15	15	34.64204	-119.74874	Start of SCEFP03
1730	SCEF025	SCEFP04	25	25	34.64395	-119.74744	Start of SCEFP04
2340	SCEF035	SCEFP05	35	35	34.64497	-119.74607	Start of SCEFP05
2973	SCEF045	SCEFP06	45	45	34.64647	-119.74508	Start of SCEFP06
4085	SCEF055	SCEFP07	55	55	34.64727	-119.74306	Start of SCEFP07
4797	SCEF065	SCEFP08	65	65	34.64768	-119.74153	Start of SCEFP08
5393	SCEF075	SCEFP09	75	75	34.64871	-119.74063	Start of SCEFP09
6284	SCEF085	SCEFP10	85	85	34.64903	-119.73818	Start of SCEFP10
7365	SCEF095	SCEFP11	95	95	34.65084	-119.73564	Start of SCEFP11
7818	SCEF097	SCEFP11	97	97	34.65114	-119.73422	Dry unit
8508	SCEF105	SCEFP12	105	105	34.65248	-119.73309	Start of SCEFP12
9198	SCEF115	SCEFP13	115	115	34.65313	-119.73120	Start of SCEFP13

East Fork Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
10267	SCEF125	SCEFP14	125	125	34.65391	-119.72874	Start of SCEFP14
11261	SCEF135	SCEFP15	134	134	34.65497	-119.72604	End of East Fork Santa Cruz Survey

West Fork Santa Cruz Creek GPS Points

West Fork Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SCWF001	SCWFP01	1	1	34.64172	-119.75103	Start of SCWFP01
458	SCWF011	SCWFP02	11	11	34.64258	-119.75170	Start of SCWFP02
1421	SCWF021	SCWFP03	21	21	34.64492	-119.75215	Start of SCWFP03
2472	SCWF031	SCWFP04	31	31	34.64649	-119.75348	Start of SCWFP04
3048	SCWF041	SCWFP05	41	41	34.64778	-119.75387	Start of SCWFP05
4127	SCWF051	SCWFP06	51	51	34.64988	-119.75546	Start of SCWFP06
4882	SCWF061	SCWFP07	61	61	34.65123	-119.75722	Start of SCWFP07
6595	SCWF071	SCWFP08	71	71	34.65499	-119.75792	Start of SCWFP08
7351	SCWF081	SCWFP09	81	81	34.65693	-119.75789	Start of SCWFP09
8057	SCWF091	SCWFP10	91	91	34.65827	-119.75942	Start of SCWFP10
8879	SCWF101	SCWFP11	101	101	34.65987	-119.76126	Start of SCWFP11
9357	SCWF111	SCWFP12	111	111	34.66088	-119.76147	Start of SCWFP12
10300	SCWF121	SCWFP13	121	121	34.66240	-119.76386	Start of SCWFP13
11140	SCWF131	SCWFP14	131	131	34.66426	-119.76521	Start of SCWFP14
11584	SCWF141	SCWFP15	141	141	34.66514	-119.76556	Start of SCWFP15
12240	SCWF151	SCWFP16	151	151	34.66657	-119.76656	Start of SCWFP16
13050	SCWF161	SCWFP17	161	161	34.66784	-119.76833	Start of SCWFP17
14229	SCWF171	SCWFP18	171	171	34.66966	-119.76856	Start of SCWFP18
14994	SCWF181	SCWFP19	181	181	34.67164	-119.76895	Start of SCWFP19
15703	SCWF191	SCWFP20	191	191	34.67121	-119.77109	Start of SCWFP20
16406	SCWF201	SCWFP21	201	201	34.67128	-119.77355	Start of SCWFP21
16766	SCWF211	SCWFP22	211	211	34.67216	-119.77401	Start of SCWFP22
17615	SCWF221	SCWFP23	221	221	34.67428	-119.77525	Start of SCWFP23
18162	SCWF231	SCWFP24	231	231	34.67581	-119.77563	Start of SCWFP24

West Fork Santa Cruz Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
18812	SCWF241	SCWFP25	241	241	34.67608	-119.77749	Start of SCWFP25
19400	SCWF251	SCWFP26	251	251	34.67725	-119.77851	Start of SCWFP26
19950	SCWF261	SCWFP27	261	261	34.67697	-119.78007	Start of SCWFP27
20301	SCWF271	SCWFP28	271	271	34.67700	-119.78113	Start of SCWFP28
20685	SCWF281	SCWFP29	281	281	34.67720	-119.78231	Start of SCWFP29
21228	SCWF289	SCWFP29	288	288	34.67800	-119.78362	End of West Fork Santa Cruz Creek survey.

Upper Santa Ynez GPS Points

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SYA000	N/A	N/A	1	34.55774	-119.88163	
24897	SYA001	SYAP01	1	2	34.54709	-119.81591	Start of SYAP01
26335	SYA011	SYAP02	11	12	34.54358	-119.81457	Start of SYAP02
26556	SYA013A	SYAP02	13	14	34.54342	-119.81392	
26556	SYATRB01	SYAP02	13	14	34.54378	-119.81275	Paradise Canyon Trib LB
27718	SYA015A	SYAP02	15	16	34.54473	-119.81034	
28642	SYA016A	SYAP02	16	17	34.54507	-119.80728	
29021	SYA021	SYAP03	21	22	34.54513	-119.80598	Start of SYAP03
29880	SYA029	SYAP04	29	30	34.54514	-119.80316	Start of SYAP04
30777	SYA039	SYAP05	39	40	34.54369	-119.80076	Start of SYAP05
31248	SYA043.6	SYAP06	43.6	44.6	34.54221	-119.79978	Start of SYAP06
31822	SYA048.3	SYAP07	48.3	49.3	34.54308	-119.79844	Start of SYAP07
31822	SYA049	SYAP08	49	50	34.54278	-119.79871	Start of SYAP08
32659	SYA058	SYAP09	58	59	34.54418	-119.79671	Start of SYAP09
33299	SYA063.1	SYAP09A	63.1	64.1	34.54564	-119.79607	Start of SYAP09A
33299	SYA063.2	SYAP09A	63.2	64.2	34.54611	-119.79452	
33299	SYA063.4	SYAP09A	63.4	64.4	34.54617	-119.79404	
33299	SYA063.4B	SYAP09A	63.4	64.4	34.54629	-119.79345	
33430	SYA065	SYAP09	65	66	34.54663	-119.79638	
33764	SYA068	SYAP10	68	69	34.54681	-119.79562	Start of SYAP10

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
34184	SYA078	SYAP11	78	79	34.54674	-119.79426	Start of SYAP11
34384	SYA079.1	SYAP11A	79.1	80.1	34.54650	-119.79363	Start of SYAP11A
34384	SYA.79.5B	SYAP11A	79.5	80.5	34.54614	-119.79265	
34498	SYA083	SYAP11	83	84	34.54644	-119.79319	
35203	SYAAZ01	SYAP11	85	86	34.54534	-119.79133	Arizona Crossing.
35909.5	SYA088	SYAP12	88	89	34.54397	-119.78936	Start of SYAP12
36663.5	SYA098	SYAP13	98	99	34.54343	-119.78677	Start of SYAP13
37166.5	SYATRB02A	SYAP13	106	107	34.54326	-119.78506	
37166.5	SYATRB02B	SYAP13	106	107	34.54294	-119.78509	
37361.5	SYA108	SYAP14	108	109	34.54325	-119.78449	Start of SYAP14
38212.5	SYA118	SYAP15	118	119	34.54432	-119.78193	Start of SYAP15
38743.5	SYA123	SYAP15	123	124	34.54568	-119.78185	
39033.5	SYA127	SYAP16	127	128	34.54642	-119.78128	Start of SYAP16
40675.5	SYA137	SYAP17	137	138	34.54635	-119.77727	Start of SYAP17
40769.5	SYAAZ02	SYAP17	138	139	34.54611	-119.77715	Arizona Crossing.
41403.5	SYATRB03	SYAP17	140	141	34.54509	-119.77541	Oso creek
42377	SYA145	SYAP18	145	146	34.54404	-119.77251	Start of SYAP18
43191	SYA155	SYAP19	155	156	34.54305	-119.76939	Start of SYAP19
43498	SYA159	SYAP19	159	160	34.54243	-119.76810	
43674	SYA160	SYAP19	160	161	34.54215	-119.76758	
43909	SYA163	SYAP19	163	164	34.54170	-119.76695	
44024	SYA164	SYAP19	164	165	34.54151	-119.76657	Start of SYAP20
44128	SYA165	SYAP20	165	166	34.54141	-119.76624	
44590	SYA166	SYAP20	166	167	34.54121	-119.76466	
44810	SYA168	SYAP20	168	169	34.54108	-119.76398	
45083	SYA172	SYAP20	172	173	34.54060	-119.76318	
45083	SYA172TRL	SYAP20	172	173	34.54010	-119.76143	Trail crosses unit.
46926	SYA172B	SYAP20	172	173	34.54118	-119.75730	End of SYA172
46926	SYA173	SYAP21	173	174	34.53837	-119.75088	Start of SYAP21
46926	SYA173A	SYAP21	173	174	34.54103	-119.75520	
46926	SYA173B	SYAP21	173	174	34.54021	-119.75372	
49204	SYA174	SYAP21	174	175	34.53837	-119.75088	
49672	SYA177	SYAP21	177	178	34.53779	-119.74912	

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
50084	SYAAZ03	SYAP21	182	183	34.53836	-119.74778	Concrete Paradise Road crossing.
50109	SYA183	SYAP22	183	184	34.53837	-119.74778	Start of SYAP22
50901	SYA186	SYAP22	186	187	34.53979	-119.74566	
51026	SYA187	SYAP22	187	188	34.53971	-119.74522	
51169	SYA189	SYAP22	189	190	34.53997	-119.74472	
51303	SYA190	SYAP22	190	191	34.54022	-119.74440	
51628	SYA191	SYAP22	191	192	34.54077	-119.74361	
53231	SYA192	SYAP22	192	193	34.53895	-119.73895	
53591	SYA193	SYAP23	193	194	34.53845	-119.73793	
53810	SYA197	SYAP23	197	198	34.53819	-119.73730	
53810	SYACAMTRAIL	SYAP23	197	198	34.53671	-119.73442	Camuesa Trail crossing.
55335	SYA198	SYAP23	198	199	34.53576	-119.73300	
56041	SYA203	SYAP24	203	204	34.53371	-119.73077	Start of SYAP24
56694	SYA205	SYAP24	205	206	34.53309	-119.72985	
57228	SYATRIB1	SYAP24	207	208	34.53246	-119.72731	Trib with flowing water on left bank.
57228	SYA207A	SYAP24	207	208	34.53262	-119.72739	
58881	SYAAZ04	SYAP24	212	213	34.53493	-119.72448	Concrete Paradise Road crossing.
58896	SYA213	SYAP25	213	214	34.53499	-119.72443	Start of SYAP25
58929	SYA214	SYAP25	214	215	34.53493	-119.72430	
59404	SYA215	SYAP25	215	216	34.53533	-119.72298	
60171	SYAAZ05	SYAP25	219	220	34.53692	-119.72337	Concrete Paradise Road crossing.
60997	SYA223	SYAP26	223	224	34.53868	-119.72384	Start of SYAP26
60997	SYATRIB2	SYAP26	223	224	34.53862	-119.72333	Right bank trib.
62426	SYA233	SYAP27	233	234	34.54049	-119.71989	Start of SYAP27
63476	SYA243	SYAP28	243	244	34.54034	-119.71685	Start of SYAP28
63685	SYAAZ06	SYAP28	244	245	34.53983	-119.71662	Concrete Paradise Road crossing.
63964	SYA246	SYAP29	246	247	34.53947	-119.71627	Start of SYAP29
65797	SYA254	SYAP29	254	255	34.53485	-119.71446	
66298	SYAAZ07	SYAP29	255	256	34.53466	-119.71298	Concrete Paradise Road crossing.
66298	SYATRIB3	SYAP29	255	256	34.53455	-119.71302	Trib left bank.
66352	SYA256	SYAP30	256	257	34.53470	-119.71300	Start of SYAP30
67898	SYA266	SYAP31	266	267	34.53792	-119.70915	Start of SYAP31
68072	SYATRAIL	SYAP31	268	269	34.53842	-119.70795	Trail crossing.

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
68411	SYA271	SYAP31	271	272	34.53845	-119.70766	
68817	SYA275	SYAP31	275	276	34.53865	-119.70641	
69305	SYA276	SYAP32	276	277	34.53980	-119.70586	Start of SYAP32
69455	SYA279.1	SYAP32	279.1	280.01	34.54003	-119.70542	
69732	SYA282	SYAP32A	282	283	34.54066	-119.70411	
70358	SYA288	SYAP33	288	289	34.54072	-119.70213	Start of SYAP33
71634	SYA298	SYAP34	298	299	34.53890	-119.69884	Start of SYAP34
72784	SYA306	SYAP34	306	307	34.53611	-119.70039	
73251	SYA307	SYAP34	307	308	34.53559	-119.70193	
73312	SYA308	SYAP35	308	309	34.53550	-119.70209	Start of SYAP35
73574	SYA314	SYAP35	314	315	34.53599	-119.70268	
74181	SYA315	SYAP35	315	316	34.53681	-119.70450	
74680	SYA318	SYAP36	318	319	34.53671	-119.70605	Start of SYAP36
76169	SYA327	SYAP36	327	328	34.53330	-119.70424	Possible Trout seen.
76454	SYA328	SYAP37	328	329	34.53279	-119.70351	Start of SYAP37
77037	SYA329	SYAP37	329	330	34.53189	-119.70242	
78166	SYA336	SYAP37	336	337	34.52917	-119.70215	
78485	SYA338	SYAP38	338	339	34.52879	-119.70118	Start of SYAP38
79242	SYA344A	SYAP38	344	345	34.52851	-119.69862	
80620	SYA345.1	SYAP39A	345.1	346.01	34.52743	-119.69421	Side channel
80620	SYA345.5	SYAP39A	345.5	346.05	34.52474	-119.69315	
80620	SYA346	SYAP39	346	347	34.52677	-119.69329	Start of SYAP39
82459	SYA355	N/A	355	356	34.52218	-119.69108	Start of unsurveyed area.
100720	SYA356	SYAP40	356	357	34.52253	-119.64213	Start of SYAP40
103745	SYA357	SYAP40	357	358	34.51920	-119.63460	
103794	SYA358	SYAP40	358	359	34.51920	-119.63437	
105519	SYA359	SYAP40	359	360	34.51620	-119.63393	
105548	SYA360	SYAP40	360	361	34.51613	-119.63380	
105987	SYA366	SYAP40	365	366	34.51507	-119.63290	Point at end of 365, end of survey.
105987	SYA336A	SYAP41	366	367	34.51505	-119.63297	Start of SYAP41
	SYA366B	SYAP41	366	367	34.51282	-119.63071	
	SYA366C	SYAP41	366	367	34.51199	-119.62657	
	SYA366D	SYAP41	366	367	34.51200	-119.62551	

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
109608	SYA367	SYAP41	367	368	34.51038	-119.62414	End of dry unit, start of run unit.
110677	SYA374	SYAP41	374	375	34.50885	-119.62154	Start of dry unit
111364	SYA375	SYAP41	375	376	34.51029	-119.61954	End of dry unit, return of water
111662	SYA376	SYAP42	376	377	34.51083	-119.61872	Start of SYAP42
112993	SYA386	SYAP43	386	387	34.51091	-119.61576	Start of SYAP43
	SYA386A	SYAP43	386	387	34.51013	-119.61550	
	SYA386B	SYAP43	386	387	34.50827	-119.61206	
	SYA386C	SYAP43	386	387	34.50829	-119.61080	
	SYA386D	SYAP43	386	387	34.50751	-119.60687	
	SYA386E	SYAP43	386	387	34.51295	-119.60080	
	SYA386F	SYAP43	386	387	34.51351	-119.59905	
	SYA386G	SYAP43	386	387	34.51326	-119.59570	
	SYA386H	SYAP43	386	387	34.51277	-119.59344	
123847	SYA396	SYAP44	396	397	34.51152	-119.58644	Start of SYAP44
125272	SYA402A	SYAP44	402	403	34.51270	-119.58265	
125707	SYA406	SYAP45	406	407	34.51236	-119.58142	Start of SYAP45
127496	SYAAGUACAL	SYAP45	412	413	34.50866	-119.57784	Agua Caliente confluence with Santa Ynez
127650	SYA413	SYAP45	413	414	34.50775	-119.57894	Start of dry unit 413
	SYA413B	SYAP45	413	414	34.50738	-119.57747	Shallow stagnant pool within 413.
128288	SYA414	SYAP45	414	414	34.50704	-119.57722	Dry unit ends, run
128457	SYA415	SYAP45	415	416	34.50662	-119.57698	Start of dry unit 415
	SYA415D	SYAP45	415	416	34.50423	-119.57159	Image included in walkthrough
	SYA415F	SYAP45	415	416	34.49948	-119.56313	Deep/dry bedrock scour pools
134736	SYA416	SYAP46	416	417	34.49821	-119.56123	Start of SYAP46
135627	SYA426	SYAP47	426	427	34.49579	-119.56087	Start of SYAP47
136858	SYA436	SYAP48	436	437	34.49570	-119.55953	Start of SYAP48
	SYA438	SYAP48	438	439	34.49563	-119.55897	Start of dry unit
	SYA438A	SYAP48	438	439	34.49519	-119.55883	Image included in walkthrough
137889	SYA444	SYAP48	444	445	34.49353	-119.55822	Start of dry unit 444
	SYA444C	SYAP48	444	445	34.49377	-119.55370	Small, shallow stagnant pool.
	SYA444F	SYAP48	444	445	34.48964	-119.55379	Upstream and downstream pics included in walkthrough
	SYA444G	SYAP48	444	445	34.49046	-119.55293	Beaver dam, pic included in walkthrough

Upper Santa Ynez GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
	SYA444H	SYAP48	444	445	34.49119	-119.55190	Beaver dam
	SYA444I	SYAP48	444	445	34.48983	-119.54964	Pic included in walkthrough.
146183	SYA446	SYAP49	446	447	34.48921	-119.54456	Start of SYAP49
147332	SYA456	SYAP50	456	457	34.48690	-119.54255	Start of SYAP50
147566	SYAAZ08	SYAP50	459	460	34.48647	-119.54159	Camuesa Road Arizona crossing
148538	SYA466	SYAP51	466	467	34.48599	-119.53860	Start of SYAP51
149413	SYA475	SYAP51	475	476	34.48678	-119.53606	Start of dry unit 475
	SYA475A	SYAP51	475	476	34.48709	-119.53569	Pic included in walkthrough.
152109	SYA476	SYAP52	476	477	34.48605	-119.52951	Start of SYAP52
152336	SYA477	SYAP52	477	478	34.48588	-119.52880	Start of dry unit 477
	SYA477A	SYAP52	477	478	34.48631	-119.52482	Pic included in walkthrough.
	SYAALCFLS	SYAP52	477	478	34.48668	-119.52031	Alder Creek confluence with Santa Ynez
156421	SYAAZ09	SYAP52	478	479	34.48933	-119.51681	Juncal Road Arizona crossing.
158974	SYA480	SYAP52	480	481	34.49335	-119.51618	Unit 480 Bedrock Scour Pool
159370	SYA482	SYAP52	482	483	34.49397	-119.51533	Unit 482 Bedrock Scour Pool
160060	SYAEND	SYAP52	485	486	34.49377	-119.51385	End of Santa Ynez survey

Oso Creek GPS Points

Oso Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SYATRB03	SYOSOP01	1	1	34.54509	-119.77541	Oso Creek confluence with Santa Ynez.
77	SYOSOBRDG01	SYOSOP01	2	2	34.54562	-119.77498	
1435	SYOSO011	SYOSOP02	11	11	34.54561	-119.77190	
1997	SYOSOBRDG02	SYOSOP02	18	18	34.54508	-119.77059	
2160	SYOSO021	SYOSOP03	21	21	34.54539	-119.77059	
3344	SYOSO024	SYOSOP03	24	24	34.54826	-119.76991	
3617	SYOSO025	SYOSOP03	25	25	34.54902	-119.77014	
3852	SYOSOTRIB01DRY	SYOSOP03	30	30	34.55011	-119.76964	
4252	SYOSO031	SYOSOP04	31	31	34.55057	-119.76989	
4455	SYOSOTRIB02	SYOSOP04	34	34	34.55115	-119.76995	

Oso Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
5522	SYOSO041	SYOSOP05	41	41	34.55473	-119.76988	
5538	SYOSOAZ01	SYOSOP05	42	42	34.55488	-119.77009	
6033	SYOSOBRDG03	SYOSOP05	47	47	34.55552	-119.77121	
6057	SYOSOTRIB03DRY	SYOSOP05	48	48	34.55569	-119.77131	
6488	SYOSO051	SYOSOP06	51	51	34.55632	-119.77206	
7149	SYOSOAZ02	SYOSOP06	54	54	34.55745	-119.77168	
7581	SYOSO061	SYOSOP07	61	61	34.55836	-119.77156	
8482	SYOSO071	SYOSOP08	71	71	34.56037	-119.77069	
9068	SYOSO081	SYOSOP09	81	81	34.56172	-119.76947	
10098	SYOSO091	SYOSOP10	91	91	34.56385	-119.76914	
10821	SYOSOTRIB04	SYOSOP10	97	97	34.56472	-119.76734	
10967	SYOSO101	SYOSOP11	101	101	34.56500	-119.76662	
11523	SYOSO111	SYOSOP12	111	111	34.56513	-119.76558	
12032	SYOSO121	SYOSOP13	121	121	34.56466	-119.76412	
12532	SYOSOTRIB05DRY	SYOSOP13	130	130	34.56525	-119.76314	
12556	SYOSO131	SYOSOP14	131	131	34.56544	-119.76317	
13277	SYOSO141	SYOSOP15	141	141	34.56622	-119.76162	
13805	SYOSO151	SYOSOP16	151	151	34.56643	-119.76043	
14355	SYOSO161	SYOSOP17	161	161	34.56714	-119.75947	
14825	SYOSOTRIB06	SYOSOP17	170	170	34.56815	-119.75863	
14929	SYOSO171	SYOSOP18	171	171	34.56826	-119.75857	
15403	SYOSO181	SYOSOP19	181	181	34.56866	-119.75731	
15546	SYOSOTRIB07	SYOSOP19	184	184	34.56883	-119.75690	
15853	SYOSO191	SYOSOP20	191	191	34.56947	-119.75693	
16038	SYOSOTRIB08	SYOSOP20	197	197	34.57020	-119.75687	
16210	SYOSO201	SYOSOP21	201	201	34.57049	-119.75684	
16210	SYOSOTRIB09	SYOSOP21	201	201	34.57059	-119.75678	
16658	SYOSO211	SYOSOP22	211	211	34.57131	-119.75702	
16967	SYOSO221	SYOSOP23	221	221	34.57177	-119.75638	
17053	SYOSOTRIB10	SYOSOP23	222	222	34.57176	-119.75630	
17303	SYOSO227	SYOSOP23	227	227	34.57231	-119.75622	
17524	SYOSO228	SYOSOP24	228	228	34.57291	-119.75601	
17646	SYOSOSPLIT	SYOSOP24	231	231	34.57318	-119.75580	

Oso Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
17785	SYOSOTRAIL	SYOSOP24	233	233	34.57329	-119.75560	Trail crosses middle of unit
17953	SYOSO238	SYOSOP25	238	238	34.57329	-119.75534	
18221	SYOSO248	SYOSOP26	248	248	34.57377	-119.75499	
18463	SYOSO254	SYOSOP26	254	254	34.57402	-119.75429	
18517	SYOSO255	SYOSOP26	255	255	34.57403	-119.75412	
18549	SYOSO256	SYOSOP26	256	256	34.57394	-119.75405	
18611	SYOSO258	SYOSOP27	258	258	34.57392	-119.75384	
18667	SYOSO260	SYOSOP27	260	260	34.57391	-119.75373	
18686	SYOSO261	SYOSOP27	261	261	34.57393	-119.75359	
18718	SYOSO262	SYOSOP27	262	262	34.57403	-119.75353	
18800	SYOSO263	SYOSOP27	263	263	34.57415	-119.75333	
18860	SYOSO264	SYOSOP27	264	264	34.57431	-119.75314	
18887	SYOSO265	SYOSOP27	265	265	34.57432	-119.75309	
18927	SYOSO266	SYOSOP27	266	266	34.57437	-119.75281	
18952	SYOSO267	SYOSOP27	267	267	34.57441	-119.75281	
19013	SYOSO268	SYOSOP28	268	268	34.57456	-119.75264	
19023	SYOSO269	SYOSOP28	269	269	34.57461	-119.75261	
19465	SYOSO278	SYOSOP29	278	278	34.57489	-34.57489	
19495	SYOSO279.1	SYOSOP29	279.1	279.1	34.57490	-119.75138	
19674	SYOSO287	SYOSOP30	287	287	34.57514	-119.75087	
20299	SYOSO297	SYOSOP31	297	297	34.57504	-119.74908	
20610	SYOSO307	SYOSOP32	307	307	34.57550	-119.74868	
20909	SYOSO317	SYOSOP33	317	317	34.57571	-119.74783	
21300	SYOSO327	SYOSOP34	327	327	34.57598	-119.74683	
21743	SYOSO337	SYOSOP35	337	337	34.57599	-119.74569	
22057	SYOSO347	SYOSOP35	346	346	34.57619	-119.74478	Point marks end of unit SYOSO346

Mono Creek GPS Points

Mono Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description

Mono Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	SYMONOCFL	MONOP01	1	1	34.51950	-119.63322	Start of Mono Creek Survey
1546	MONO011	MONOP02	11	11	34.52230	-119.63078	Start of MONOP02
2627	MONO021	MONOP03	21	21	34.52364	-119.62767	Start of MONOP03
4198	MONO031	MONOP04	31	31	34.52726	-119.62897	Start of MONOP04
4982	MONO037	MONOP05	37	37	34.52877	-119.63049	Start of MONOP05
5541	MONODAM	MONOP05	46	46	34.53027	-119.63062	Mono Debris Dam
5563	MONO047	MONOP06	47	47	34.53048	-119.63056	Start of MONOP06
6373	MONO051	MONOP07	51	51	34.53118	-119.63256	Start of MONOP07
7027	MONOINDCON	MONOP07	56	56	34.53321	-119.63309	Indian Creek enters Mono Creek via right bank.
7791	MONO061	MONOP08	61	61	34.53448	-119.63297	Start of MONOP08
8689	MONOCAMRD	MONOP08	64	64	34.53658	-119.63227	Camuesa Road AZ crossing.
9657	MONO071	MONOP09	71	71	34.53900	-119.63134	Start of MONOP09
11091	MONO081	MONOP10	81	81	34.53978	-119.62717	Start of MONOP10
12277	MONO091	MONOP11	91	91	34.54191	-119.62449	Start of MONOP11
12456	MONO093.1	MONOP11	93.1	93.01	34.54228	-119.62447	Side channel left bank.
13690	MONO102	MONOP12	102	102	34.54326	-119.62819	Start of MONOP12
14862	MONO112	MONOP13	112	112	34.54622	-119.62912	Start of MONOP13
15661	MONO120.1	MONOP13	120.1	120.01	34.54645	-119.62670	Side channel right bank.
15661	MONO121	MONOP14	121	121	34.54654	-119.62680	Start of MONOP14
16897	MONO131	MONOP15	131	131	34.54564	-119.62320	Start of MONOP15
18208	MONO141	MONOP16	141	141	34.54920	-119.62247	Start of MONOP16
19028	MONO151	MONOP17	151	151	34.55063	-119.62103	Start of MONOP17
19743	MONO161	MONOP18	161	161	34.55147	-119.62005	Start of MONOP18
20551	MONO171	MONOP19	171	171	34.55335	-119.62142	Start of MONOP19
21268	MONO181	MONOP20	181	181	34.55505	-119.62165	Start of MONOP20
21640	MONO185	MONOP20	185	185	34.55562	-119.62085	
22456	MONO191	MONOP21	191	191	34.55632	-119.61835	Start of MONOP21
23211	MONO196	MONOP21	196	196	34.55745	-119.61646	
23733	MONO201	MONOP22	201	201	34.55846	-119.61514	Start of MONOP22
23985	MONO205	MONOP22	205	205	34.55932	-119.61512	
24180	MONOTRIB2	MONOP22	207	207	34.55971	-119.61574	Dry trib right bank.
24576	MONO211	MONOP23	211	211	34.56073	-119.61577	Start of MONOP23
24879	MONO213.1	MONOP23	231.1	213.01	34.56100	-119.61528	Side channel right bank.

Mono Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
24879	MONO213.8	MONOP23	213.8	213.08	34.56192	-119.61484	
25594	MONO223	MONOP25	223	223	34.56287	-119.61418	Start of MONOP25
26290	MONO231	MONOP25	231	231	34.56363	-119.61606	
26433	MONO233	MONOP26	233	233	34.56407	-119.61607	Start of MONOP26
27320	MONO243	MONOP27	243	243	34.56597	-119.61443	Start of MONOP27
27816	MONOPIECYN	MONOP27	247	247	34.56670	-119.61608	Pie Canyon Road crossing, natural bottom.
28267	MONO253	MONOP28	253	253	34.56745	-119.61714	Start of MONOP28
29061	MONORANCHRD1	MONOP28	260	260	34.56892	-119.61544	Natural bottom road crossing.
29544	MONO263	MONOP29	263	263	34.56911	-119.61415	Start of MONOP29
29572	MONOTRIB3	MONOP29	264	264	34.56941	-119.61407	Left bank trib.
30375	MONO270	MONOP29	270	270	34.57155	-119.61481	
30816	MONO273	MONOP30	273	273	34.57282	-119.61519	Start of MONOP30
31863	MONO283	MONOP31	283	283	34.57547	-119.61397	Start of MONOP31
32617	MONO293	MONOP32	293	293	34.57771	-119.61325	Start of MONOP32
33402	MONO303	MONOP33	303	303	34.58002	-119.61302	Start of MONOP33
34148	MONO313	MONOP34	313	313	34.58233	-119.61195	Start of MONOP34
34729	MONO323	MONOP35	323	323	34.58431	-119.61132	Start of MONOP35
34767	MONORANCHRD2	MONOP35	324	324	34.58444	-119.61149	Natural bottom road crossing.
35844	MONO333	MONOP36	333	333	34.58705	-119.61229	Start of MONOP36
36444	MONO343	MONOP37	343	343	34.58870	-119.61176	Start of MONOP37
37787	MONO353	MONOP38	353	353	34.59113	-119.61108	Start of MONOP38
38674	MONO363	MONOP39	363	363	34.59301	-119.61283	Start of MONOP39
39183	MONO373	MONOP40	373	373	34.59379	-119.61162	Start of MONOP40
39833	MONO383	MONOP41	383	383	34.59428	-119.60980	Start of MONOP41
40165	MONO393	MONOP42	393	393	34.59510	-119.60963	Start of MONOP42
40986	MONO403	MONOP43	403	403	34.59716	-119.60936	Start of MONOP43
41731	MONO413	MONOP44	413	413	34.59741	-119.60707	Start of MONOP44
42330	MONOTRIB4	MONOP44	421	421	34.59765	-119.60518	Left bank trib.
42576	MONO423	MONOP45	423	423	34.59805	-119.60524	Start of MONOP45
43261	MONO431.1	MONOP45	431.1	431.01	34.59938	-119.60649	Side channel.
43261	MONO432	MONOP46	432	432	34.59959	-119.60663	Start of MONOP46
43706	MONO442	MONOP47	442	442	34.60006	-119.60585	Start of MONOP47
44027	MONO448.1	MONOP47	448.1	448.01	34.59971	-119.60466	Side channel left bank.

Mono Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
44133	MONO449	MONOP48	449	449	34.59982	-119.60444	Start of MONOP48
44331	MONOTRIB5	MONOP48	451	451	34.59977	-119.60352	Dry trib left bank.
44772	MONO459	MONOP49	459	459	34.60066	-119.60317	Start of MONOP49
45384	MONO469	MONOP50	469	469	34.60213	-119.60418	Start of MONOP50
45874	MONO479	MONOP51	479	479	34.60309	-119.60423	Start of MONOP51
45931	MONOTRIB6	MONOP51	481	481	34.60332	-119.60393	Dry trib right bank.
46503	MONO489	MONOP52	489	489	34.60314	-119.60231	Start of MONOP52
47099	MONO499	MONOP53	499	499	34.60194	-119.60106	Start of MONOP53
47536	MONO509	MONOP54	509	509	34.60243	-119.59996	Start of MONOP54
48033	MONO519	MONOP55	519	519	34.60367	-119.59928	Start of MONOP55
48714	MONO529	MONOP56	529	529	34.60469	-119.60002	Start of MONOP56
49197	MONO539	MONOP57	539	539	34.60534	-119.60049	Start of MONOP57
49286	MONO539.1	MONOP57	539	539.01	34.60525	-119.60082	Side channel right bank.
49688	MONO546	MONOP58	546	546	34.60563	-119.60130	Start of MONOP58
50205	MONO556	MONOP59	556	556	34.60660	-119.60011	Start of MONOP59
50778	MONO566	MONOP60	566	566	34.60732	-119.59888	Start of MONOP60
51312	MONOTRIB7	MONOP60	574	574	34.60883	-119.59886	Trib right bank, some water flow.
51580	MONO576	MONOP61	576	576	34.60891	-119.59816	Start of MONOP61
52139	MONO586	MONOP62	586	586	34.60884	-119.59640	Start of MONOP62
52927	MONO596	MONOP63	596	596	34.61075	-119.59693	Start of MONOP63
53464	MONO606	MONOP64	606	606	34.61191	-119.59615	Start of MONOP64
54410	MONO616	MONOP65	616	616	34.61210	-119.59380	Start of MONOP65
54797	MONO626	MONOP66	626	626	34.61218	-119.59257	Start of MONOP66
55276	MONO636	MONOP67	636	636	34.61143	-119.59157	Start of MONO067
55891	MONO646	N/A	646	646	34.61097	-119.58962	Start of unsurveyed unit 646.
N/A	ST NARROWS	N/A	646	646	34.61084	-119.58881	Start of The Narrows.
N/A	MONOBAR	N/A	646	646	34.61132	-119.58816	Mono Creek partial barrier.
112167	MONO647	MONOP68	647	647	34.65653	-119.50420	Start of MONOP68 (MONO Reference Reach 2)
112819	MONO657	MONOP69	657	657	34.65806	-119.50486	Start of MONOP69
113371	MONO667	MONOP70	667	667	34.65948	-119.50513	Start of MONOP70
113429	MONOR2RD2	MONOP70	668	668	34.65973	-119.50558	Natural bottom road crossing.
114170	MONO677	MONOP71	677	677	34.66041	-119.50740	Start of MONOP71
114447	MONOR2RD3	MONOP71	682	682	34.66120	-119.50715	Natural bottom road crossing.

Mono Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
115017	MONO687	MONOP72	687	687	34.66234	-119.50711	Start of MONOP72
115383	MONOR2RD4	MONOP72	695	695	34.66334	-119.50820	Natural bottom fire road crosses mid unit.
115806	MONO697	MONOP73	697	697	34.66325	-119.50901	Start of MONOP73
116173	MONOR2RD5	MONOP73	703	703	34.66433	-119.50936	Natural bottom road crossing.
116686	MONO707	MONOP74	707	707	34.66520	-119.51020	Start of MONOP74
116686	MONOR2RD6	MONOP74	707	707	34.66548	-119.51063	Natural bottom road crossing.
116935	ENDR2	MONOP74	709	709	34.66565	-119.51090	End of MONO Reference Reach 2.

Indian Creek GPS Points

Indian Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	IND001	INDP01	1	1	34.53321	-119.63313	Start of INDP01
932	IND011	INDP02	11	11	34.53551	-119.63382	Start of INDP02
1310	CAMRD1	INDP02	14	14	34.53651	-119.63346	Concrete Camuesa Road crossing.
1958	IND021	INDP03	21	21	34.53837	-119.63367	Start of INDP03
2775	IND031	INDP04	31	31	34.54010	-119.63526	Start of INDP04
3032	CAMRD2	INDP04	35	35	34.53993	-119.63620	Concrete Camuesa Road crossing.
3479	CAMRD3	INDP04	40	40	34.54039	-119.63645	Concrete Camuesa Road crossing.
3495	IND041	INDP05	41	41	34.54039	-119.63642	Start of INDP05
4487	IND051	INDP06	51	51	34.54303	-119.63631	Start of INDP06
5274	INDTRIB1	INDP06	55	55	34.54247	-119.63875	Right bank trib.
5713	IND061	INDP07	61	61	34.54291	-119.64019	Start of INDP07
6319	INDWEIR	INDP07	68	68	34.54330	-119.64220	Concrete weir creating deep plunge pool.
6577	IND071	INDP08	71	71	34.54379	-119.64247	Start of INDP08
7394	IND081	INDP09	81	81	34.54488	-119.64017	Start of INDP09
8334	IND091	INDP10	91	91	34.54667	-119.64213	Start of INDP10
9445	IND101	INDP11	101	101	34.54870	-119.63945	Start of INDP11
10029	IND111	INDP12	111	111	34.54992	-119.63903	Start of INDP12
11155	IND121	INDP13	121	121	34.55170	-119.64214	Start of INDP13
12407	IND131	INDP14	131	131	34.55308	-119.64417	Start of INDP14

Indian Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
13588	IND141	INDP15	141	141	34.55207	-119.64639	Start of INDP15
14661	IND151	INDP16	151	151	34.55458	-119.64790	Start of INDP16
15298	IND161	INDP17	161	161	34.55307	-119.64739	Start of INDP17
15298	INDTRIB2	INDP17	161	161	34.55302	-119.64740	Right bank trib.
16084	IND171	INDP18	171	171	34.55209	-119.64950	Start of INDP18
17160	IND181	INDP19	181	181	34.55394	-119.65221	Start of INDP19
17940	IND191	INDP20	191	191	34.55533	-119.65425	Start of INDP20
18452	IND201	INDP21	201	201	34.55650	-119.65419	Start of INDP21
19103	IND211	INDP22	211	211	34.55693	-119.65629	Start of INDP22
19814	IND221	INDP23	221	221	34.55797	-119.65699	Start of INDP23
20293	IND225	INDP23	225	225	34.55913	-119.65654	
20636	IND226	INDP23	226	226	34.55998	-119.65700	
20831	IND227	INDP23	227	227	34.56045	-119.65731	
20959	IND228	INDP23	228	228	34.56072	-119.65758	
21290	IND231	INDP24	231	231	34.56140	-119.65829	Start of INDP24
22035	IND241	INDP25	241	241	34.56310	-119.65961	Start of INDP25
22574	IND251	INDP26	251	251	34.56408	-119.66077	Start of INDP26
23250	IND261	INDP27	261	261	34.56408	-119.66288	Start of INDP27
24118	IND271	INDP28	271	271	34.56595	-119.66352	Start of INDP28
24568	IND281	INDP29	281	281	34.56668	-119.66238	Start of INDP29
25395	IND291	INDP30	291	291	34.56714	-119.66445	Start of INDP30
25970	IND301	INDP31	301	301	34.56825	-119.66562	Start of INDP31
26834	IND311	INDP32	311	311	34.56964	-119.66693	Start of INDP32
27666	IND320.1	INDP32A	320.1	320.01	34.57087	-119.66879	Side channel left bank.
27666	IND321	INDP33	321	321	34.57079	-119.66906	Start of INDP33
28567	IND331	INDP34	331	331	34.57161	-119.67177	Start of INDP34
29184	IND341	INDP35	341	341	34.57192	-119.67011	Start of INDP35
29967	IND351	INDP36	351	351	34.57332	-119.66908	Start of INDP36
30490	IND361	INDP37	361	361	34.57449	-119.66926	Start of INDP37
31430	IND371	INDP38	371	371	34.57626	-119.67061	Start of INDP38
32112	INDBUCKCFL-S	INDP38	380	380	34.57796	-119.67062	Buckhorn Creek's confluence with Indian Creek.
32159	IND381	INDP39	381	381	34.57795	-119.67055	Start of INDP39
32685	IND391	INDP40	391	391	34.57911	-119.66950	Start of INDP40

Indian Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
33201	IND401	INDP41	401	401	34.57992	-119.66821	Start of INDP41
33637	IND411	INDP42	411	411	34.58033	-119.66711	Start of INDP42
34341	IND421	INDP43	421	421	34.58215	-119.66750	Start of INDP43
34769	IND431	INDP44	431	431	34.58315	-119.66807	Start of INDP44
35395	IND437.1	INDP44	437.1	437.01	34.58443	-119.66787	Side channel left bank.
35395	IND438	INDP45	438	438	34.58472	-119.66754	Start of INDP45
36242	IND448	INDP46	448	448	34.58707	-119.66772	Start of INDP46
36756	IND458	INDP47	458	458	34.58806	-119.66873	Start of INDP47
37625	IND468	INDP48	468	468	34.59039	-119.66838	Start of INDP48
38374	IND478	INDP49	478	478	34.59224	-119.66776	Start of INDP49
38925	IND488	INDP50	488	488	34.59371	-119.66730	Start of INDP50
39497	IND498	INDP51	498	498	34.59490	-119.66794	Start of INDP51
40069	IND508	INDP52	508	508	34.59627	-119.66800	Start of INDP52
40681	IND518	INDP53	518	518	34.59725	-119.66797	Start of INDP53
41057	IND528	INDP54	528	528	34.59811	-119.66737	Start of INDP54
42095	IND538	INDP55	538	538	34.60058	-119.66777	Start of INDP55
42828	IND548	INDP56	548	548	34.60197	-119.66836	Start of INDP56
43806	IND558	INDP57	558	558	34.60408	-119.66784	Start of INDP57
44468	IND568	INDP58	568	568	34.60500	-119.66739	Start of INDP58
45026	IND573.1	INDP58	573.1	573.01	34.60589	-119.66852	Side channel
45154	IND576	INDP59	576	576	34.60597	-119.66883	Start of INDP59
45455	IND581	INDP59	581	581	34.60556	-119.67040	Point taken mid unit
46032	IND586	INDP60	586	586	34.60647	-119.67029	Start of INDP60
46423	IND593	INDP61	593	593	34.60742	-119.67005	Start of INDP61
46893	IND603	INDP62	603	603	34.60772	-119.67242	Start of INDP62
47607	IND613	INDP63	613	613	34.60903	-119.67355	Start of INDP63
48779	IND623	INDP64	623	623	34.61193	-119.67412	Start of INDP64
49228	IND633	INDP65	633	633	34.61307	-119.67345	Start of INDP65
49692	IND643	INDP66	643	643	34.61407	-119.67297	Start of INDP66
50405	IND653	INDP67	653	653	34.61572	-119.67193	Start of INDP67
51175	IND663	INDP68	663	663	34.61758	-119.67303	Start of INDP68
51961	IND673	INDP69	673	673	34.61867	-119.67165	Start of INDP69
52909	IND683	INDP70	683	683	34.62085	-119.67138	Start of INDP70

Indian Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
53748	IND693	N/A	693	693	34.62183	-119.67033	Ended habitat survey at IND693, walked up to bedrock waterfall barrier.
55582	INDIANBARRIER	N/A	693	693	34.62381	-119.66611	Anadromy barrier for Indian Creek.

Buckhorn Creek GPS Points

Buckhorn Creek GPS Points							
Stream Length	GPS	Habitat Sheet	Habitat Sheet Unit	Database Unit	Latitude	Longitude	Description
0	INDBUCKCFL	BUCKP01	1	1	34.57802	-119.67075	Buckhorn Creek confluence with Indian Creek.
0	BUCK001	BUCKP01	1	1	34.57797	-119.67065	Start of BUCKP01
286	BUCK011	BUCKP02	11	11	34.57886	-119.67105	Start of BUCKP02
1011	BUCK019	BUCKP03	19	19	34.58029	-119.67281	Start of BUCKP03
1690	BUCK029	BUCKP04	29	29	34.58201	-119.67289	Start of BUCKP04
2312	BUCK039	BUCKP05	39	39	34.58374	-119.67255	Start of BUCKP05
3084	BUCK049	BUCKP06	49	49	34.58502	-119.67350	Start of BUCKP06
3717	BUCK059	BUCKP07	59	59	34.58569	-119.67531	Start of BUCKP07
4718	BUCK069	BUCKP08	69	69	34.58623	-119.67820	Start of BUCKP08
5598	BUCK079	BUCKP09	79	79	34.58786	-119.68036	Start of BUCKP09
6717	BUCK089	BUCKP10	89	89	34.58925	-119.68296	Start of BUCKP10
7395	BUCK099	BUCKP11	99	99	34.59005	-119.68496	Start of BUCKP11
7656	BUCKNFCFL	BUCKP11	103	103	34.59040	-119.68570	North Fork of Buckhorn Creek enters stream via left bank.
8184	BUCK109	BUCKP12	109	109	34.58952	-119.68671	Start of BUCKP12
8921	BUCK119	BUCKP13	119	119	34.58786	-119.68791	Start of BUCKP13
9726	BUCK129	BUCKP14	129	129	34.58709	-119.68974	Start of BUCKP14
10957	BUCK139	BUCKP15	139	139	34.58488	-119.69131	Start of BUCKP15
12766	BUCK147	BUCKP15	147	147	34.58589	-119.69587	
12766	BUCK147A	BUCKP15	147	147	34.58655	-119.69738	
14018	BUCK148	BUCKP15	148	148	34.58738	-119.69788	
14412	BUCK149	BUCKP16	149	149	34.58840	-119.69859	Water barely flowing, all water flowing from trib.
15019	BUCKTRIB2	BUCKP16	149	149	34.58947	-119.70015	
16741	BUCKBARRIER	BUCKP16	150	150	34.59056	-119.70461	

APPENDIX 6: TABLES AND GRAPHS

LOWER SANTA YNEZ TABLES AND GRAPHS

Lower Santa Ynez River Tables

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
4	0	CULVERT	0.7	44	178	0.1									
17	0	DRY	2.9	150	2548	1.2									5
201	49	FLATWATER	34.4	187	37683	17.5	34.4	1.0	1.7	13409	2695244	9938	1915975		35
7	0	NOSURVEY	1.2	18825	131772	61.2									
7	1	NOSURVEY_MARSH	1.2	412	2882	1.3	95.0		4.1	106970	748790				
224	87	POOL	38.3	118	26476	12.3	39.6	1.1	2.7	5491	1230088	11514	2460483	6762	57
125	41	RIFFLE	21.4	111	13831	6.4	31.2	0.7	1.2	3678	459770	2431	296501		46

Total	Total Units Units	Total Fully Measured	Total Area Length (ft.)	Total (sq.ft.)	Volume (cu.ft.)
	585	178	215370	5133892	4672959

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
125	41	LGR	21.4	111	13831	6.4	31.0	0.7	2.6	3678	459770	2431	296501		46	9
76	19	GLD	13.0	280	21314	9.9	41.0	1.1	4.5	28669	2178843	21105	1435127		28	14
124	29	RUN	21.2	131	16229	7.5	29.0	1.0	3.0	3530	437694	3562	441737		39	15
1	1	EDW	0.2	140	140	0.1	75.0	0.5	1.4	9975	9975	4988	4988		5	9
14	5	TRP	2.4	170	2385	1.1	41.0	1.1	4.0	9646	135047	26500	371000	10575	69	18
113	28	MCP	19.3	116	13127	6.1	45.0	1.1	6.5	6160	696049	13246	1496748	8648	36	10
1	1	CCP	0.2	54	54	0.0	25.0	0.7	1.6	1350	1350	2025	2025	945	50	0
4	4	CRP	0.7	153	613	0.3	37.0	1.8	3.4	6416	25665	9053	27160	5486	41	6
20	11	LSL	3.4	92	1845	0.9	37.0	0.9	5.6	4032	80647	7763	155257	5033	68	9
40	16	LSR	6.8	79	3176	1.5	30.0	0.8	4.8	2198	87920	4024	160954	1794	66	21
5	5	LSBk	0.9	129	645	0.3	46.0	1.1	6.9	5967	29833	13546	54182	8273	70	7
2	1	LSBo	0.3	85	170	0.1	41.0	1.8	3.7	4100	8200	10250	20500	7380	40	2
6	5	PLP	1.0	47	280	0.1	44.0	1.1	2.9	3007	18039	6580	39479	3311	79	1
2	2	SCP	0.3	80	161	0.1	15.0	3.0	5.9	1185	2369	3771	7542	3479	28	20
1	1	BPR	0.2	54	54	0.0	11.0	1.2	1.8	594	594	832	832	713	195	75
1	1	BPL	0.2	32	32	0.0	15.0	1.7	3.8	480	480	1152	1152	816	150	15
15	7	DPL	2.6	262	3934	1.8	53.0	1.3	9.0	14015	210227	33289	356664	18888	53	1
17	0	DRY	2.9	150	2548	1.2									5	16
4	0	CUL	0.7	44	178	0.1										23

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: **Quad:** SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

7	0	NS	1.2	18825	131772	61.2						
7	1	MAR	1.2	412	2882	1.3	95.0	5.0	106970	748790		12

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
585	178	215370	51314	48718
			92	47

Table 3 - Summary of Pools

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: **Quad:** SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
128	34	MAIN	57	122	15566	59	43.6	1.1	6531	835966	8706	1081646	41
77	42	SCOUR	34	87	6729	25	36.5	1.0	3670	282617	3966	276322	65
19	11	BACKWATER	8	220	4181	16	39.1	1.7	9232	175403	11436	177780	69

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
224	87	26476	1293986	1535748

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
113	MCP	51	4	4	28	25	40	35	23	20	18	16
14	TRP	6	1	7	2	14	4	29	6	43	1	7
38	LSR	17	1	3	13	34	15	39	5	13	4	11
2	SCP	1	0	0	0	0	0	0	0	0	2	100
20	LSL	9	1	5	4	20	8	40	6	30	1	5
4	CRP	2	0	0	1	25	2	50	1	25	0	0
6	PLP	3	0	0	0	0	6	100	0	0	0	0
1	BPR	0	0	0	1	100	0	0	0	0	0	0
14	DPL	6	0	0	3	21	4	29	3	21	4	29
5	LSBk	2	0	0	1	20	1	20	1	20	2	40
2	LSBo	1	0	0	1	50	0	0	1	50	0	0
1	CCP	0	0	0	1	100	0	0	0	0	0	0
1	BPL	0	0	0	0	0	0	0	1	100	0	0

Total Units	Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
221	7	3	55	25	80	36	47	21	32	14

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
125	39	LGR	0	15	0	0	46	12	26	1	0
76	17	GLD	0	21	2	0	49	25	3	0	0
124	29	RUN	1	18	1	0	48	27	4	1	0
1	1	EDW	0	0	0	0	0	100	0	0	0
14	5	TRP	6	15	0	4	25	34	8	2	6
113	28	MCP	1	22	4	2	32	34	4	0	0
1	1	CCP	0	0	0	0	20	20	60	0	0
4	4	CRP	0	23	0	8	40	15	3	0	13
20	11	LSL	3	42	9	0	33	9	5	0	0
40	17	LSR	5	26	1	26	24	13	4	0	0
5	4	LSBk	6	8	0	0	36	14	8	0	29
2	2	LSBo	5	15	0	0	35	0	0	15	30
6	6	PLP	0	27	0	0	21	10	38	4	0
2	2	SCP	0	30	0	0	23	48	0	0	0
1	1	BPR	0	20	0	20	35	25	0	0	0
1	1	BPL	0	50	0	20	20	0	10	0	0
15	8	DPL	3	23	3	3	41	29	0	0	0
4	0	CUL									
7	0	NS									
7	0	MAR									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: **Quad:** SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
125	125	LGR	0	17	58	17	5	0	3
76	76	GLD	0	100	0	0	0	0	0
124	124	RUN	0	69	23	6	1	0	1
1	1	EDW	0	100	0	0	0	0	0
14	14	TRP	0	93	0	7	0	0	0
113	109	MCP	0	88	9	1	1	0	1
1	1	CCP	0	100	0	0	0	0	0
4	4	CRP	0	100	0	0	0	0	0
20	20	LSL	0	90	10	0	0	0	0
40	40	LSR	0	85	15	0	0	0	0
5	5	LSBk	0	80	0	20	0	0	0
2	2	LSBo	0	0	100	0	0	0	0
6	6	PLP	0	50	17	17	0	0	17
2	2	SCP	0	100	0	0	0	0	0
1	1	BPR	0	100	0	0	0	0	0
1	1	BPL	0	0	100	0	0	0	0
15	15	DPL	0	93	0	0	0	0	7
4	4	CUL	0	75	25	0	0	0	0
7	0	NS	0	0	0	0	0	0	0
7	7	MAR	14	86	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: **Quad:** SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
12	0	100	52	40	40

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Santa Ynez River			LLID:	1205840346873	Drainage	Lompoc
Survey Dates:	1/27/2011 to 5/12/2011	Survey Length (ft.):	21537	Main Channel (ft.):	20042	Side Channel (ft.):	14941.
Confluence	Quad: SURF	Legal	T000R000S00	Latitud	34:41:14.0N	Longitud	120:35:02.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	C5	Canopy Density (%):	12.2	Pools by Stream Length	12.3
Reach Length (ft.):	200429	Coniferous Component	0.0	Pool Frequency (%):	38.3
Riffle/Flatwater Mean Width	33.0	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	28.1
Range (ft.):	33 to 316	Vegetative Cover (%):	40.2	2 to 2.9 Feet Deep:	36.2
Mean (ft.):	124.7445255474	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	21.3
Std. Dev.:	57.60566669168	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	14.5
Base Flow (cfs):	74	Occurrence of LWD (%):	1.7	Mean Max Residual Pool Depth	2.66
Water (F):	48 - 63 Air (F): 46 - 79	LWD per 100 ft.:		Mean Pool Shelter	57
Dry Channel (ft.):	2548	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 66.7 Gravel: 26.1 Sm 3.2 Lg 1.4 Boulder 0.0 Bedrock: 2.7

Embeddedness Values 1. 6.3 2. 2.7 3. 3.6 4. 17.5 5. 70.0

Table 9 - Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	3	7	2.8
Boulder	0	0	0.0
Cobble/Gravel	7	7	3.9
Sand/Silt/Clay	169	165	93.3

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	1	2	0.8
Brush	48	45	26.0
Hardwood	130	132	73.2
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Lompoc

Survey Dates: 1/27/2011 to 5/12/2011

Confluence Location: Quad: SURF **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	3
SMALL WOODY DEBRIS (%)	15	19	25
LARGE WOODY DEBRIS (%)	0	1	3
ROOT MASS (%)	0	0	7
TERRESTRIAL VEGETATION (%)	46	48	30
AQUATIC VEGETATION (%)	12	28	22
WHITEWATER (%)	26	4	7
BOULDERS (%)	1	1	1
BEDROCK LEDGES (%)	0	0	3

Salsipuedes Creek Tables

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
2	0	CULVERT	0.4	28	55	0.1									
114	16	FLATWATER	24.9	47	5378	13.2	11.8	0.6	1.3	1009	114999	871	99262		60
2	0	NOSURVEY	0.4	6460	12919	31.8									
137	43	POOL	30.0	95	13075	32.2	20.1	1.0	3.1	1928	264156	3296	451611	2095	87
202	30	RIFFLE	44.2	45	9172	22.6	10.9	0.4	0.9	562	113536	319	64361		71

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
457	89	40599	492691	615234

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
190	26	LGR	41.6	46	8737	21.5	11.0	0.4	2.1	581	110435	332	63026		53	69
4	2	CAS	0.9	19	77	0.2	4.0	0.3	1.5	140	558	55	219		155	77
8	2	BRS	1.8	45	358	0.9	16.0	0.6	1.8	735	5882	412	3297		228	28
1	1	GLD	0.2	36	36	0.1	8.0	0.2	0.9	257	257	51	51		5	100
110	13	RUN	24.1	47	5214	12.8	13.0	0.7	2.5	1187	130610	1055	116101		57	80
3	2	SRN	0.7	43	128	0.3	5.0	0.3	0.8	224	672	80	239		108	92
7	3	TRP	1.5	141	987	2.4	18.0	1.0	7.4	3013	21089	4899	34295	2431	107	31
67	16	MCP	14.7	84	5624	13.9	18.0	1.0	7.3	1436	96198	2502	167628	1511	62	55
1	1	STP	0.2	150	150	0.4	15.0	0.7	3.9	1350	1350	2025	2025	945	270	50
19	3	CRP	4.2	141	2677	6.6	26.0	1.2	6.5	5429	103152	7985	151716	5581	55	45
7	4	LSL	1.5	44	310	0.8	22.0	0.6	2.9	726	5079	770	5388	336	139	71
5	4	LSR	1.1	72	362	0.9	20.0	0.5	3.7	973	4863	1151	5755	447	89	29
13	4	LSBk	2.8	95	1241	3.1	23.0	1.0	5.9	2025	26321	3591	46681	2083	98	56
3	2	LSBo	0.7	100	301	0.7	17.0	0.6	3.6	1039	3118	1106	3319	483	90	34
13	5	PLP	2.8	91	1179	2.9	20.0	1.5	8.8	2082	27071	4769	61991	3350	110	52
2	1	DPL	0.4	122	244	0.6	42.0	2.0	6.3	5880	11760	12936	25872	11760	40	75
2	0	CUL	0.4	28	55	0.1										
2	0	NS	0.4	6460	12919	31.8										

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: **Quad:** LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
457	89	40599	548416	687604

Table 3 - Summary of Pools

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: **Quad:** LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
75	20	MAIN	55	90	6761	52	17.5	1.0	1668	125104	1621	121561	78
60	22	SCOUR	44	101	6070	46	21.5	0.9	1985	119098	2088	125251	100
2	1	BACKWATER	1	122	244	2	42.0	2.0	5880	11760	11760	23520	40

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
137	43	13075	255962	270332

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
67	MCP	49	0	0	15	22	31	46	13	19	8	12
19	CRP	14	0	0	4	21	6	32	4	21	5	26
13	LSBk	9	0	0	2	15	6	46	2	15	3	23
13	PLP	9	0	0	1	8	2	15	2	15	8	62
1	STP	1	0	0	0	0	0	0	1	100	0	0
7	TRP	5	0	0	1	14	3	43	0	0	3	43
3	LSBo	2	0	0	1	33	1	33	1	33	0	0
5	LSR	4	0	0	4	80	0	0	1	20	0	0
7	LSL	5	0	0	6	86	1	14	0	0	0	0
2	DPL	1	0	0	0	0	0	0	1	50	1	50
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
137			0	0	34	25	50	36	25	18	28	20

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
190	26	LGR	0	24	3	0	32	1	34	5	1
4	2	CAS	0	13	10	0	8	0	55	15	0
8	2	BRS	0	15	15	0	0	0	65	5	0
1	1	GLD	0	0	0	0	100	0	0	0	0
110	13	RUN	2	23	3	3	50	2	19	0	0
3	2	SRN	0	35	0	0	55	0	10	0	0
7	3	TRP	18	0	0	0	0	0	25	0	57
67	17	MCP	17	17	1	0	28	1	21	10	4
1	1	STP	0	0	0	0	10	0	70	0	20
19	3	CRP	40	3	10	0	10	0	37	0	0
7	4	LSL	9	25	23	13	18	0	13	1	0
5	4	LSR	20	5	10	19	29	0	18	0	0
13	4	LSBk	11	19	5	4	19	0	18	0	25
3	2	LSBo	40	8	0	0	15	0	8	30	0
13	5	PLP	21	0	2	2	11	2	31	15	16
2	2	DPL	45	0	0	0	20	0	0	0	35
2	0	CUL									
2	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: **Quad:** LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
190	190	LGR	1	18	46	27	7	1	0
4	4	CAS	0	75	0	0	0	25	0
8	8	BRS	0	0	0	0	0	0	100
1	1	GLD	0	100	0	0	0	0	0
110	110	RUN	0	75	22	3	0	0	0
3	3	SRN	0	100	0	0	0	0	0
7	7	TRP	0	57	0	0	0	0	43
67	67	MCP	1	70	25	1	1	0	0
1	1	STP	0	0	0	0	0	0	100
19	19	CRP	0	79	21	0	0	0	0
7	7	LSL	0	71	29	0	0	0	0
5	5	LSR	0	60	40	0	0	0	0
13	13	LSBk	0	85	15	0	0	0	0
3	3	LSBo	0	100	0	0	0	0	0
13	13	PLP	0	77	0	8	0	8	8
2	2	DPL	0	100	0	0	0	0	0
2	0	CUL	0	0	0	0	0	0	0
2	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: **Quad:** LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
64	0	100	1	49	42

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Salsipuedes Creek			LLID:	1204115346315	Drainage	Santa Rita
Survey Dates:	1/10/2011 to 1/26/2011	Survey Length (ft.):	40598.8	Main Channel (ft.):	40342.8	Side Channel (ft.):	256
Confluence	Quad: LOMPOC	Legal	T000R000S00	Latitud	34:37:53.0N	Longitud	120:24:41.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	3257	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	40 to 40	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):	40	Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:	0	Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):	8.8	Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	46 - 46 Air (F): 52 - 52	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay:	Sand:	Gravel:	Sm	Lg	Boulder	Bedrock:
Embeddedness Values	1.	2.	3.	4.	5. 0.0		

STREAM REACH: 2

Channel Type:	B5	Canopy Density (%):	44.7	Pools by Stream Length	62.3
Reach Length (ft.):	19422	Coniferous Component	0.0	Pool Frequency (%):	49.6
Riffle/Flatwater Mean Width	19.8	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	25.2
Range (ft.):	32 to 63	Vegetative Cover (%):	36.4	2 to 2.9 Feet Deep:	37.0
Mean (ft.):	43.41666666666	Dominant	Whitewater	3 to 3.9 Feet Deep:	17.6
Std. Dev.:	7.510640599990	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	20.2
Base Flow (cfs):	8.8	Occurrence of LWD (%):	3.4	Mean Max Residual Pool Depth	3.07
Water (F):	43 - 55 Air (F): 41 - 75	LWD per 100 ft.:		Mean Pool Shelter	85
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay: 0.8	Sand: 26.9	Gravel: 47.1	Sm 6.7	Lg 3.4	Boulder 5.0	Bedrock: 10.1
Embeddedness Values	1. 35.3	2. 0.0	3. 0.0	4. 20.2	5. 44.5		

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	9662	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	41 to 41	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):	41	Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:	0	Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):	7.6	Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	55 - 55 Air (F): 70 - 70	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay:	Sand:	Gravel:	Sm	Lg	Boulder	Bedrock:
Embeddedness Values	1.	2.	3.	4.	5. 0.0		

STREAM REACH: 4

Channel Type:	G5	Canopy Density (%):	88.4	Pools by Stream Length	10.5
Reach Length (ft.):	8001.8	Coniferous Component	0.0	Pool Frequency (%):	8.4
Riffle/Flatwater Mean Width	5.2	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	22.2
Range (ft.):	10 to 27	Vegetative Cover (%):	60.8	2 to 2.9 Feet Deep:	33.3
Mean (ft.):	18.02325581395	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	22.2
Std. Dev.:	4.751931661540	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	22.2
Base Flow (cfs):	7.8	Occurrence of LWD (%):	5.3	Mean Max Residual Pool Depth	3.26
Water (F):	41 - 52 Air (F): 45 - 73	LWD per 100 ft.:		Mean Pool Shelter	100
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay: 0.0	Sand: 94.4	Gravel: 5.6	Sm 0.0	Lg 0.0	Boulder 0.0	Bedrock: 0.0
Embeddedness Values	1. 5.6	2. 0.0	3. 0.0	4. 0.0	5. 94.		

Table 9 - Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	11	12	12.6
Boulder	1	2	1.6
Cobble/Gravel	1	1	1.1
Sand/Silt/Clay	78	76	84.6

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	1	1	1.1
Brush	15	17	17.6
Hardwood	75	72	80.8
Coniferous	0	0	0.0
No Vegetation	0	1	0.5

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Salsipuedes Creek **LLID:** 1204115346315 **Drainage:** Santa Rita

Survey Dates: 1/10/2011 to 1/26/2011

Confluence Location: Quad: LOMPOC **Legal Description:** T000R000S00 **Latitude:** 34:37:53.0N **Longitude:** 120:24:41.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	1	20
SMALL WOODY DEBRIS (%)	23	23	11
LARGE WOODY DEBRIS (%)	4	2	5
ROOT MASS (%)	0	2	3
TERRESTRIAL VEGETATION (%)	29	53	20
AQUATIC VEGETATION (%)	1	1	1
WHITEWATER (%)	38	17	22
BOULDERS (%)	6	0	7
BEDROCK LEDGES (%)	1	0	11

El Jaro Creek Tables

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
63	10	FLATWATER	27.2	83	5221	17.1	17.1	0.9	1.7	1247	78579	1176	74057		19
1	0	NOSURVEY	0.4	15578	15578	50.9									
88	27	POOL	37.9	60	5248	17.1	17.8	0.9	2.3	1123	98850	1702	149798	967	53
80	13	RIFFLE	34.5	57	4563	14.9	15.4	0.7	1.3	570	45610	383	30667		81

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
232	50	30610	223039	254523

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
77	12	LGR	33.2	57	4414	14.4	15.0	0.6	1.7	538	41460	360	27708		73	54
3	1	HGR	1.3	50	149	0.5	16.0	0.7	1.8	950	2851	665	1996		180	28
7	2	GLD	3.0	96	674	2.2	15.0	1.0	1.8	1170	8190	1170	8190		8	34
56	8	RUN	24.1	81	4547	14.9	18.0	0.8	1.9	1267	70930	1177	65906		23	49
34	5	MCP	14.7	62	2112	6.9	17.0	0.6	5.1	1173	39869	1557	52922	724	26	46
4	3	CRP	1.7	91	365	1.2	17.0	1.3	3.6	1508	6031	2877	11508	2031	25	13
17	5	LSL	7.3	64	1091	3.6	21.0	0.9	4.2	1474	25058	2336	39720	1420	74	56
18	7	LSR	7.8	47	841	2.7	15.0	0.9	4.5	694	12495	1161	20903	534	75	52
7	4	LSBk	3.0	53	369	1.2	16.0	0.8	4.5	817	5719	1230	8608	722	23	40
7	2	LSBo	3.0	60	420	1.4	28.0	0.6	2.4	1923	13461	1898	13289	1069	25	65
1	1	BPL	0.4	50	50	0.2	12.0	0.9	2.7	600	600	1020	1020	540	180	17
1	0	NS	0.4	15578	15578	50.9										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
232	50	30610	226663	251770

Table 3 - Summary of Pools

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: **Quad:** LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
34	5	MAIN	39	62	2112	40	16.6	0.6	1173	39869	724	24620	26
53	21	SCOUR	60	58	3086	59	18.3	0.9	1136	60233	1045	55406	53
1	1	BACKWATER	1	50	50	1	12.0	0.9	600	600	540	540	180

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
88	27	5248	100702	80566

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
17	LSL	19	0	0	9	53	4	24	2	12	2	12
7	LSBo	8	0	0	3	43	4	57	0	0	0	0
34	MCP	39	0	0	13	38	13	38	7	21	1	3
7	LSBk	8	0	0	3	43	3	43	0	0	1	14
4	CRP	5	0	0	0	0	2	50	2	50	0	0
18	LSR	20	0	0	8	44	7	39	2	11	1	6
1	BPL	1	0	0	0	0	1	100	0	0	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
88			0	0	36	41	34	39	13	15	5	6

Mean Maximum Residual Pool Depth (ft.): 2

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
77	12	LGR	0	14	0	0	20	0	53	13	0
3	1	HGR	0	10	10	0	20	0	25	35	0
7	2	GLD	0	20	0	0	80	0	0	0	0
56	7	RUN	0	21	0	1	63	0	1	13	0
34	5	MCP	10	14	0	0	61	0	9	3	3
4	3	CRP	13	32	8	7	28	0	0	3	8
17	5	LSL	0	39	13	2	39	0	7	0	0
18	7	LSR	1	31	4	26	35	0	2	0	0
7	4	LSBk	3	18	0	0	44	0	8	0	29
7	2	LSBo	0	40	0	0	25	0	0	25	10
1	1	BPL	0	30	40	0	20	0	10	0	0
1	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: **Quad:** LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
77	77	LGR	0	0	23	27	25	22	3
3	3	HGR	0	0	0	0	0	100	0
7	7	GLD	0	100	0	0	0	0	0
56	56	RUN	0	41	48	9	2	0	0
34	34	MCP	0	97	3	0	0	0	0
4	4	CRP	0	100	0	0	0	0	0
17	17	LSL	0	88	6	0	6	0	0
18	18	LSR	0	94	6	0	0	0	0
7	7	LSBk	0	100	0	0	0	0	0
7	7	LSBo	0	100	0	0	0	0	0
1	1	BPL	0	100	0	0	0	0	0
1	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: **Quad:** LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
49	0	100	0	37	32

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	El Jaro Creek			LLID:	1204070345841	Drainage	Santa Rita
Survey Dates:	4/12/2011 to 4/14/2011	Survey Length (ft.):	30610	Main Channel (ft.):	30314	Side Channel (ft.):	296
Confluence	Quad: LOMPOC HILLS	Legal	T000R000S00	Latitud	34:35:03.0N	Longitud	120:24:25.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	15578	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	67 to 67	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):	67	Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:	0	Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):	21	Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	57 - 57 Air (F): 59 - 59	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay:	Sand:	Gravel:	Sm	Lg	Boulder	Bedrock:
Embeddedness Values	1.	2.	3.	4.	5. 0.0		

STREAM REACH: 2

Channel Type:	B4	Canopy Density (%):	48.5	Pools by Stream Length	34.9
Reach Length (ft.):	14736	Coniferous Component	0.0	Pool Frequency (%):	38.1
Riffle/Flatwater Mean Width	16.1	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	40.9
Range (ft.):	40 to 67	Vegetative Cover (%):	34.2	2 to 2.9 Feet Deep:	38.6
Mean (ft.):	51.19047619047	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	14.8
Std. Dev.:	7.185729920603	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	5.7
Base Flow (cfs):	21	Occurrence of LWD (%):	3.5	Mean Max Residual Pool Depth	2.30
Water (F):	51 - 62 Air (F): 54 - 68	LWD per 100 ft.:		Mean Pool Shelter	53
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay: 0.0	Sand: 37.5	Gravel: 55.7	Sm 3.4	Lg 0.0	Boulder 2.3	Bedrock: 1.1
Embeddedness Values	1. 4.5	2. 3.4	3. 5.7	4. 45.5	5. 40.9		

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	6	3	9.2
Boulder	1	0	1.0
Cobble/Gravel	1	0	1.0
Sand/Silt/Clay	41	46	88.8

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	0	0.0
Brush	4	4	8.2
Hardwood	45	45	91.8
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: El Jaro Creek **LLID:** 1204070345841 **Drainage:** Santa Rita

Survey Dates: 4/12/2011 to 4/14/2011

Confluence Location: Quad: LOMPOC HILLS **Legal Description:** T000R000S00 **Latitude:** 34:35:03.0N **Longitude:** 120:24:25.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	4
SMALL WOODY DEBRIS (%)	13	21	28
LARGE WOODY DEBRIS (%)	1	0	6
ROOT MASS (%)	0	1	8
TERRESTRIAL VEGETATION (%)	20	67	40
AQUATIC VEGETATION (%)	0	0	0
WHITEWATER (%)	51	1	5
BOULDERS (%)	15	10	3
BEDROCK LEDGES (%)	0	0	6

Nojoqui Creek Tables

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
3	1	CULVERT	3.4	21	64	0.1	30.0			300	900				
29	5	FLATWATER	32.6	95	2744	6.4	11.6	0.4	1.0	623	18068	337	9762		25
1	0	NOSURVEY	1.1	35415	35415	82.9									
24	10	POOL	27.0	49	1187	2.8	12.4	1.1	2.7	594	14248	1051	25234	772	59
32	7	RIFFLE	36.0	104	3328	7.8	7.1	0.6	1.3	705	22570	697	22308		94

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
89	23	42738	55786	57304

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
29	5	LGR	32.6	100	2891	6.8	6.0	0.5	1.3	413	11973	184	5344		69	80
2	1	HGR	2.2	208	415	1.0	18.0	1.4	4.0	2794	5587	3911	7822		210	100
1	1	BRS	1.1	22	22	0.1	4.0	0.6	1.3	79	79	48	48		80	100
17	4	RUN	19.1	46	790	1.8	13.0	0.4	1.9	641	10894	352	5980		14	75
12	1	SRN	13.5	163	1954	4.6	6.0	0.5	0.8	552	6624	276	3312		70	87
6	2	MCP	6.7	66	397	0.9	12.0	2.0	4.0	776	4653	2034	12204	1646	13	80
1	1	STP	1.1	76	76	0.2	6.0	0.1	4.7	274	274	109	109	27	60	40
1	1	CRP	1.1	74	74	0.2	13.0	0.7	2.1	962	962	866	866	673	15	100
10	3	LSR	11.2	49	489	1.1	15.0	0.8	4.1	700	6997	1001	10009	591	53	85
2	1	LSBo	2.2	36	73	0.2	13.0	1.3	2.5	343	686	618	1236	446	25	56
4	2	PLP	4.5	20	78	0.2	12.0	1.3	4.0	354	1416	925	3701	754	150	65
3	1	CUL	3.4	21	64	0.1	30.0			300	900					
1	0	NS	1.1	35415	35415	82.9										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
89	23	42738	51045	50630

Table 3 - Summary of Pools

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: **Quad:** SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
7	3	MAIN	29	68	473	40	9.7	1.4	608	4257	1107	7746	28
17	7	SCOUR	71	42	714	60	13.6	1.0	587	9987	629	10686	71

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
24	10	1187	14244	18432

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
1	CRP	4	0	0	0	0	1	100	0	0	0	0
6	MCP	25	0	0	2	33	2	33	1	17	1	17
10	LSR	42	0	0	5	50	2	20	1	10	2	20
2	LSBo	8	0	0	0	0	2	100	0	0	0	0
4	PLP	17	0	0	2	50	1	25	0	0	1	25
1	STP	4	0	0	0	0	0	0	0	0	1	100
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
24			0	0	9	38	8	33	2	8	5	21

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
29	4	LGR	0	8	3	0	33	0	38	20	0
2	1	HGR	0	10	10	0	10	0	20	50	0
1	1	BRS	0	10	0	0	10	0	70	10	0
17	4	RUN	0	20	0	10	65	0	0	5	0
12	1	SRN	0	0	0	0	10	0	20	70	0
6	2	MCP	0	10	0	0	83	0	0	8	0
1	1	STP	0	0	0	0	5	0	20	75	0
1	1	CRP	0	50	0	0	50	0	0	0	0
10	3	LSR	7	18	0	43	20	0	3	5	3
2	1	LSBo	0	0	0	0	10	0	0	90	0
4	2	PLP	0	15	0	0	8	0	55	23	0
3	0	CUL									
1	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: **Quad:** SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
29	29	LGR	0	0	48	34	17	0	0
2	2	HGR	0	0	0	0	0	100	0
1	1	BRS	0	0	0	0	0	0	100
17	17	RUN	0	35	65	0	0	0	0
12	12	SRN	0	0	17	0	8	75	0
6	6	MCP	0	67	0	0	17	17	0
1	1	STP	0	0	100	0	0	0	0
1	1	CRP	0	100	0	0	0	0	0
10	10	LSR	0	90	10	0	0	0	0
2	2	LSBo	0	100	0	0	0	0	0
4	4	PLP	0	25	0	0	0	50	25
3	1	CUL	0	100	0	0	0	0	0
1	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: **Quad:** SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
79	0	100	0	36	33

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream Nojoqui Creek LLID: 1201890346002 Drainage Buellton

Survey Dates: 4/6/2011 to 5/3/2011 Survey Length (ft.): 42738 Main Channel (ft.): 42738 Side Channel (ft.): 0

Confluence Quad: SOLVANG Legal T000R000S00 Latitud 34:36:01.0N Longitud 120:11:20.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type: NA
Canopy Density (%):
Pools by Stream Length 0.0
Reach Length (ft.): 35415
Coniferous Component
Pool Frequency (%): 0.0
Riffle/Flatwater Mean Width
Hardwood Component
Residual Pool Depth (%):
BFW:
Dominant Bank
< 2 Feet Deep:
Range (ft.): to
Vegetative Cover (%): 0.0
2 to 2.9 Feet Deep:
Mean (ft.):
Dominant
3 to 3.9 Feet Deep:
Std. Dev.:
Dominant Bank Substrate
>= 4 Feet Deep:
Base Flow (cfs):
Occurrence of LWD (%):
Mean Max Residual Pool Depth
Water (F): 0 - 0 Air (F): 0 - 0
LWD per 100 ft.:
Mean Pool Shelter
Dry Channel (ft.): 0
Riffles:
Pools:
Flat:
Pool Tail Substrate Silt/Clay: Sand: Gravel: Sm Lg Boulder Bedrock:
Embeddedness Values 1. 2. 3. 4. 5. 0.0

STREAM REACH: 2

Channel Type: B4
Canopy Density (%): 79.1
Pools by Stream Length 16.2
Reach Length (ft.): 7323
Coniferous Component 0.0
Pool Frequency (%): 27.3
Riffle/Flatwater Mean Width 9.0
Hardwood Component 100.0
Residual Pool Depth (%):
BFW:
Dominant Bank Hardwood Trees
< 2 Feet Deep: 37.5
Range (ft.): 14 to 51
Vegetative Cover (%): 34.8
2 to 2.9 Feet Deep: 33.3
Mean (ft.): 34.11363636363
Dominant Terrestrial Veg.
3 to 3.9 Feet Deep: 8.3
Std. Dev.: 12.12569756023
Dominant Bank Substrate Sand/Silt/Clay
>= 4 Feet Deep: 20.8
Base Flow (cfs): 1
Occurrence of LWD (%): 1.0
Mean Max Residual Pool Depth 2.65
Water (F): 52 - 63 Air (F): 48 - 82
LWD per 100 ft.:
Mean Pool Shelter 59
Dry Channel (ft.): 0
Riffles:
Pools:
Flat:
Pool Tail Substrate Silt/Clay: 0.0 Sand: 20.8 Gravel: 58.3 Sm 4.2 Lg 16.7 Boulder 0.0 Bedrock: 0.0
Embeddedness Values 1. 4.2 2. 8.3 3. 12.5 4. 37.5 5. 37.5

Table 9 - Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	0	0	0.0
Boulder	2	0	4.8
Cobble/Gravel	1	0	2.4
Sand/Silt/Clay	18	21	92.9

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	0	0.0
Brush	4	5	21.4
Hardwood	17	16	78.6
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Nojoqui Creek **LLID:** 1201890346002 **Drainage:** Buellton

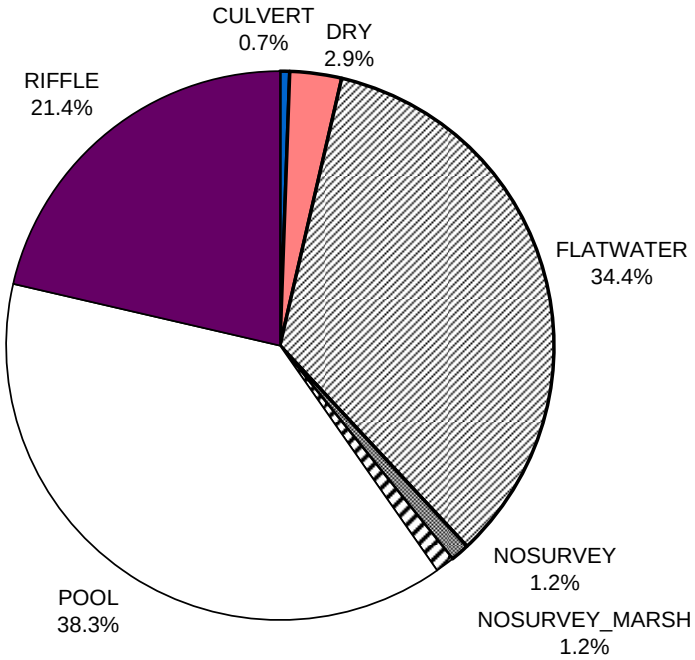
Survey Dates: 4/6/2011 to 5/3/2011

Confluence Location: Quad: SOLVANG **Legal Description:** T000R000S00 **Latitude:** 34:36:01.0N **Longitude:** 120:11:20.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	2
SMALL WOODY DEBRIS (%)	8	16	16
LARGE WOODY DEBRIS (%)	3	0	0
ROOT MASS (%)	0	8	13
TERRESTRIAL VEGETATION (%)	25	54	31
AQUATIC VEGETATION (%)	0	0	0
WHITEWATER (%)	40	4	14
BOULDERS (%)	23	18	24
BEDROCK LEDGES (%)	0	0	1

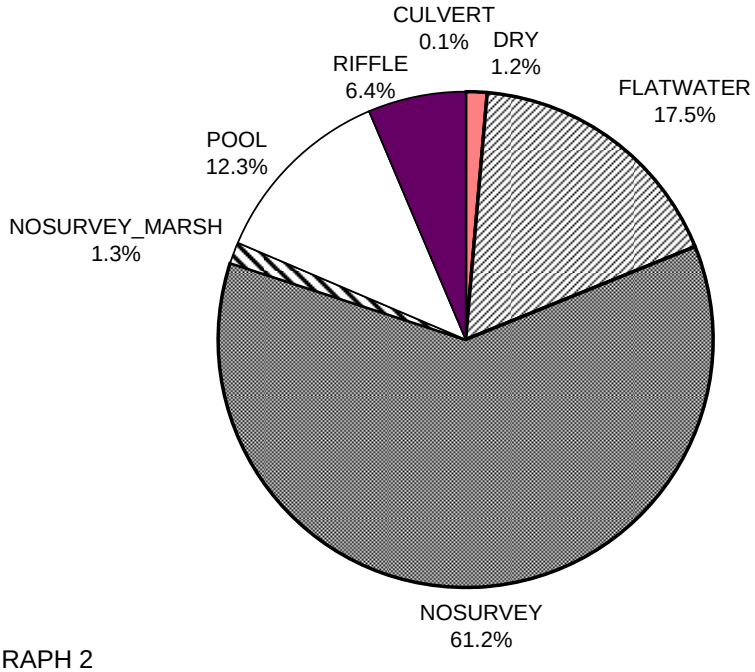
Lower Santa Ynez River Graphs

SANTA YNEZ RIVER 2011
HABITAT TYPES BY PERCENT OCCURRENCE



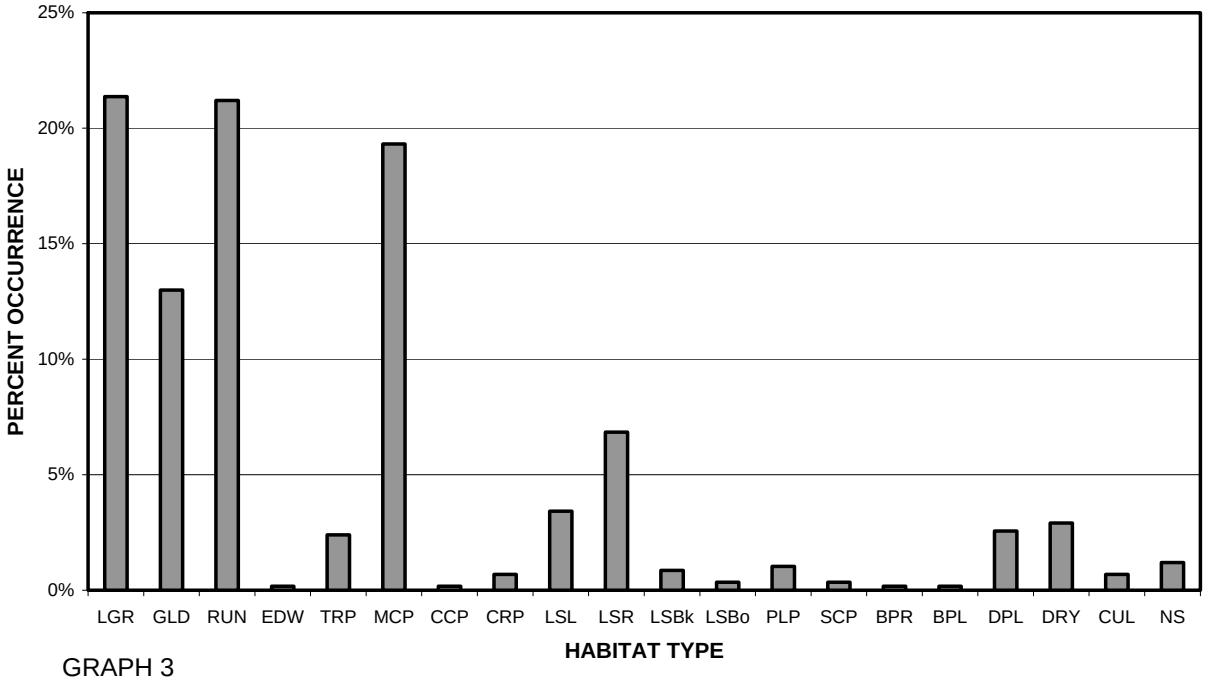
GRAPH 1

SANTA YNEZ RIVER 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



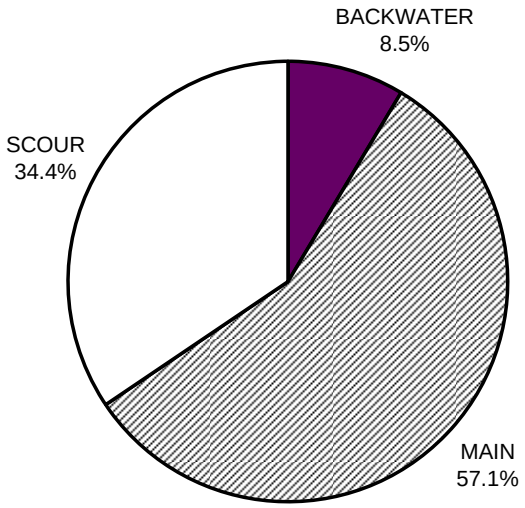
GRAPH 2

SANTA YNEZ RIVER 2011
HABITAT TYPES BY PERCENT OCCURRENCE

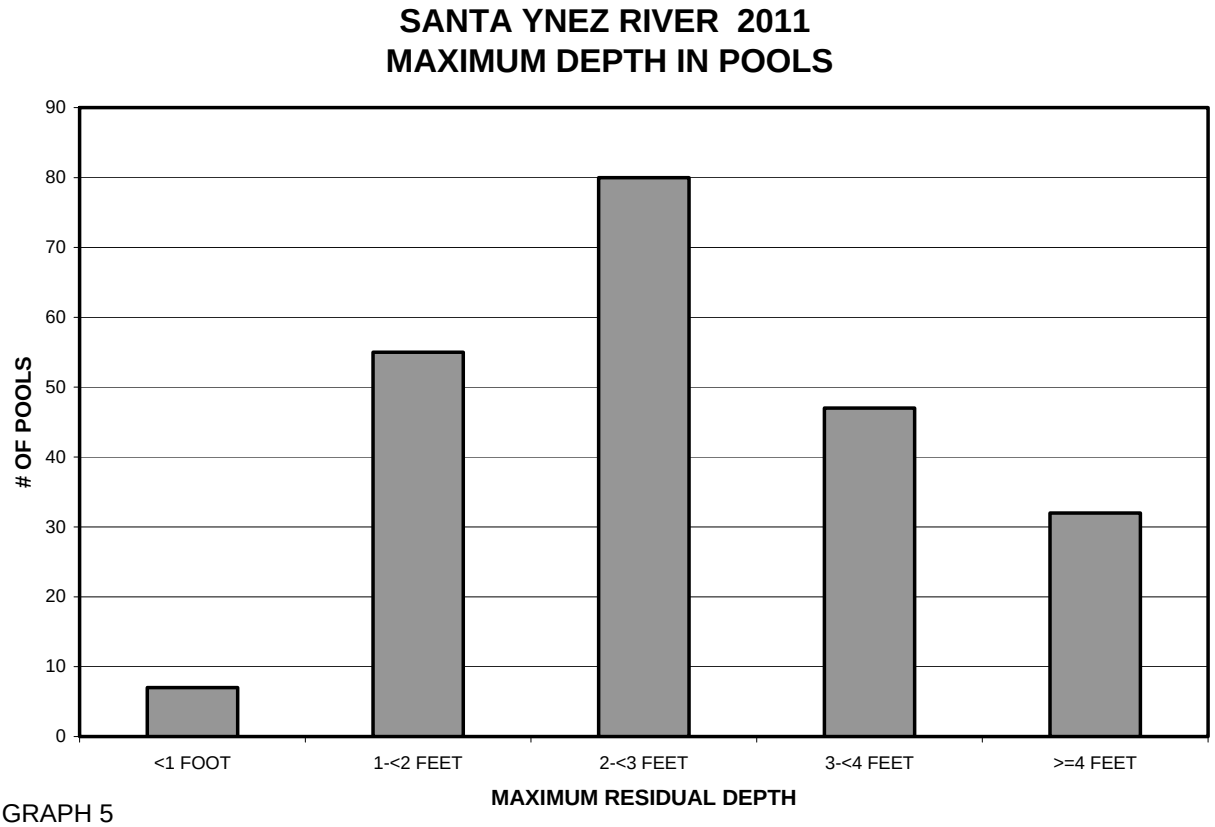


GRAPH 3

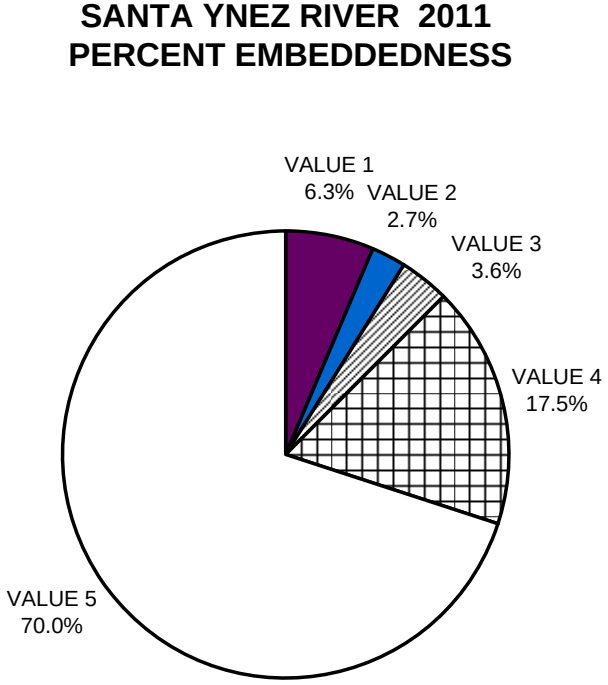
SANTA YNEZ RIVER 2011
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

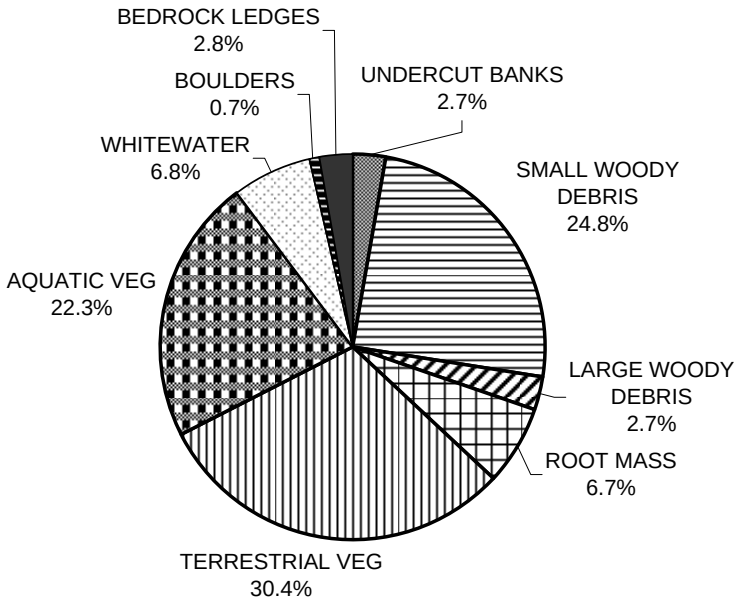


GRAPH 5



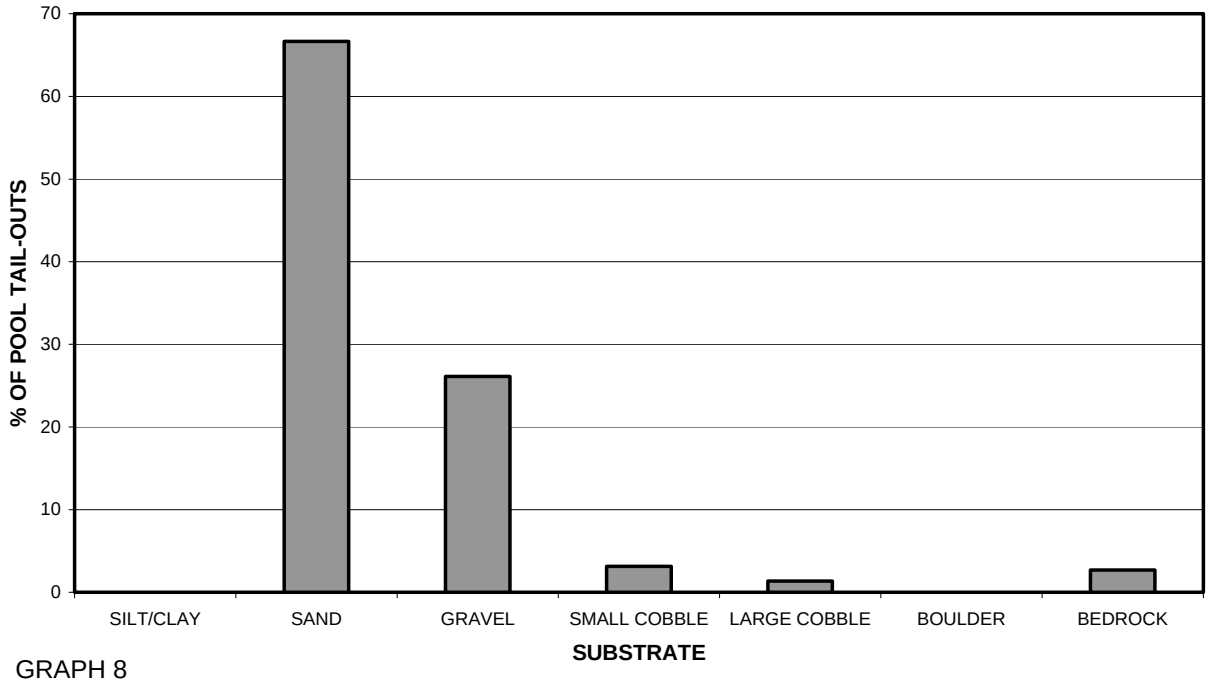
GRAPH 6

SANTA YNEZ RIVER 2011
MEAN PERCENT COVER TYPES IN POOLS



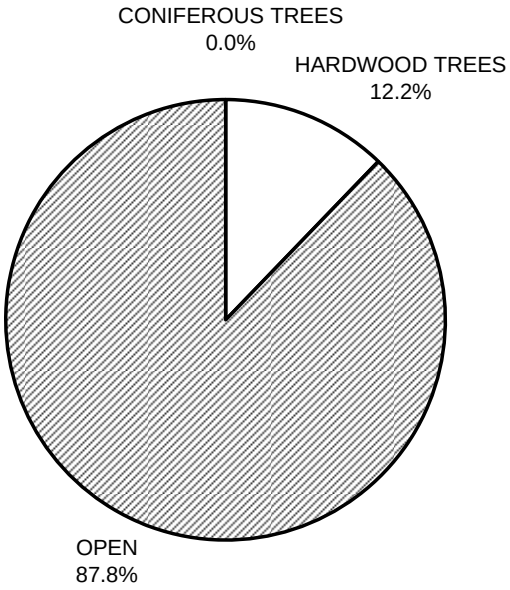
GRAPH 7

SANTA YNEZ RIVER 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



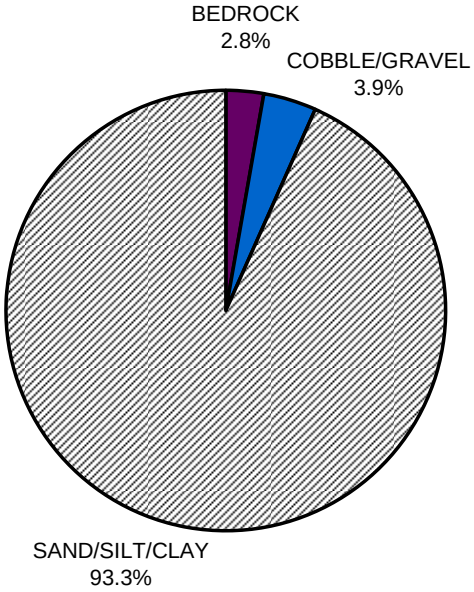
GRAPH 8

SANTA YNEZ RIVER 2011
MEAN PERCENT CANOPY



GRAPH 9

SANTA YNEZ RIVER 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



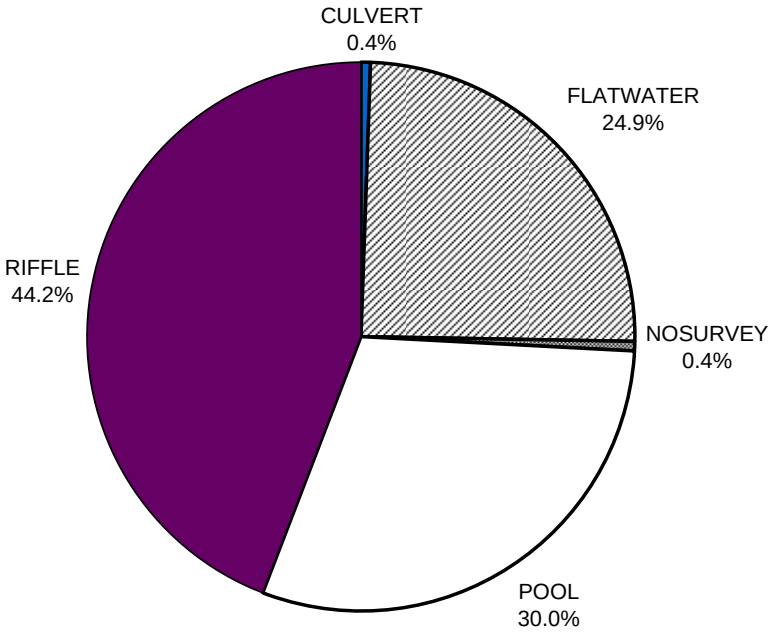
GRAPH 10

SANTA YNEZ RIVER 2011
DOMINANT BANK VEGETATION IN SURVEY REACH

GRAPH 11

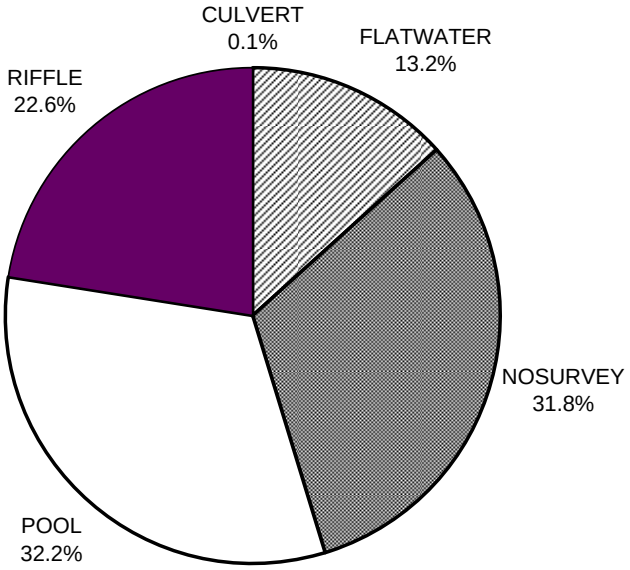
Salsipuedes Creek Graphs

SALSIPUEDES CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE



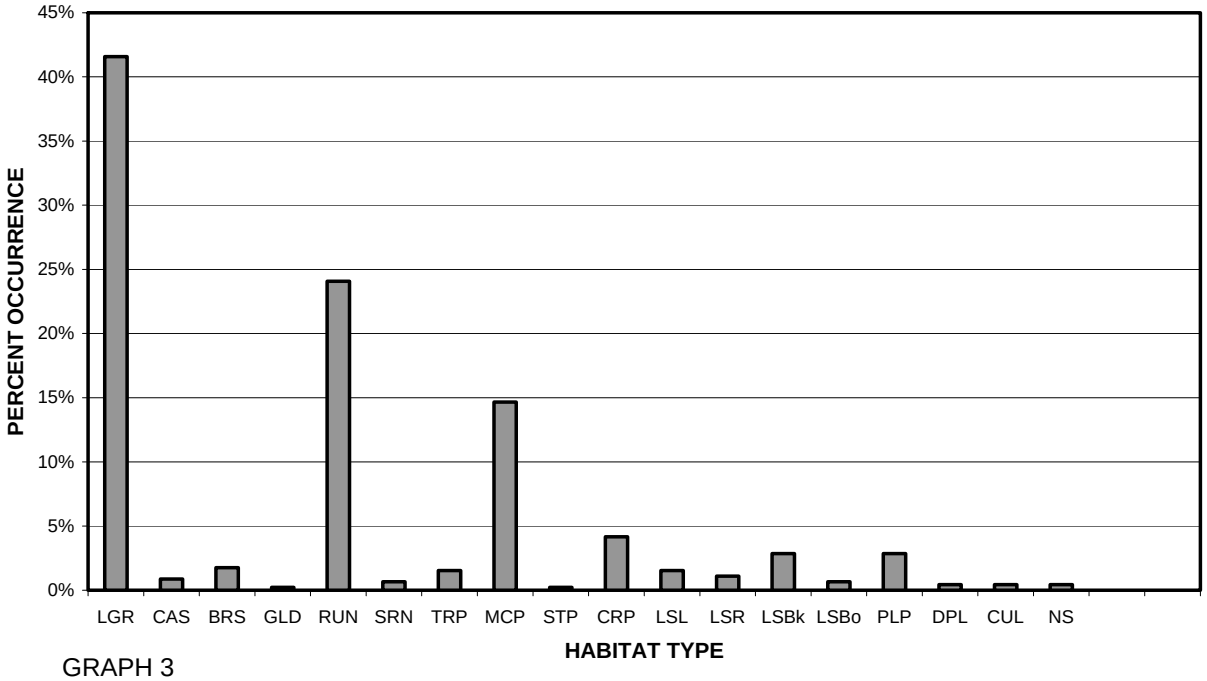
GRAPH 1

SALSIPUEDES CREEK 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



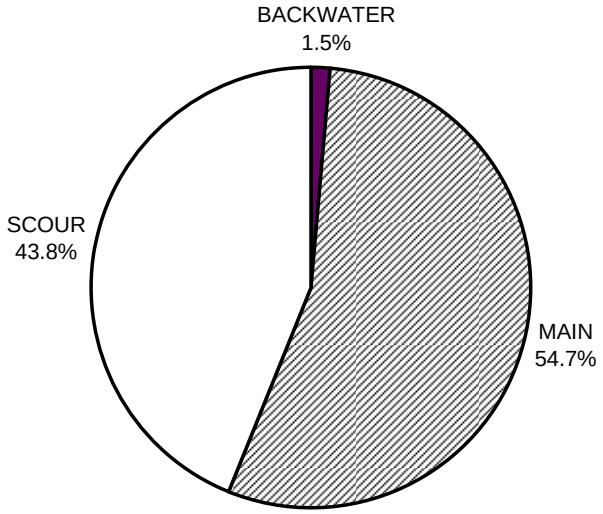
GRAPH 2

SALSIPUEDES CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE

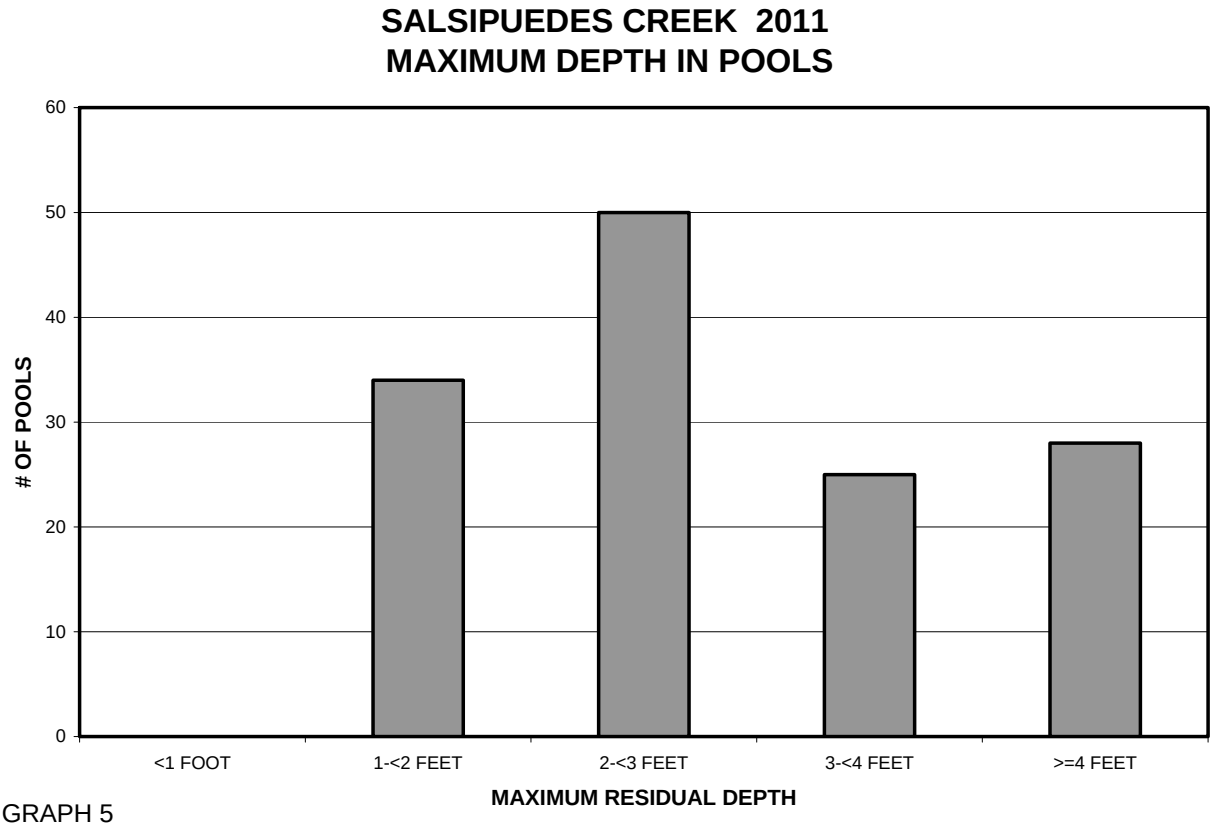


GRAPH 3

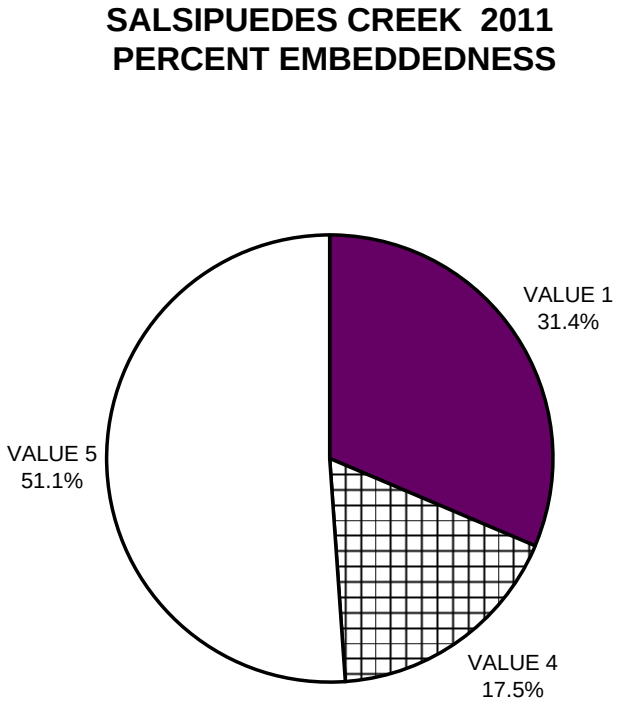
SALSIPUEDES CREEK 2011
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

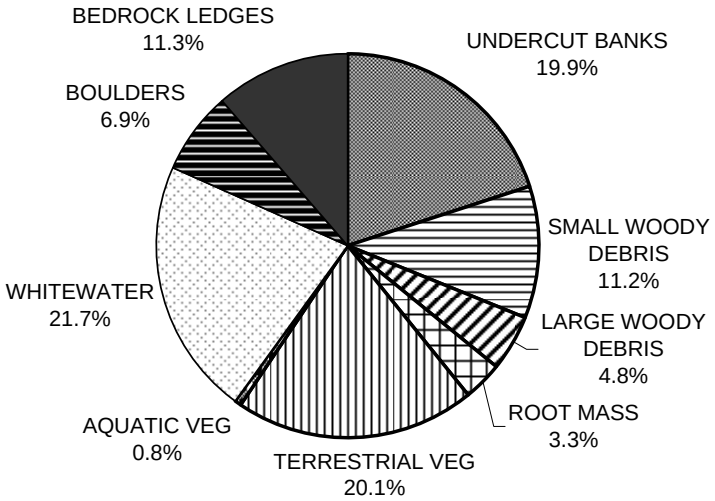


GRAPH 5



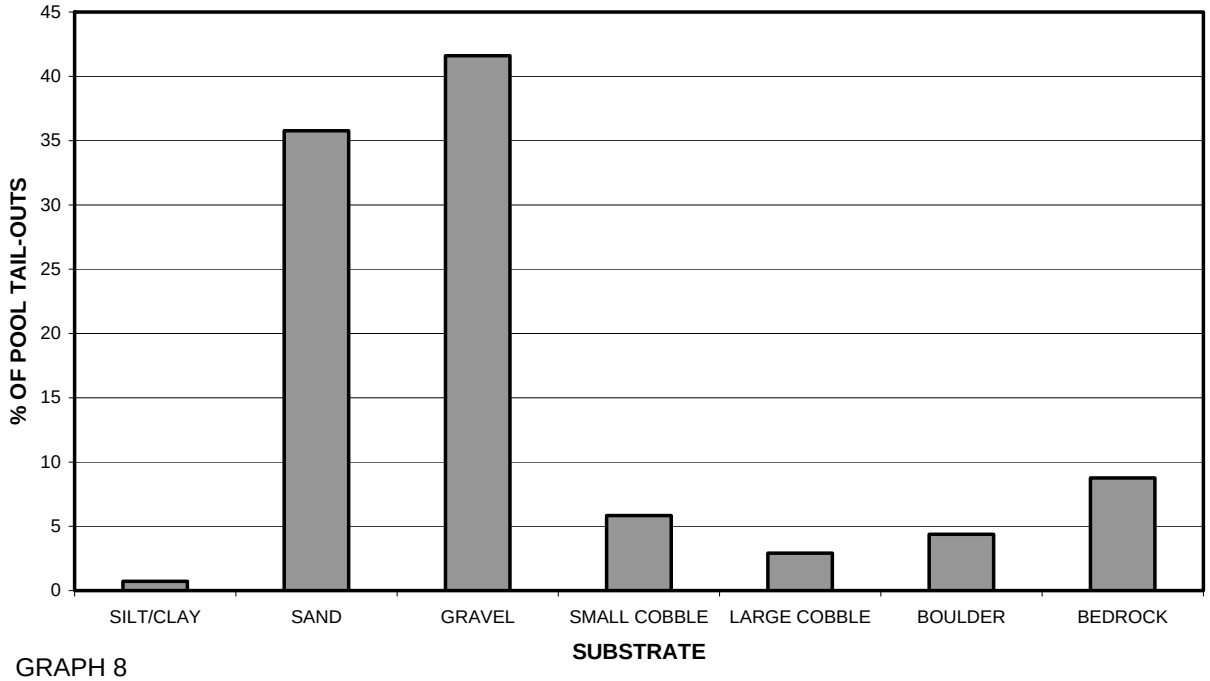
GRAPH 6

SALSIPUEDES CREEK 2011
MEAN PERCENT COVER TYPES IN POOLS



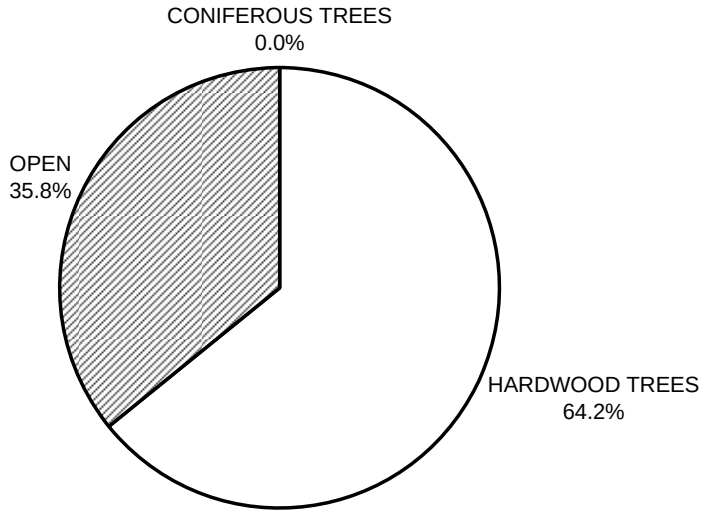
GRAPH 7

SALSIPUEDES CREEK 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



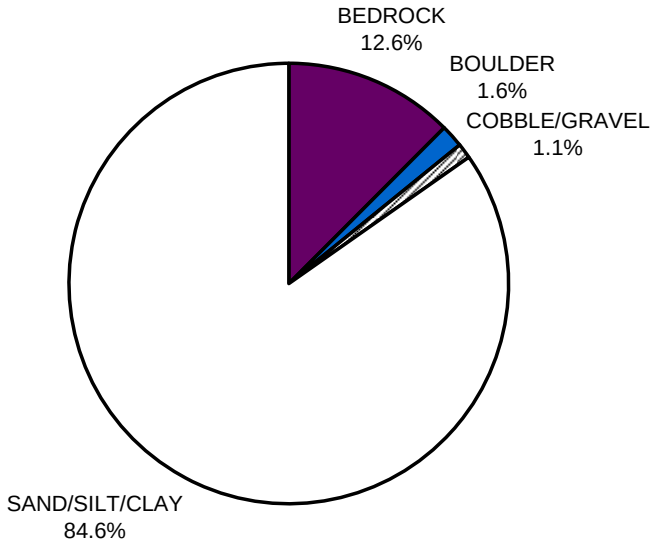
GRAPH 8

SALSIPUEDES CREEK 2011
MEAN PERCENT CANOPY



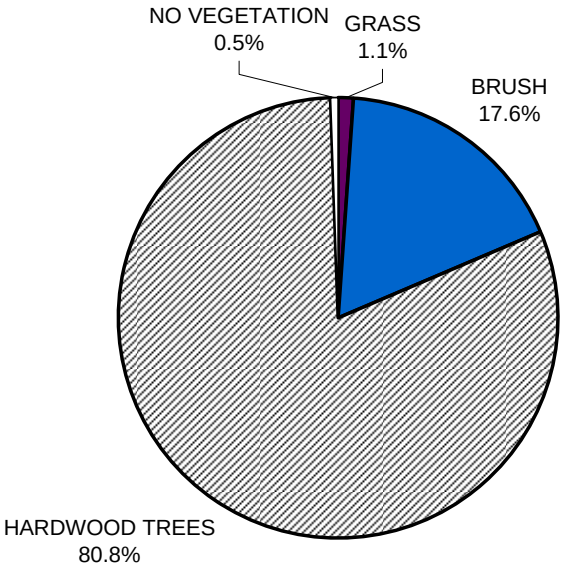
GRAPH 9

SALSIPUEDES CREEK 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

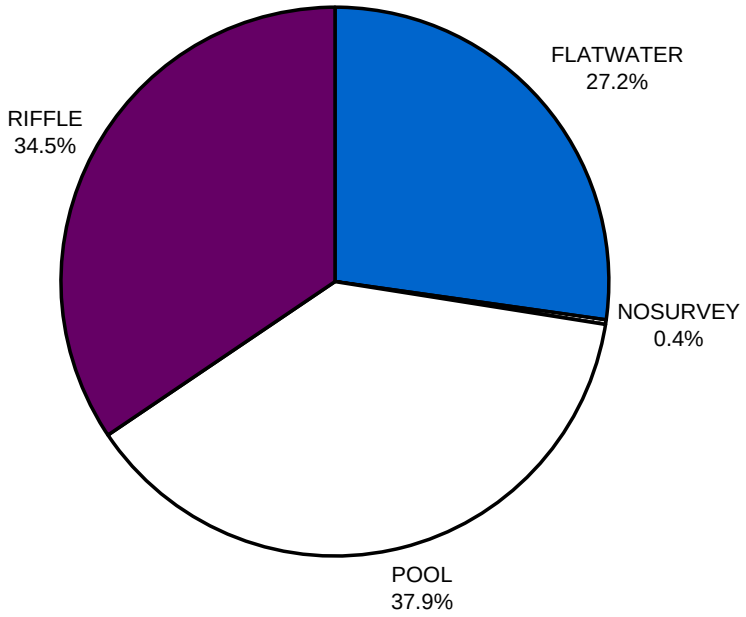
SALSIPUEDES CREEK 2011
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

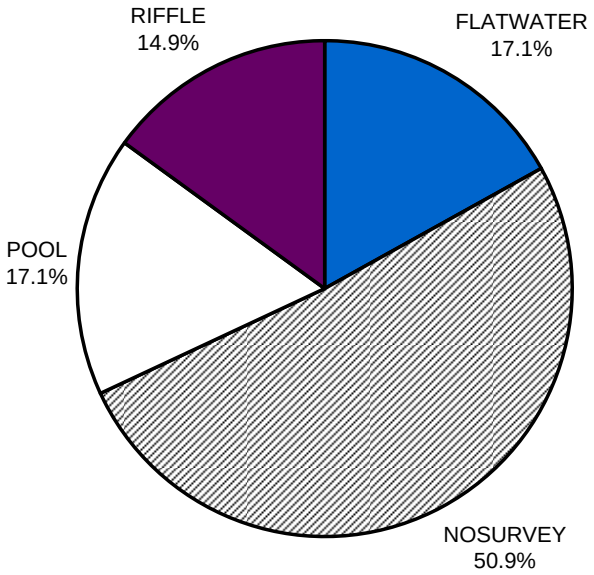
El Jaro Creek Graphs

EL JARO CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE



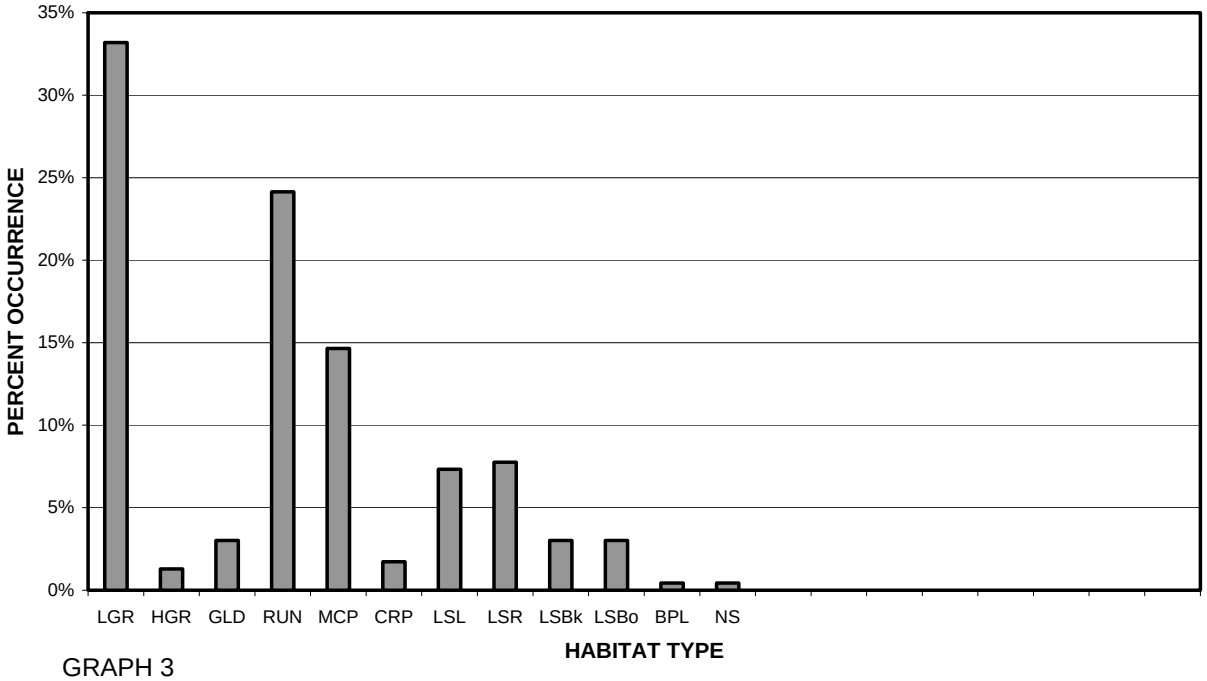
GRAPH 1

EL JARO CREEK 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



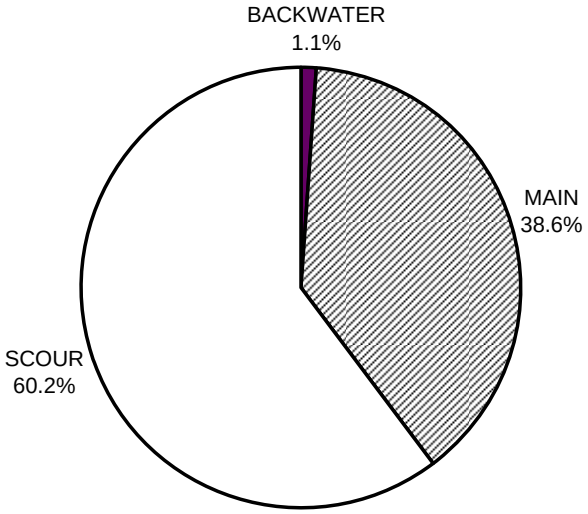
GRAPH 2

EL JARO CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE

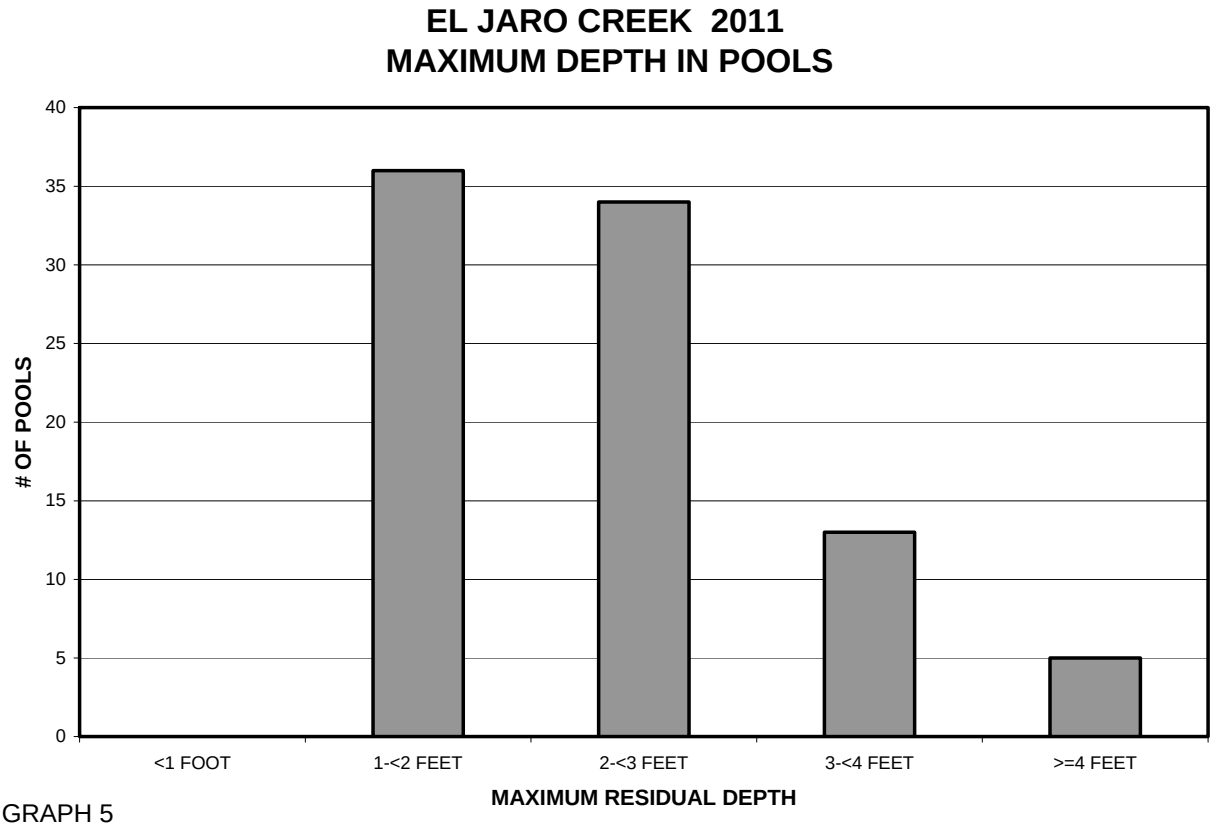


GRAPH 3

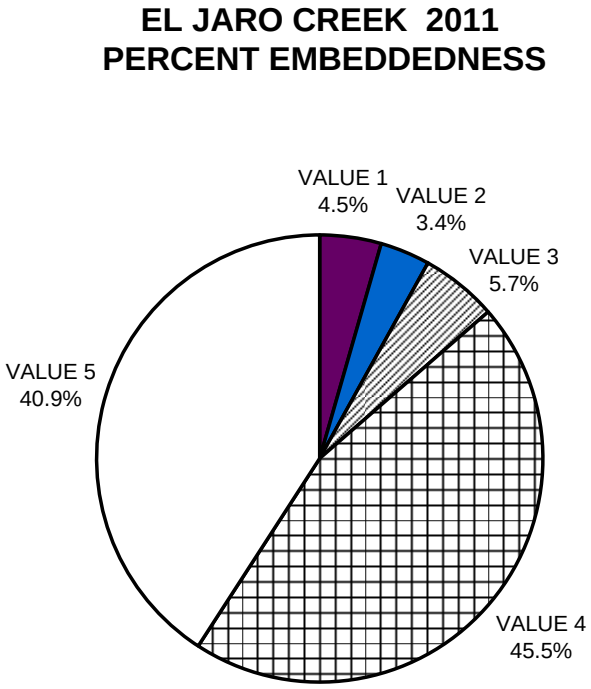
EL JARO CREEK 2011
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

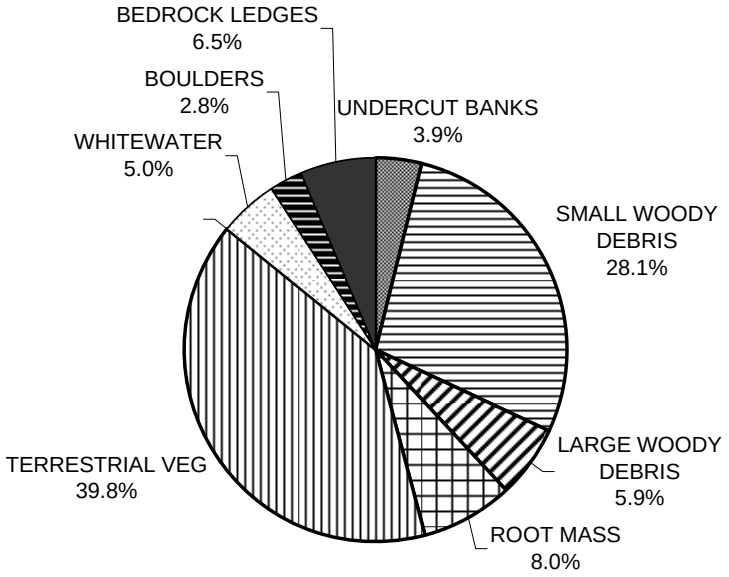


GRAPH 5



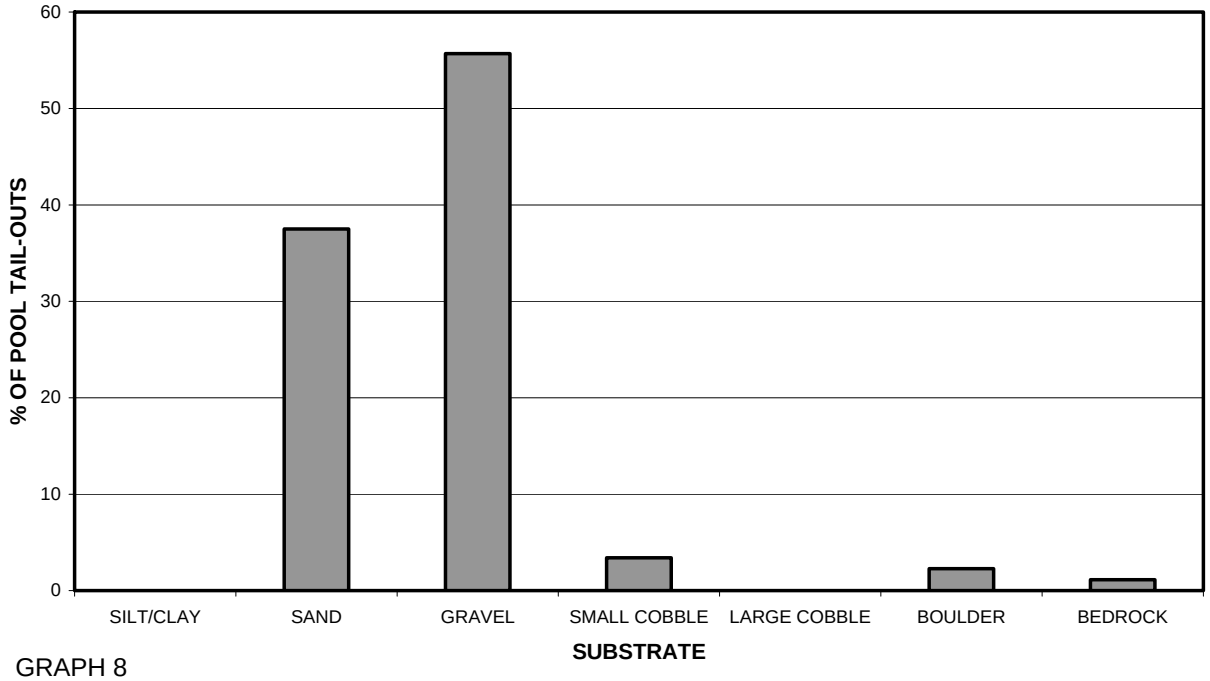
GRAPH 6

EL JARO CREEK 2011
MEAN PERCENT COVER TYPES IN POOLS



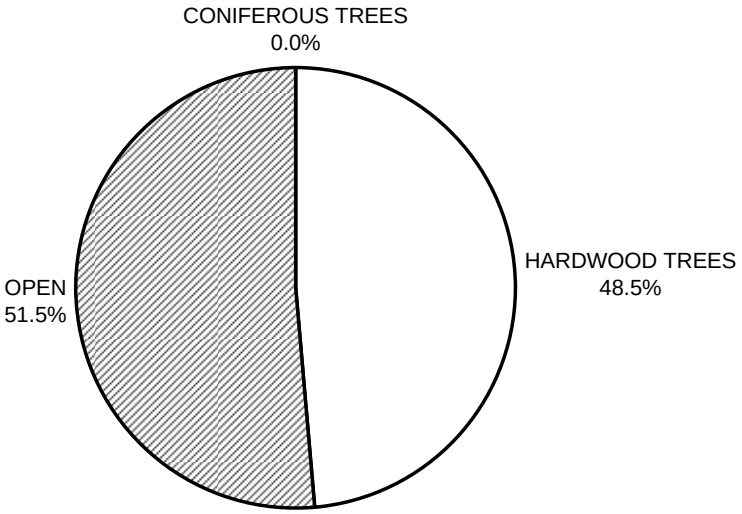
GRAPH 7

EL JARO CREEK 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



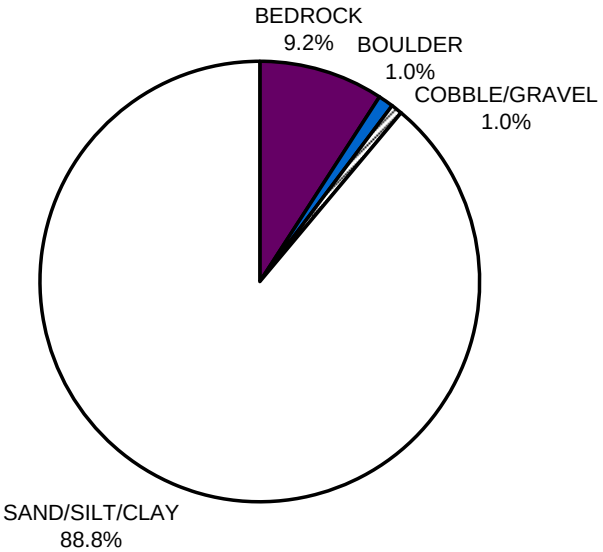
GRAPH 8

EL JARO CREEK 2011
MEAN PERCENT CANOPY



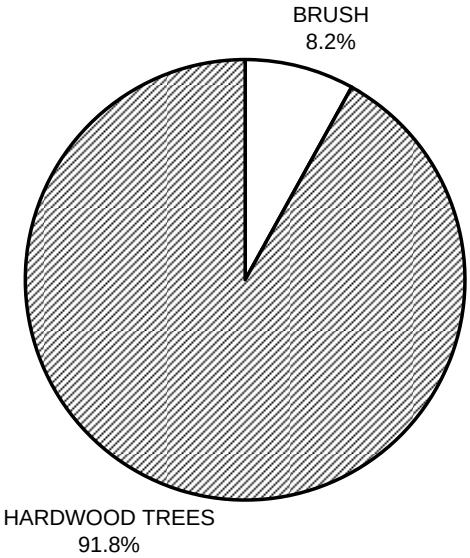
GRAPH 9

EL JARO CREEK 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

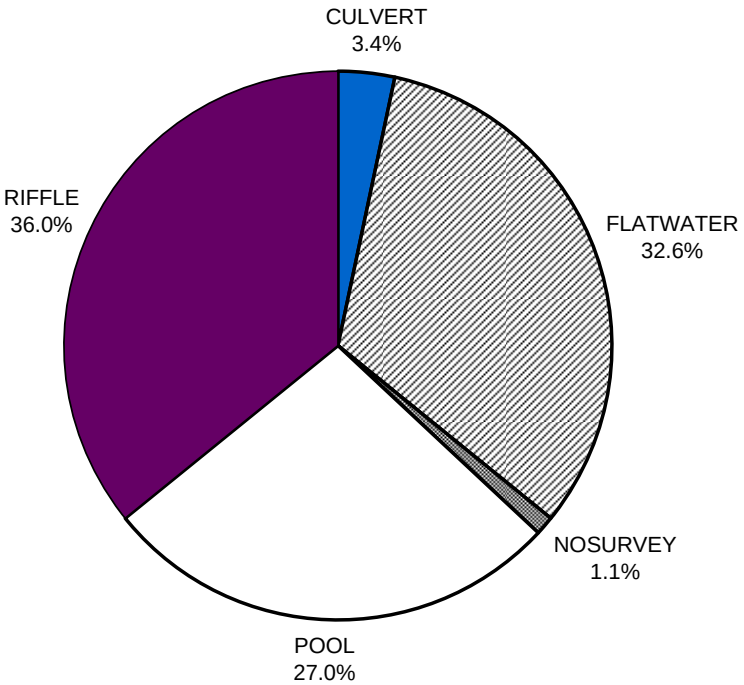
EL JARO CREEK 2011
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

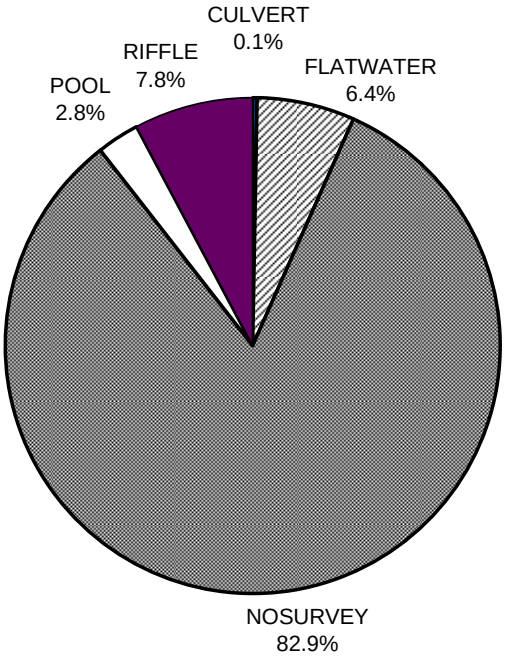
Nojoqui Creek Graphs

NOJOQUI CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE



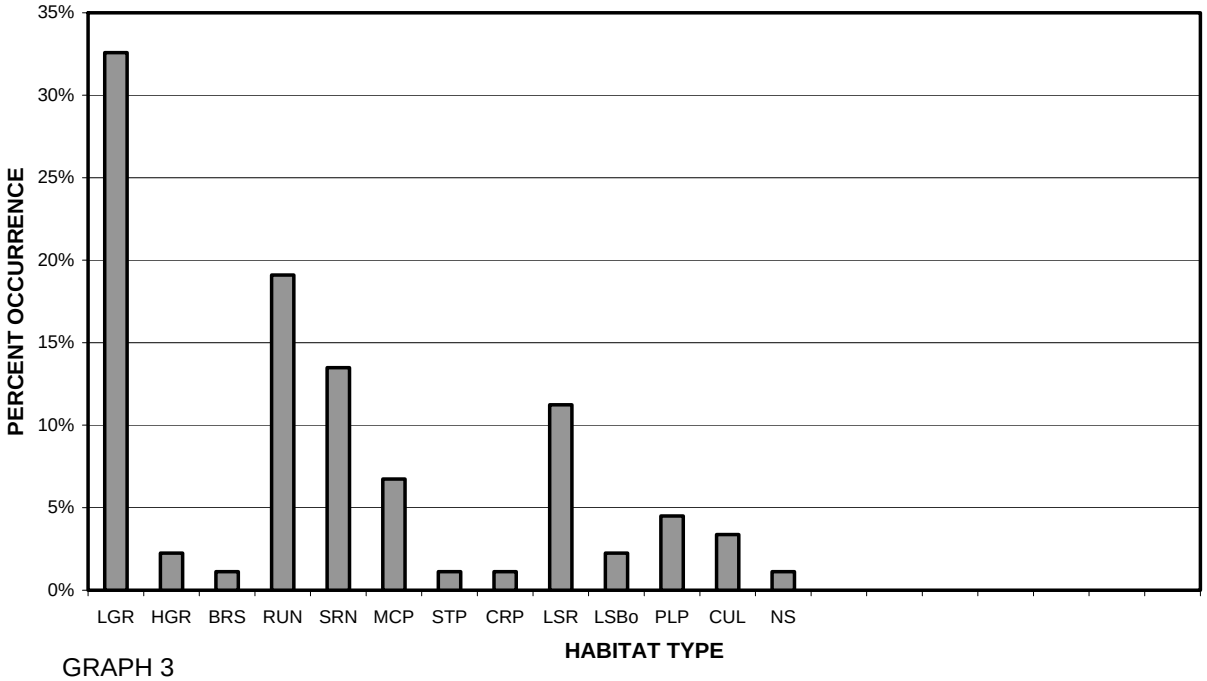
GRAPH 1

NOJOQUI CREEK 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



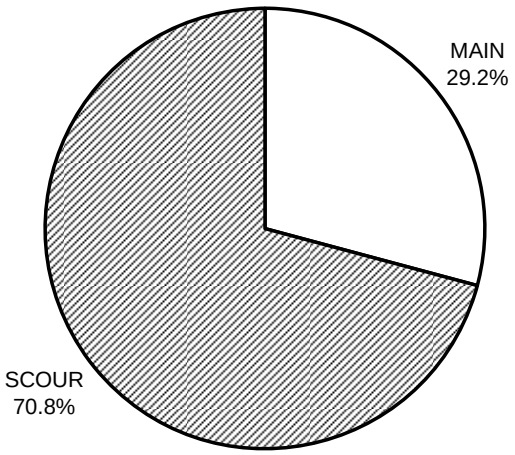
GRAPH 2

NOJOQUI CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE

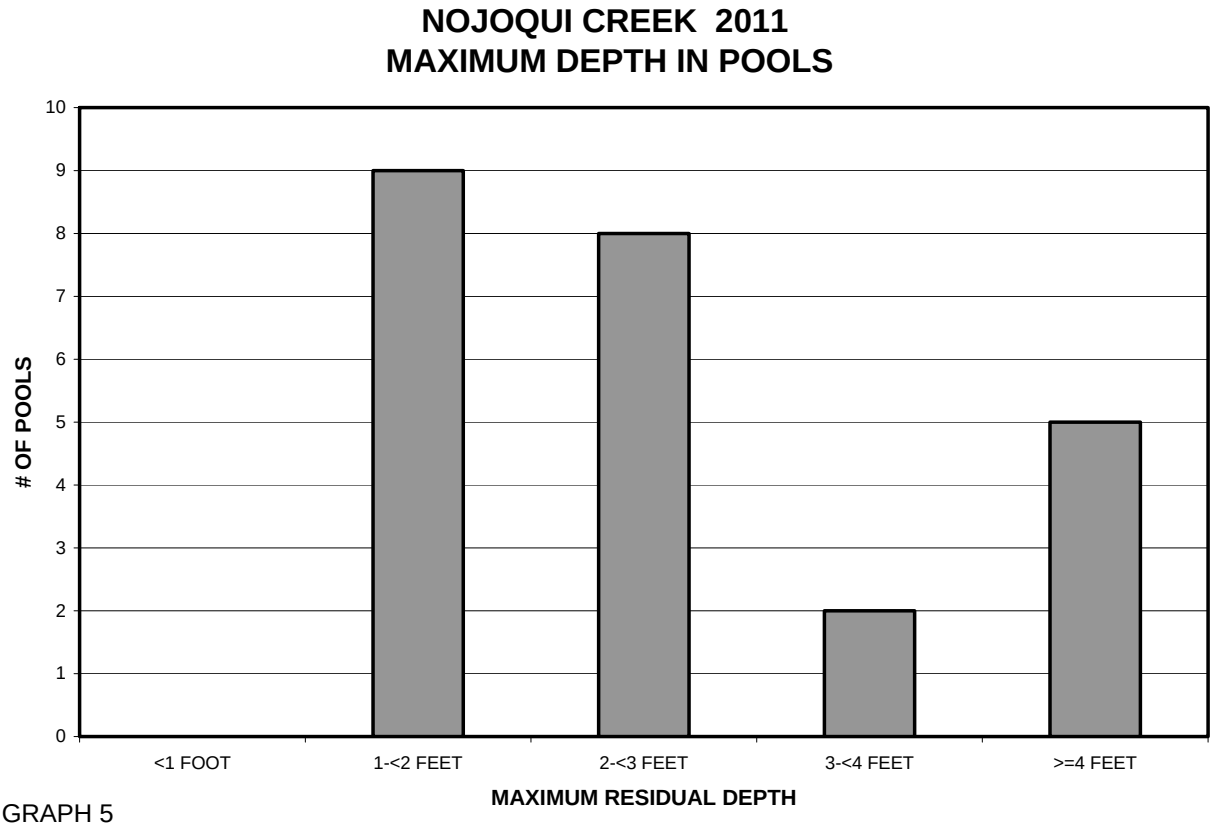


GRAPH 3

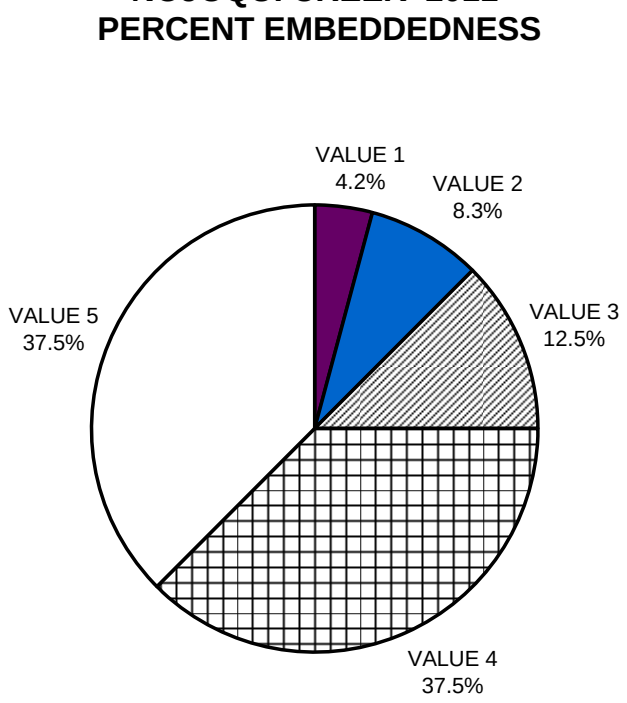
NOJOQUI CREEK 2011
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

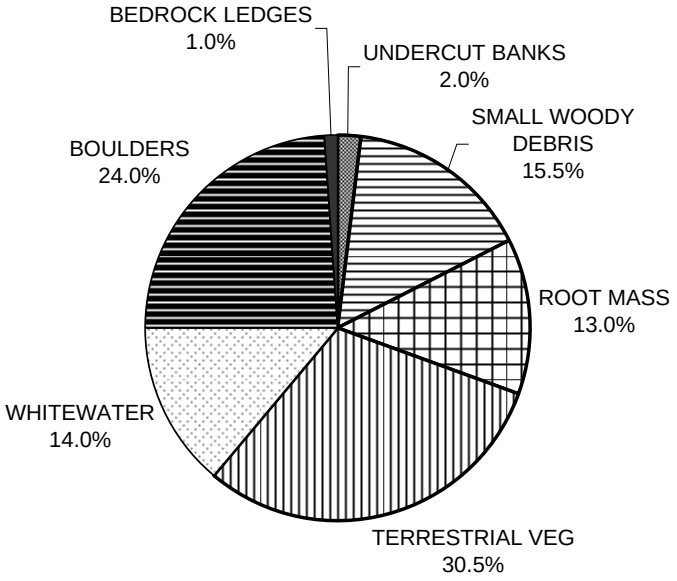


GRAPH 5



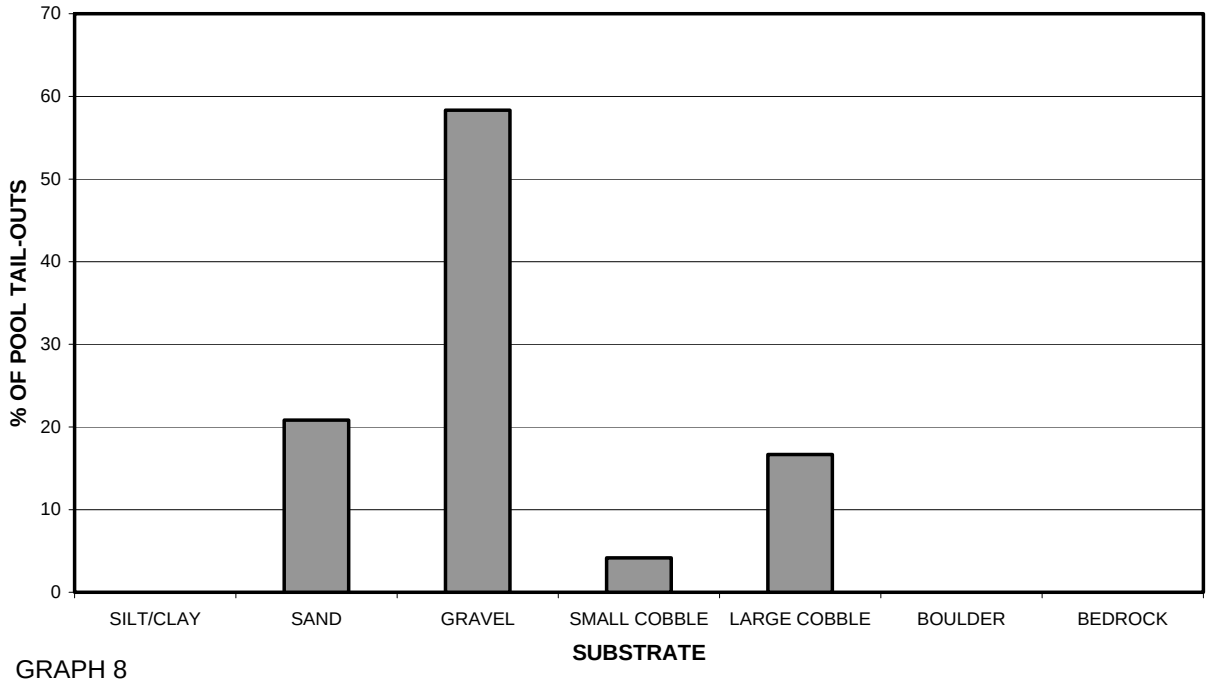
GRAPH 6

NOJOQUI CREEK 2011
MEAN PERCENT COVER TYPES IN POOLS



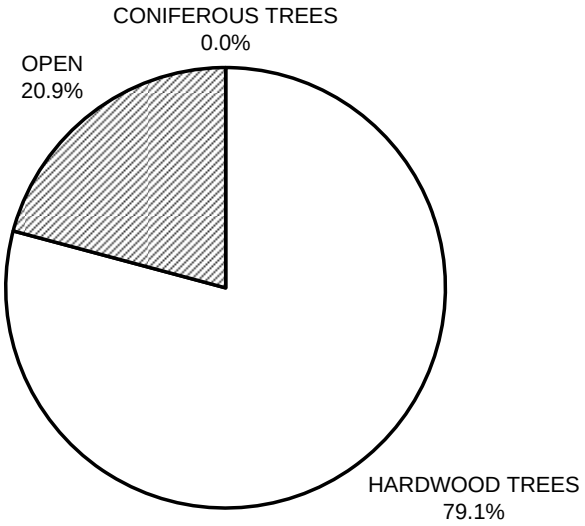
GRAPH 7

NOJOQUI CREEK 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



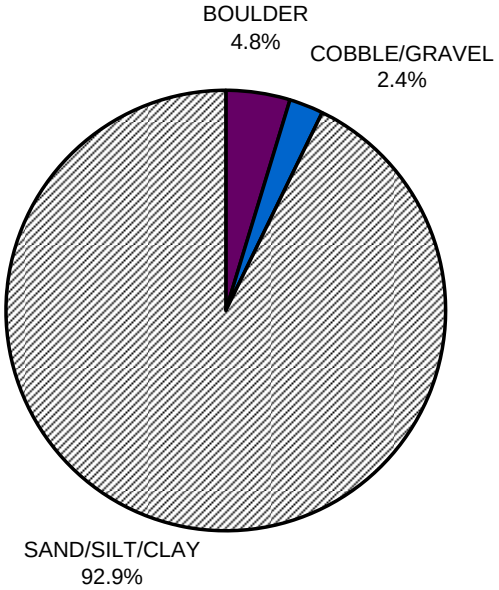
GRAPH 8

NOJOQUI CREEK 2011
MEAN PERCENT CANOPY



GRAPH 9

NOJOQUI CREEK 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

NOJOQUI CREEK 2011
DOMINANT BANK VEGETATION IN SURVEY REACH

GRAPH 11

UPPER SANTA YNEZ TABLES AND GRAPHS

CACHUMA CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
1	0	CULVERT	0.5	32	32	0.1									
96	11	FLATWATER	44.2	69	6622	12.4	8.1	0.7	1.3	326	31334	230	22093		21
2	0	NOSURVEY	0.9	21234	42467	79.7									
41	15	POOL	18.9	21	874	1.6	9.6	1.1	1.7	172	7059	254	10427	183	61
77	9	RIFFLE	35.5	42	3271	6.1	8.9	0.5	0.9	299	22999	173	13290		25

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
40	5	LGR	18.4	49	1968	3.7	8.0	0.5	1.3	377	15091	211	8444		21	84
37	4	HGR	17.1	35	1303	2.4	10.0	0.6	1.1	200	7417	124	4605		29	77
41	7	RUN	18.9	36	1484	2.8	8.0	0.7	1.8	327	13395	241	9899		21	79
55	4	SRN	25.3	93	5138	9.6	8.0	0.6	1.4	326	17922	210	11570		21	84
13	3	MCP	6.0	22	286	0.5	7.0	0.8	1.9	132	1718	186	2417	113	87	80
6	2	STP	2.8	40	239	0.4	12.0	0.8	2.0	308	1848	343	2059	224	40	85
2	1	LSBk	0.9	16	32	0.1	8.0	1.3	1.8	104	208	135	270	135	40	56
13	4	LSBo	6.0	16	204	0.4	9.0	0.8	3.6	142	1848	200	2605	117	64	84
6	4	PLP	2.8	17	101	0.2	12.0	1.4	2.5	197	1185	363	2175	291	46	68
1	1	SCP	0.5	12	12	0.0	9.0	1.7	2.8	108	108	184	184	184	90	79
1	0	CUL	0.5	32	32	0.1										
2	0	NS	0.9	21234	42467	79.7										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
217	35	53266	60739	44229

Table 3 - Summary of Pools

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: **Quad:** FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
19	5	MAIN	46	28	525	60	9.0	0.8	202	3847	157	2992	68
21	9	SCOUR	51	16	337	39	10.0	1.1	162	3412	196	4123	53
1	1	BACKWATER	2	12	12	1	9.0	1.7	108	108	184	184	90

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
41	15	874	7367	7299

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
13	MCP	32	1	8	12	92	0	0	0	0	0	0
13	LSBo	32	0	0	11	85	1	8	1	8	0	0
1	SCP	2	0	0	0	0	1	100	0	0	0	0
6	STP	15	0	0	5	83	1	17	0	0	0	0
6	PLP	15	0	0	3	50	3	50	0	0	0	0
2	LSBk	5	0	0	2	100	0	0	0	0	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
41			1	2	33	80	6	15	1	2	0	0

Mean Maximum Residual Pool Depth (ft.): 2

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
40	5	LGR	0	0	0	0	48	0	4	48	0
37	4	HGR	0	3	0	0	35	0	13	50	0
41	7	RUN	1	6	10	0	60	0	1	21	0
55	4	SRN	0	4	0	0	64	0	8	25	0
13	3	MCP	0	13	7	0	47	0	3	27	3
6	2	STP	0	5	0	0	20	0	15	60	0
2	1	LSBk	0	0	0	0	20	0	0	70	10
13	4	LSBo	10	3	3	0	53	0	10	23	0
6	4	PLP	3	5	0	0	18	0	13	63	0
1	1	SCP	10	10	0	0	60	0	0	20	0
1	0	CUL									
2	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: **Quad:** FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
40	40	LGR	0	0	3	8	5	85	0
37	37	HGR	0	0	0	0	0	100	0
41	41	RUN	0	0	34	7	5	54	0
55	55	SRN	0	0	4	4	2	89	2
13	13	MCP	0	23	15	0	0	62	0
6	6	STP	0	0	0	0	0	100	0
2	2	LSBk	0	50	50	0	0	0	0
13	13	LSBo	0	0	15	0	0	85	0
6	6	PLP	0	0	0	0	0	83	17
1	1	SCP	0	100	0	0	0	0	0
1	0	CUL	0	0	0	0	0	0	0
2	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: **Quad:** FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
80	0	100	0	33	34

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream Cachuma Creek LLID: 1199557345883 Drainage Headwater

Survey Dates: 1/31/2012 to 2/1/2012 Survey Length (ft.): 53266 Main Channel (ft.): 53121 Side Channel (ft.): 145

Confluence Quad: FIGUEROA MTN. Legal T000R000S00 Latitud 34:35:18.0N Longitud 119:57:21.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type: NA
Canopy Density (%):
Pools by Stream Length 0.0
Reach Length (ft.): 38273
Coniferous Component
Pool Frequency (%): 0.0
Riffle/Flatwater Mean Width
Hardwood Component
Residual Pool Depth (%):
BFW:
Dominant Bank
< 2 Feet Deep:
Range (ft.): to
Vegetative Cover (%): 0.0
2 to 2.9 Feet Deep:
Mean (ft.):
Dominant
3 to 3.9 Feet Deep:
Std. Dev.:
Dominant Bank Substrate
>= 4 Feet Deep:
Base Flow (cfs):
Occurrence of LWD (%):
Mean Max Residual Pool Depth
Water (F): 0 - 0 Air (F): 0 - 0
LWD per 100 ft.:
Mean Pool Shelter
Dry Channel (ft.): 0
Riffles:
Pools:
Flat:
Pool Tail Substrate Silt/Clay: Sand: Gravel: Sm Lg Boulder Bedrock:
Embeddedness Values 1. 2. 3. 4. 5. 0.0

STREAM REACH: 2

Channel Type: B2
Canopy Density (%): 80.0
Pools by Stream Length 8.2
Reach Length (ft.): 10654
Coniferous Component 0.0
Pool Frequency (%): 19.3
Riffle/Flatwater Mean Width 8.7
Hardwood Component 100.0
Residual Pool Depth (%):
BFW:
Dominant Bank Hardwood Trees
< 2 Feet Deep: 82.9
Range (ft.): 18 to 55
Vegetative Cover (%): 33.9
2 to 2.9 Feet Deep: 14.6
Mean (ft.): 32.66509433962
Dominant Terrestrial Veg.
3 to 3.9 Feet Deep: 2.4
Std. Dev.: 10.75876599549
Dominant Bank Substrate Boulder
>= 4 Feet Deep: 0.0
Base Flow (cfs): 4
Occurrence of LWD (%): 3.0
Mean Max Residual Pool Depth 1.69
Water (F): 45 - 58 Air (F): 50 - 73
LWD per 100 ft.:
Mean Pool Shelter 61
Dry Channel (ft.): 0
Riffles:
Pools:
Flat:
Pool Tail Substrate Silt/Clay: 0.0 Sand: 16.7 Gravel: 38.1 Sm 2.4 Lg 7.1 Boulder 33.3 Bedrock: 2.4
Embeddedness Values 1. 2.4 2. 7.1 3. 14.3 4. 2.4 5. 73.8

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type: NA
Reach Length (ft.): 4194
Riffle/Flatwater Mean Width
BFW:
Range (ft.): to
Mean (ft.):
Std. Dev.:
Base Flow (cfs):
Water (F): 0 - 0 Air (F): 0 - 0
Dry Channel (ft.): 0

Canopy Density (%):
Coniferous Component
Hardwood Component
Dominant Bank
Vegetative Cover (%): 0.0
Dominant
Dominant Bank Substrate
Occurrence of LWD (%):
LWD per 100 ft.:
Riffles:
Pools:
Flat:

Pools by Stream Length 0.0
Pool Frequency (%): 0.0
Residual Pool Depth (%):
< 2 Feet Deep:
2 to 2.9 Feet Deep:
3 to 3.9 Feet Deep:
>= 4 Feet Deep:
Mean Max Residual Pool Depth
Mean Pool Shelter

Pool Tail Substrate Silt/Clay: Sand: Gravel: Sm Lg Boulder Bedrock:
Embeddedness Values 1. 2. 3. 4. 5. 0.0

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	0	2	2.9
Boulder	30	29	84.3
Cobble/Gravel	2	1	4.3
Sand/Silt/Clay	3	3	8.6

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	0	0.0
Brush	10	5	21.4
Hardwood	25	30	78.6
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Cachuma Creek **LLID:** 1199557345883 **Drainage:** Headwater

Survey Dates: 1/31/2012 to 2/1/2012

Confluence Location: Quad: FIGUEROA MTN. **Legal Description:** T000R000S00 **Latitude:** 34:35:18.0N **Longitude:** 119:57:21.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	1	4
SMALL WOODY DEBRIS (%)	1	5	6
LARGE WOODY DEBRIS (%)	0	6	2
ROOT MASS (%)	0	0	0
TERRESTRIAL VEGETATION (%)	42	61	36
AQUATIC VEGETATION (%)	0	0	0
WHITEWATER (%)	8	4	9
BOULDERS (%)	49	23	42
BEDROCK LEDGES (%)	0	0	1

SANTA CRUZ CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
102	10	FLATWATER	43.8	89	9094	12.3	14.6	0.8	1.5	875	89299	678	69180		65
1	0	NOSURVEY	0.4	54853	54853	74.2									
51	19	POOL	21.9	56	2881	3.9	17.9	1.5	3.1	880	44888	1628	78675	1297	86
79	12	RIFFLE	33.9	90	7087	9.6	14.2	0.5	1.1	652	51482	372	29419		86

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
233	41	73915	185669	177274

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
74	9	LGR	31.8	93	6855	9.3	11.0	0.5	2.4	714	52826	416	30797		85	48
5	3	HGR	2.1	46	232	0.3	24.0	0.5	1.2	465	2325	241	1205		90	40
66	7	RUN	28.3	73	4807	6.5	14.0	0.7	2.6	725	47825	567	37390		62	47
36	3	SRN	15.5	119	4287	5.8	17.0	0.8	2.0	1228	44191	939	33801		70	49
5	3	MCP	2.1	54	270	0.4	17.0	1.1	3.7	877	4385	1352	6758	894	70	72
1	1	STP	0.4	77	77	0.1	13.0	0.3	1.6	250	250	175	175	75	120	1
1	1	LSL	0.4	42	42	0.1	15.0	0.9	2.3	624	624	748	748	561	180	41
36	11	LSBk	15.5	58	2093	2.8	18.0	1.9	5.9	992	35701	2058	67346	1738	75	49
7	2	LSBo	3.0	54	381	0.5	23.0	0.9	3.3	1039	7276	1739	12171	1212	105	51
1	1	PLP	0.4	18	18	0.0	16.0	1.0	1.9	230	230	276	276	230	90	13
1	0	NS	0.4	54853	54853	74.2										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
233	41	73915	195633	190668

Table 3 - Summary of Pools

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
6	4	MAIN	12	58	347	12	16.3	0.9	720	4322	689	4136	83
45	15	SCOUR	88	56	2534	88	18.3	1.6	923	41525	1471	61778	88

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
51	19	2881	45847	65914

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
35	LSBk	74	1	3	2	6	10	29	11	31	11	31
1	LSL	2	0	0	0	0	1	100	0	0	0	0
4	MCP	9	0	0	1	25	1	25	2	50	0	0
5	LSBo	11	0	0	3	60	1	20	1	20	0	0
1	STP	2	0	0	1	100	0	0	0	0	0	0
1	PLP	2	0	0	1	100	0	0	0	0	0	0

Total Units	Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
47	1	2	8	17	13	28	14	30	11	23

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
74	9	LGR	0	8	0	3	27	7	10	46	0
5	3	HGR	0	0	0	0	13	10	27	50	0
66	7	RUN	0	1	0	0	30	51	0	17	0
36	3	SRN	13	3	0	0	20	10	10	43	0
5	3	MCP	7	10	0	7	37	13	0	27	0
1	1	STP	0	0	0	0	30	0	30	40	0
1	1	LSL	0	10	0	30	50	10	0	0	0
36	10	LSBk	3	6	6	2	16	25	2	16	25
7	2	LSBo	0	5	0	10	15	0	0	55	15
1	1	PLP	0	0	0	0	30	0	0	30	40
1	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
74	74	LGR	0	0	9	16	23	51	0
5	5	HGR	0	0	0	0	0	100	0
66	66	RUN	0	2	12	9	33	39	5
36	36	SRN	0	0	3	3	11	81	3
5	5	MCP	0	0	40	0	40	20	0
1	1	STP	0	0	0	0	0	100	0
1	1	LSL	0	0	0	100	0	0	0
36	36	LSBk	0	39	25	17	3	8	8
7	7	LSBo	0	14	0	0	0	71	14
1	1	PLP	0	0	0	0	0	100	0
1	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
48	0	100	1	33	28

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Santa Cruz Creek			LLID: 1199343345716		Drainage	Headwater
Survey Dates:	7/10/2012 to 7/17/2012	Survey Length (ft.):	73915	Main Channel (ft.):	73787	Side Channel (ft.):	128
Confluence	Quad: SAN RAFAEL	Legal	T000R000S00	Latitud	34:34:18.0N	Longitud	119:56:03.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	54853	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	to	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):		Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:		Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):		Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	0 - 0 Air (F): 0 - 0	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay:	Sand:	Gravel:	Sm	Lg	Boulder	Bedrock:
Embeddedness Values	1.	2.	3.	4.	5. 0.0		

STREAM REACH: 2

Channel Type:	B2	Canopy Density (%):	47.0	Pools by Stream Length	15.2
Reach Length (ft.):	18934	Coniferous Component	0.0	Pool Frequency (%):	22.3
Riffle/Flatwater Mean Width	15.0	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	19.1
Range (ft.):	30 to 81	Vegetative Cover (%):	30.6	2 to 2.9 Feet Deep:	27.7
Mean (ft.):	49.94759825327	Dominant	Boulders	3 to 3.9 Feet Deep:	29.8
Std. Dev.:	11.06143447567	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	23.4
Base Flow (cfs):	2.5	Occurrence of LWD (%):	1.6	Mean Max Residual Pool Depth	3.05
Water (F):	66 - 84 Air (F): 77 - 98	LWD per 100 ft.:		Mean Pool Shelter	86
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay: 0.0	Sand: 15.7	Gravel: 23.5	Sm 31.4	Lg 3.9	Boulder 23.5	Bedrock: 2.0
Embeddedness Values	1. 3.9	2. 19.6	3. 19.6	4. 11.8	5. 45.1		

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	9	11	25.0
Boulder	15	19	42.5
Cobble/Gravel	14	6	25.0
Sand/Silt/Clay	2	4	7.5

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	1	1	2.5
Brush	9	10	23.8
Hardwood	30	29	73.8
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Santa Cruz Creek **LLID:** 1199343345716 **Drainage:** Headwater

Survey Dates: 7/10/2012 to 7/17/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:18.0N **Longitude:** 119:56:03.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	4	3
SMALL WOODY DEBRIS (%)	6	2	6
LARGE WOODY DEBRIS (%)	0	0	3
ROOT MASS (%)	3	0	5
TERRESTRIAL VEGETATION (%)	23	27	23
AQUATIC VEGETATION (%)	8	39	17
WHITEWATER (%)	14	3	3
BOULDERS (%)	47	25	23
BEDROCK LEDGES (%)	0	0	18

EAST FORK SANTA CRUZ CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
1	0	DRY	0.7	140	140	1.2									
48	8	FLATWATER	35.8	133	6383	56.7	11.4	0.7	1.4	439	21057	327	15686		56
56	14	POOL	41.8	62	3449	30.6	18.0	1.4	3.0	899	50361	1651	92459	1391	79
29	10	RIFFLE	21.6	44	1289	11.4	10.3	0.5	1.1	93	2705	48	1380		80

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
134	32	11261	74122	109526

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
14	4	LGR	10.4	46	637	5.7	10.0	0.4	1.8	127	1781	48	672		95	39
9	2	HGR	6.7	49	441	3.9	14.0	0.8	1.5	135	1211	99	892		85	17
3	2	CAS	2.2	22	65	0.6	12.0	0.6	1.4	51	153	33	100		100	65
3	2	BRS	2.2	49	146	1.3	5.0	0.4	1.4	26	79	10	29		23	47
7	2	RUN	5.2	60	418	3.7	8.0	0.7	1.2	249	1742	166	1162		25	73
41	6	SRN	30.6	145	5965	53.0	12.0	0.7	2.0	502	20581	380	15596		66	74
21	6	STP	15.7	98	2048	18.2	18.0	1.0	5.3	1136	23866	1659	34830	1303	78	77
20	3	LSBk	14.9	41	816	7.2	16.0	1.3	4.9	443	8855	846	16912	667	65	41
13	3	LSBo	9.7	34	438	3.9	18.0	1.2	5.8	641	8337	818	10633	704	100	92
2	2	PLP	1.5	74	147	1.3	20.0	3.0	10.7	1260	2519	4086	8173	3772	75	100
1	0	DRY	0.7	140	140	1.2										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
134	32	11261	69124	88998

Table 3 - Summary of Pools

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
21	6	MAIN	38	98	2048	59	18.2	1.0	1136	23866	1303	27370	78
35	8	SCOUR	63	40	1401	41	17.9	1.7	721	25249	1457	51006	81

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
56	14	3449	49116	78375

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
21	STP	38	0	0	1	5	14	67	4	19	2	10
2	PLP	4	0	0	0	0	0	0	1	50	1	50
20	LSBk	36	0	0	4	20	8	40	6	30	2	10
13	LSBo	23	0	0	3	23	5	38	2	15	3	23
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
56			0	0	8	14	27	48	13	23	8	14

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
14	4	LGR	0	18	5	0	28	8	15	28	0
9	2	HGR	0	10	0	0	25	0	15	50	0
3	2	CAS	0	5	0	10	20	0	25	40	0
3	2	BRS	0	0	0	0	45	5	30	20	0
7	2	RUN	0	10	0	0	20	0	0	70	0
41	6	SRN	0	5	3	7	27	0	8	47	3
21	6	STP	0	7	8	5	13	0	22	38	7
20	3	LSBk	10	3	0	0	33	3	0	23	27
13	3	LSBo	0	7	50	3	13	3	0	23	0
2	2	PLP	0	0	0	0	15	5	25	0	55

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
14	14	LGR	0	0	7	0	7	86	0
9	9	HGR	0	0	0	0	0	100	0
3	3	CAS	0	0	0	0	0	100	0
3	3	BRS	0	0	0	0	0	0	100
7	7	RUN	0	0	43	0	0	43	14
41	41	SRN	0	0	5	0	0	95	0
21	21	STP	0	10	0	0	0	86	5
20	20	LSBk	15	30	15	0	0	20	20
13	13	LSBo	8	31	8	0	0	54	0
2	2	PLP	0	0	50	0	0	0	50

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
65	1	99	0	17	25

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	East Fork Santa Cruz Creek			LLID: 1197504346412		Drainage	Headwater
Survey Dates:	7/17/2012 to 8/7/2012	Survey Length (ft.):	11261	Main Channel (ft.):	11261	Side Channel (ft.):	0
Confluence	Quad: BIG PINE MTN.	Legal	T07NR27WS32	Latitud	34:38:28.0N	Longitud	119:45:01.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	A2	Canopy Density (%):	49.0	Pools by Stream Length	64.2
Reach Length (ft.):	798	Coniferous Component	0.0	Pool Frequency (%):	57.1
Riffle/Flatwater Mean Width	9.4	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	12.5
Range (ft.):	40 to 48	Vegetative Cover (%):	21.4	2 to 2.9 Feet Deep:	62.5
Mean (ft.):	45.71428571428	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	12.5
Std. Dev.:	3.614031611621	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	12.5
Base Flow (cfs):	5	Occurrence of LWD (%):	3.3	Mean Max Residual Pool Depth	2.76
Water (F):	70 - 78 Air (F): 79 - 96	LWD per 100 ft.:		Mean Pool Shelter	68
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 62.5 Gravel: 0.0 Sm 0.0 Lg 12.5 Boulder 12.5 Bedrock: 12.5

Embeddedness Values 1. 0.0 2. 0.0 3. 0.0 4. 0.0 5. 100.0

STREAM REACH: 2

Channel Type:	B2	Canopy Density (%):	68.2	Pools by Stream Length	28.1
Reach Length (ft.):	10463	Coniferous Component	0.7	Pool Frequency (%):	40.0
Riffle/Flatwater Mean Width	11.3	Hardwood Component	99.3	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	14.6
Range (ft.):	25 to 58	Vegetative Cover (%):	21.4	2 to 2.9 Feet Deep:	45.8
Mean (ft.):	42.33333333333	Dominant	Boulders	3 to 3.9 Feet Deep:	25.0
Std. Dev.:	8.759122228980	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	14.6
Base Flow (cfs):	0.5	Occurrence of LWD (%):	9.1	Mean Max Residual Pool Depth	3.04
Water (F):	66 - 84 Air (F): 73 - 96	LWD per 100 ft.:		Mean Pool Shelter	84
Dry Channel (ft.):	140	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 10.4 Sand: 29.2 Gravel: 25.0 Sm 12.5 Lg 8.3 Boulder 14.6 Bedrock: 0.0

Embeddedness Values 1. 2.1 2. 8.3 3. 6.3 4. 14.6 5. 68.8

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	12	6	28.1
Boulder	19	26	70.3
Cobble/Gravel	0	0	0.0
Sand/Silt/Clay	1	0	1.6

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	3	4.7
Brush	11	6	26.6
Hardwood	21	23	68.8
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: East Fork Santa Cruz Creek **LLID:** 1197504346412 **Drainage:** Headwater

Survey Dates: 7/17/2012 to 8/7/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:28.0N **Longitude:** 119:45:01.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	2
SMALL WOODY DEBRIS (%)	10	6	5
LARGE WOODY DEBRIS (%)	2	3	14
ROOT MASS (%)	2	5	3
TERRESTRIAL VEGETATION (%)	29	25	18
AQUATIC VEGETATION (%)	4	0	2
WHITEWATER (%)	20	6	13
BOULDERS (%)	33	53	26
BEDROCK LEDGES (%)	0	3	16

WEST FORK SANTA CRUZ CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
6	0	DRY	2.1	164	985	4.6									
108	15	FLATWATER	37.5	103	11166	52.6	10.7	0.8	1.6	624	67438	510	55117		57
88	19	POOL	30.6	51	4509	21.2	16.7	1.1	2.7	803	70636	1288	113331	1044	80
86	15	RIFFLE	29.9	53	4568	21.5	9.5	0.4	0.9	114	9836	49	4228		52

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
288	49	21228	147910	172676

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
61	8	LGR	21.2	62	3799	17.9	10.0	0.4	1.5	145	8846	62	3795		44	61
13	4	HGR	4.5	34	441	2.1	12.0	0.5	1.6	114	1484	53	694		55	70
3	1	CAS	1.0	29	87	0.4	9.0	0.4	1.0	36	108	14	43		150	79
9	2	BRS	3.1	27	241	1.1	6.0	0.2	0.5	31	283	6	53		5	52
40	6	RUN	13.9	68	2705	12.7	10.0	0.7	2.0	359	14371	300	11989		43	82
68	9	SRN	23.6	124	8461	39.9	11.0	0.8	2.4	801	54482	651	44252		66	58
5	2	MCP	1.7	55	275	1.3	18.0	1.0	3.5	1003	5016	1581	7904	1032	65	32
16	5	STP	5.6	111	1774	8.4	17.0	1.2	4.1	1279	20457	2231	35691	1991	75	42
34	7	LSBk	11.8	46	1566	7.4	15.0	1.0	6.0	636	21619	951	32351	734	86	42
31	4	LSBo	10.8	27	850	4.0	16.0	1.0	9.5	459	14232	634	19642	474	86	65
2	1	PLP	0.7	22	44	0.2	30.0	1.4	3.1	564	1129	959	1919	790	75	0
6	0	DRY	2.1	164	985	4.6										70

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
288	49	21228	142026	158332

Table 3 - Summary of Pools

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
21	7	MAIN	24	98	2049	45	17.3	1.2	1200	25198	1717	36051	72
67	12	SCOUR	76	37	2460	55	16.3	1.1	571	38256	652	43702	85

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
88	19	4509	63453	79753

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
30	LSBo	34	0	0	7	23	21	70	0	0	2	7
16	STP	18	0	0	1	6	8	50	6	38	1	6
34	LSBk	39	0	0	6	18	13	38	9	26	6	18
5	MCP	6	0	0	2	40	2	40	1	20	0	0
2	PLP	2	0	0	0	0	1	50	1	50	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
87			0	0	16	18	45	52	17	20	9	10

Mean Maximum Residual Pool Depth (ft.): 3

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
61	8	LGR	0	0	0	0	28	9	11	46	6
13	4	HGR	0	0	0	0	20	0	25	55	0
3	1	CAS	0	10	0	0	10	0	10	70	0
9	1	BRS	0	0	0	0	0	0	80	0	20
40	6	RUN	3	7	5	3	30	5	0	47	0
68	9	SRN	2	4	0	0	30	4	16	43	0
5	2	MCP	0	15	0	0	25	20	0	40	0
16	5	STP	0	4	0	0	18	4	18	32	24
34	7	LSBk	0	7	3	4	21	9	3	26	27
31	4	LSBo	3	13	0	5	30	13	5	33	0
2	1	PLP	0	0	20	0	30	0	40	0	10

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
61	61	LGR	0	0	2	0	8	85	5
13	13	HGR	0	0	0	0	0	92	8
3	3	CAS	0	0	0	0	0	67	33
9	9	BRS	0	0	0	0	0	11	89
40	40	RUN	0	8	0	5	5	68	15
68	68	SRN	0	0	1	0	0	93	6
5	5	MCP	20	20	0	0	0	60	0
16	16	STP	0	0	0	0	0	44	56
34	34	LSBk	3	0	32	6	0	26	32
31	31	LSBo	3	10	10	0	0	77	0
2	2	PLP	0	0	0	0	0	50	50

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: **Quad:** SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
59	0	100	2	23	31

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	West Fork Santa Cruz Creek			LLID: 1197504346413		Drainage	Headwater
Survey Dates:	7/18/2012 to 7/25/2012	Survey Length (ft.):	21228	Main Channel (ft.):	21228	Side Channel (ft.):	0
Confluence	Quad: SAN RAFAEL	Legal	T07NR27WS32	Latitud	34:38:29.0N	Longitud	119:45:01.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	B2	Canopy Density (%):	25.9	Pools by Stream Length	34.8
Reach Length (ft.):	4882	Coniferous Component	0.0	Pool Frequency (%):	35.0
Riffle/Flatwater Mean Width	10.8	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	4.8
Range (ft.):	40 to 63	Vegetative Cover (%):	17.2	2 to 2.9 Feet Deep:	33.3
Mean (ft.):	51.33333333333	Dominant	Boulders	3 to 3.9 Feet Deep:	42.9
Std. Dev.:	8.478731561317	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	19.0
Base Flow (cfs):	1	Occurrence of LWD (%):	0.0	Mean Max Residual Pool Depth	3.30
Water (F):	58 - 73 Air (F): 69 - 84	LWD per 100 ft.:		Mean Pool Shelter	96
Dry Channel (ft.):	89	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 9.5 Gravel: 47.6 Sm 14.3 Lg 4.8 Boulder 14.3 Bedrock: 9.5

Embeddedness Values 1. 0.0 2. 28.6 3. 33.3 4. 0.0 5. 38.1

STREAM REACH: 2

Channel Type:	C2	Canopy Density (%):	60.8	Pools by Stream Length	9.7
Reach Length (ft.):	6702	Coniferous Component	0.0	Pool Frequency (%):	21.3
Riffle/Flatwater Mean Width	9.5	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	35.3
Range (ft.):	30 to 48	Vegetative Cover (%):	45.3	2 to 2.9 Feet Deep:	52.9
Mean (ft.):	38.125	Dominant	Boulders	3 to 3.9 Feet Deep:	11.8
Std. Dev.:	5.666513478321	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	0.0
Base Flow (cfs):	1	Occurrence of LWD (%):	0.0	Mean Max Residual Pool Depth	2.21
Water (F):	58 - 69 Air (F): 69 - 82	LWD per 100 ft.:		Mean Pool Shelter	74
Dry Channel (ft.):	896	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 11.8 Sand: 5.9 Gravel: 17.6 Sm 11.8 Lg 5.9 Boulder 47.1 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 11.8 3. 11.8 4. 5.9 5. 70.6

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type:	B2	Canopy Density (%):	73.3	Pools by Stream Length	22.4
Reach Length (ft.):	9644	Coniferous Component	0.0	Pool Frequency (%):	33.8
Riffle/Flatwater Mean Width	10.0	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	18.4
Range (ft.):	33 to 60	Vegetative Cover (%):	24.5	2 to 2.9 Feet Deep:	59.2
Mean (ft.):	44.68918918918	Dominant	Boulders	3 to 3.9 Feet Deep:	12.2
Std. Dev.:	8.810199365286	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	10.2
Base Flow (cfs):	2	Occurrence of LWD (%):	2.9	Mean Max Residual Pool Depth	2.69
Water (F):	61 - 72 Air (F): 69 - 84	LWD per 100 ft.:		Mean Pool Shelter	75
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 22.4 Gravel: 28.6 Sm 4.1 Lg 2.0 Boulder 26.5 Bedrock: 16.3

Embeddedness Values 1. 4.1 2. 14.3 3. 10.2 4. 4.1 5. 67.3

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	16	9	26.0
Boulder	28	37	67.7
Cobble/Gravel	3	0	3.1
Sand/Silt/Clay	1	2	3.1

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	2	7	9.4
Brush	8	2	10.4
Hardwood	38	39	80.2
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: West Fork Santa Cruz Creek **LLID:** 1197504346413 **Drainage:** Headwater

Survey Dates: 7/18/2012 to 7/25/2012

Confluence Location: Quad: SAN RAFAEL MTN. **Legal Description:** T07NR27WS32 **Latitude:** 34:38:29.0N **Longitude:** 119:45:01.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	3	1
SMALL WOODY DEBRIS (%)	1	5	8
LARGE WOODY DEBRIS (%)	0	2	2
ROOT MASS (%)	0	1	3
TERRESTRIAL VEGETATION (%)	22	30	23
AQUATIC VEGETATION (%)	5	5	9
WHITEWATER (%)	20	9	9
BOULDERS (%)	47	45	29
BEDROCK LEDGES (%)	5	0	17

UPPER SANTA YNEZ RIVER TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
9	0	CULVERT	1.6	32	293	0.2									
69	0	DRY	12.5	817	56385	33.7									
187	37	FLATWATER	33.9	170	31834	19.0	20.7	0.8	1.5	4286	801390	2813	526103		52
2	0	NOSURVEY	0.4	21579	43158	25.8									
172	70	POOL	31.2	158	27242	16.3	30.5	1.5	3.9	6275	1079267	23584	3998479	20042	70
112	27	RIFFLE	20.3	73	8197	4.9	11.6	0.5	0.8	390	43655	173	19403		92
Total Units	Total Units Fully Measured				Total Length (ft.)						Total Area (sq.ft.)		Total Volume (cu.ft.)		
551	134				167108						1924311		4543984		

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
109	24	LGR	19.8	73	7979	4.8	12.0	0.5	2.1	412	44877	180	19618		83	36
2	2	HGR	0.4	79	158	0.1	14.0	0.6	1.3	201	403	131	262		240	36
1	1	BRS	0.2	60	60	0.0	10.0	0.4	0.9	240	240	96	96		5	2
5	1	GLD	0.9	1026	5132	3.1	30.0	0.4	0.9	86213	431063	34485	172425		20	21
171	30	RUN	31.0	150	25634	15.3	20.0	0.8	3.3	2133	364719	2081	355823		50	36
11	6	SRN	2.0	97	1068	0.6	25.0	0.8	2.7	1394	15337	1198	13173		63	21
54	20	MCP	9.8	147	7920	4.7	29.0	0.9	10.0	4373	236162	9512	513644	5185	73	36
1	1	CCP	0.2	63	63	0.0	25.0	0.9	1.6	1496	1496	1945	1945	1347	90	10
6	3	CRP	1.1	336	2018	1.2	36.0	1.9	7.7	9438	56626	24793	148756	20079	80	35
2	2	LSL	0.4	32	65	0.0	12.0	1.4	3.5	363	727	663	1326	601	120	77
2	1	LSR	0.4	52	104	0.1	25.0	1.1	2.0	998	1995	1496	2993	1097	90	61
65	23	LSBk	11.8	186	12095	7.2	33.0	2.1	18.5	7574	492335	41135	2557544	35552	61	29
31	11	LSBo	5.6	67	2085	1.2	25.0	0.9	9.0	1460	45263	3092	95840	1228	82	30
2	2	SCP	0.4	112	225	0.1	24.0	0.6	2.2	2167	4334	2817	5635	1192	60	4
1	1	BPR	0.2	24	24	0.0	11.0	2.1	3.1	264	264	581	581	554	120	100
8	6	DPL	1.5	330	2643	1.6	46.0	2.2	7.2	20894	167154	68784	550272	66969	34	22
69	0	DRY	12.5	817	56385	33.7										28
9	0	CUL	1.6	32	293	0.2										
2	0	NS	0.4	21579	43158	25.8										

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: **Quad:** HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
551	134	167108	18629	44399
			94	30

Table 3 - Summary of Pools

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: **Quad:** HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
55	21	MAIN	32	145	7983	29	28.8	0.9	4236	233000	4993	261556	73
106	40	SCOUR	62	154	16367	60	29.8	1.7	5508	583819	22005	2274243	72
11	9	BACKWATER	6	263	2892	11	37.4	1.8	14440	158844	44972	494697	49

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
172	70	27242	975664	3030496

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
53	MCP	32	3	6	22	42	16	30	1	2	11	21
6	CRP	4	0	0	0	0	1	17	2	33	3	50
62	LSBk	37	0	0	11	18	11	18	6	10	34	55
31	LSBo	18	2	6	15	48	9	29	2	6	3	10
8	DPL	5	1	13	0	0	1	13	0	0	6	75
2	SCP	1	0	0	1	50	1	50	0	0	0	0
1	BPR	1	0	0	0	0	0	0	1	100	0	0
2	LSR	1	0	0	1	50	1	50	0	0	0	0
1	CCP	1	0	0	1	100	0	0	0	0	0	0
2	LSL	1	0	0	1	50	0	0	1	50	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
168			6	4	52	31	40	24	13	8	57	34

Mean Maximum Residual Pool Depth (ft.): 4

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
109	23	LGR	0	1	0	0	39	17	7	35	0
2	2	HGR	0	3	3	0	20	13	10	53	0
1	1	BRS	0	0	0	0	20	80	0	0	0
5	1	GLD	0	5	5	0	90	0	0	0	0
171	31	RUN	0	3	1	1	40	23	0	31	0
11	6	SRN	0	3	4	0	28	28	1	37	0
54	21	MCP	5	4	2	3	29	26	0	30	1
1	1	CCP	0	0	0	0	10	25	0	10	55
6	3	CRP	35	0	0	0	10	20	0	20	15
2	2	LSL	0	20	55	0	15	10	0	0	0
2	2	LSR	0	0	0	25	15	15	0	45	0
65	23	LSBk	4	3	0	0	19	21	0	15	37
31	11	LSBo	8	3	0	0	20	20	1	45	3
2	2	SCP	0	0	0	15	30	15	0	40	0
1	1	BPR	20	0	20	20	20	20	0	0	0
8	6	DPL	12	12	3	0	26	18	0	28	3
9	0	CUL									
2	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: **Quad:** HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
109	109	LGR	2	3	7	3	33	49	4
2	2	HGR	0	0	0	0	0	100	0
1	1	BRS	0	0	0	0	0	0	100
5	5	GLD	0	80	20	0	0	0	0
171	170	RUN	1	5	8	8	30	41	8
11	11	SRN	0	0	0	0	27	64	9
54	54	MCP	6	17	9	13	22	28	6
1	1	CCP	0	0	0	0	100	0	0
6	6	CRP	33	17	33	0	17	0	0
2	2	LSL	0	0	50	50	0	0	0
2	2	LSR	0	0	0	50	50	0	0
65	65	LSBk	2	6	22	9	25	18	18
31	31	LSBo	3	3	0	0	29	61	3
2	2	SCP	0	50	0	0	50	0	0
1	1	BPR	100	0	0	0	0	0	0
8	8	DPL	0	0	38	0	0	50	13
9	0	CUL	0	0	0	0	0	0	0
2	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: **Quad:** HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
33	0	100	8	42	40

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Santa Ynez River			LLID:	1205840346873	Drainage:	Headwater
Survey Dates:	11/16/2010 to 9/5/2012	Survey Length (ft.):	167108	Main Channel (ft.):	160060	Side Channel (ft.):	7048.2
Confluence	Quad: HILDRETH PEAK	Legal	T000R000S00	Latitud	34:41:14.0N	Longitud	120:35:02.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	24897	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	47 to 47	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):	47	Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:	0	Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):	0.05	Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	59 - 59 Air (F): 75 - 75	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay:	Sand:	Gravel:	Sm	Lg	Boulder	Bedrock:
Embeddedness Values	1.	2.	3.	4.	5. 0.0		

STREAM REACH: 2

Channel Type:	D4	Canopy Density (%):	25.0	Pools by Stream Length	39.5
Reach Length (ft.):	22029	Coniferous Component	0.0	Pool Frequency (%):	33.1
Riffle/Flatwater Mean Width	14.8	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	49.1
Range (ft.):	39 to 150	Vegetative Cover (%):	51.4	2 to 2.9 Feet Deep:	15.8
Mean (ft.):	71.90425531914	Dominant	Boulders	3 to 3.9 Feet Deep:	7.0
Std. Dev.:	31.72356300886	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	28.1
Base Flow (cfs):	0.05	Occurrence of LWD (%):	0.6	Mean Max Residual Pool Depth	3.29
Water (F):	46 - 59 Air (F): 46 - 75	LWD per 100 ft.:		Mean Pool Shelter	82
Dry Channel (ft.):	6551	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate	Silt/Clay: 0.0	Sand: 3.4	Gravel: 12.1	Sm 27.6	Lg 10.3	Boulder 41.4	Bedrock: 5.2
Embeddedness Values	1. 13.8	2. 19.0	3. 13.8	4. 5.2	5. 48.3		

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type:	C3	Canopy Density (%):	20.8	Pools by Stream Length	38.3
Reach Length (ft.):	35533	Coniferous Component	0.0	Pool Frequency (%):	36.3
Riffle/Flatwater Mean Width	18.8	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Brush	< 2 Feet Deep:	21.0
Range (ft.):	39 to 112	Vegetative Cover (%):	30.0	2 to 2.9 Feet Deep:	24.2
Mean (ft.):	72.82417582417	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	4.8
Std. Dev.:	21.97655764352	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	50.0
Base Flow (cfs):	0	Occurrence of LWD (%):	0.8	Mean Max Residual Pool Depth	5.20
Water (F):	44 - 63 Air (F): 40 - 75	LWD per 100 ft.:		Mean Pool Shelter	35
Dry Channel (ft.):	8470	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 0.0 Gravel: 13.6 Sm 10.2 Lg 22.0 Boulder 45.8 Bedrock: 8.5

Embeddedness Values 1. 1.6 2. 14.5 3. 4.8 4. 0.0 5. 79.0

STREAM REACH: 4

Channel Type:	NA	Canopy Density (%):		Pools by Stream Length	0.0
Reach Length (ft.):	18261	Coniferous Component		Pool Frequency (%):	0.0
Riffle/Flatwater Mean Width		Hardwood Component		Residual Pool Depth (%):	
BFW:		Dominant Bank		< 2 Feet Deep:	
Range (ft.):	to	Vegetative Cover (%):	0.0	2 to 2.9 Feet Deep:	
Mean (ft.):		Dominant		3 to 3.9 Feet Deep:	
Std. Dev.:		Dominant Bank Substrate		>= 4 Feet Deep:	
Base Flow (cfs):		Occurrence of LWD (%):		Mean Max Residual Pool Depth	
Water (F):	0 - 0 Air (F): 0 - 0	LWD per 100 ft.:		Mean Pool Shelter	
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: Sand: Gravel: Sm Lg Boulder Bedrock:

Embeddedness Values 1. 2. 3. 4. 5. 0.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 5

Channel Type:	C4	Canopy Density (%):	63.9	Pools by Stream Length	1.4
Reach Length (ft.):	10942	Coniferous Component	0.0	Pool Frequency (%):	20.0
Riffle/Flatwater Mean Width	15.7	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	100.0
Range (ft.):	55 to 75	Vegetative Cover (%):	28.8	2 to 2.9 Feet Deep:	0.0
Mean (ft.):	65	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	0.0
Std. Dev.:	10	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	0.0
Base Flow (cfs):	0.5	Occurrence of LWD (%):	10.8	Mean Max Residual Pool Depth	1.575
Water (F):	39 - 82 Air (F): 41 - 91	LWD per 100 ft.:		Mean Pool Shelter	53
Dry Channel (ft.):	4417	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 25.0 Gravel: 75.0 Sm 0.0 Lg 0.0 Boulder 0.0 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 25.0 3. 50.0 4. 0.0 5. 25.0

STREAM REACH: 6

Channel Type:	C3	Canopy Density (%):	54.8	Pools by Stream Length	4.4
Reach Length (ft.):	35670	Coniferous Component	0.0	Pool Frequency (%):	23.8
Riffle/Flatwater Mean Width	16.9	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	31.6
Range (ft.):	32 to 119	Vegetative Cover (%):	32.1	2 to 2.9 Feet Deep:	36.8
Mean (ft.):	65.5	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	15.8
Std. Dev.:	28.77064476163	Dominant Bank Substrate	Cobble/Grav	>= 4 Feet Deep:	15.8
Base Flow (cfs):	0.5	Occurrence of LWD (%):	4.4	Mean Max Residual Pool Depth	2.67
Water (F):	64 - 82 Air (F): 79 - 95	LWD per 100 ft.:		Mean Pool Shelter	89
Dry Channel (ft.):	25309	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 21.1 Gravel: 31.6 Sm 10.5 Lg 10.5 Boulder 26.3 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 21.1 3. 15.8 4. 0.0 5. 63.2

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 7

Channel Type:	C2	Canopy Density (%):	83.0	Pools by Stream Length	7.1
Reach Length (ft.):	12728	Coniferous Component	0.0	Pool Frequency (%):	23.3
Riffle/Flatwater Mean Width	22.5	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	14.3
Range (ft.):	60 to 66	Vegetative Cover (%):	28.8	2 to 2.9 Feet Deep:	28.6
Mean (ft.):	63.66666666666	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	14.3
Std. Dev.:	2.624669291337	Dominant Bank Substrate	Cobble/Grav	>= 4 Feet Deep:	42.9
Base Flow (cfs):	0.5	Occurrence of LWD (%):	2.5	Mean Max Residual Pool Depth	3.97
Water (F):	71 - 73 Air (F): 81 - 89	LWD per 100 ft.:		Mean Pool Shelter	55
Dry Channel (ft.):	10050	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 0.0 Gravel: 33.3 Sm 0.0 Lg 16.7 Boulder 50.0 Bedrock: 0.0

Embeddedness Values 1. 14.3 2. 14.3 3. 0.0 4. 0.0 5. 71.4

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	15	23	13.9
Boulder	56	57	41.2
Cobble/Gravel	39	35	27.0
Sand/Silt/Clay	27	22	17.9

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	1	1	0.7
Brush	42	48	32.8
Hardwood	93	88	66.1
Coniferous	0	0	0.0
No Vegetation	1	0	0.4

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Santa Ynez River **LLID:** 1205840346873 **Drainage:** Headwater

Survey Dates: 11/16/2010 to 9/5/2012

Confluence Location: Quad: HILDRETH PEAK **Legal Description:** T000R000S00 **Latitude:** 34:41:14.0N **Longitude:** 120:35:02.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	7
SMALL WOODY DEBRIS (%)	1	3	4
LARGE WOODY DEBRIS (%)	1	1	3
ROOT MASS (%)	0	1	2
TERRESTRIAL VEGETATION (%)	37	39	22
AQUATIC VEGETATION (%)	19	23	21
WHITEWATER (%)	7	0	0
BOULDERS (%)	35	31	26
BEDROCK LEDGES (%)	0	0	14

OSO CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
2	0	CULVERT	0.6	19	38	0.2									
102	17	FLATWATER	29.4	36	3711	16.8	7.6	0.5	1.1	255	26001	145	14796		31
84	22	POOL	24.2	23	1903	8.6	8.6	0.9	1.8	181	15193	217	18196	160	45
159	20	RIFFLE	45.8	103	16451	74.4	8.6	0.4	0.9	566	90011	242	38455		64

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
347	59	22103	131206	71447

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
149	17	LGR	42.9	106	15819	71.6	8.0	0.4	1.3	559	83249	228	33940		63	47
4	1	CAS	1.2	100	400	1.8	20.0	0.6	1.4	744	2976	446	1786		105	50
6	2	BRS	1.7	39	232	1.0	8.0	0.5	1.3	540	3240	259	1555		45	14
87	12	RUN	25.1	33	2906	13.1	7.0	0.5	1.4	217	18880	107	9339		16	56
15	5	SRN	4.3	54	805	3.6	8.0	0.6	1.6	346	5188	236	3534		69	51
3	3	MCP	0.9	23	69	0.3	8.0	0.8	1.9	182	545	205	615	150	17	50
4	3	STP	1.2	51	204	0.9	7.0	0.7	2.4	205	819	242	968	162	72	58
28	3	LSBk	8.1	25	690	3.1	8.0	0.7	3.5	189	5289	201	5623	149	33	54
26	7	LSBo	7.5	18	462	2.1	8.0	0.7	2.3	153	3987	156	4068	106	31	39
23	6	PLP	6.6	21	478	2.2	10.0	1.2	3.0	197	4524	288	6620	234	68	53
2	0	CUL	0.6	19	38	0.2										0

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
347	59	22103	128696	68047

Table 3 - Summary of Pools

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
7	6	MAIN	8	39	273	14	7.7	0.8	193	1352	156	1092	44
77	16	SCOUR	92	21	1630	86	9.0	0.9	176	13572	162	12480	46

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
84	22	1903	14924	13572

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
26	LSBo	31	1	4	23	88	2	8	0	0	0	0
3	MCP	4	0	0	3	100	0	0	0	0	0	0
23	PLP	27	0	0	9	39	13	57	1	4	0	0
28	LSBk	33	0	0	19	68	7	25	2	7	0	0
4	STP	5	0	0	2	50	2	50	0	0	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
84			1	1	56	67	24	29	3	4	0	0

Mean Maximum Residual Pool Depth (ft.): 2

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
149	17	LGR	0	14	0	1	18	0	45	22	1
4	1	CAS	0	10	0	0	10	0	30	50	0
6	2	BRS	0	13	0	0	13	0	55	0	20
87	12	RUN	0	19	0	1	58	0	7	15	0
15	5	SRN	0	14	0	0	20	0	37	26	3
3	3	MCP	0	13	7	10	37	0	7	27	0
4	3	STP	0	5	0	0	22	0	28	32	13
28	3	LSBk	0	2	0	0	8	0	13	13	63
26	7	LSBo	0	9	0	0	16	0	21	51	4
23	6	PLP	0	8	0	0	8	0	32	18	33
2	0	CUL									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
149	149	LGR	0	0	29	18	42	9	1
4	4	CAS	0	0	0	0	0	100	0
6	6	BRS	0	0	0	0	0	0	100
87	87	RUN	0	17	75	8	0	0	0
15	15	SRN	0	0	7	7	67	20	0
3	3	MCP	0	100	0	0	0	0	0
4	4	STP	0	25	0	0	25	50	0
28	28	LSBk	0	100	0	0	0	0	0
26	26	LSBo	0	92	8	0	0	0	0
23	23	PLP	0	91	9	0	0	0	0
2	0	CUL	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
49	0	100	4	27	27

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Oso Creek			LLID: 1197748345451		Drainage	Headwater
Survey Dates:	5/3/2011 to 5/11/2011	Survey Length (ft.):	22103	Main Channel (ft.):	22057	Side Channel (ft.):	46
Confluence	Quad: LITTLE PINE	Legal	T000R000S00	Latitud	34:32:42.0N	Longitud	119:46:29.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	B4	Canopy Density (%):	48.9	Pools by Stream Length	8.6
Reach Length (ft.):	22057	Coniferous Component	0.0	Pool Frequency (%):	24.2
Riffle/Flatwater Mean Width	8.1	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	67.9
Range (ft.):	20 to 97	Vegetative Cover (%):	26.9	2 to 2.9 Feet Deep:	28.6
Mean (ft.):	35.99135446685	Dominant	Whitewater	3 to 3.9 Feet Deep:	3.6
Std. Dev.:	16.98083120535	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	0.0
Base Flow (cfs):	1	Occurrence of LWD (%):	0.3	Mean Max Residual Pool Depth	1.81
Water (F):	54 - 75 Air (F): 59 - 88	LWD per 100 ft.:		Mean Pool Shelter	45
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 1.2 Gravel: 90.5 Sm 8.3 Lg 0.0 Boulder 0.0 Bedrock: 0.0

Embeddedness Values 1. 1.2 2. 8.3 3. 72.6 4. 16.7 5. 1.2

Table 9 - Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	11	9	16.9
Boulder	0	0	0.0
Cobble/Gravel	0	0	0.0
Sand/Silt/Clay	48	50	83.1

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	0	0.0
Brush	14	5	16.1
Hardwood	45	54	83.9
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 3

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Oso Creek **LLID:** 1197748345451 **Drainage:** Headwater

Survey Dates: 5/3/2011 to 5/11/2011

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:42.0N **Longitude:** 119:46:29.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	0
SMALL WOODY DEBRIS (%)	14	18	8
LARGE WOODY DEBRIS (%)	0	0	1
ROOT MASS (%)	1	1	1
TERRESTRIAL VEGETATION (%)	17	47	16
AQUATIC VEGETATION (%)	0	0	0
WHITEWATER (%)	45	16	22
BOULDERS (%)	21	18	31
BEDROCK LEDGES (%)	3	1	21

MONO CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
1	0	CULVERT	0.1	34	34	0.0									
271	48	FLATWATER	36.3	111	30056	25.1	15.8	0.8	1.5	1721	466489	1356	367590		30
1	0	NOSURVEY	0.1	56276	56276	47.1									
202	56	POOL	27.0	47	9406	7.9	20.5	1.2	2.1	1007	203496	2003	404618	1484	49
272	57	RIFFLE	36.4	88	23825	19.9	13.7	0.6	1.1	707	192247	395	107320		31

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
220	39	LGR	29.5	94	20770	17.4	13.0	0.5	1.6	801	176307	407	89633		31	20
42	11	HGR	5.6	65	2714	2.3	15.0	0.6	2.0	577	24220	414	17395		37	15
7	4	CAS	0.9	28	195	0.2	15.0	0.9	1.8	265	1853	253	1772		33	25
3	3	BRS	0.4	49	146	0.1	14.0	0.6	1.6	543	1630	344	1032		8	19
13	4	GLD	1.7	107	1388	1.2	22.0	0.8	1.8	2535	32950	1954	25400		25	14
216	34	RUN	28.9	107	23033	19.3	15.0	0.7	2.1	1369	295723	951	205453		30	22
42	10	SRN	5.6	134	5635	4.7	16.0	1.0	2.1	2594	108940	2495	104803		34	18
1	1	TRP	0.1	39	39	0.0	12.0	0.8	1.7	463	463	834	834	371	5	25
32	11	MCP	4.3	41	1306	1.1	13.0	0.7	2.7	589	18836	860	27511	443	67	38
1	1	CCP	0.1	24	24	0.0	21.0	1.2	2.7	479	479	958	958	575	20	29
10	3	STP	1.3	100	996	0.8	20.0	1.4	3.9	1553	15529	2690	26902	2493	37	13
3	2	CRP	0.4	78	234	0.2	15.0	1.1	2.4	891	2673	1749	5247	967	75	26
1	1	LSL	0.1	28	28	0.0	15.0	1.0	1.6	399	399	559	559	399	90	64
1	1	LSR	0.1	43	43	0.0	18.0	0.8	2.1	774	774	1316	1316	619	75	25
63	16	LSBk	8.4	60	3798	3.2	19.0	1.6	9.6	1316	82935	3130	197192	2472	41	18
84	16	LSBo	11.2	33	2787	2.3	17.0	1.0	4.2	636	53410	1182	99270	656	36	14
5	3	PLP	0.7	15	76	0.1	57.0	1.5	4.5	1126	5632	2779	13896	2219	95	11
1	1	DPL	0.1	75	75	0.1	95.0	1.5	6.0	6769	6769	10153	10153	10153	45	28
1	0	CUL	0.1	34	34	0.0										

Table 3 - Summary of Pools

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: **Quad:** MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
44	16	MAIN	22	54	2365	25	14.5	0.9	755	33208	831	36569	54
157	39	SCOUR	78	44	6966	74	21.0	1.3	963	151245	1530	240167	47
1	1	BACKWATER	0	75	75	1	95.0	1.5	6769	6769	10153	10153	45

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
202	56	9406	191221	286889

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximum Residual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
1	LSL	0	0	0	1	100	0	0	0	0	0	0
32	MCP	16	0	0	19	59	13	41	0	0	0	0
63	LSBk	31	1	2	20	32	25	40	10	16	7	11
3	CRP	1	0	0	1	33	2	67	0	0	0	0
1	LSR	0	0	0	0	0	1	100	0	0	0	0
5	PLP	2	0	0	3	60	1	20	0	0	1	20
1	DPL	0	0	0	0	0	0	0	0	0	1	100
1	CCP	0	0	0	0	0	1	100	0	0	0	0
84	LSBo	42	1	1	60	71	17	20	5	6	1	1
10	STP	5	0	0	2	20	5	50	3	30	0	0
1	TRP	0	0	0	1	100	0	0	0	0	0	0

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
220	39	LGR	0	2	0	1	42	25	7	24	0
42	11	HGR	0	0	0	1	23	13	25	38	0
7	4	CAS	0	0	0	0	14	44	30	5	8
3	3	BRS	0	0	0	0	17	37	17	30	0
13	4	GLD	0	0	0	3	78	13	0	8	0
216	33	RUN	1	1	2	2	43	21	1	29	0
42	10	SRN	1	1	2	1	32	24	8	32	0
1	1	TRP	0	0	0	0	0	60	0	40	0
32	11	MCP	11	0	6	6	51	15	5	6	0
1	1	CCP	0	0	0	0	40	50	0	10	0
10	3	STP	0	0	0	0	8	20	23	40	8
3	2	CRP	0	0	5	0	70	25	0	0	0
1	1	LSL	0	10	50	0	40	0	0	0	0
1	1	LSR	0	0	30	60	10	0	0	0	0
63	16	LSBk	0	3	1	0	27	23	3	22	21
84	16	LSBo	1	1	1	2	26	21	3	46	0
5	3	PLP	0	3	0	0	7	40	27	23	0
1	1	DPL	0	0	10	0	70	20	0	0	0
1	0	CUL									
1	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: **Quad:** MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
220	220	LGR	0	0	7	28	25	40	0
42	42	HGR	0	0	0	5	2	90	2
7	7	CAS	0	0	0	0	0	57	43
3	3	BRS	0	0	0	0	0	0	100
13	13	GLD	0	92	8	0	0	0	0
216	216	RUN	2	3	11	33	28	22	1
42	42	SRN	0	2	0	2	31	64	0
1	1	TRP	0	0	0	0	0	0	100
32	32	MCP	16	19	13	25	16	13	0
1	1	CCP	0	100	0	0	0	0	0
10	10	STP	0	0	0	0	0	80	20
3	3	CRP	0	67	33	0	0	0	0
1	1	LSL	0	0	100	0	0	0	0
1	1	LSR	0	100	0	0	0	0	0
63	63	LSBk	0	27	8	14	14	27	10
84	84	LSBo	0	2	2	4	10	82	0
5	5	PLP	20	0	0	0	0	80	0
1	1	DPL	0	0	100	0	0	0	0
1	0	CUL	0	0	0	0	0	0	0
1	0	NS	0	0	0	0	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: **Quad:** MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
20	0	100	12	25	25

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Mono Creek			LLID:	1196322345199	Drainage	Headwater
Survey Dates:	12/21/2011 to 5/15/2012	Survey Length (ft.):	119597	Main Channel (ft.):	116935	Side Channel (ft.):	2662
Confluence	Quad: MADULCE PEAK	Legal	T000R000S00	Latitud	34:31:12.0N	Longitud	119:37:56.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	C4	Canopy Density (%):	26.2	Pools by Stream Length	5.8
Reach Length (ft.):	5563	Coniferous Component	0.0	Pool Frequency (%):	17.4
Riffle/Flatwater Mean Width	14.1	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	50.0
Range (ft.):	47 to 75	Vegetative Cover (%):	29.5	2 to 2.9 Feet Deep:	37.5
Mean (ft.):	66.30434782608	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	0.0
Std. Dev.:	10.65439196073	Dominant Bank Substrate	Sand/Silt/Clay	>= 4 Feet Deep:	12.5
Base Flow (cfs):	5	Occurrence of LWD (%):	11.1	Mean Max Residual Pool Depth	2.16
Water (F):	39 - 50 Air (F): 32 - 61	LWD per 100 ft.:		Mean Pool Shelter	65
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 62.5 Gravel: 12.5 Sm 25.0 Lg 0.0 Boulder 0.0 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 37.5 3. 0.0 4. 0.0 5. 62.5

STREAM REACH: 2

Channel Type:	C3	Canopy Density (%):	20.2	Pools by Stream Length	5.1
Reach Length (ft.):	9299	Coniferous Component	0.0	Pool Frequency (%):	13.8
Riffle/Flatwater Mean Width	19.7	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	22.2
Range (ft.):	30 to 85	Vegetative Cover (%):	34.3	2 to 2.9 Feet Deep:	55.6
Mean (ft.):	61.01538461538	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	0.0
Std. Dev.:	19.09046665641	Dominant Bank Substrate	Cobble/Grav	>= 4 Feet Deep:	22.2
Base Flow (cfs):	5	Occurrence of LWD (%):	6.1	Mean Max Residual Pool Depth	2.7
Water (F):	36 - 53 Air (F): 28 - 63	LWD per 100 ft.:		Mean Pool Shelter	46
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 62.5 Gravel: 12.5 Sm 0.0 Lg 12.5 Boulder 12.5 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 11.1 3. 0.0 4. 0.0 5. 88.9

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type:	B3	Canopy Density (%):	13.6	Pools by Stream Length	11.5
Reach Length (ft.):	22925	Coniferous Component	0.0	Pool Frequency (%):	19.5
Riffle/Flatwater Mean Width	18.3	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	46.8
Range (ft.):	50 to 109	Vegetative Cover (%):	26.0	2 to 2.9 Feet Deep:	42.6
Mean (ft.):	73.70539419087	Dominant	Boulders	3 to 3.9 Feet Deep:	8.5
Std. Dev.:	16.53138383199	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	2.1
Base Flow (cfs):	5	Occurrence of LWD (%):	0.0	Mean Max Residual Pool Depth	2.07
Water (F):	38 - 56 Air (F): 40 - 77	LWD per 100 ft.:		Mean Pool Shelter	33
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 27.7 Gravel: 17.0 Sm 21.3 Lg 14.9 Boulder 19.1 Bedrock: 0.0

Embeddedness Values 1. 2.1 2. 27.7 3. 6.4 4. 2.1 5. 61.7

STREAM REACH: 4

Channel Type:	B2	Canopy Density (%):	13.7	Pools by Stream Length	29.9
Reach Length (ft.):	18104	Coniferous Component	0.0	Pool Frequency (%):	40.3
Riffle/Flatwater Mean Width	14.3	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Brush	< 2 Feet Deep:	56.8
Range (ft.):	46 to 105	Vegetative Cover (%):	16.4	2 to 2.9 Feet Deep:	27.1
Mean (ft.):	70.78498293515	Dominant	Aquatic Vegetation	3 to 3.9 Feet Deep:	11.0
Std. Dev.:	15.56769363354	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	5.1
Base Flow (cfs):	5	Occurrence of LWD (%):	0.0	Mean Max Residual Pool Depth	2.20
Water (F):	39 - 63 Air (F): 43 - 77	LWD per 100 ft.:		Mean Pool Shelter	44
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.8 Sand: 17.8 Gravel: 12.7 Sm 11.0 Lg 9.3 Boulder 43.2 Bedrock: 5.1

Embeddedness Values 1. 0.0 2. 16.1 3. 7.6 4. 0.0 5. 76.3

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 5

Channel Type: NA	Canopy Density (%):	Pools by Stream Length 0.0
Reach Length (ft.): 56276	Coniferous Component	Pool Frequency (%): 0.0
Riffle/Flatwater Mean Width	Hardwood Component	Residual Pool Depth (%):
BFW:	Dominant Bank	< 2 Feet Deep:
Range (ft.): to	Vegetative Cover (%): 0.0	2 to 2.9 Feet Deep:
Mean (ft.):	Dominant	3 to 3.9 Feet Deep:
Std. Dev.:	Dominant Bank Substrate	>= 4 Feet Deep:
Base Flow (cfs):	Occurrence of LWD (%):	Mean Max Residual Pool Depth
Water (F): 0 - 0 Air (F): 0 - 0	LWD per 100 ft.:	Mean Pool Shelter
Dry Channel (ft.): 0	Riffles:	
	Pools:	
	Flat:	

Pool Tail Substrate Silt/Clay: Sand: Gravel: Sm Lg Boulder Bedrock:

Embeddedness Values 1. 2. 3. 4. 5. 0.0

STREAM REACH: 6

Channel Type: C3	Canopy Density (%): 57.5	Pools by Stream Length 8.0
Reach Length (ft.): 4768	Coniferous Component 0.0	Pool Frequency (%): 23.8
Riffle/Flatwater Mean Width 7.2	Hardwood Component 100.0	Residual Pool Depth (%):
BFW:	Dominant Bank Hardwood Trees	< 2 Feet Deep: 73.3
Range (ft.): 18 to 34	Vegetative Cover (%): 45.7	2 to 2.9 Feet Deep: 26.7
Mean (ft.): 24.50793650793	Dominant Aquatic Vegetation	3 to 3.9 Feet Deep: 0.0
Std. Dev.: 5.664910136366	Dominant Bank Substrate Sand/Silt/Clay	>= 4 Feet Deep: 0.0
Base Flow (cfs): 0.5	Occurrence of LWD (%): 1.4	Mean Max Residual Pool Depth 1.62
Water (F): 48 - 70 Air (F): 63 - 82	LWD per 100 ft.:	Mean Pool Shelter 118
Dry Channel (ft.): 0	Riffles:	
	Pools:	
	Flat:	

Pool Tail Substrate Silt/Clay: 40.0 Sand: 13.3 Gravel: 13.3 Sm 20.0 Lg 0.0 Boulder 13.3 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 0.0 3. 13.3 4. 6.7 5. 80.0

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	22	22	13.8
Boulder	58	56	35.8
Cobble/Gravel	37	48	26.7
Sand/Silt/Clay	42	33	23.6

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	2	0.6
Brush	66	67	41.8
Hardwood	93	90	57.5
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Mono Creek **LLID:** 1196322345199 **Drainage:** Headwater

Survey Dates: 12/21/2011 to 5/15/2012

Confluence Location: Quad: MADULCE PEAK **Legal Description:** T000R000S00 **Latitude:** 34:31:12.0N **Longitude:** 119:37:56.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	1	3
SMALL WOODY DEBRIS (%)	1	1	1
LARGE WOODY DEBRIS (%)	0	2	4
ROOT MASS (%)	1	2	3
TERRESTRIAL VEGETATION (%)	35	44	31
AQUATIC VEGETATION (%)	25	21	22
WHITEWATER (%)	13	2	5
BOULDERS (%)	25	27	25
BEDROCK LEDGES (%)	1	0	6

INDIAN CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
3	0	CULVERT	0.4	15	46	0.1									
232	32	FLATWATER	32.9	91	21211	37.6	14.4	0.9	1.5	967	224378	841	195116		28
1	0	NOSURVEY	0.1	1834	1834	3.3									
187	53	POOL	26.5	40	7484	13.3	14.4	1.0	1.9	536	100164	966	180652	598	41
282	55	RIFFLE	40.0	92	25807	45.8	14.4	0.7	1.3	1077	303670	703	198214		41

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
193	29	LGR	27.4	103	19807	35.1	14.0	0.7	2.2	1336	257864	812	156725		32	24
59	16	HGR	8.4	68	4017	7.1	15.0	0.7	2.6	610	35984	471	27798		60	46
14	4	CAS	2.0	43	599	1.1	18.0	1.1	2.1	511	7153	581	8134		80	45
16	6	BRS	2.3	86	1384	2.5	14.0	0.6	1.2	1446	23142	875	13992		11	3
14	2	GLD	2.0	123	1727	3.1	16.0	0.6	1.5	1670	23373	1107	15504		1	27
192	25	RUN	27.2	88	16969	30.1	14.0	0.9	2.3	924	177465	817	156897		27	24
26	5	SRN	3.7	97	2515	4.5	18.0	1.0	2.5	900	23411	854	22195		39	19
27	8	MCP	3.8	41	1104	2.0	14.0	0.7	2.3	600	16207	946	25554	425	30	29
9	5	STP	1.3	70	627	1.1	19.0	1.1	2.6	683	6146	1135	10216	766	55	29
1	1	LSL	0.1	30	30	0.1	13.0	0.9	1.5	390	390	741	741	351	75	85
1	1	LSR	0.1	26	26	0.0	15.0	0.9	1.9	386	386	579	579	347	60	51
85	20	LSBk	12.1	46	3903	6.9	14.0	1.0	5.1	611	51971	1098	93301	685	26	33
55	11	LSBo	7.8	29	1584	2.8	15.0	0.9	4.1	420	23089	668	36758	369	46	44
5	3	PLP	0.7	20	100	0.2	19.0	1.8	6.3	528	2642	1957	9786	1597	90	61
3	3	SCP	0.4	32	95	0.2	10.0	1.3	3.3	287	860	430	1290	373	53	40
1	1	BPB	0.1	15	15	0.0	7.0	0.8	1.2	105	105	168	168	84	60	65
3	0	CUL	0.4	15	46	0.1										
1	0	NS	0.1	1834	1834	3.3										

Table 3 - Summary of Pools

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
36	13	MAIN	19	48	1731	23	15.5	0.8	632	22753	556	20027	40
147	36	SCOUR	79	38	5643	75	14.6	1.0	534	78431	646	94934	39
4	4	BACKWATER	2	28	110	1	9.0	1.1	241	965	301	1203	55

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
187	53	7484	102149	116164

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot Maximu mResidu al Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
1	LSR	1	0	0	1	100	0	0	0	0	0	0
85	LSBk	45	0	0	41	48	29	34	14	16	1	1
5	PLP	3	0	0	2	40	2	40	0	0	1	20
3	SCP	2	0	0	0	0	2	67	1	33	0	0
27	MCP	14	0	0	21	78	6	22	0	0	0	0
55	LSBo	29	2	4	35	64	16	29	1	2	1	2
9	STP	5	0	0	6	67	3	33	0	0	0	0
1	LSL	1	0	0	1	100	0	0	0	0	0	0
1	BPB	1	0	0	1	100	0	0	0	0	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
187			2	1	108	58	58	31	16	9	3	2

Mean Maximum Residual Pool Depth (ft.): 2

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
193	29	LGR	0	3	0	1	37	10	7	43	0
59	16	HGR	0	4	1	0	23	9	29	33	0
14	4	CAS	0	5	0	0	13	10	45	28	0
16	6	BRS	0	0	0	0	43	12	3	42	0
14	1	GLD	0	0	0	0	90	10	0	0	0
192	25	RUN	0	2	0	2	43	23	4	25	0
26	5	SRN	0	2	0	4	22	18	14	40	0
27	8	MCP	6	0	3	0	49	24	1	18	0
9	5	STP	0	0	0	2	22	6	28	42	0
1	1	LSL	0	0	40	10	20	20	0	10	0
1	1	LSR	20	0	0	40	10	0	30	0	0
85	20	LSBk	2	2	0	1	37	24	5	25	6
55	11	LSBo	6	2	4	1	20	11	8	48	0
5	3	PLP	7	0	0	7	7	7	43	30	0
3	3	SCP	13	0	0	0	40	27	0	20	0
1	1	BPB	10	0	0	0	40	10	0	40	0
3	0	CUL									
1	0	NS									

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
193	193	LGR	0	0	2	9	27	56	6
59	59	HGR	0	0	0	0	5	90	5
14	14	CAS	0	0	0	0	0	86	14
16	16	BRS	0	0	0	0	0	0	100
14	14	GLD	0	93	7	0	0	0	0
192	192	RUN	0	3	21	20	25	28	4
26	26	SRN	0	0	0	0	12	85	4
27	27	MCP	4	22	11	22	22	19	0
9	9	STP	0	0	0	0	0	78	22
1	1	LSL	0	0	100	0	0	0	0
1	1	LSR	0	0	0	0	100	0	0
85	85	LSBk	1	24	11	5	5	39	16
55	55	LSBo	0	4	7	4	7	78	0
5	5	PLP	0	20	0	0	0	80	0
3	3	SCP	0	67	0	0	0	0	33
1	1	BPB	0	0	0	0	0	100	0
3	0	CUL	0	0	0	0	0	0	0
1	1	NS	0	0	0	0	0	100	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: **Quad:** BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
30	0	100	11	30	32

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Indian Creek			LLID: 1196321345342		Drainage	Headwater
Survey Dates:	1/17/2012 to 5/3/2012	Survey Length (ft.):	56382	Main Channel (ft.):	55582	Side Channel (ft.):	800
Confluence	Quad: BIG PINE MTN.	Legal	T000R000S00	Latitud	34:32:03.0N	Longitud	119:37:56.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	C3	Canopy Density (%):	37.0	Pools by Stream Length	4.5
Reach Length (ft.):	3495	Coniferous Component	0.0	Pool Frequency (%):	10.0
Riffle/Flatwater Mean Width	15.0	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	100.0
Range (ft.):	38 to 64	Vegetative Cover (%):	23.2	2 to 2.9 Feet Deep:	0.0
Mean (ft.):	54.75	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	0.0
Std. Dev.:	9.984362773857	Dominant Bank Substrate	Cobble/Grav	>= 4 Feet Deep:	0.0
Base Flow (cfs):	5	Occurrence of LWD (%):	0.0	Mean Max Residual Pool Depth	1.675
Water (F):	46 - 48 Air (F): 50 - 60	LWD per 100 ft.:		Mean Pool Shelter	25
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 100.0 Gravel: 0.0 Sm 0.0 Lg 0.0 Boulder 0.0 Bedrock: 0.0

Embeddedness Values 1. 0.0 2. 0.0 3. 0.0 4. 0.0 5. 100.0

STREAM REACH: 2

Channel Type:	B3	Canopy Density (%):	20.1	Pools by Stream Length	12.2
Reach Length (ft.):	37562	Coniferous Component	0.0	Pool Frequency (%):	24.8
Riffle/Flatwater Mean Width	14.5	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Brush	< 2 Feet Deep:	62.0
Range (ft.):	35 to 95	Vegetative Cover (%):	27.8	2 to 2.9 Feet Deep:	28.9
Mean (ft.):	55.52772073921	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	7.4
Std. Dev.:	13.46768706980	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	1.7
Base Flow (cfs):	5	Occurrence of LWD (%):	0.5	Mean Max Residual Pool Depth	1.92
Water (F):	35 - 60 Air (F): 34 - 85	LWD per 100 ft.:		Mean Pool Shelter	34
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 28.9 Gravel: 26.4 Sm 9.9 Lg 7.4 Boulder 21.5 Bedrock: 5.8

Embeddedness Values 1. 3.3 2. 24.0 3. 7.4 4. 0.0 5. 65.3

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 3

Channel Type:	B2	Canopy Density (%):	52.8	Pools by Stream Length	18.6
Reach Length (ft.):	14525	Coniferous Component	0.0	Pool Frequency (%):	36.1
Riffle/Flatwater Mean Width	16.0	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	48.3
Range (ft.):	31 to 55	Vegetative Cover (%):	40.0	2 to 2.9 Feet Deep:	38.3
Mean (ft.):	42.31325301204	Dominant	Boulders	3 to 3.9 Feet Deep:	11.7
Std. Dev.:	6.566486124276	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	1.7
Base Flow (cfs):	3	Occurrence of LWD (%):	1.3	Mean Max Residual Pool Depth	2.03
Water (F):	55 - 66 Air (F): 57 - 79	LWD per 100 ft.:		Mean Pool Shelter	63
Dry Channel (ft.):	0	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 1.7 Sand: 6.7 Gravel: 11.7 Sm 10.0 Lg 5.0 Boulder 61.7 Bedrock: 3.3

Embeddedness Values 1. 0.0 2. 6.7 3. 6.7 4. 6.7 5. 80.0

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	30	26	20.0
Boulder	72	83	55.4
Cobble/Gravel	21	18	13.9
Sand/Silt/Clay	17	13	10.7

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	1	2	1.1
Brush	65	59	44.3
Hardwood	74	79	54.6
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Indian Creek **LLID:** 1196321345342 **Drainage:** Headwater

Survey Dates: 1/17/2012 to 5/3/2012

Confluence Location: Quad: BIG PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:32:03.0N **Longitude:** 119:37:56.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	5
SMALL WOODY DEBRIS (%)	3	2	1
LARGE WOODY DEBRIS (%)	0	0	2
ROOT MASS (%)	1	2	2
TERRESTRIAL VEGETATION (%)	32	41	32
AQUATIC VEGETATION (%)	10	22	18
WHITEWATER (%)	16	5	9
BOULDERS (%)	39	27	30
BEDROCK LEDGES (%)	0	0	2

BUCKHORN CREEK TABLES

Table 1 - Summary of Riffle, Flatwater, and Pool Habitat Types

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating
2	0	DRY	1.3	1487	2974	17.5									
59	11	FLATWATER	38.8	96	5661	33.3	7.4	0.5	1.0	548	32321	292	17212		21
37	12	POOL	24.3	23	840	4.9	9.9	0.6	1.7	193	7154	176	6514	114	50
54	7	RIFFLE	35.5	140	7544	44.3	8.9	0.4	0.8	469	25306	200	10776		23

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
152	30	17019	64780	34503

Table 2 - Summary of Habitat Types and Measured Parameters

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Depth (ft.)	Mean Max Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Volume (cu.ft.)	Estimated Total Volume (cu.ft.)	Mean Residual Pool Vol (cu.ft.)	Mean Shelter Rating	Mean Canopy (%)
51	5	LGR	33.6	146	7463	43.9	8.0	0.4	1.1	575	29336	241	12267		18	75
3	2	HGR	2.0	27	81	0.5	11.0	0.4	1.2	202	606	97	291		35	47
40	8	RUN	26.3	75	3016	17.7	7.0	0.4	1.2	516	20636	233	9310		16	85
19	3	SRN	12.5	139	2645	15.5	7.0	0.7	1.5	633	12026	449	8531		33	80
6	4	MCP	3.9	22	135	0.8	9.0	0.6	2.8	213	1281	179	1073	121	47	76
5	1	STP	3.3	37	185	1.1	9.0	0.2	2.1	265	1323	185	926	53	45	74
1	1	CRP	0.7	15	15	0.1	9.0	0.6	1.2	134	134	120	120	80	30	98
7	2	LSBk	4.6	20	141	0.8	11.0	0.5	2.4	195	1367	181	1268	128	40	87
13	3	LSBo	8.6	23	296	1.7	10.0	0.6	3.2	147	1907	164	2131	100	62	95
5	1	PLP	3.3	14	68	0.4	15.0	0.8	2.6	238	1188	238	1188	190	75	99
2	0	DRY	1.3	1487	2974	17.5										

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
152	30	17019	69803	37107

Table 3 - Summary of Pools

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Units Fully Measured	Habitat Type	Habitat Occurrence (%)	Mean Length (ft.)	Total Length (ft.)	Total Length (%)	Mean Width (ft.)	Mean Residual Depth (ft.)	Mean Area (sq.ft.)	Estimated Total Area (sq.ft.)	Mean Residual Pool Vol (cu.ft.)	Estimated Total Resid. Vol (cu.ft.)	Mean Shelter Rating
11	5	MAIN	30	29	320	38	8.8	0.5	224	2461	107	1181	46
26	7	SCOUR	70	20	520	62	10.7	0.6	172	4463	118	3071	53

Total Units	Total Units Fully Measured	Total Length (ft.)	Total Area (sq.ft.)	Total Volume (cu.ft.)
37	12	840	6924	4252

Table 4 - Summary of Maximum Residual Pool Depths By Pool Habitat Types

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Habitat Type	Habitat Occurrence (%)	< 1 Foot MaximumResidual Depth	< 1 Foot Percent Occurrence	1 < 2 Feet Maximum Residual Depth	1 < 2 Feet Percent Occurrence	2 < 3 Feet Maximum Residual Depth	2 < 3 Feet Percent Occurence	3 < 4 Feet Maximum Residual Depth	3 < 4 Feet Percent Occurrence	>= 4 Feet Maximum Residual Depth	>= 4 Feet Percent Occurrence
6	MCP	17	1	17	4	67	1	17	0	0	0	0
12	LSBo	33	0	0	8	67	2	17	2	17	0	0
7	LSBk	19	0	0	5	71	2	29	0	0	0	0
5	STP	14	0	0	4	80	1	20	0	0	0	0
5	PLP	14	0	0	4	80	1	20	0	0	0	0
1	CRP	3	0	0	1	100	0	0	0	0	0	0
Total Units			Total < 1 Foot Max Resid. Depth	Total < 1 Foot % Occurrence	Total 1< 2 Feet Max Resid. Depth	Total 1< 2 Feet % Occurrence	Total 2< 3 Feet Max Resid. Depth	Total 2< 3 Feet % Occurrence	Total 3< 4 Feet Max Resid. Depth	Total 3< 4 Feet % Occurrence	Total >= 4 Feet Max Resid. Depth	Total >= 4 Feet % Occurrence
36			1	3	26	72	7	19	2	6	0	0

Mean Maximum Residual Pool Depth (ft.): 2

Table 5 - Summary of Mean Percent Cover By Habitat Type

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Units Fully Measured	Habitat Type	Mean % Undercut Banks	Mean % SWD	Mean % LWD	Mean % Root Mass	Mean % Terr. Vegetation	Mean % Aquatic Vegetation	Mean % White Water	Mean % Boulders	Mean % Bedrock Ledges
51	5	LGR	0	8	2	0	58	6	4	22	0
3	2	HGR	0	15	0	0	30	0	40	15	0
40	8	RUN	1	10	0	0	59	0	0	30	0
19	3	SRN	0	17	0	0	33	7	3	40	0
6	3	MCP	17	3	0	0	53	3	3	20	0
5	2	STP	15	5	0	0	30	0	30	20	0
1	1	CRP	50	10	0	0	30	10	0	0	0
7	2	LSBk	0	0	0	0	60	10	0	10	20
13	3	LSBo	7	7	0	0	47	0	13	27	0
5	1	PLP	0	0	20	0	40	0	20	20	0

Table 6 - Summary of Dominant Substrates By Habitat Type

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Habitat Units	Units Fully Measured	Habitat Type	% Total Silt/Clay Dominant	% Total Sand Dominant	% Total Gravel Dominant	% Total Small Cobble Dominant	% Total Large Cobble Dominant	% Total Boulder Dominant	% Total Bedrock Dominant
51	51	LGR	0	2	6	25	29	29	8
3	3	HGR	0	0	0	0	0	67	33
40	40	RUN	0	3	8	60	18	8	5
19	19	SRN	0	0	11	37	26	11	16
6	6	MCP	0	33	33	17	0	17	0
5	5	STP	20	0	20	0	0	20	40
1	1	CRP	0	100	0	0	0	0	0
7	7	LSBk	0	0	14	14	0	0	71
13	13	LSBo	0	15	31	8	15	31	0
5	5	PLP	0	0	40	60	0	0	0

Table 7 - Summary of Mean Percent Canopy for Entire Stream

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: **Quad:** LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Mean Percent Canopy	Mean Percent Conifer	Mean Percent Hardwood	Mean Percent Open Units	Mean Right Bank % Cover	Mean Left Bank % Cover
82	0	100	0	52	51

Note: Mean percent conifer and hardwood for the entire reach are means of canopy components from units with canopy values greater than zero.

Open units represent habitat units with zero canopy cover.

Table 8 - Fish Habitat Inventory Data Summary

Stream	Buckhorn Creek			LLID:	1196697345781	Drainage	Headwater
Survey Dates:	4/4/2012 to 4/5/2012	Survey Length (ft.):	17019	Main Channel (ft.):	16855	Side Channel (ft.):	164
Confluence	Quad: LITTLE PINE	Legal	T000R000S00	Latitud	34:34:41.0N	Longitud	119:40:11.0

Summary of Fish Habitat Elements By Stream Reach

STREAM REACH: 1

Channel Type:	B3	Canopy Density (%):	82.6	Pools by Stream Length	4.8
Reach Length (ft.):	16855	Coniferous Component	0.0	Pool Frequency (%):	24.0
Riffle/Flatwater Mean Width	8.1	Hardwood Component	100.0	Residual Pool Depth (%):	
BFW:		Dominant Bank	Hardwood Trees	< 2 Feet Deep:	74.3
Range (ft.):	14 to 28	Vegetative Cover (%):	51.3	2 to 2.9 Feet Deep:	20.0
Mean (ft.):	22.06666666666	Dominant	Terrestrial Veg.	3 to 3.9 Feet Deep:	5.7
Std. Dev.:	3.991101212558	Dominant Bank Substrate	Boulder	>= 4 Feet Deep:	0.0
Base Flow (cfs):	0.5	Occurrence of LWD (%):	2.4	Mean Max Residual Pool Depth	1.70
Water (F):	43 - 66 Air (F): 39 - 70	LWD per 100 ft.:		Mean Pool Shelter	49
Dry Channel (ft.):	2974	Riffles:			
		Pools:			
		Flat:			

Pool Tail Substrate Silt/Clay: 0.0 Sand: 19.4 Gravel: 33.3 Sm 19.4 Lg 5.6 Boulder 13.9 Bedrock: 8.3

Embeddedness Values 1. 11.1 2. 13.9 3. 13.9 4. 13.9 5. 47.2

Table 9 -Mean Percentage of Dominant Substrate and Vegetation

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

Mean Percentage of Dominant Stream Bank

Dominant Class of Substrate	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Bedrock	0	1	1.6
Boulder	19	17	58.1
Cobble/Gravel	7	6	21.0
Sand/Silt/Clay	5	7	19.4

Mean Percentage of Dominant Stream Bank

Dominant Class of Vegetation	Number of Units Right Bank	Number of Units Left Bank	Total Mean Percentage (%)
Grass	0	0	0.0
Brush	8	11	30.6
Hardwood	23	20	69.4
Coniferous	0	0	0.0
No Vegetation	0	0	0.0

Total Stream Cobble Embeddedness Values: 4

Table 10 - Mean Percent of Shelter Cover Types For Entire Stream

Stream Name: Buckhorn Creek **LLID:** 1196697345781 **Drainage:** Headwater

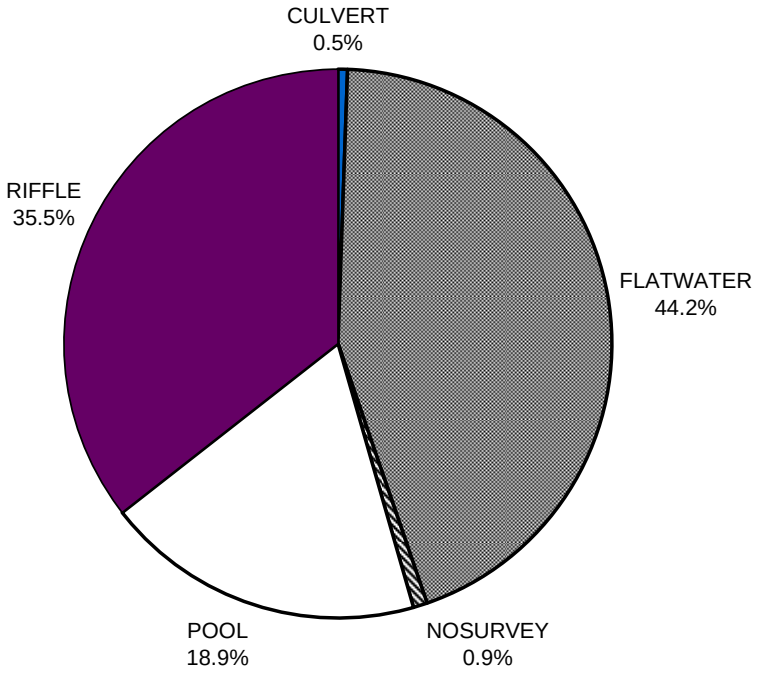
Survey Dates: 4/4/2012 to 4/5/2012

Confluence Location: Quad: LITTLE PINE MTN. **Legal Description:** T000R000S00 **Latitude:** 34:34:41.0N **Longitude:** 119:40:11.0

	Riffles	Flatwater	Pools
UNDERCUT BANKS (%)	0	0	13
SMALL WOODY DEBRIS (%)	10	12	4
LARGE WOODY DEBRIS (%)	1	0	2
ROOT MASS (%)	0	0	0
TERRESTRIAL VEGETATION (%)	50	52	46
AQUATIC VEGETATION (%)	4	2	3
WHITEWATER (%)	14	1	11
BOULDERS (%)	20	33	18
BEDROCK LEDGES (%)	0	0	3

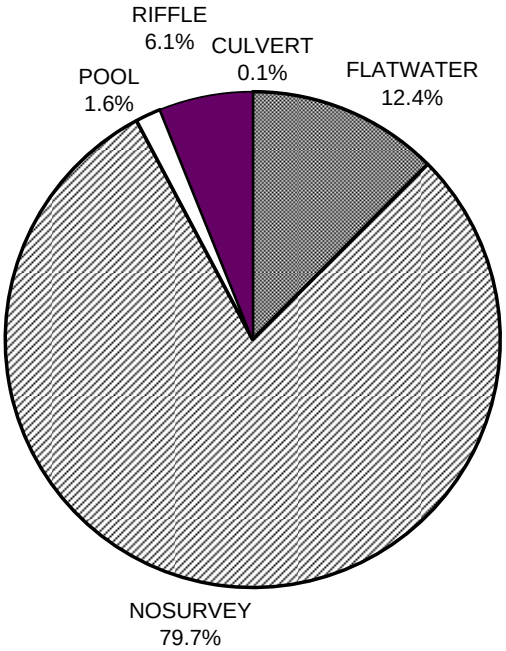
CACHUMA CREEK GRAPHS

CACHUMA CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



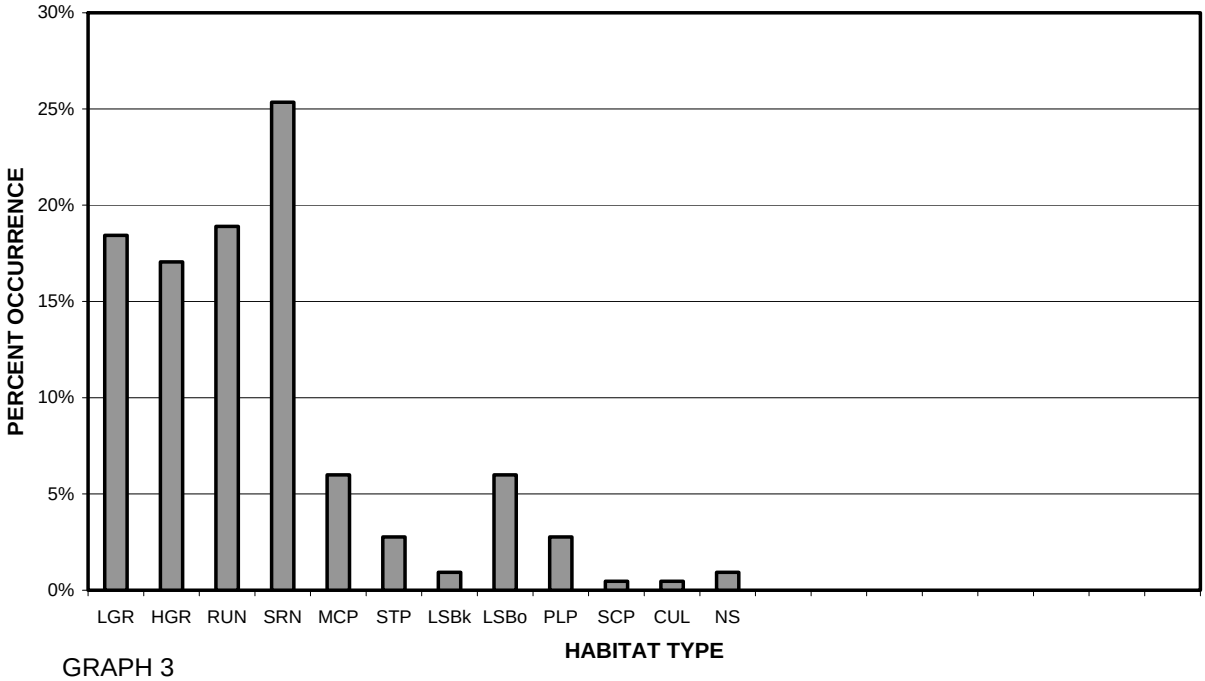
GRAPH 1

CACHUMA CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



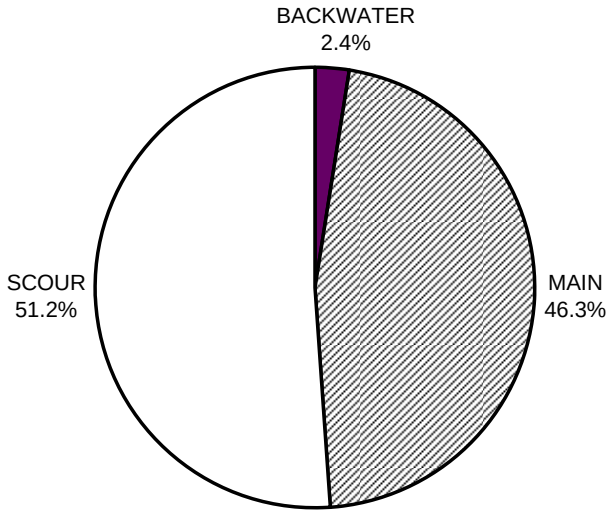
GRAPH 2

CACHUMA CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

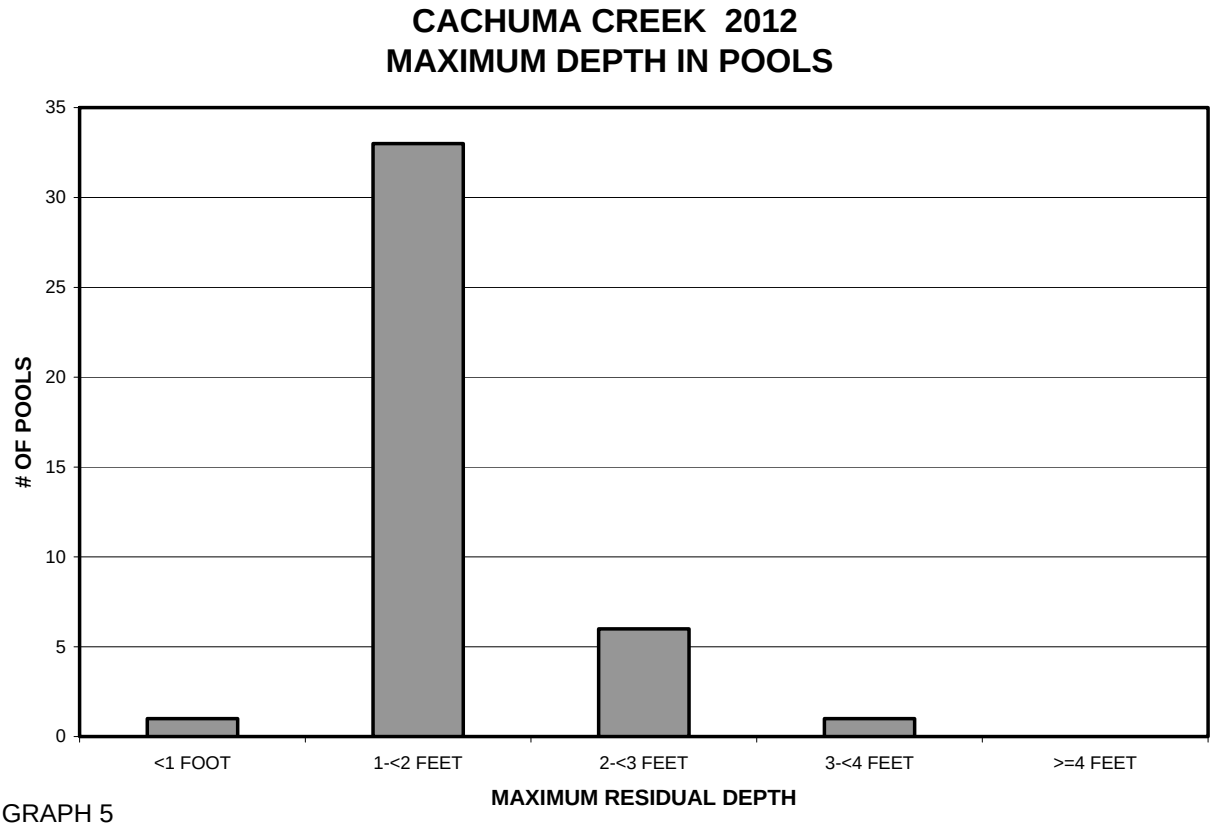


GRAPH 3

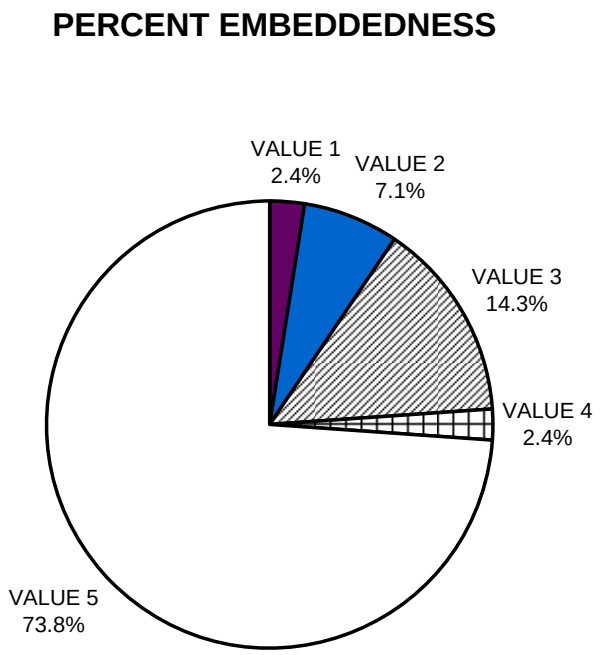
CACHUMA CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

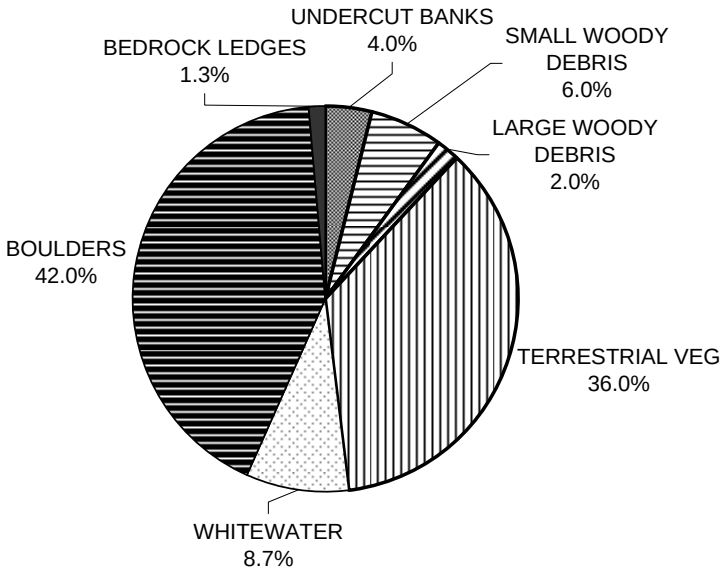


GRAPH 5



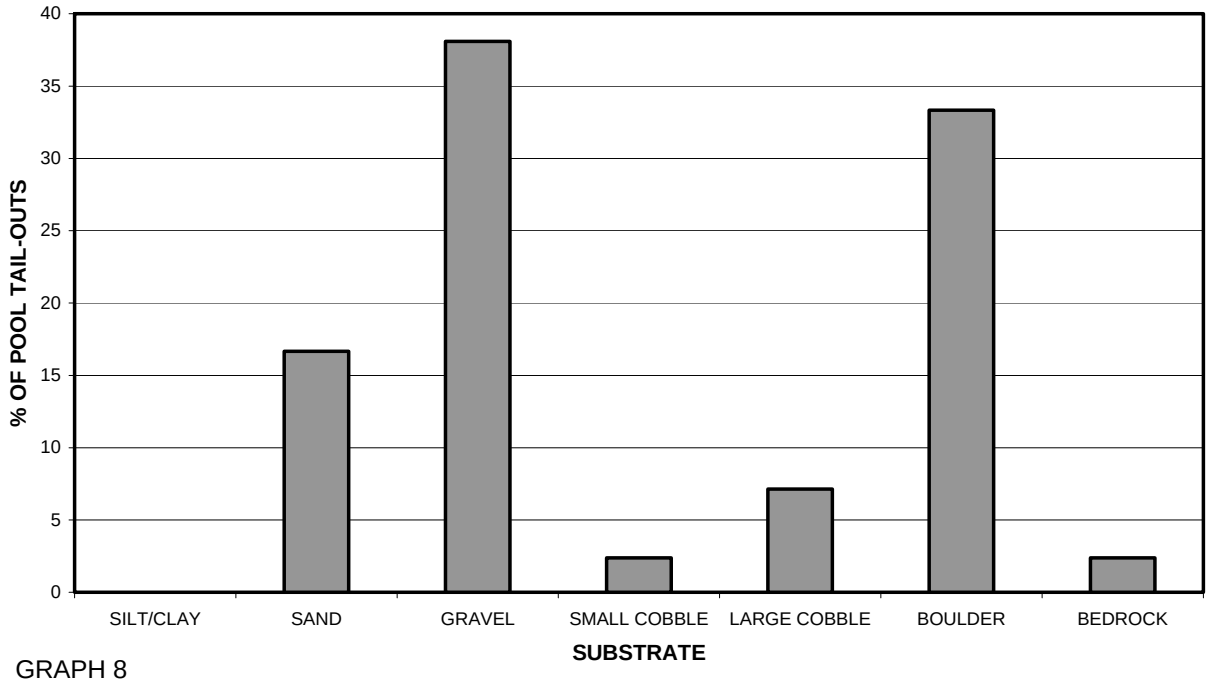
GRAPH 6

CACHUMA CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



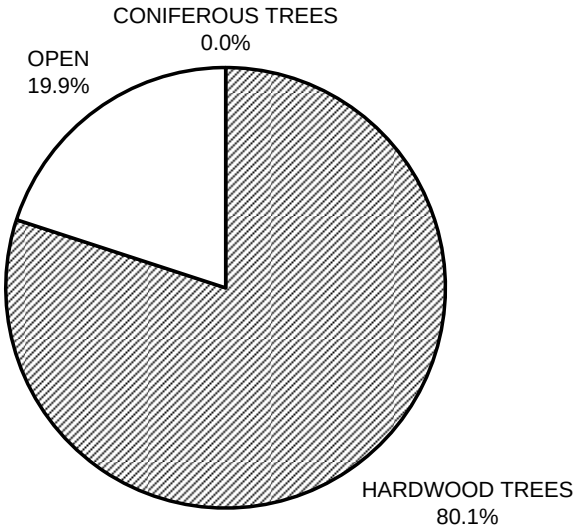
GRAPH 7

CACHUMA CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



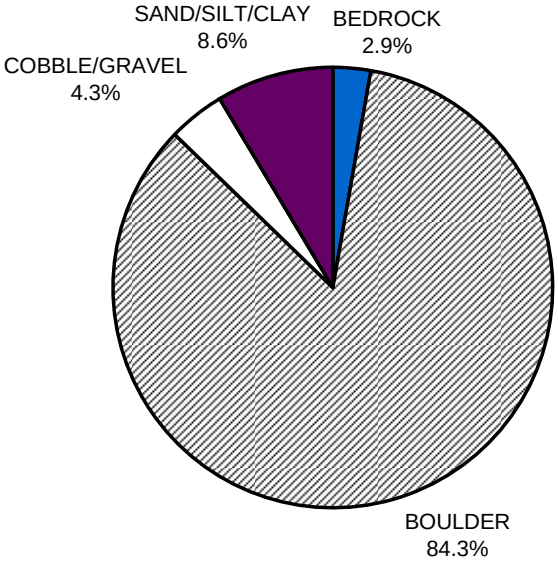
GRAPH 8

CACHUMA CREEK 2012
MEAN PERCENT CANOPY



GRAPH 9

CACHUMA CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



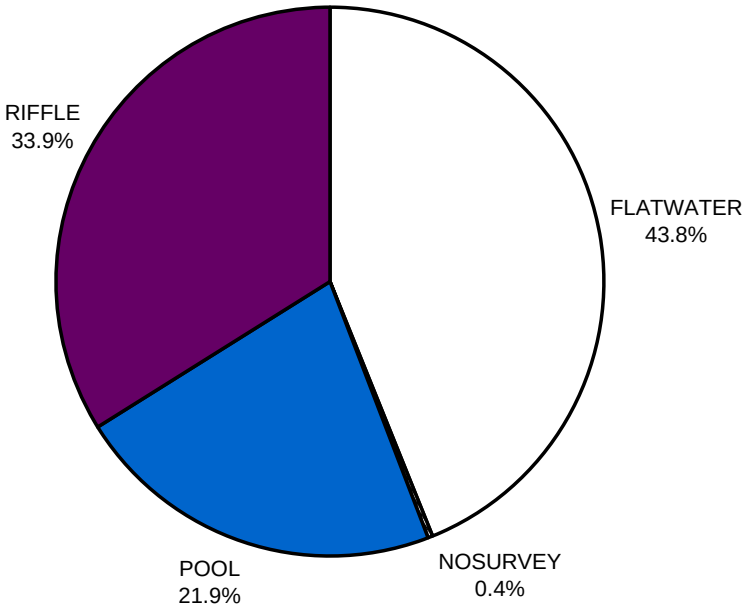
GRAPH 10

CACHUMA CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH

GRAPH 11

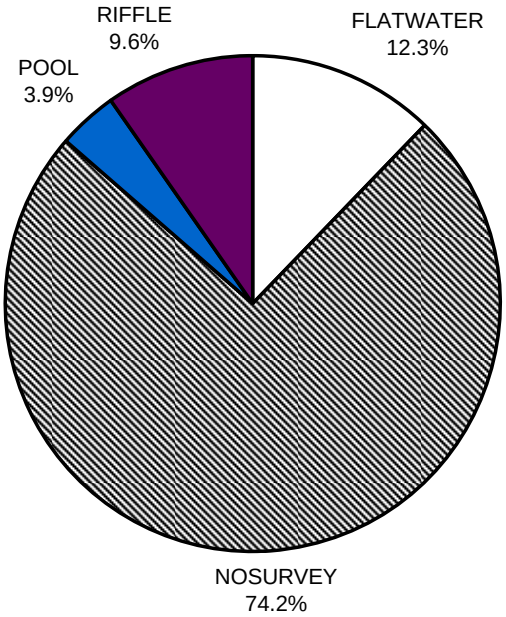
SANTA CRUZ CREEK GRAPHS

SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



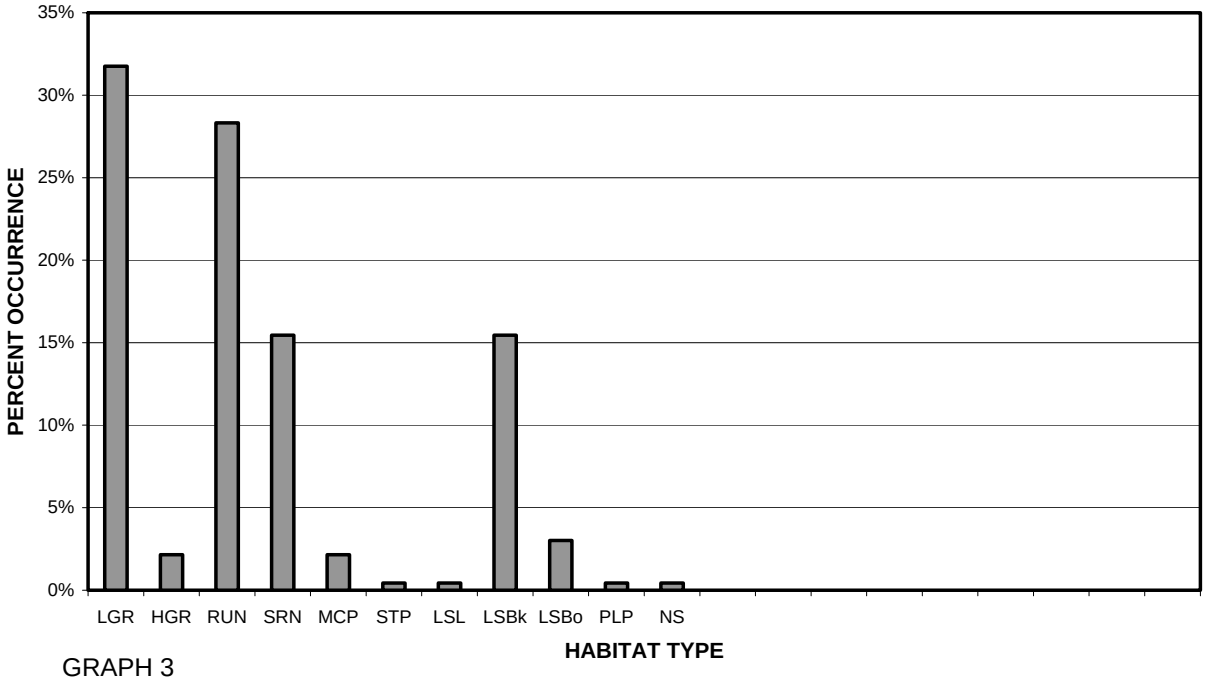
GRAPH 1

SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



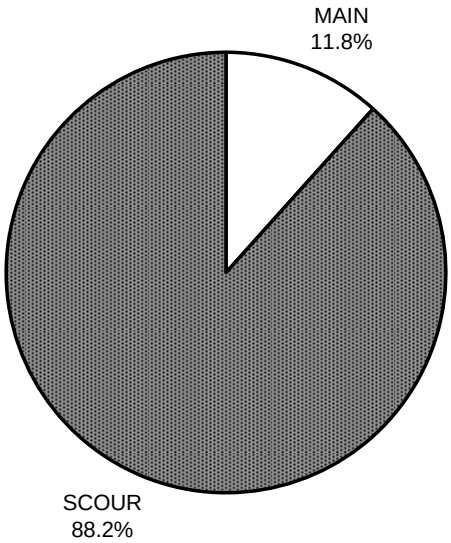
GRAPH 2

SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

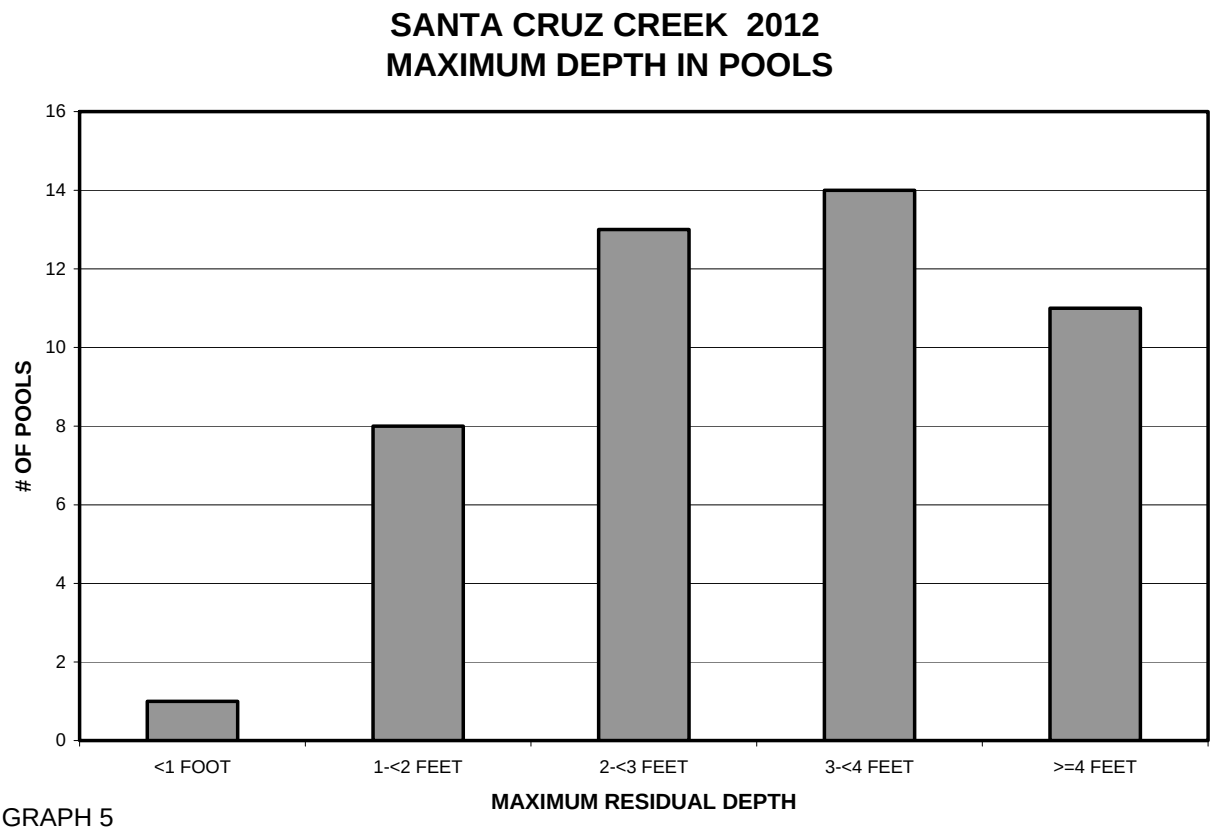


GRAPH 3

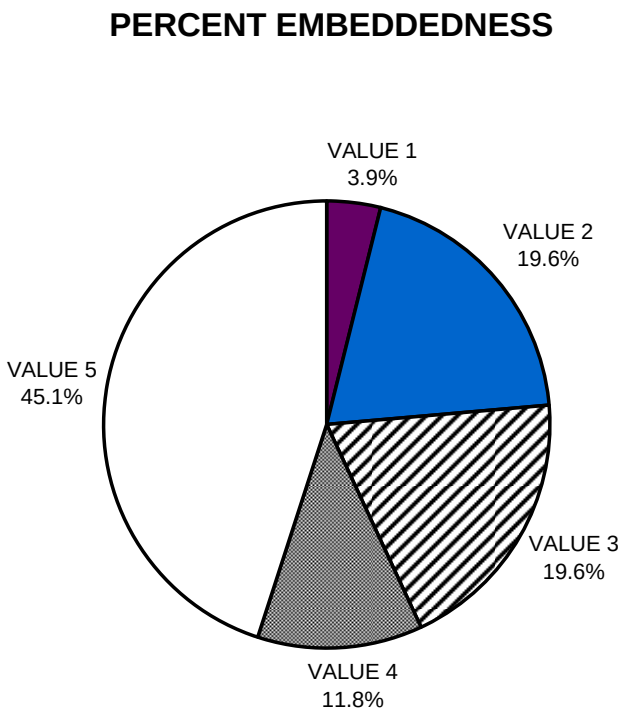
SANTA CRUZ CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

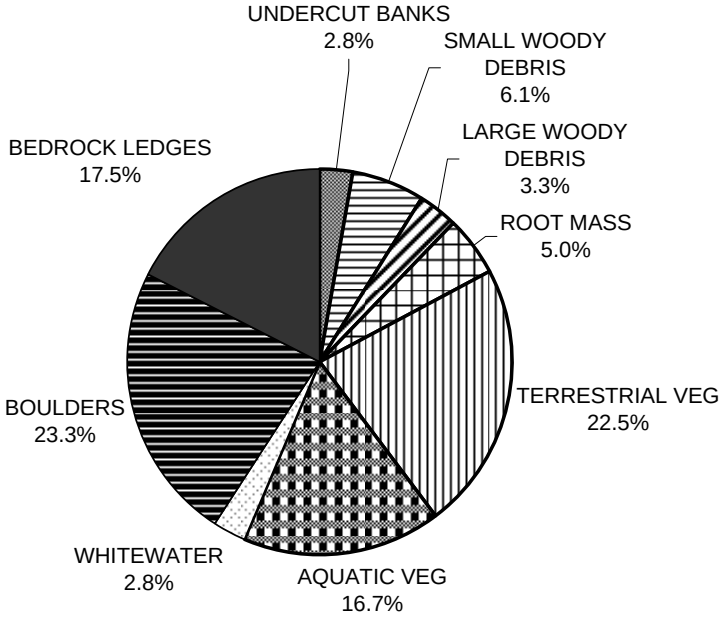


GRAPH 5



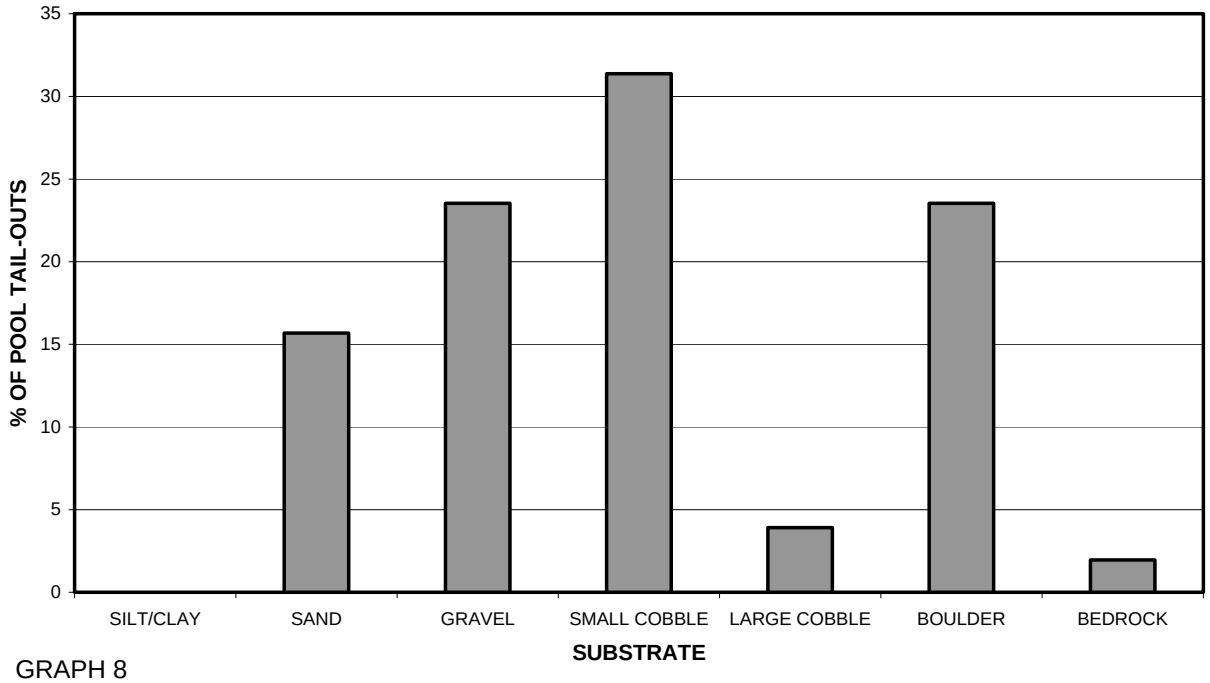
GRAPH 6

SANTA CRUZ CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



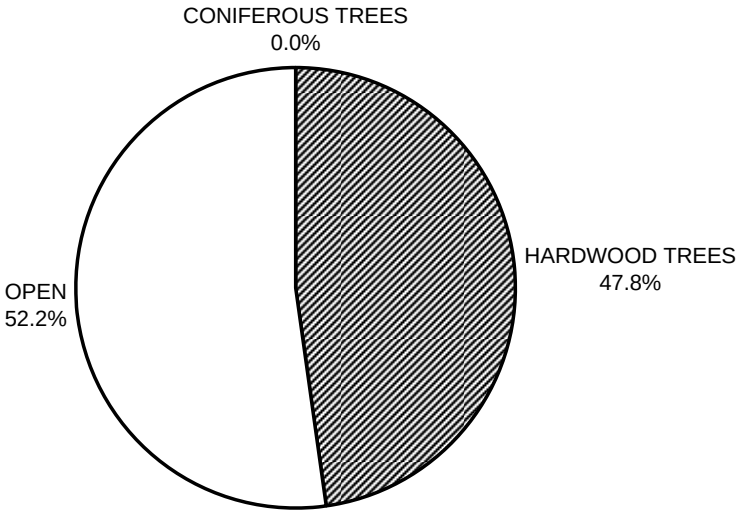
GRAPH 7

SANTA CRUZ CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



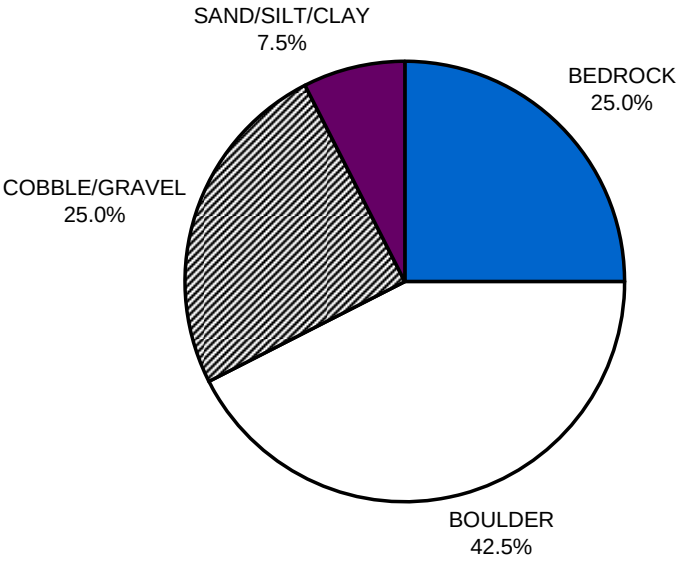
GRAPH 8

SANTA CRUZ CREEK 2012
MEAN PERCENT CANOPY



GRAPH 9

SANTA CRUZ CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



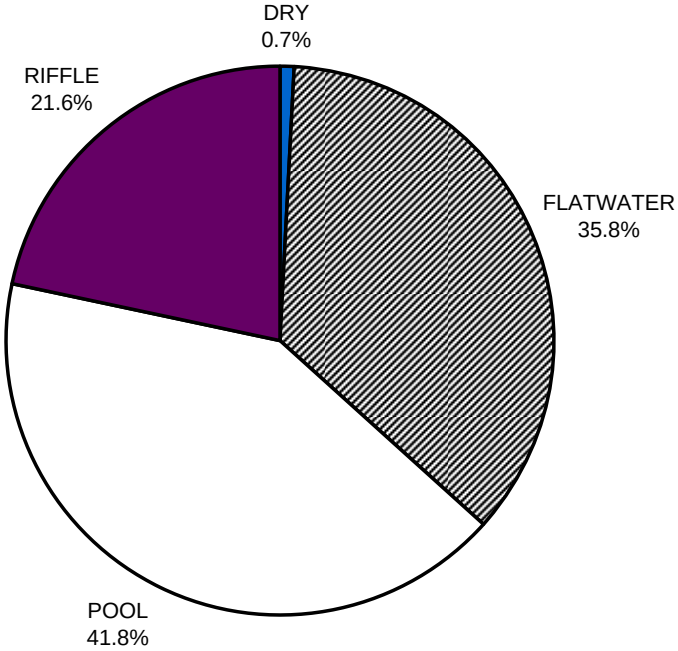
GRAPH 10

SANTA CRUZ CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH

GRAPH 11

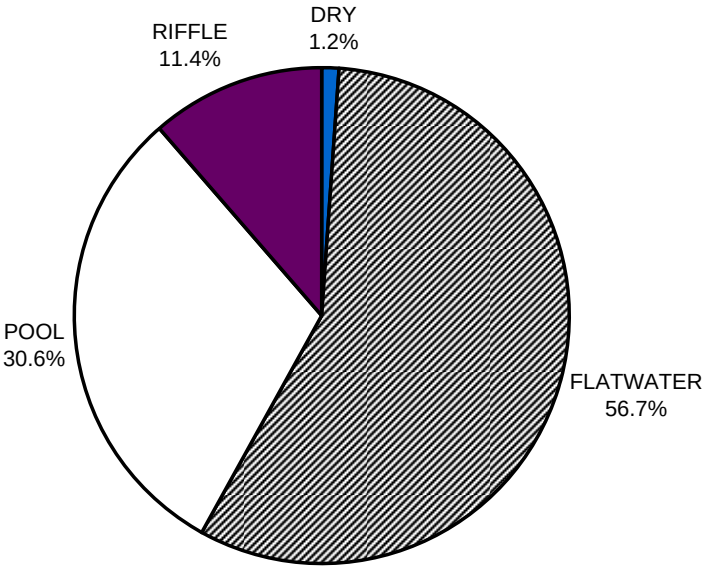
EAST FORK SANTA CRUZ CREEK GRAPHS

EAST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



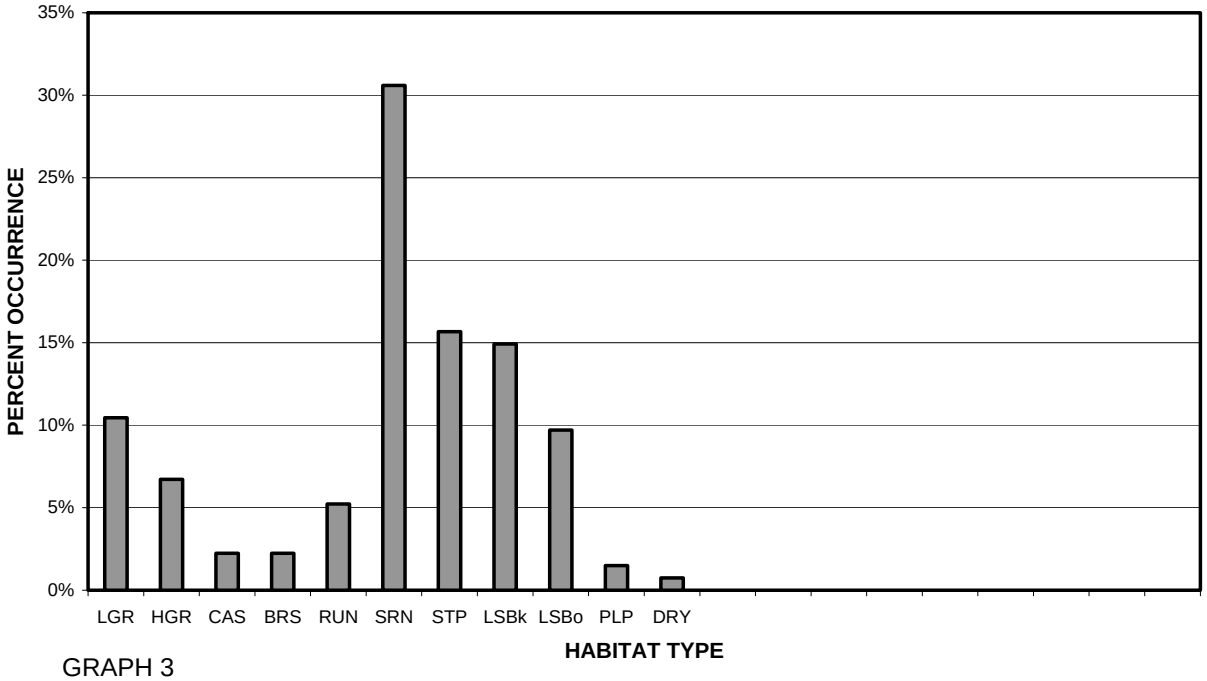
GRAPH 1

EAST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



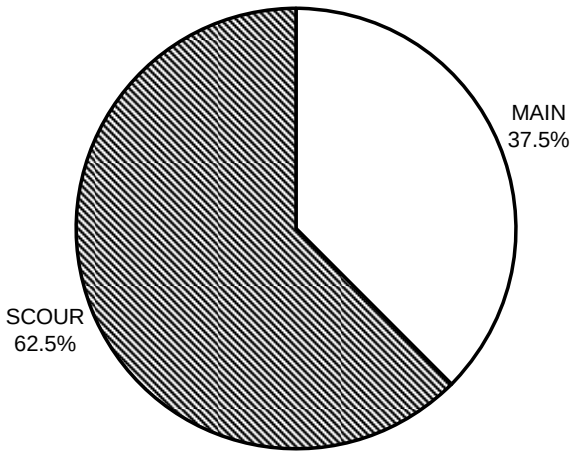
GRAPH 2

EAST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

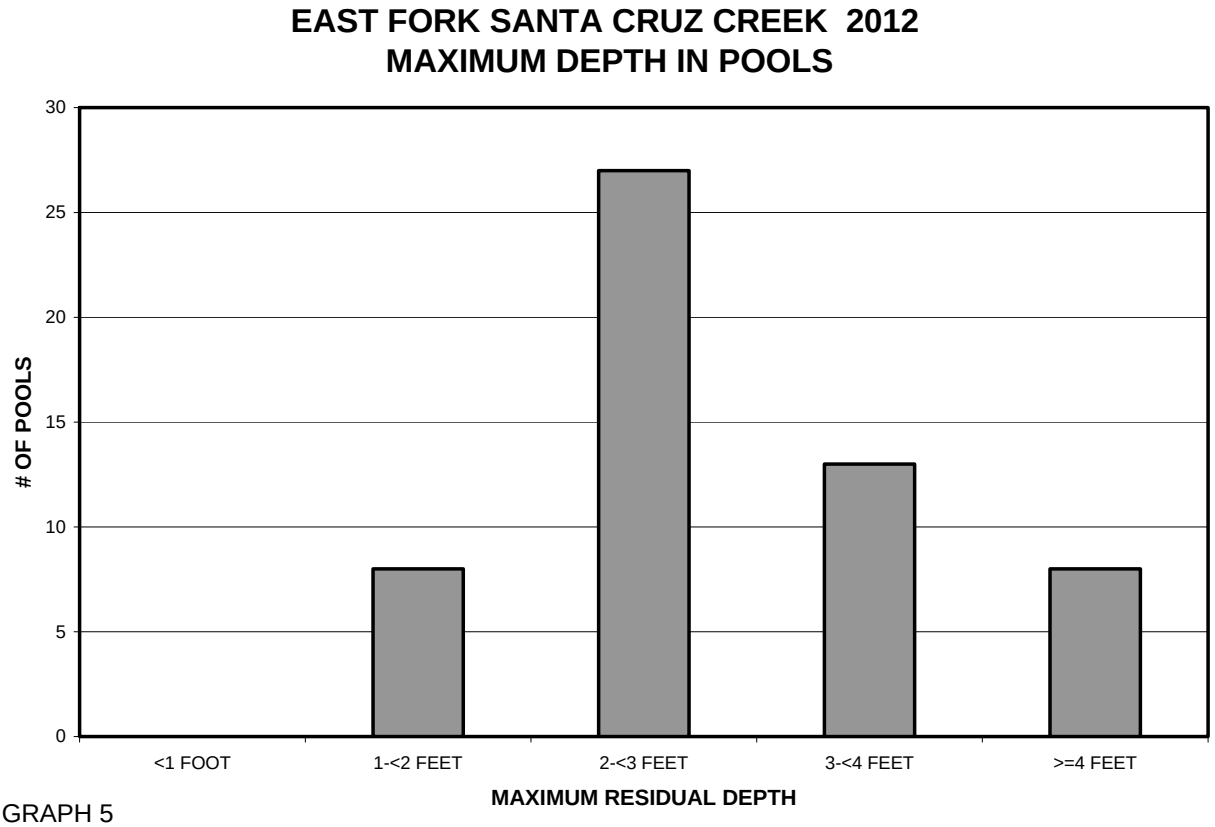


GRAPH 3

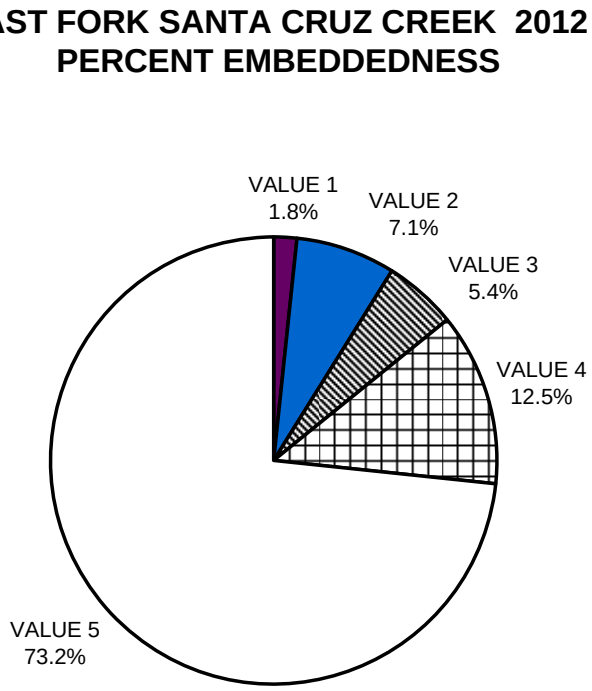
EAST FORK SANTA CRUZ CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

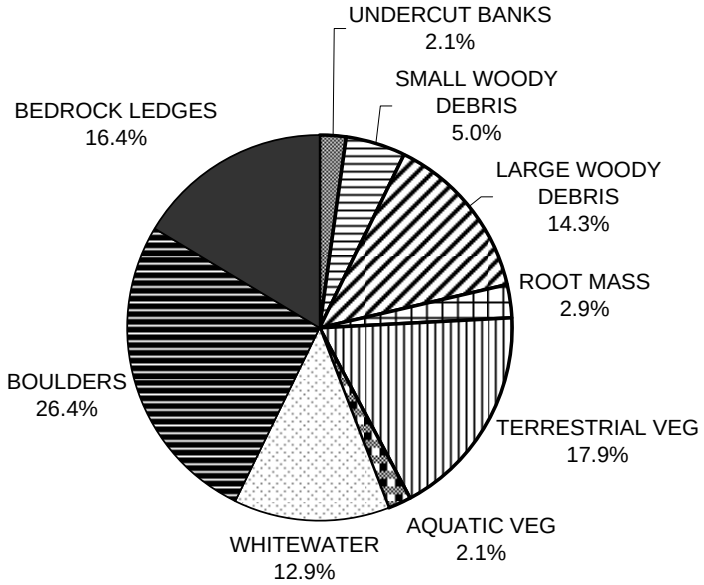


GRAPH 5



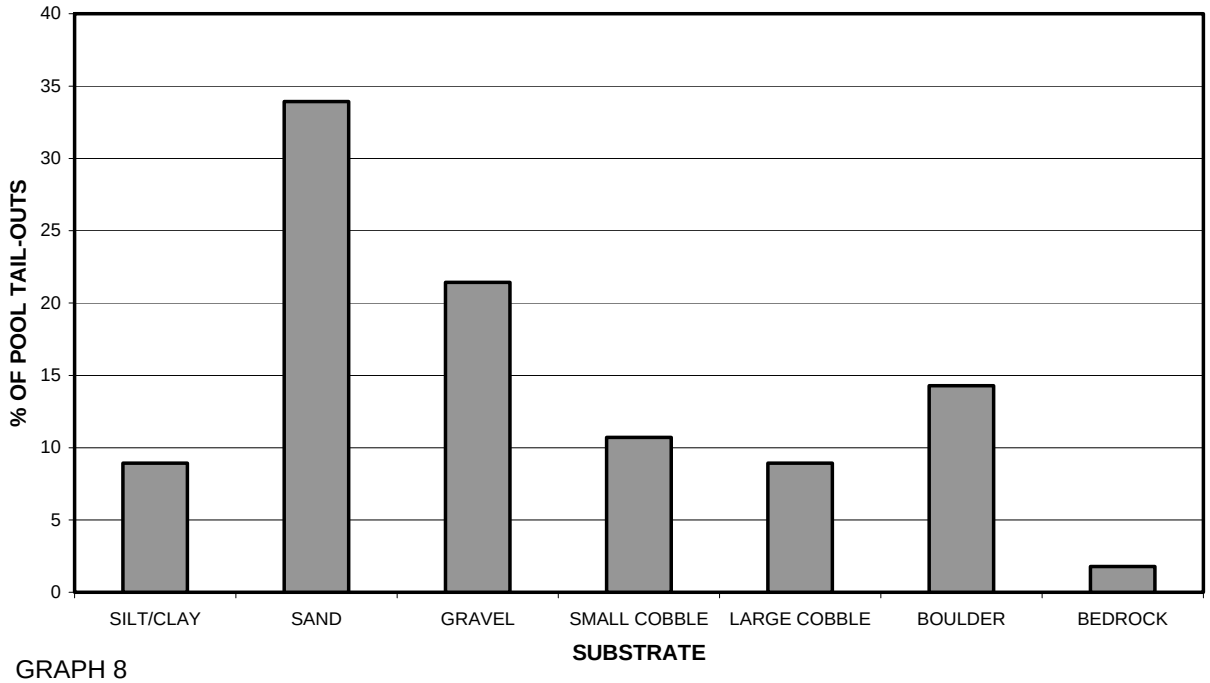
GRAPH 6

EAST FORK SANTA CRUZ CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



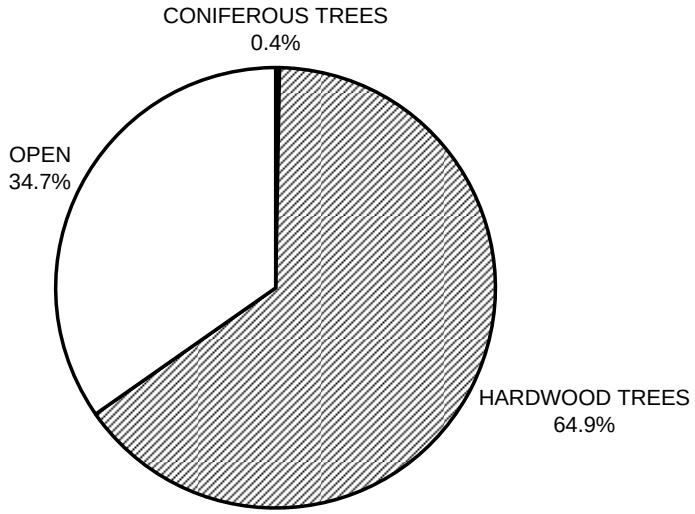
GRAPH 7

EAST FORK SANTA CRUZ CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



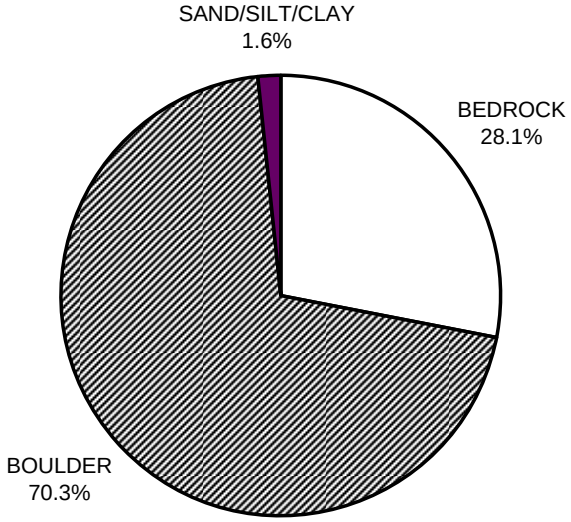
GRAPH 8

EAST FORK SANTA CRUZ CREEK 2012
MEAN PERCENT CANOPY



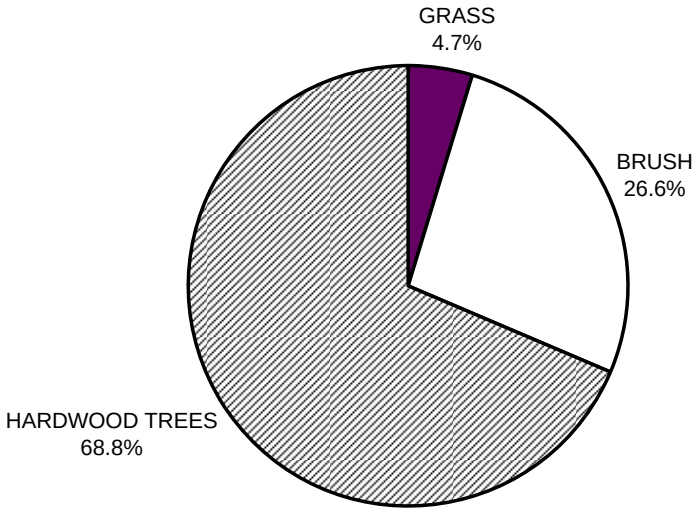
GRAPH 9

EAST FORK SANTA CRUZ CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

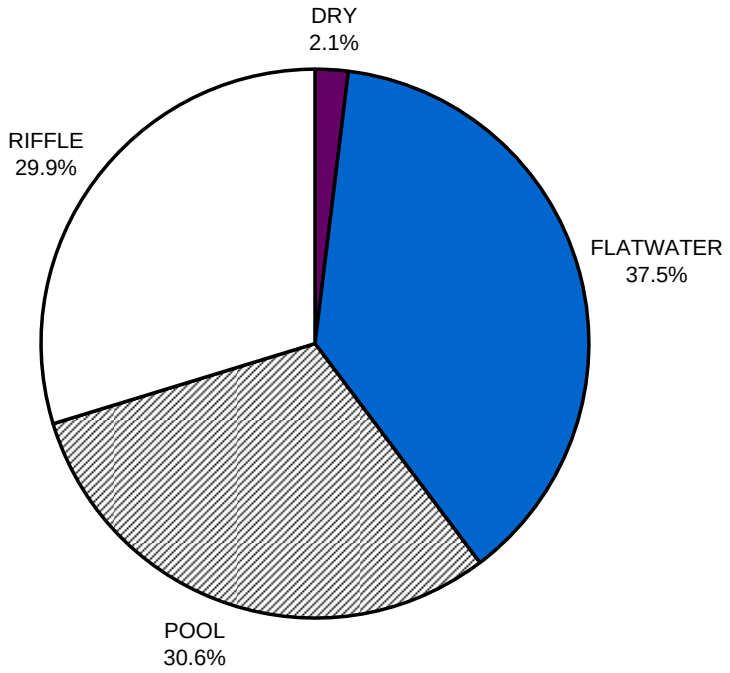
EAST FORK SANTA CRUZ CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

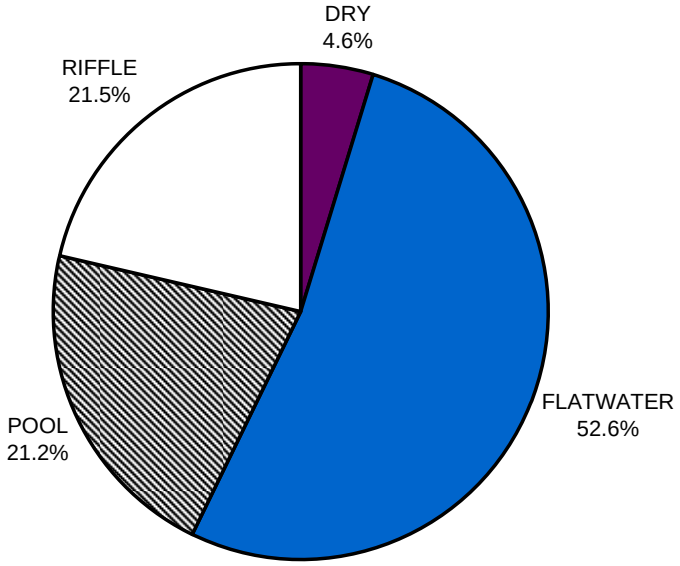
WEST FORK SANTA CRUZ CREEK GRAPHS

WEST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



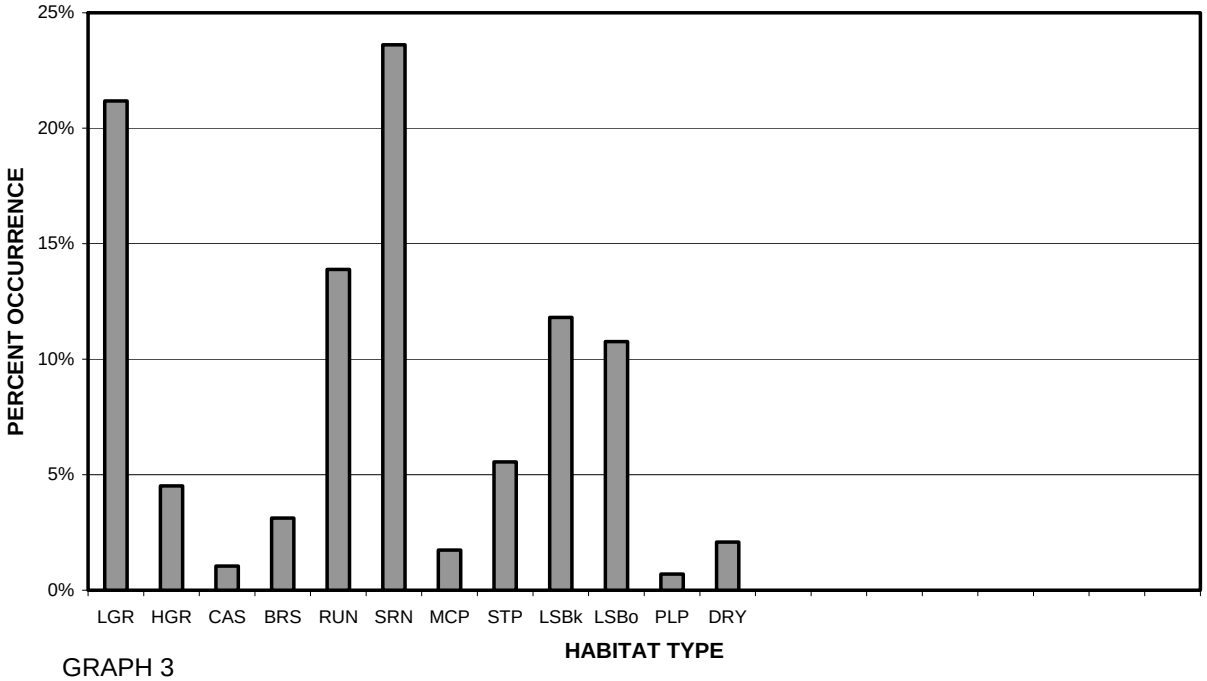
GRAPH 1

WEST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



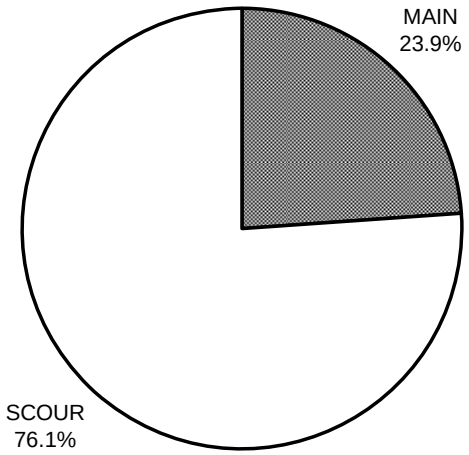
GRAPH 2

WEST FORK SANTA CRUZ CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

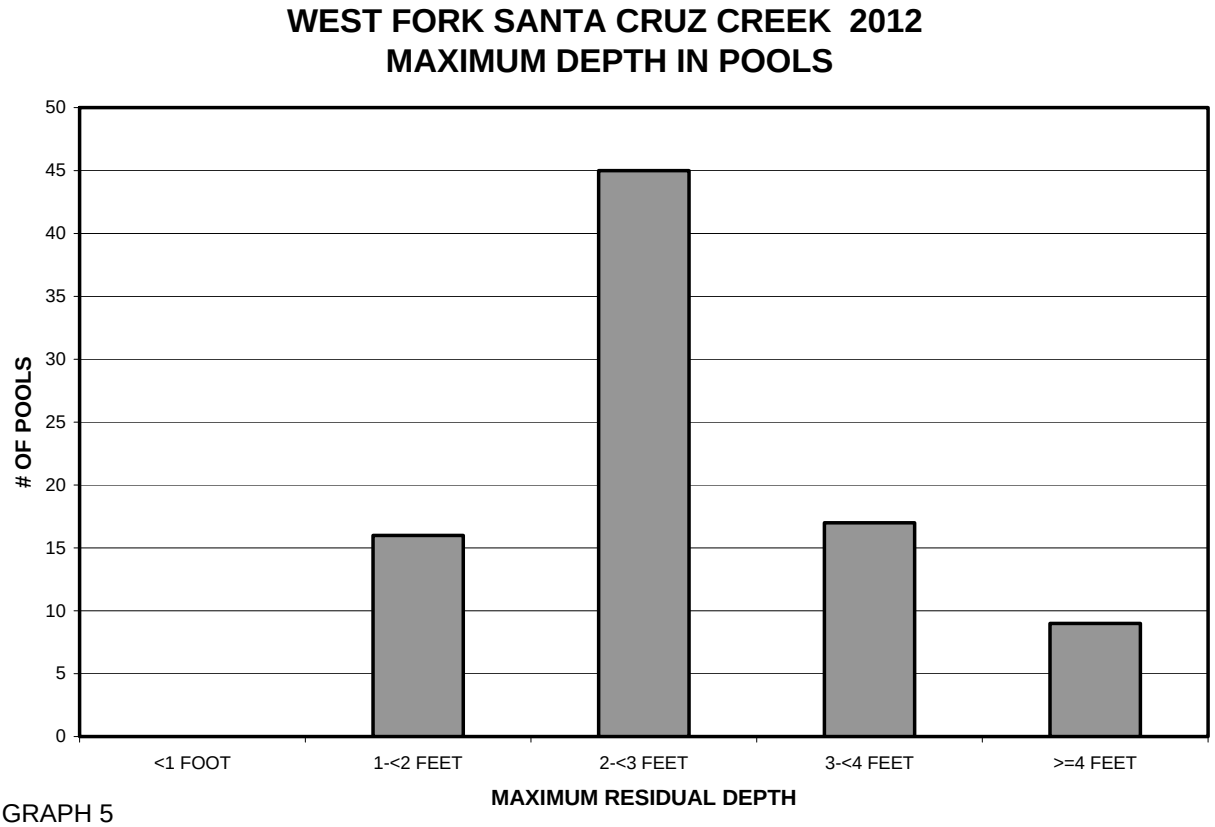


GRAPH 3

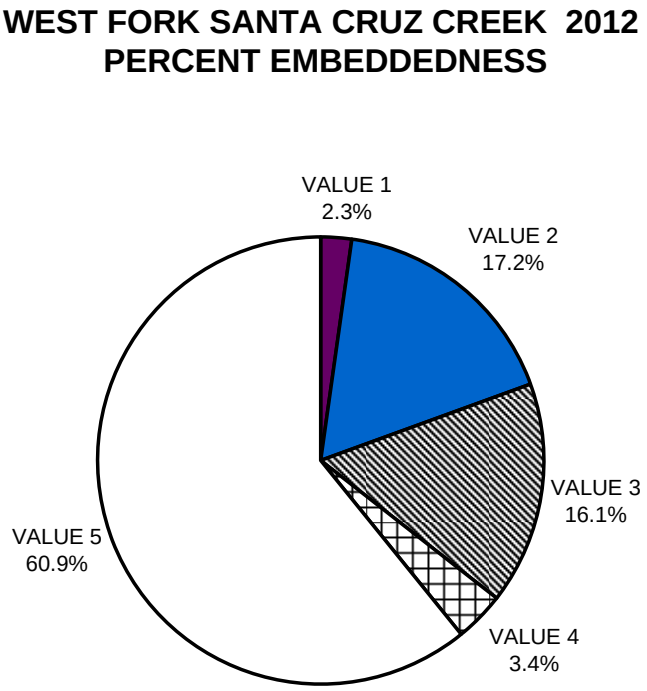
WEST FORK SANTA CRUZ CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

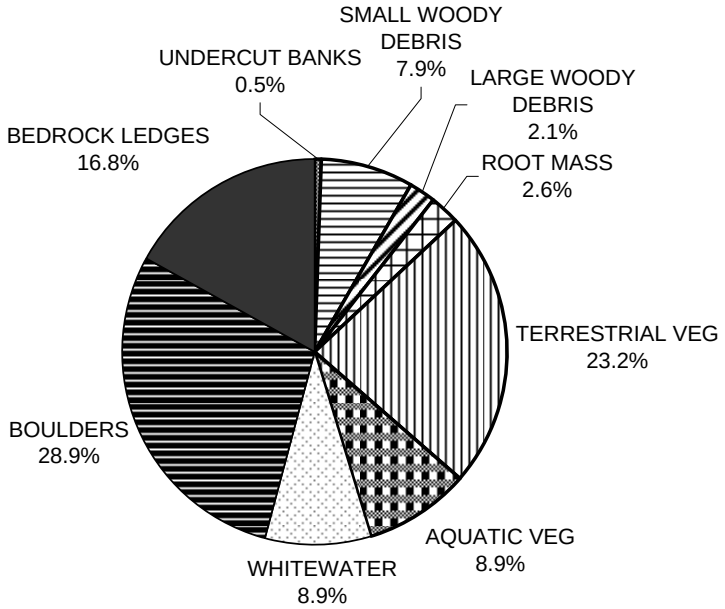


GRAPH 5



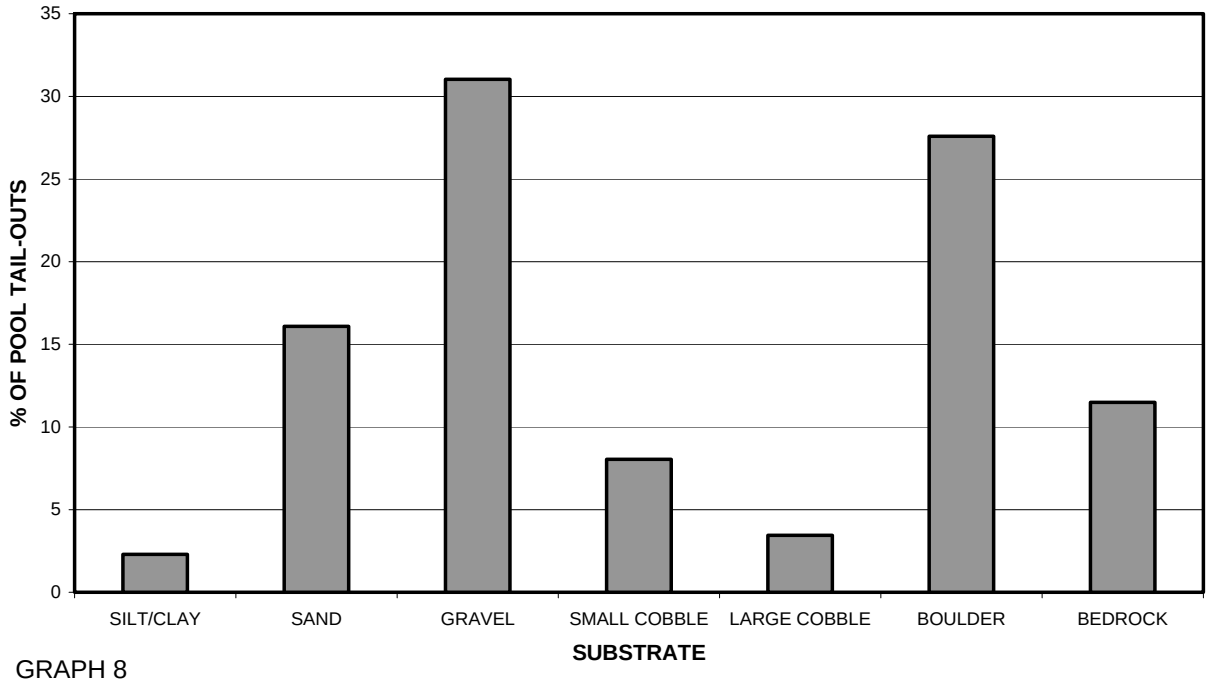
GRAPH 6

WEST FORK SANTA CRUZ CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



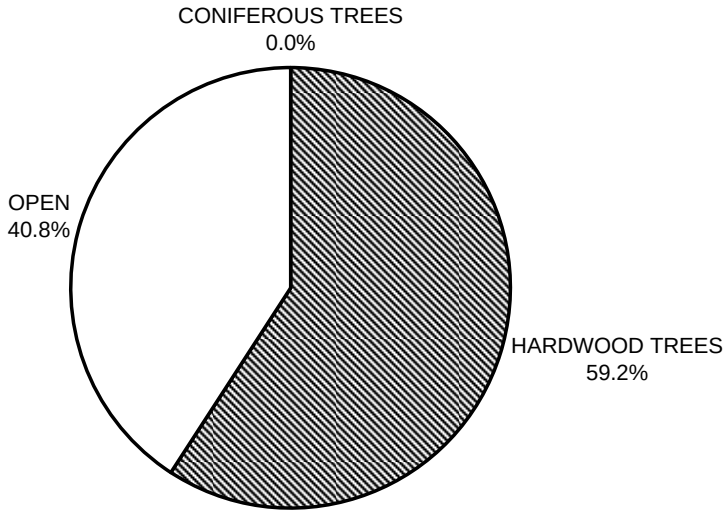
GRAPH 7

WEST FORK SANTA CRUZ CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



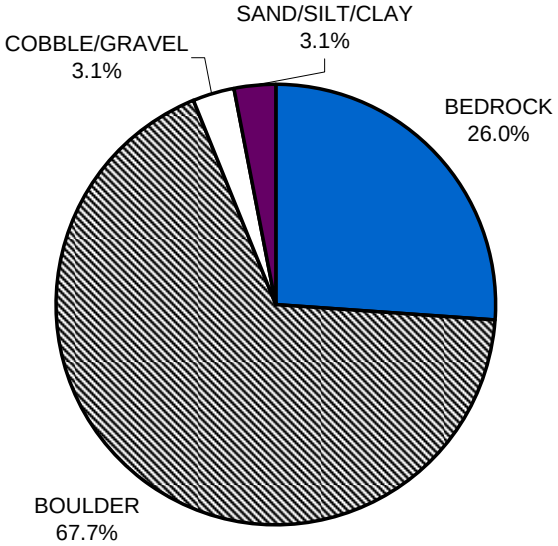
GRAPH 8

WEST FORK SANTA CRUZ CREEK 2012
MEAN PERCENT CANOPY



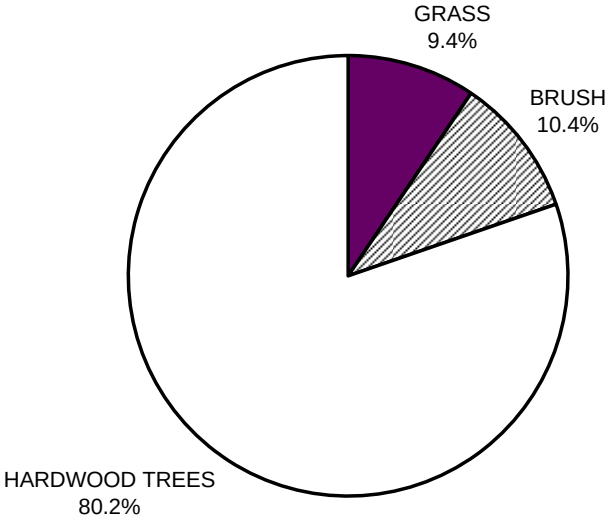
GRAPH 9

WEST FORK SANTA CRUZ CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

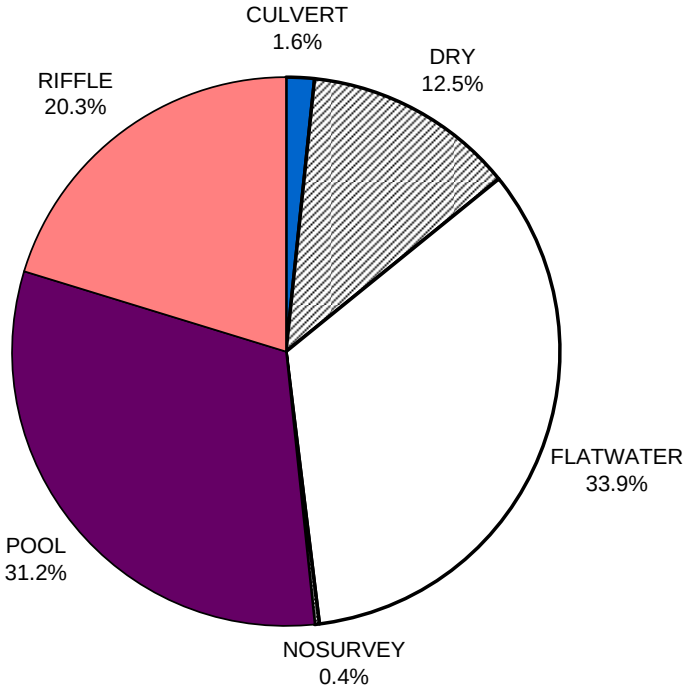
WEST FORK SANTA CRUZ CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

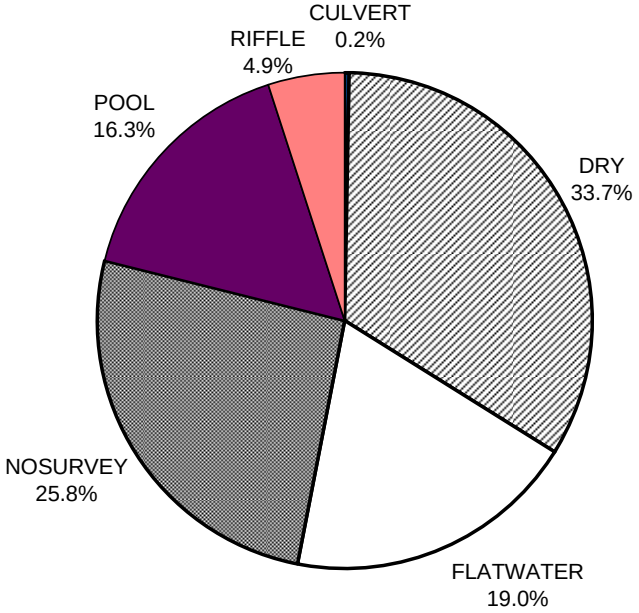
UPPER SANTA YNEZ GRAPHS

UPPER SANTA YNEZ RIVER 2010-2012
HABITAT TYPES BY PERCENT OCCURRENCE



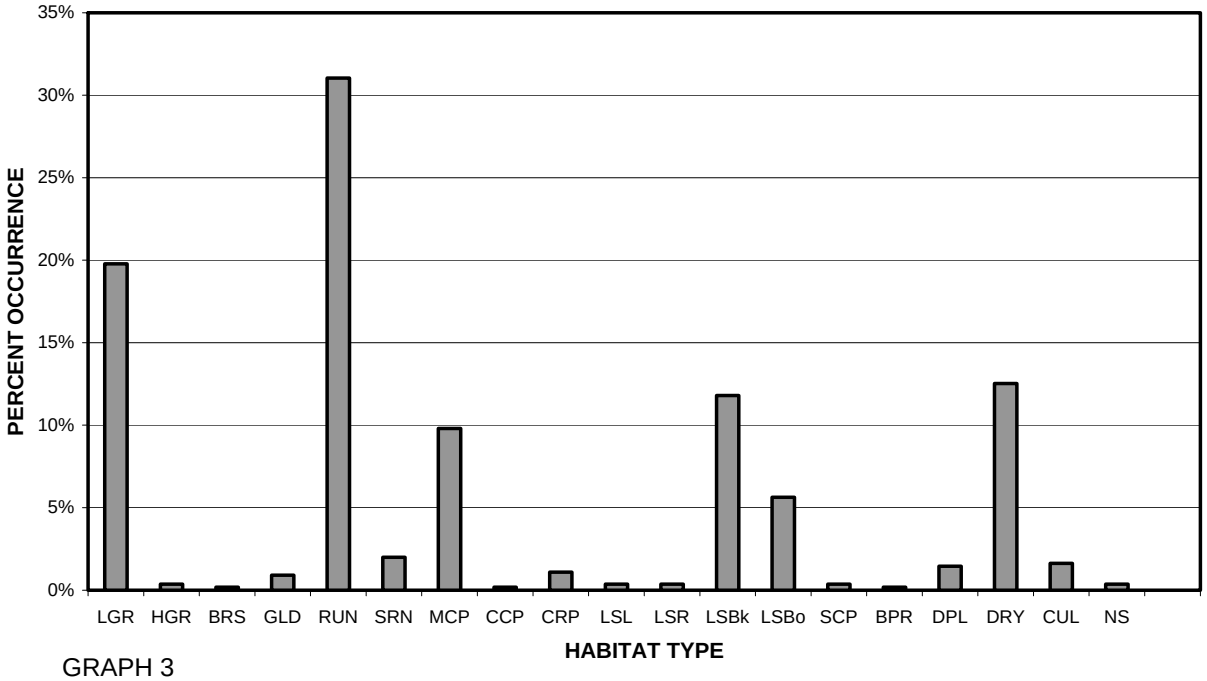
GRAPH 1

UPPER SANTA YNEZ RIVER 2010-2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



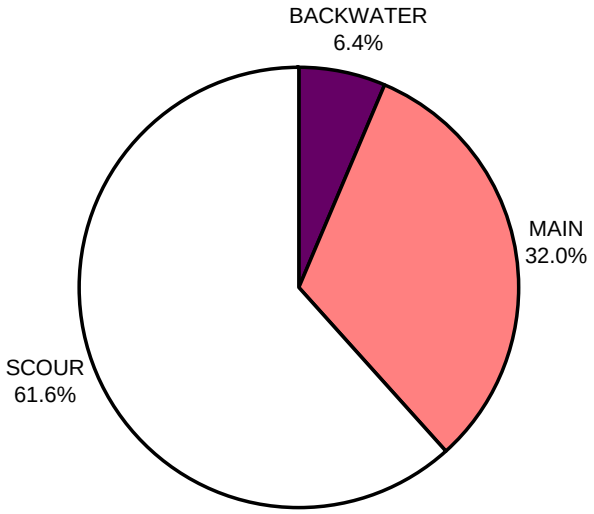
GRAPH 2

UPPER SANTA YNEZ RIVER 2010-2012
HABITAT TYPES BY PERCENT OCCURRENCE

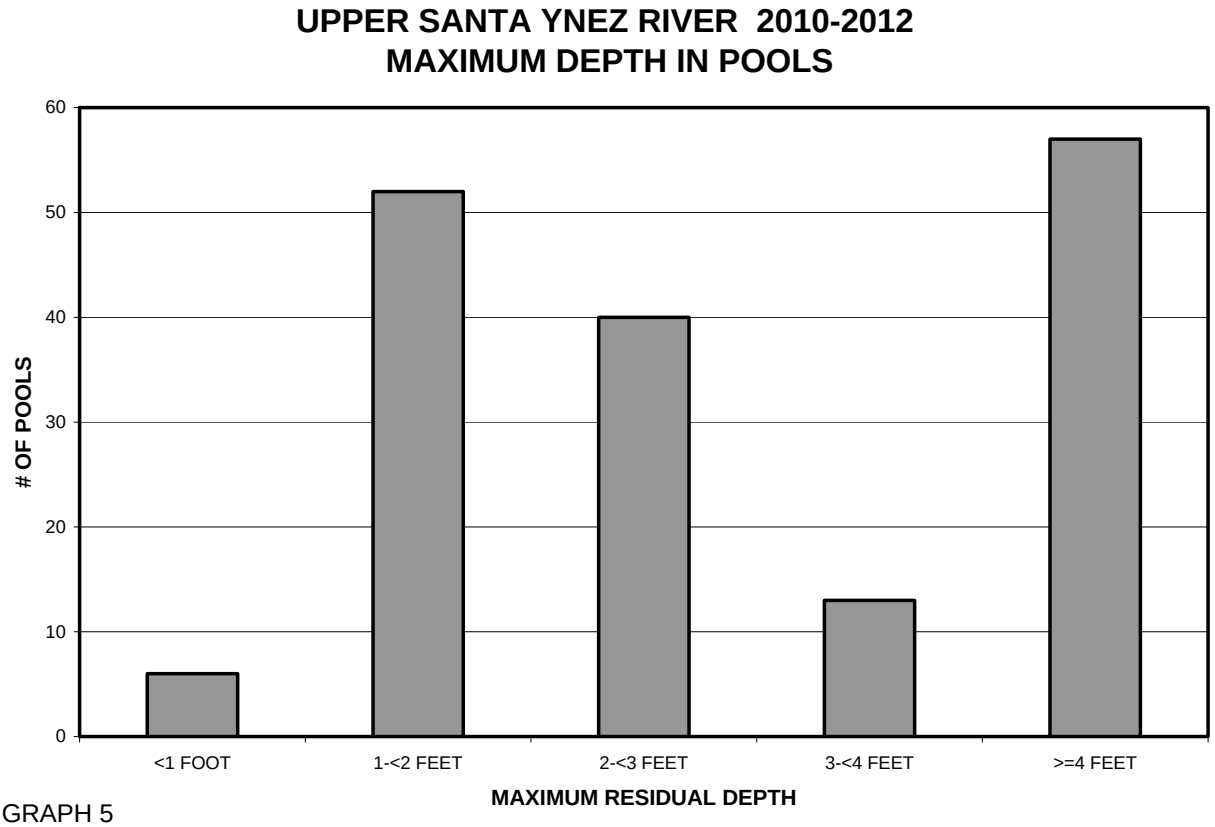


GRAPH 3

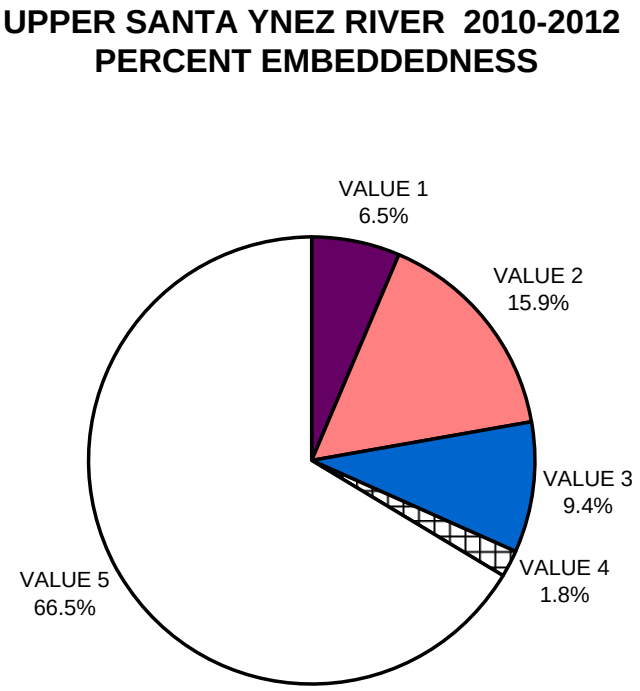
UPPER SANTA YNEZ RIVER 2010-2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

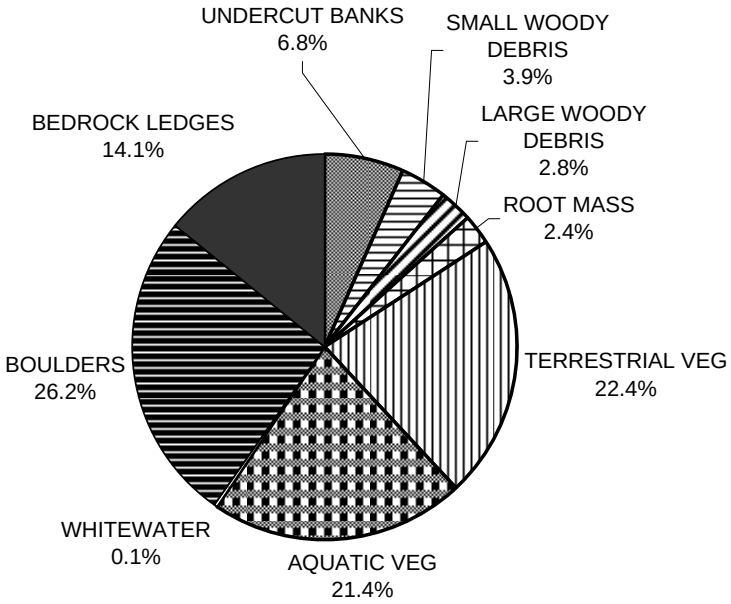


GRAPH 5



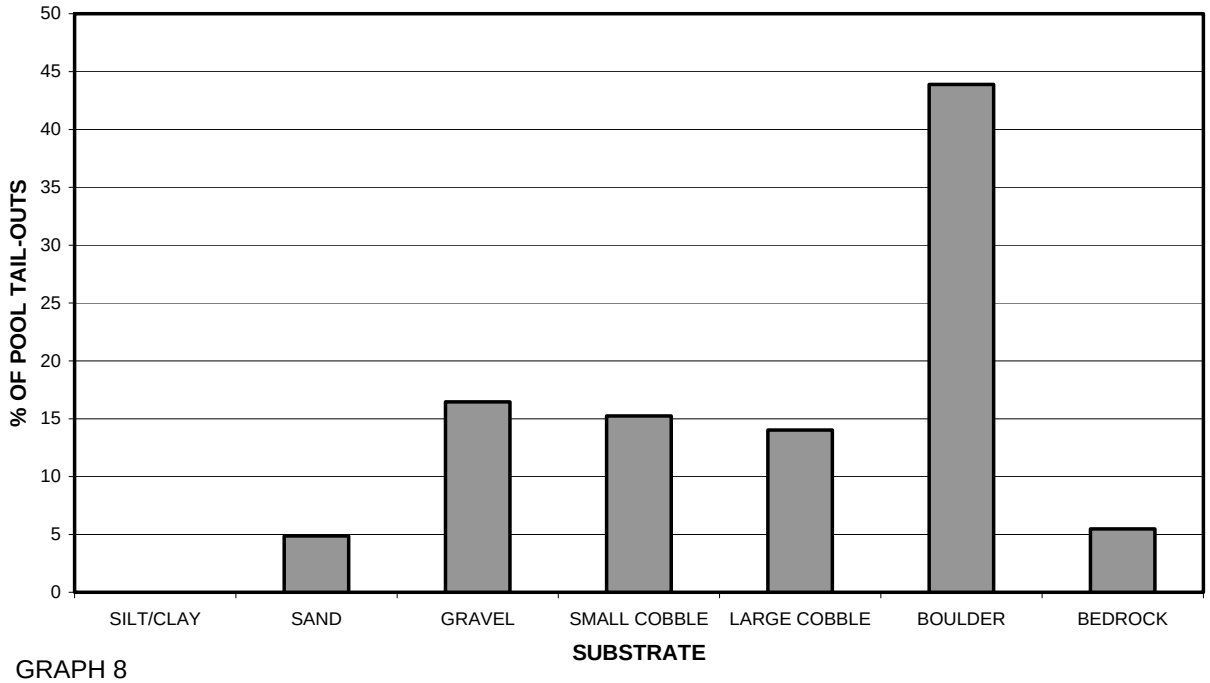
GRAPH 6

UPPER SANTA YNEZ RIVER 2010-2012
MEAN PERCENT COVER TYPES IN POOLS



GRAPH 7

UPPER SANTA YNEZ RIVER 2010-2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS

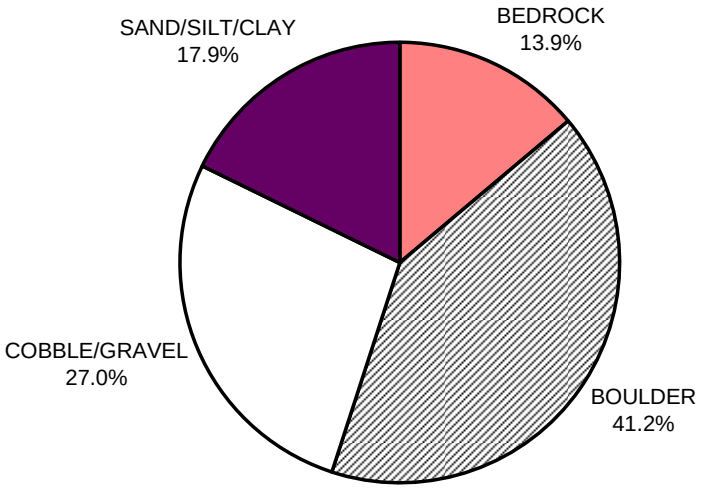


GRAPH 8

UPPER SANTA YNEZ RIVER 2010-2012
MEAN PERCENT CANOPY

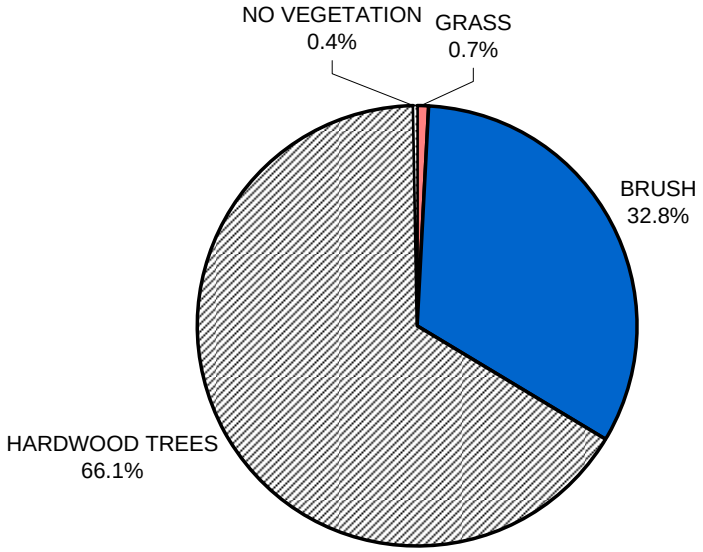
GRAPH 9

UPPER SANTA YNEZ RIVER 2010-2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

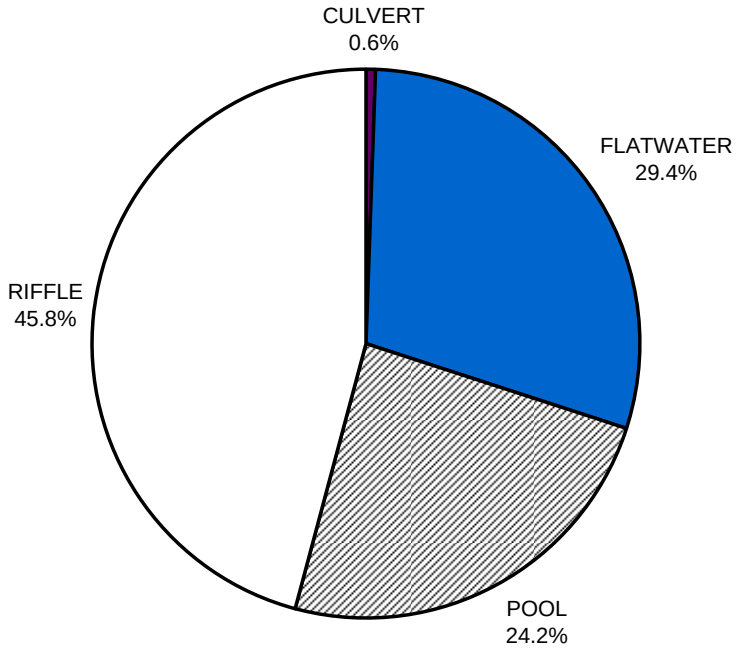
SANTA YNEZ RIVER 2010
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

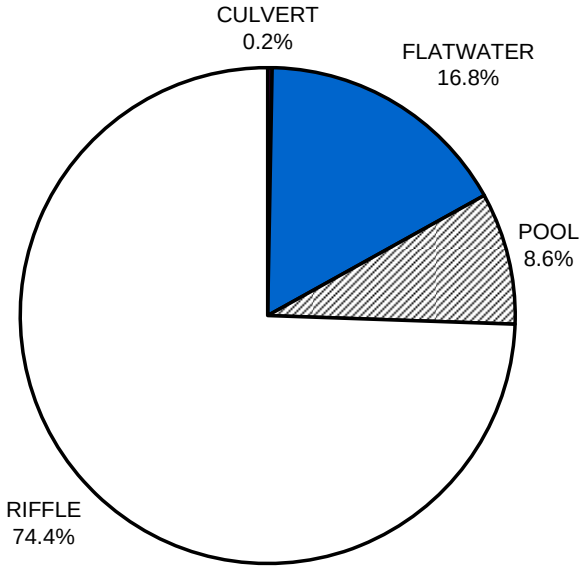
OSO CREEK GRAPHS

Oso Creek 2011
HABITAT TYPES BY PERCENT OCCURRENCE



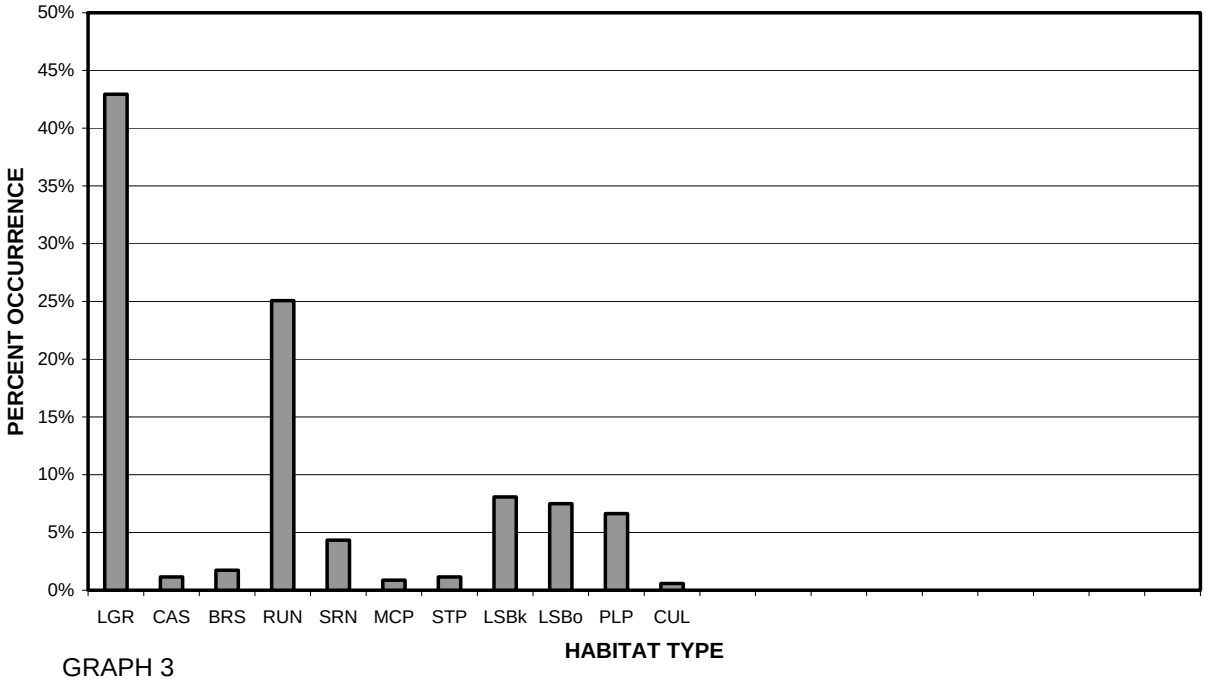
GRAPH 1

Oso Creek 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



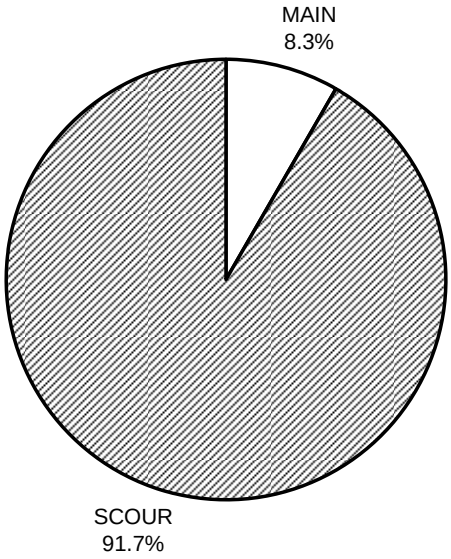
GRAPH 2

Oso Creek 2011
HABITAT TYPES BY PERCENT OCCURRENCE

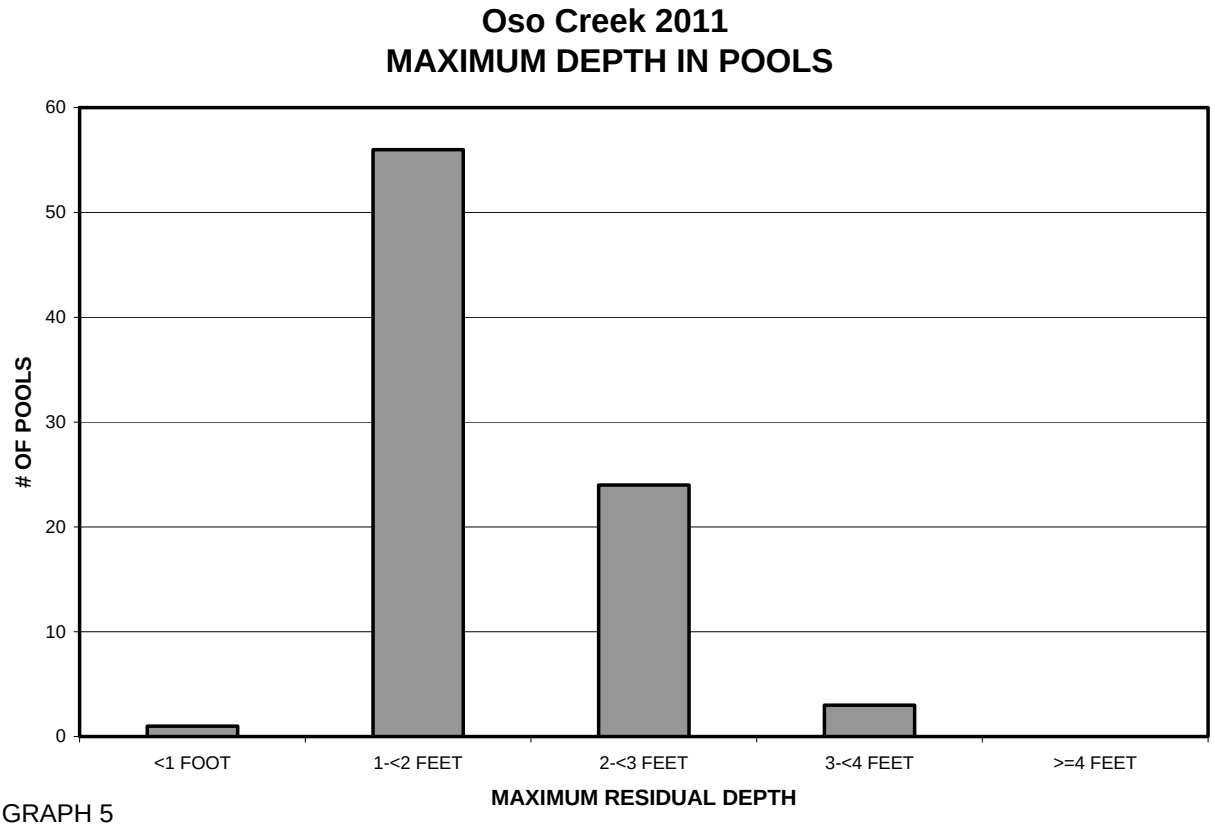


GRAPH 3

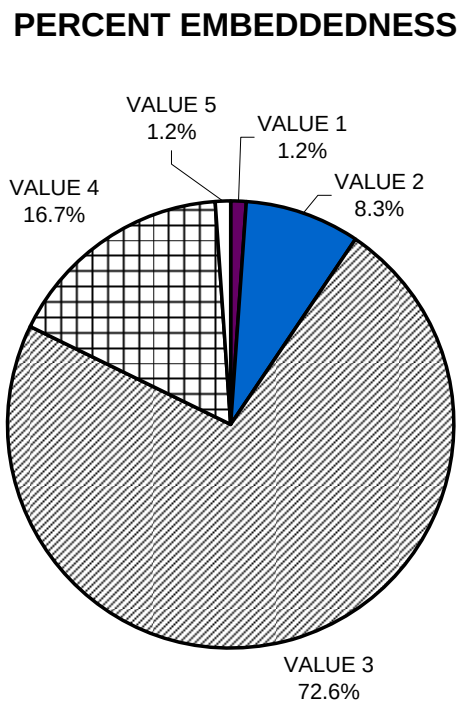
Oso Creek 2011
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

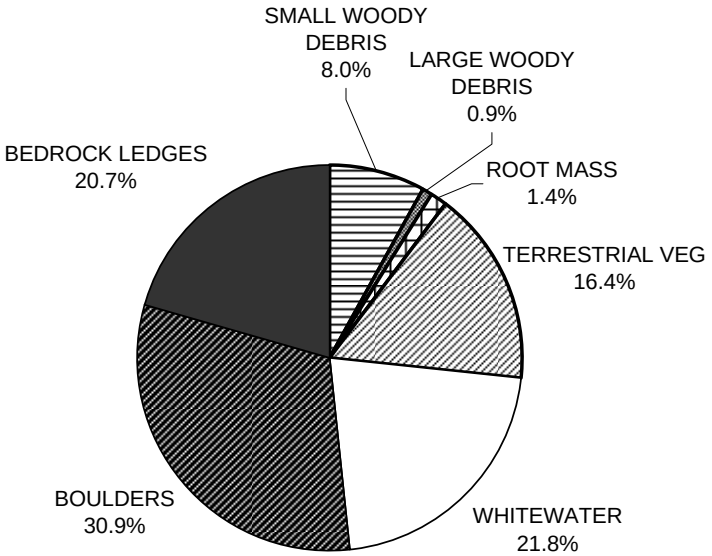


GRAPH 5



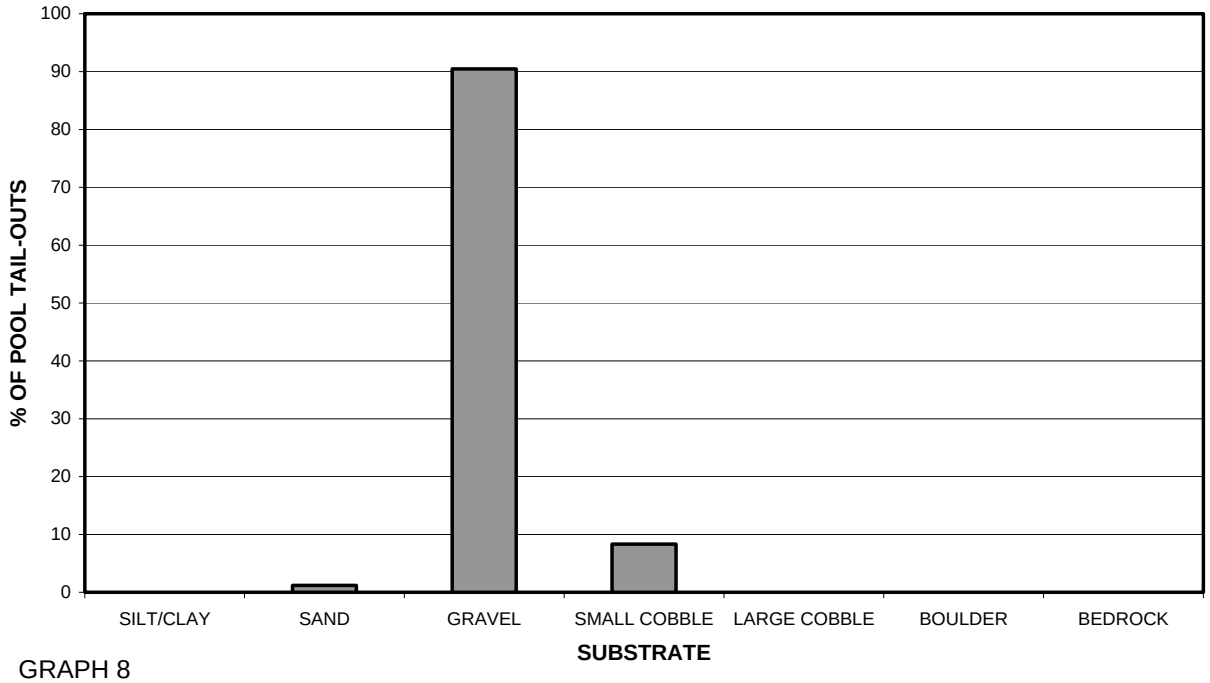
GRAPH 6

Oso Creek 2011
MEAN PERCENT COVER TYPES IN POOLS



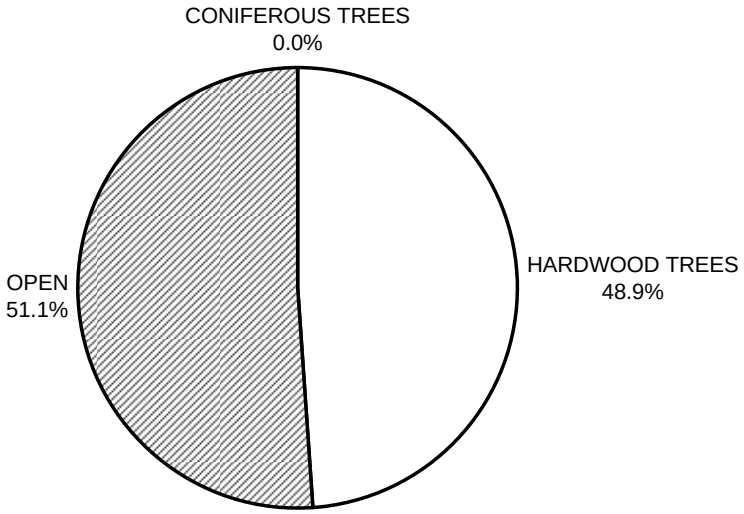
GRAPH 7

Oso Creek 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



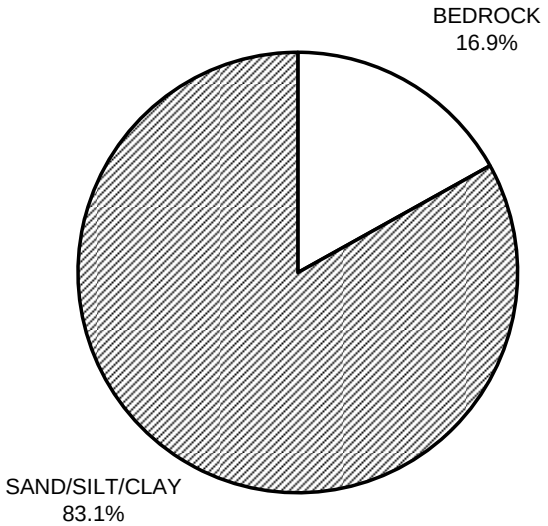
GRAPH 8

Oso Creek 2011
MEAN PERCENT CANOPY



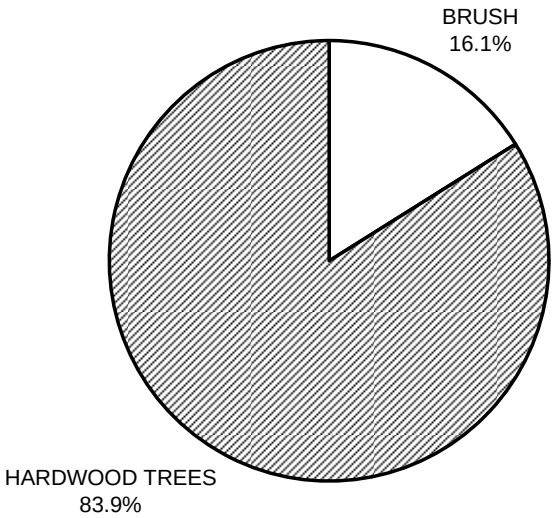
GRAPH 9

Oso Creek 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

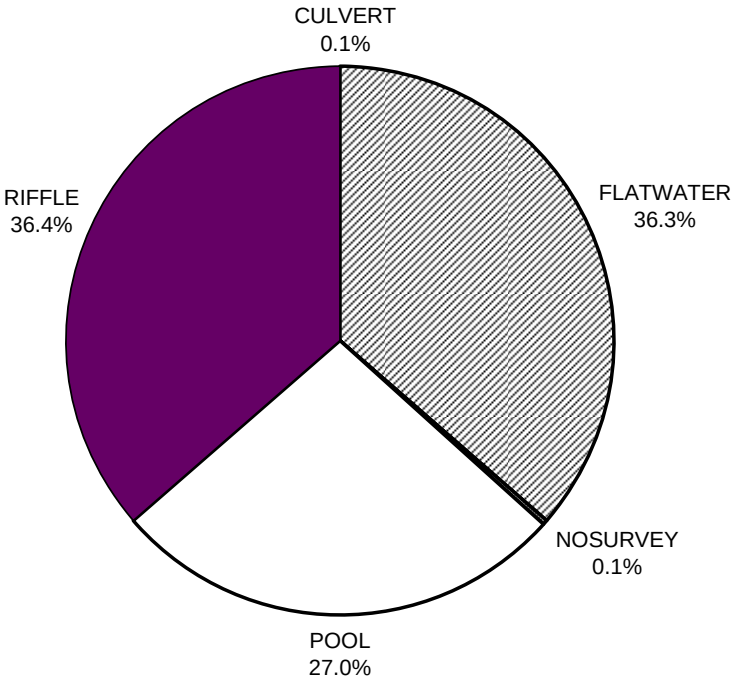
Oso Creek 2011
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

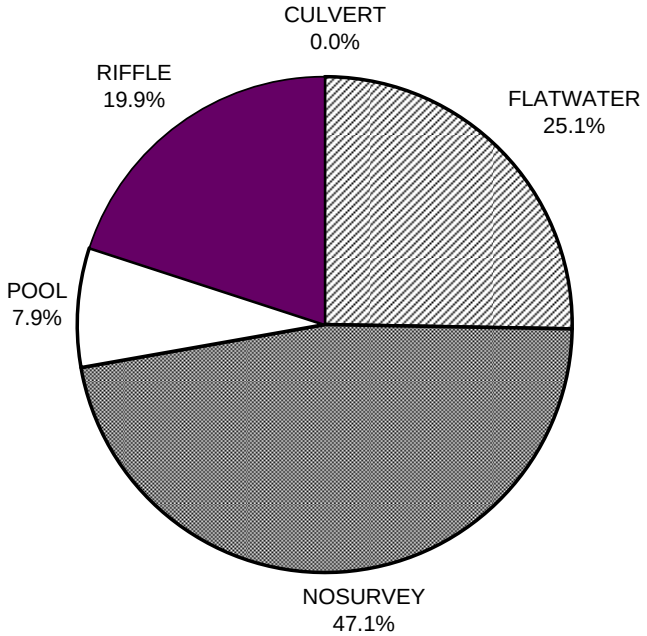
MONO CREEK GRAPHS

MONO CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE



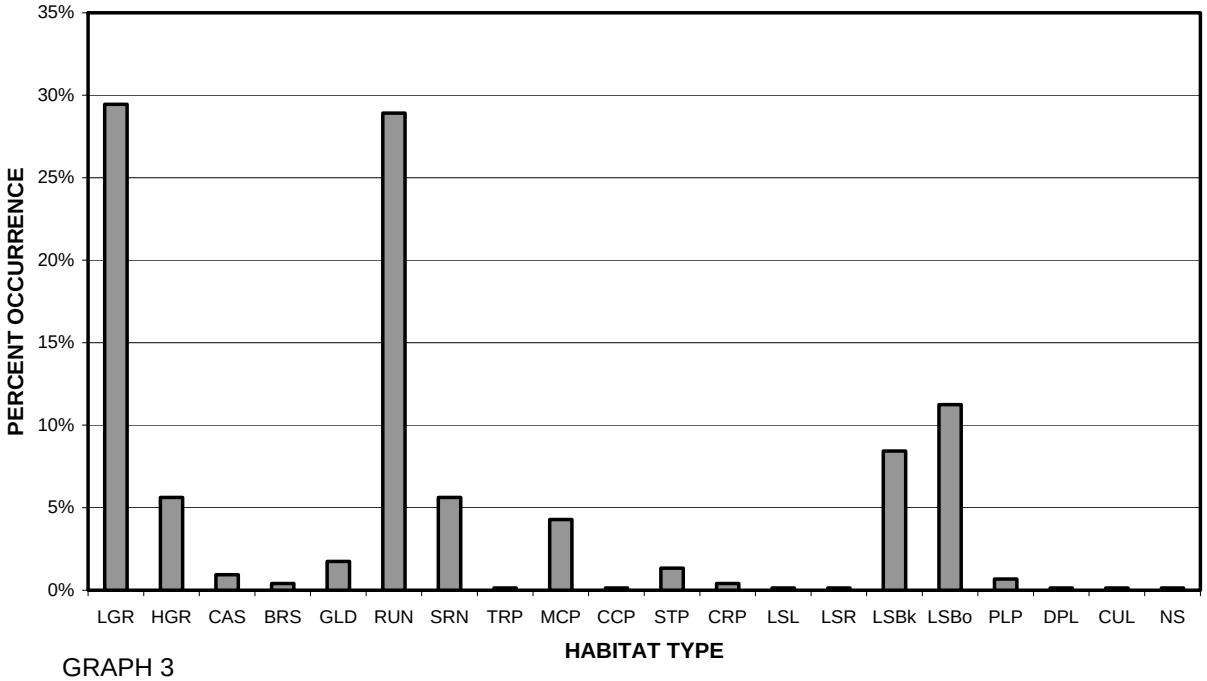
GRAPH 1

MONO CREEK 2011
HABITAT TYPES BY PERCENT TOTAL LENGTH



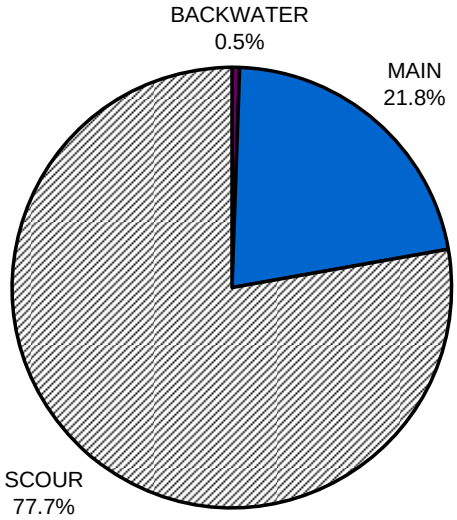
GRAPH 2

MONO CREEK 2011
HABITAT TYPES BY PERCENT OCCURRENCE



GRAPH 3

MONO CREEK 2011
POOL TYPES BY PERCENT OCCURRENCE



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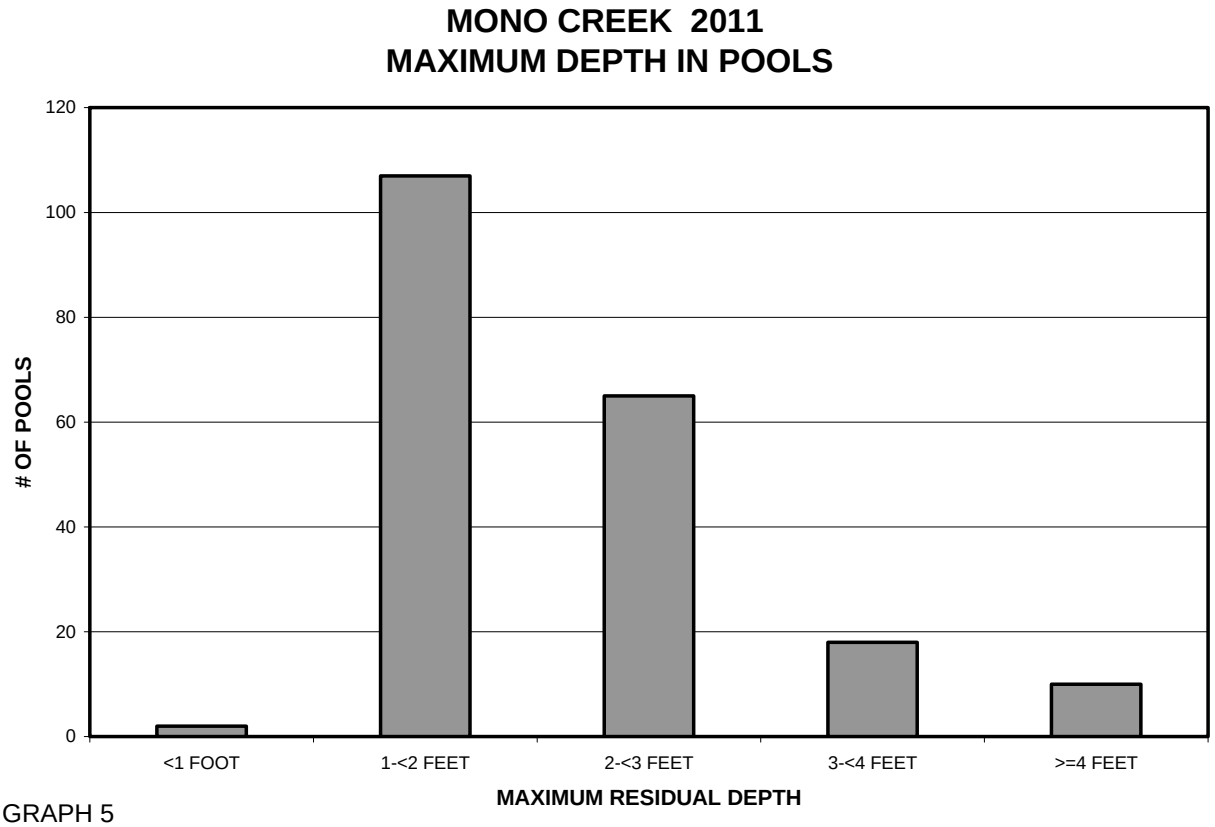
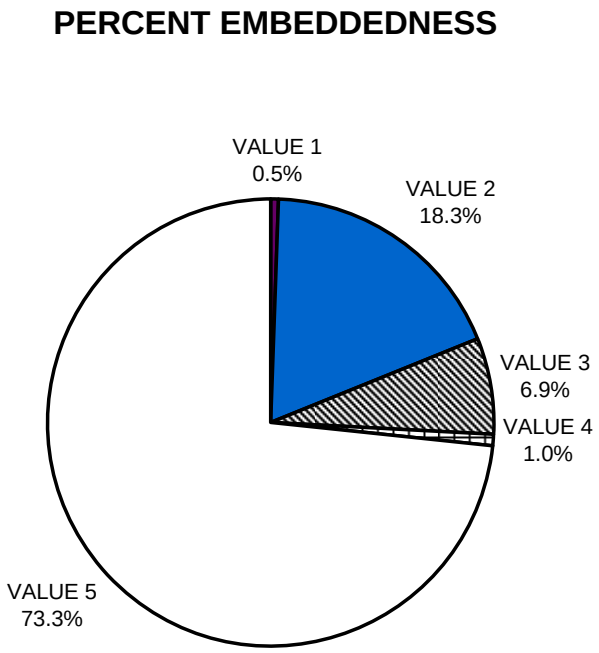
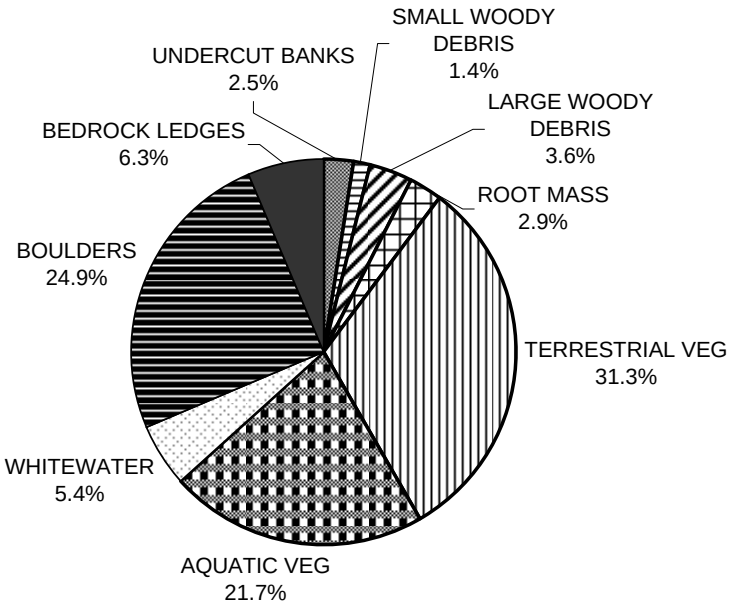


GRAPH 5



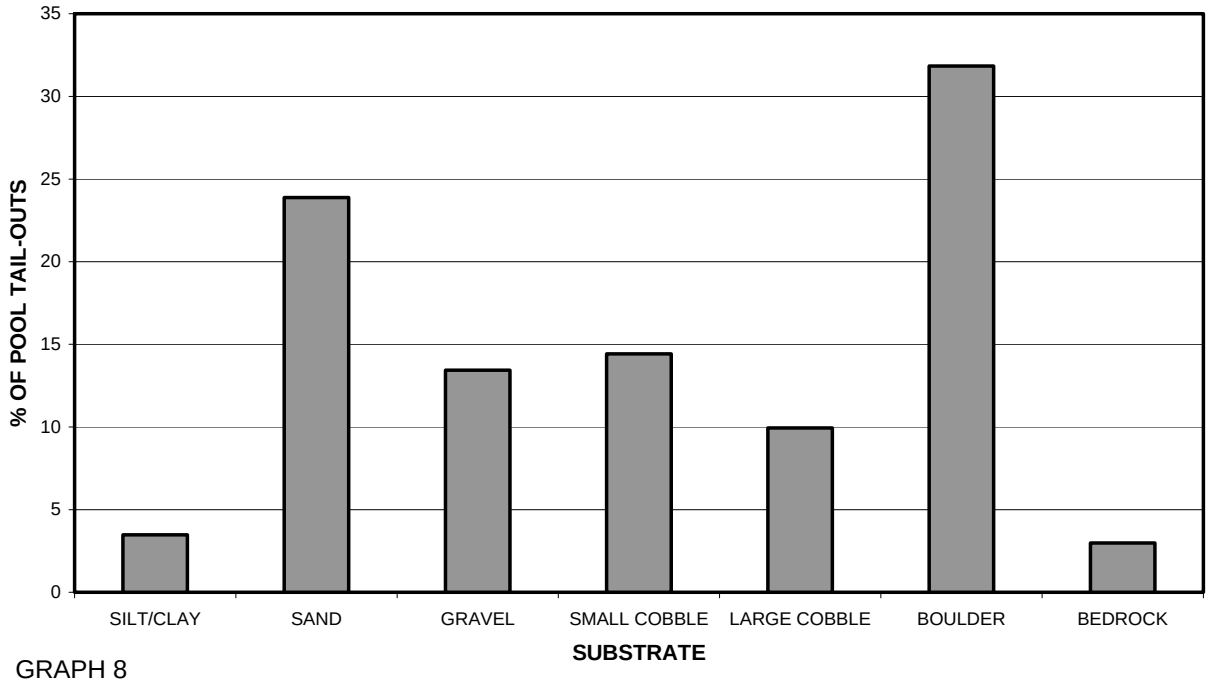
GRAPH 6

MONO CREEK 2011
MEAN PERCENT COVER TYPES IN POOLS



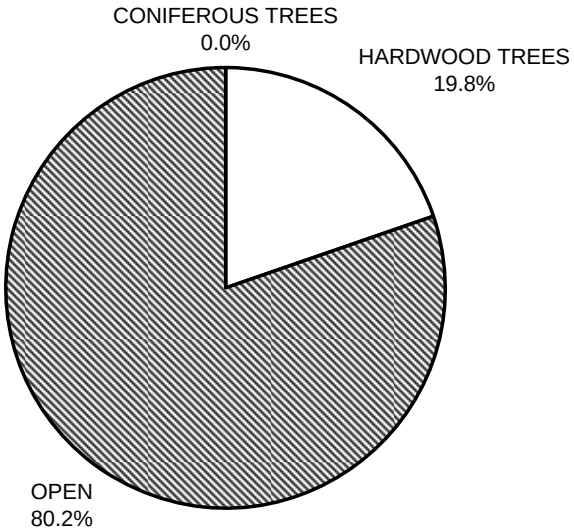
GRAPH 7

MONO CREEK 2011
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



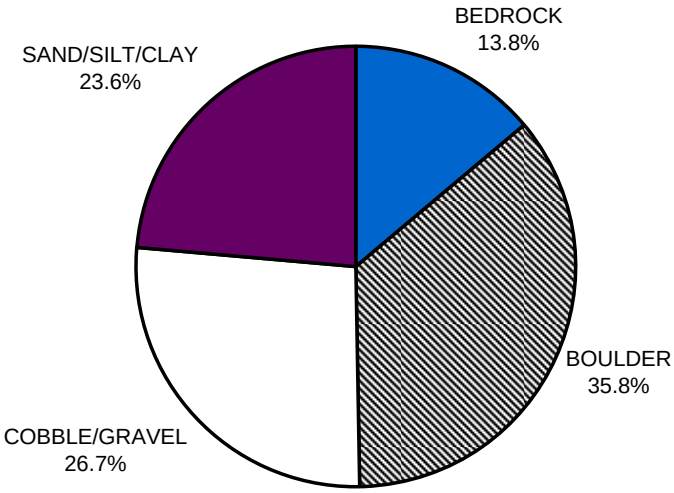
GRAPH 8

MONO CREEK 2011
MEAN PERCENT CANOPY



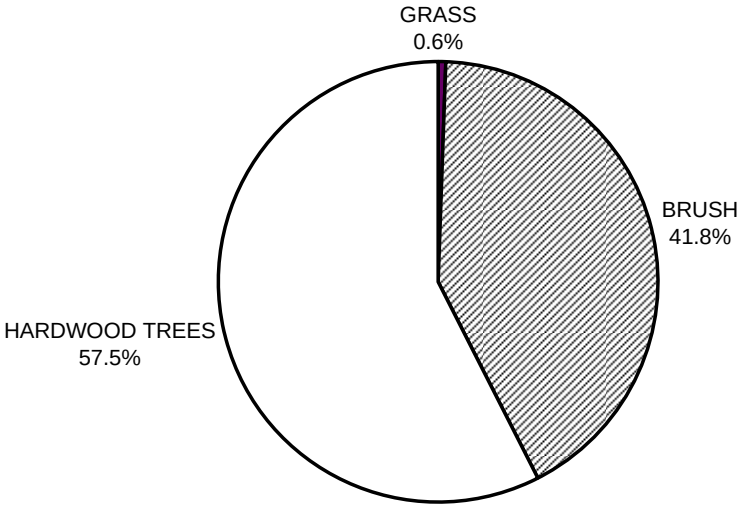
GRAPH 9

MONO CREEK 2011
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

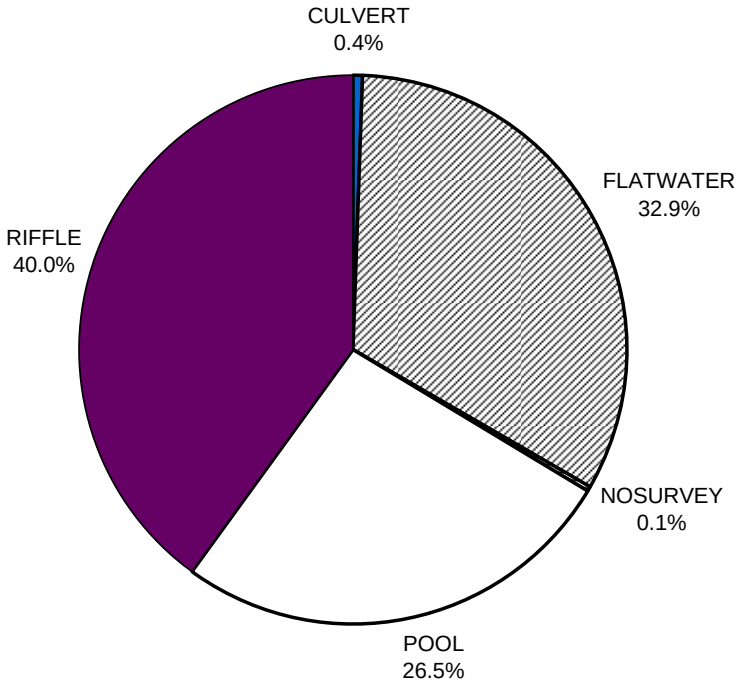
MONO CREEK 2011
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

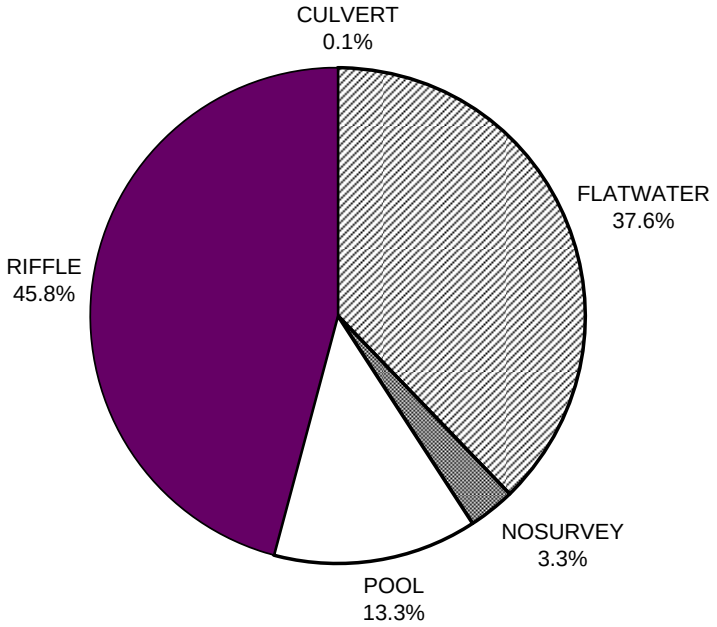
INDIAN CREEK GRAPHS

INDIAN CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



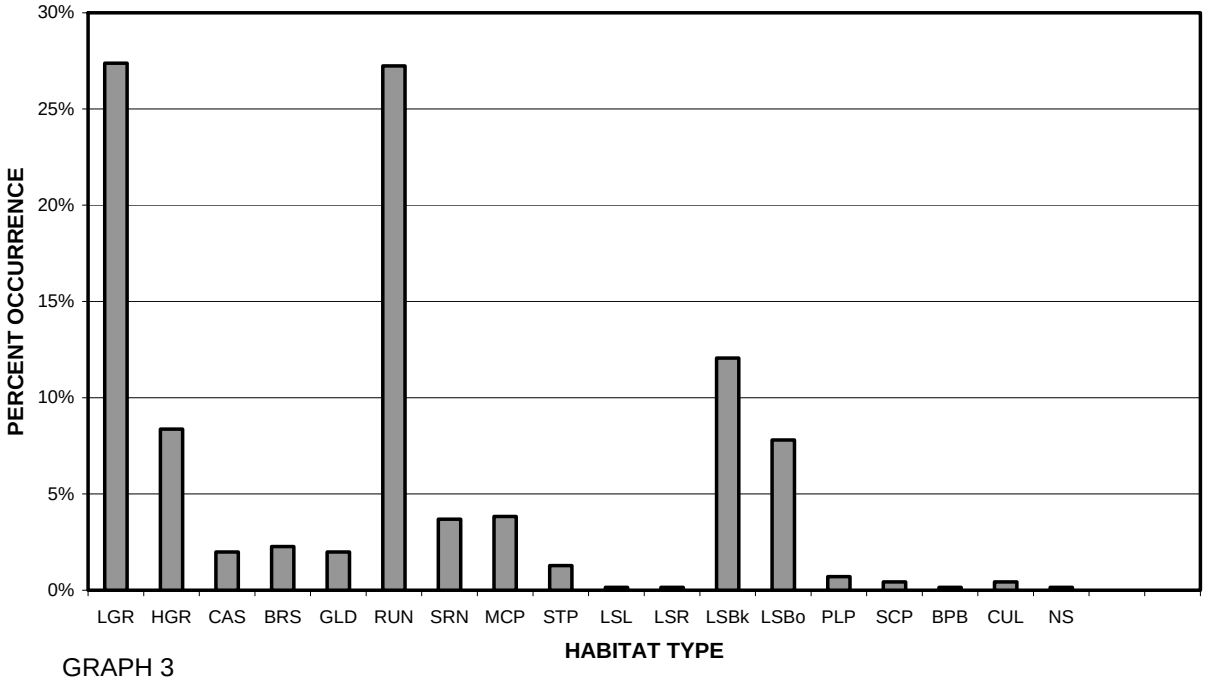
GRAPH 1

INDIAN CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



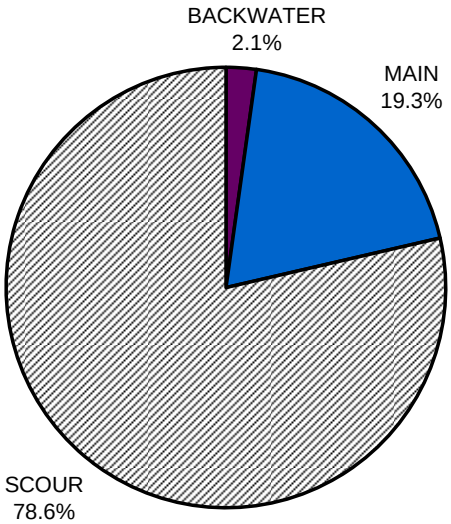
GRAPH 2

INDIAN CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

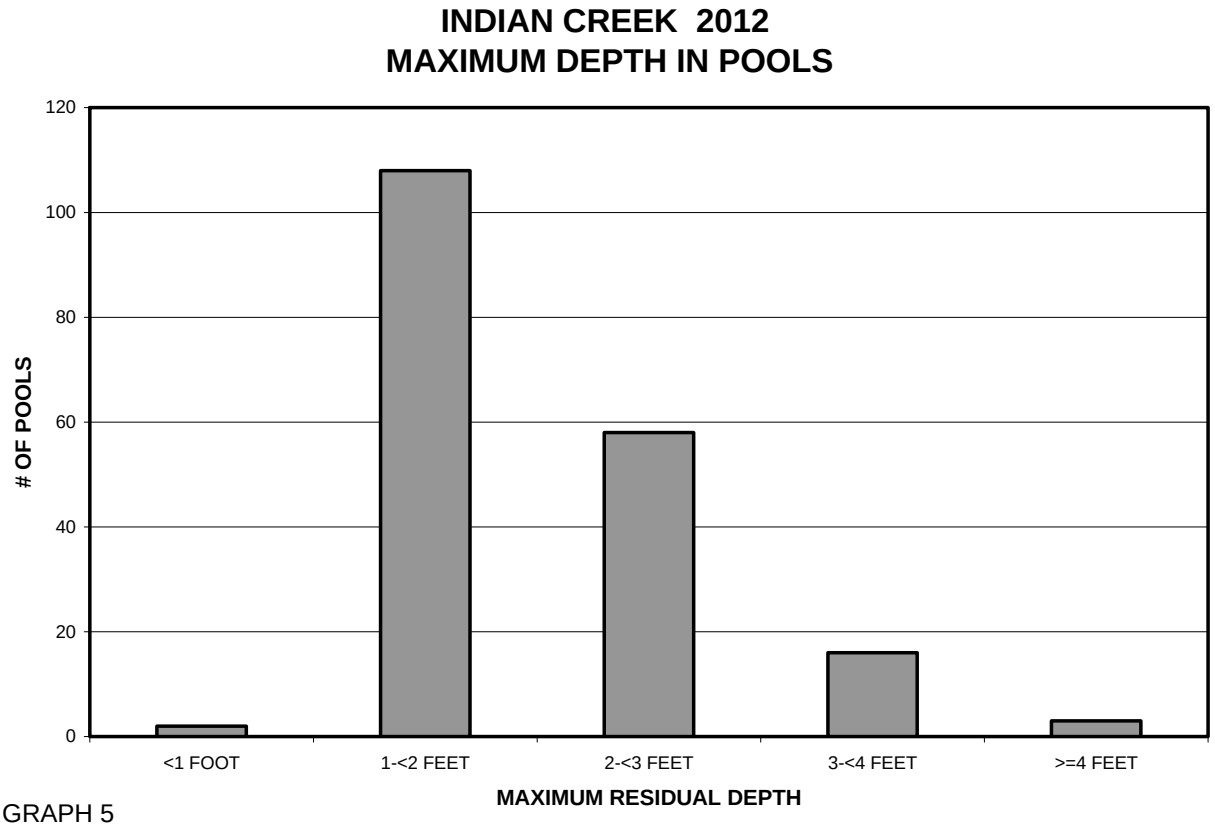


GRAPH 3

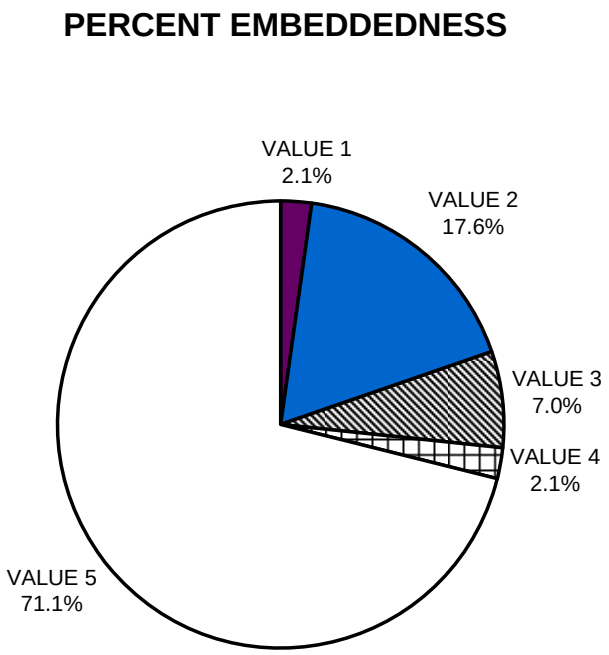
INDIAN CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

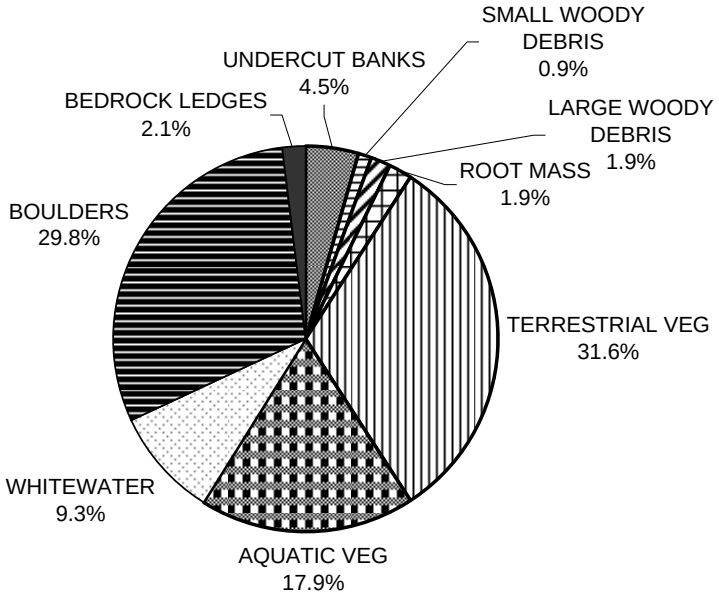


GRAPH 5



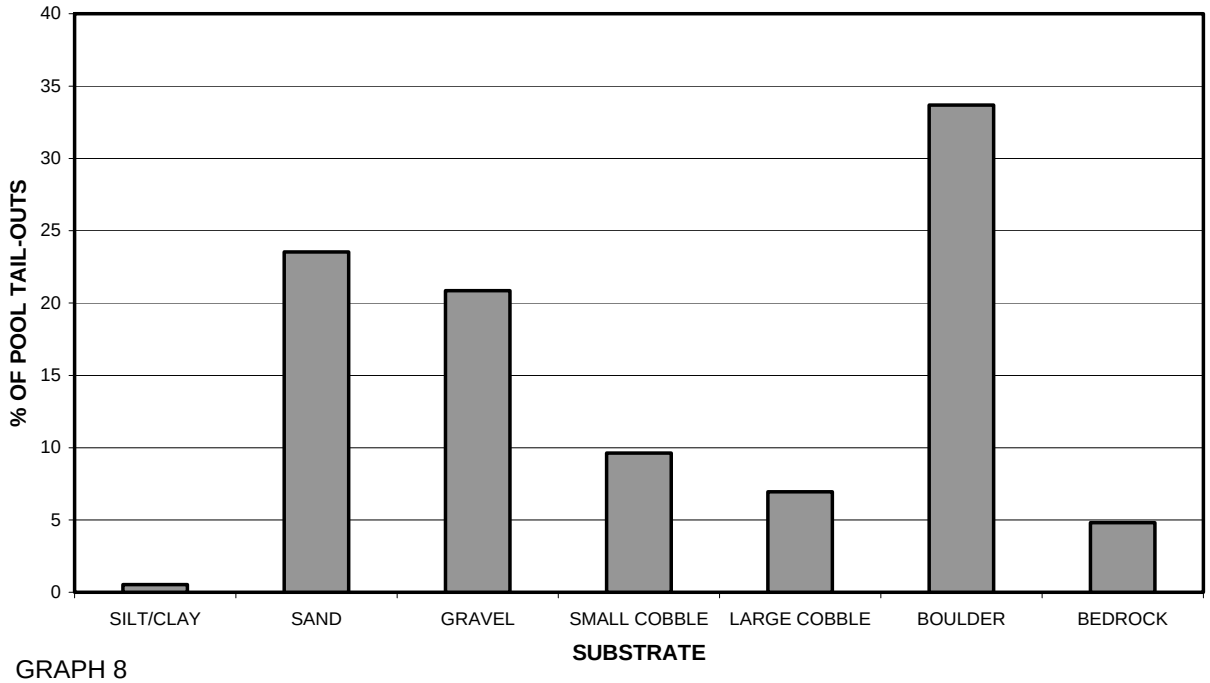
GRAPH 6

INDIAN CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



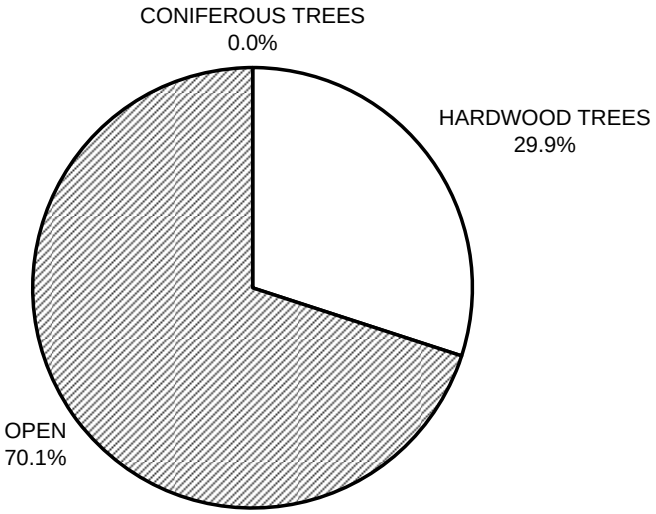
GRAPH 7

INDIAN CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS



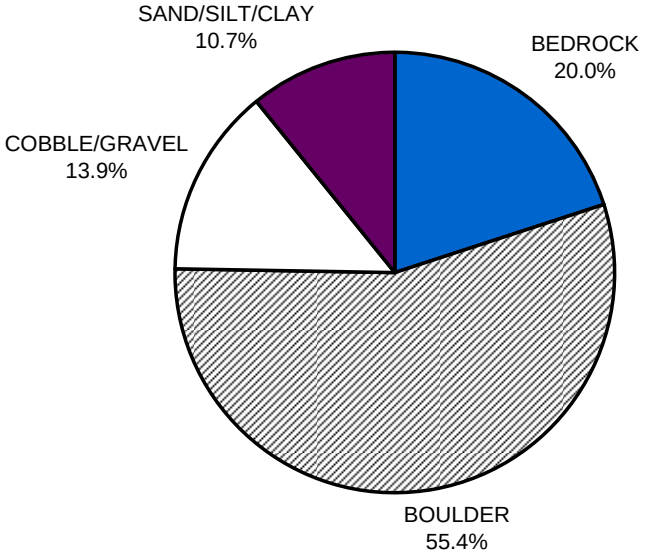
GRAPH 8

INDIAN CREEK 2012
MEAN PERCENT CANOPY



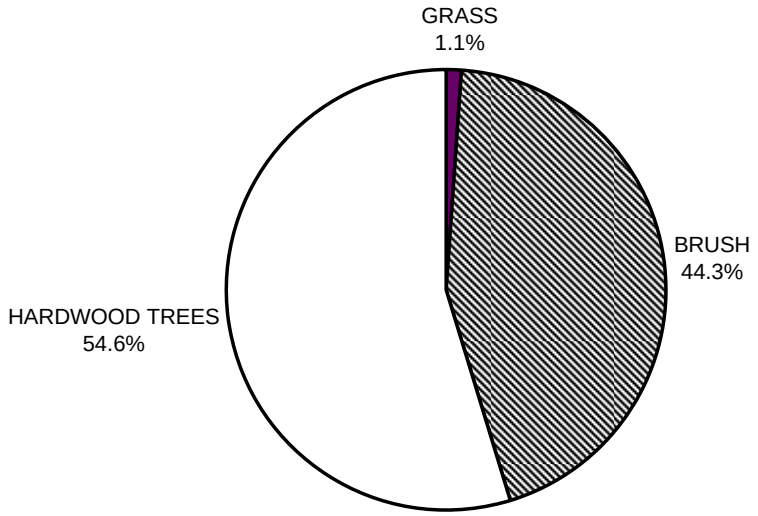
GRAPH 9

INDIAN CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

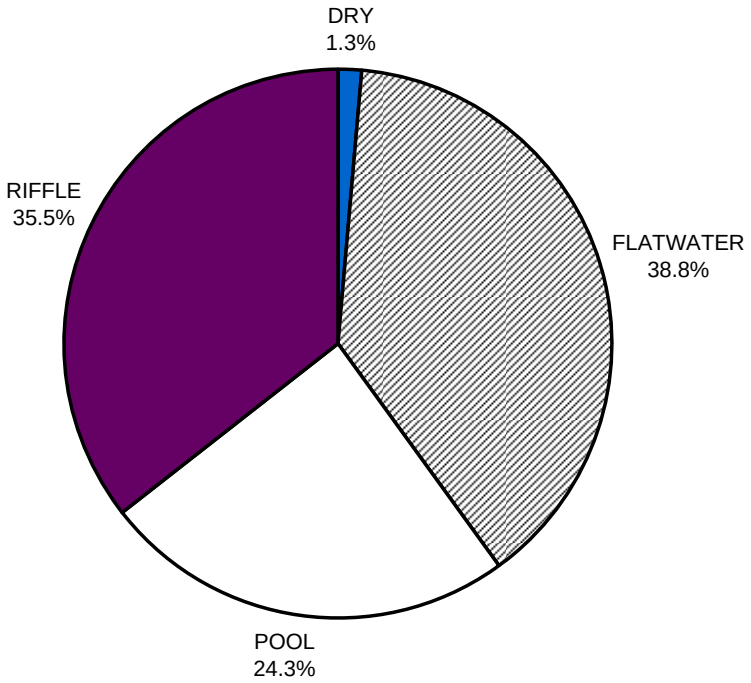
INDIAN CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH



GRAPH 11

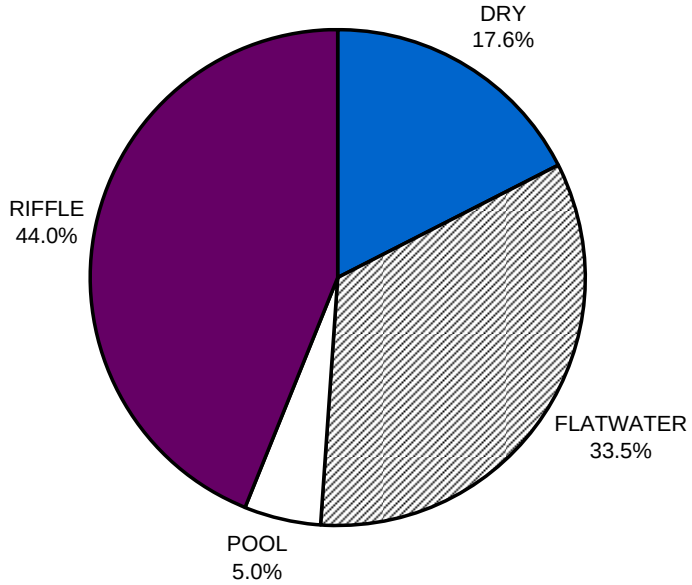
BUCKHORN CREEK GRAPHS

BUCKHORN CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE



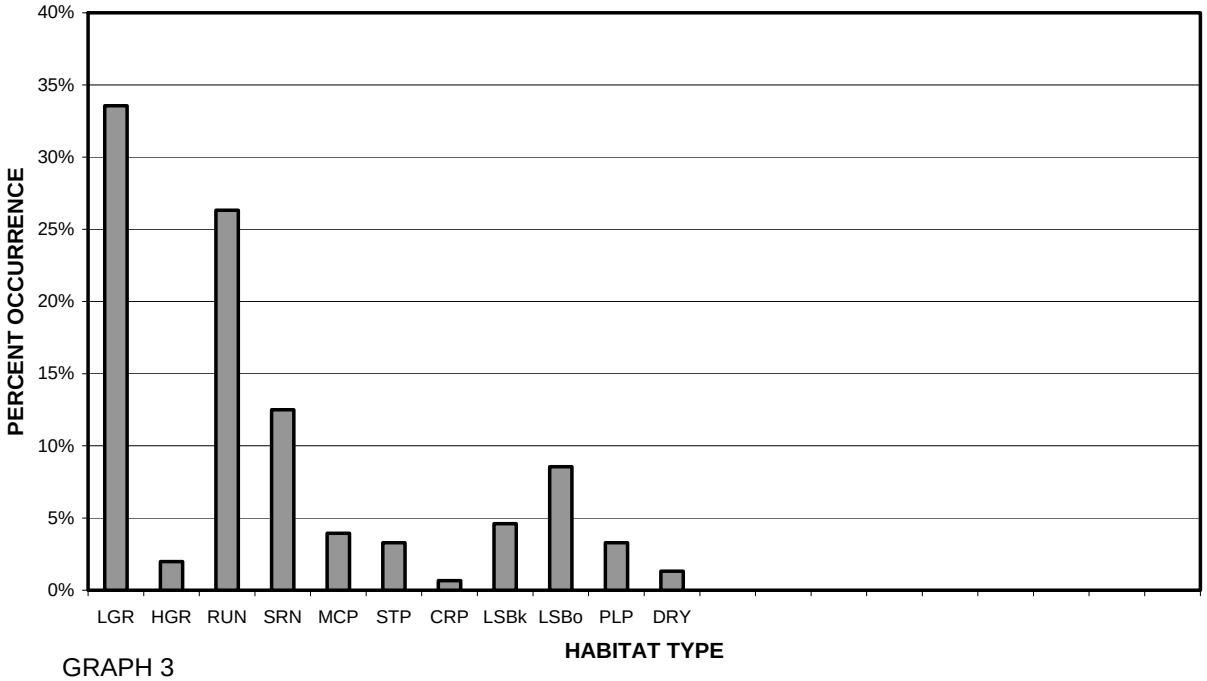
GRAPH 1

BUCKHORN CREEK 2012
HABITAT TYPES BY PERCENT TOTAL LENGTH



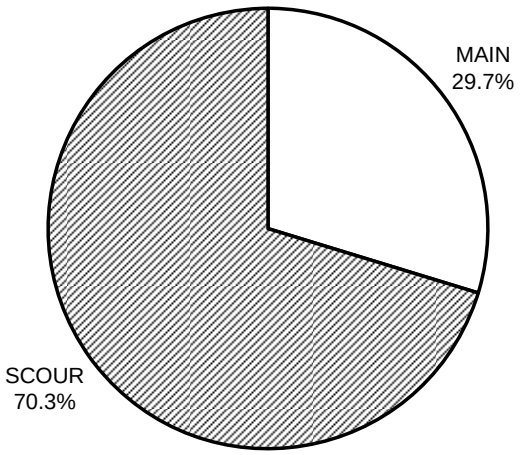
GRAPH 2

BUCKHORN CREEK 2012
HABITAT TYPES BY PERCENT OCCURRENCE

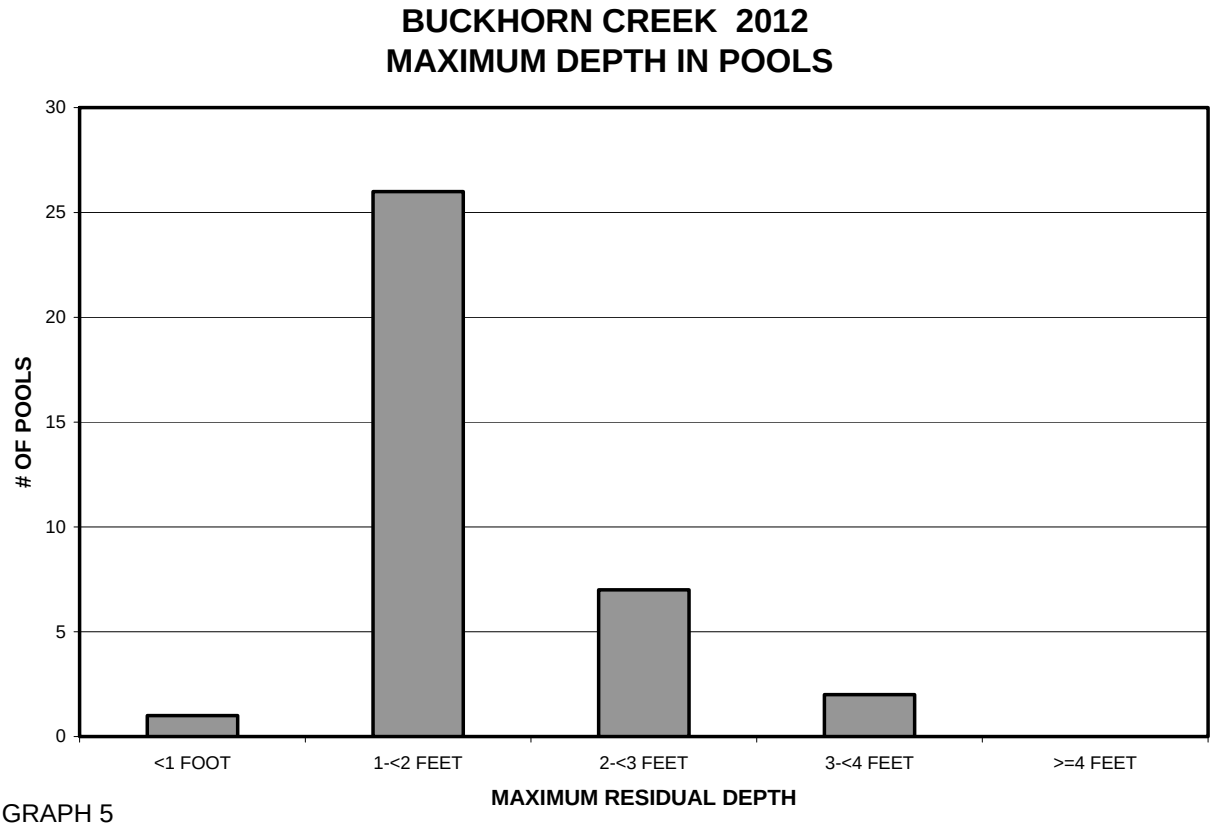


GRAPH 3

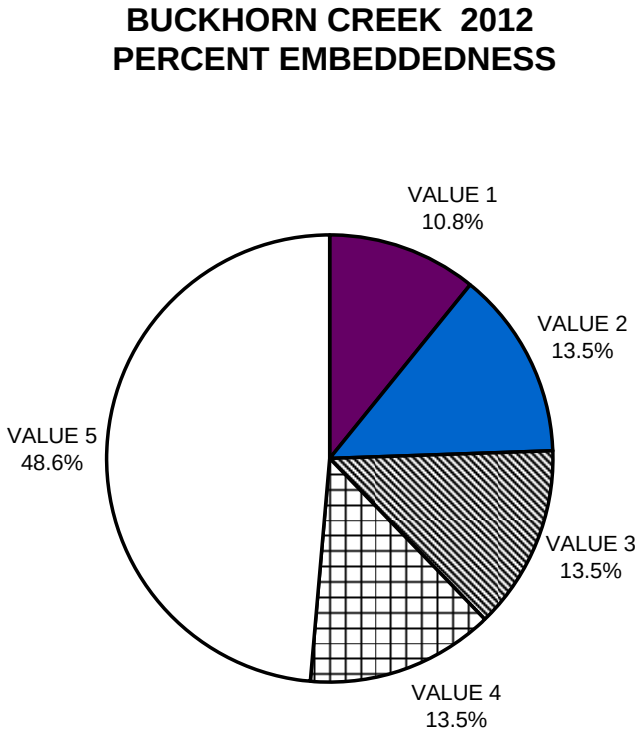
BUCKHORN CREEK 2012
POOL TYPES BY PERCENT OCCURRENCE



GRAPH 4

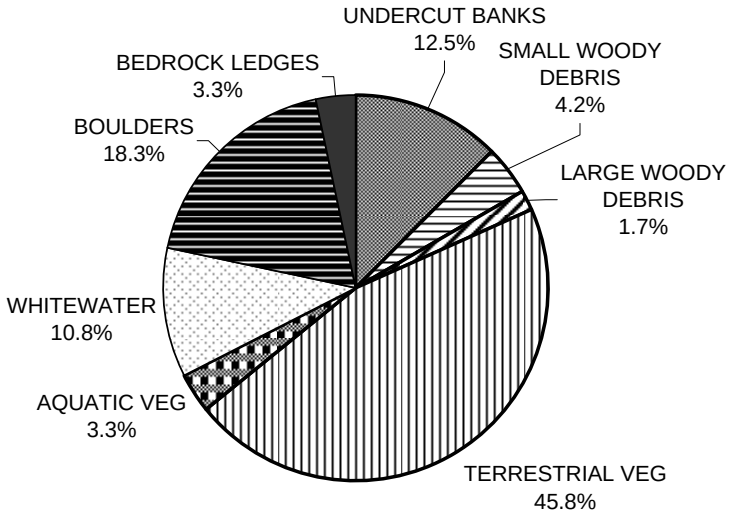


GRAPH 5



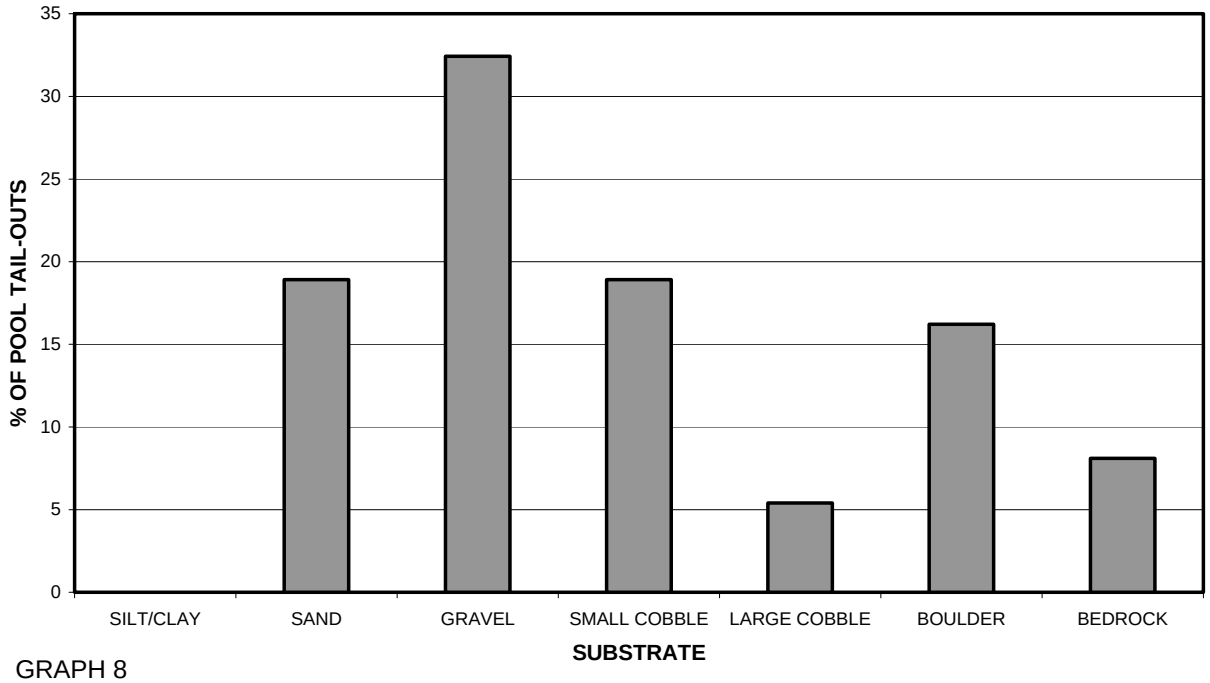
GRAPH 6

BUCKHORN CREEK 2012
MEAN PERCENT COVER TYPES IN POOLS



GRAPH 7

BUCKHORN CREEK 2012
SUBSTRATE COMPOSITION IN POOL TAIL-OUTS

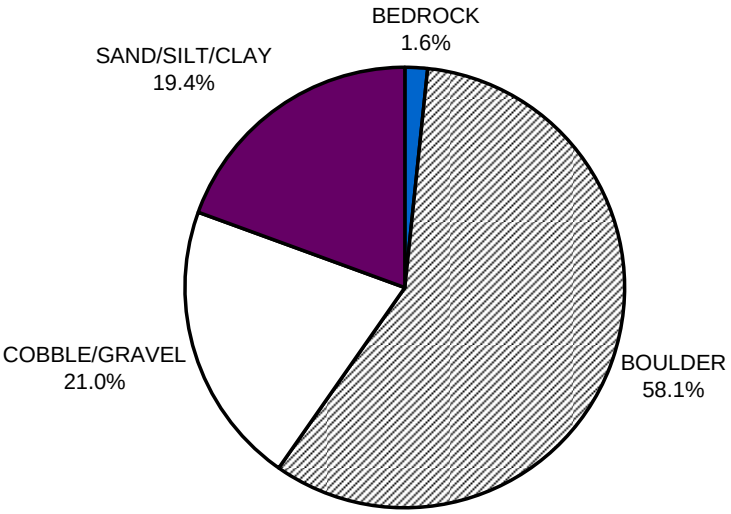


GRAPH 8

BUCKHORN CREEK 2012
MEAN PERCENT CANOPY

GRAPH 9

BUCKHORN CREEK 2012
DOMINANT BANK COMPOSITION IN SURVEY REACH



GRAPH 10

BUCKHORN CREEK 2012
DOMINANT BANK VEGETATION IN SURVEY REACH

GRAPH 11

APPENDIX 7: MONTGOMERY-BUFFINGTON CHANNEL MORPHOLOGY

LOWER SANTA YNEZ MONTGOMERY-BUFFINGTON CHANNEL MORPHOLOGY

Lower Santa Ynez Reach 1 Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st SUB	2nd SUB	NOTES
SYSTRTP01	SYSTRT001	SYSTRT011	34.67843	-120.56222	Dune Ripple	135	Sand	Gravel	Start of Survey
SYSTRTP02	SYSTRT011	SYVBBRDG1	34.67594	-120.55721	Dune Ripple	170	Sand	Gravel	
SYVBP01-02	SYVBBRDG1	SYVB020	34.67766	-120.55414	Dune Ripple	104	Sand	Mud	13th Street Bridge
SYVBP03	SYVB020	SYVB030	34.68056	-120.54366	Dune Ripple	110	Sand	Mud	
SYVBP04	SYVB030	SYVB039	34.68070	-120.54025	Dune Ripple	126	Sand	Mud	
SYVBP05	SYVB039	SYVB048	34.67935	-120.53146	Dune Ripple	64	Sand	Mud	
SYVBP06	SYVB048	SYVB058	34.68124	-120.52113	Dune Ripple	96	Sand	Mud	
Unsurveyed	SYVB058	SYFSH001	34.68095	-120.52113	Unsurveyed	N/A			
SYFSHP01+02	SYFSH001	SYFSH010	34.67195	-120.49380	Dune Ripple	80	Sand	Mud	Floridale Bridge
SYFSHP03	SYFSH010	SYFSH020	34.66925	-120.49054	Dune Ripple	116	Sand	Gravel	
SYFSHP04	SYFSH020	SYFSH030	34.66807	-120.48877	Dune Ripple	116	Sand	Gravel	
SYFSHP05	SYFSH030	SYFSH040	34.66540	-120.48630	Dune Ripple	135	Sand	Mud	
Unsurveyed	SYFSH040	SYVANCE001	34.66500	-120.48109	Unsurveyed	N/A			
SYVANCE	SYVANCE001	SYHWY1BRG1	34.66898	-120.46558	Dune Ripple	316	Sand	Gravel	
Unsurveyed	SYHWY1BRG1	SYRB001	34.66835	-120.45813	Unsurveyed	N/A			
SYRBP01	SYRB001	SYRB002B	34.67247	-120.45060	Dune Ripple	239	Sand	Gravel	Ends at Mclaughlin Road
SYRPP01	SYRP001	SYRP006	34.66752	-120.45060	Dune Ripple	130	Sand	Gravel	Starts at Mclaughlin Road
SYRPP02	SYRP006	SYRP009.7	34.66289	-120.43992	Dune Ripple	174	Sand	Gravel	
SYRPP03	SYRP009.7	SYRP015	34.66014	-120.43956	Dune Ripple	220	Sand	Gravel	
SYRPP04	SYRP015	SYRP022	34.65947	-120.44071	Dune Ripple	106	Sand	Gravel	
SYRPP05	SYRP022	SYRP032	34.65775	-120.44006	Dune Ripple	124	Sand	Gravel	
SYRPP06	SYRP032	SYRP042	34.65543	-120.43842	Dune Ripple	185	Sand	Gravel	
SYRPP07	SYRP042	SYRP049	34.65005	-120.43601	Dune Ripple	78	Sand	Gravel	
SYRPP08	SYRP049	SYRP059	34.64802	-120.43400	Dune Ripple	105	Sand	Gravel	
SYRPP09+10	SYRP059	SYRP069	34.64397	-120.43159	Dune Ripple	210	Sand	Gravel	
Unsurveyed	SYRP069	SPCCFL	34.64035	-120.42968	Unsurveyed	N/A			
END	SPCCFL		34.62802	-120.41427					Salsipuedes Confluence

Lower Santa Ynez Reach 2 Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SPCCFL	SY06001	34.62802	-120.41427	Unsurveyed				
SY06P01	SY06001	SY06011	34.61891	-120.37918	Pool Riffle	60	Gravel	Sand	BFW estimated
SY06P02+03	SY06011	SY06020	34.61780	-120.37610	N/A	275	Gravel	Sand	
SY06P04+04A	SY06AZ02	SY06027.1	34.61501	-120.37347	N/A	N/A	Sand	Gravel	
SY06P05	SY06027.1	SY06038	34.61525	-120.36558	N/A	N/A	Gravel-Cobble	Gravel	No BFW or Channel Type; Pool Riffle Main Channel
SY06P06	SY06038	SY06044	34.61540	-120.36671	Pool Riffle	110	Gravel	Sand	BFW estimated; Channel Type starts after Arizona Structure.
SY06P07	SY06044	SY06053	34.61475	-120.36197	Pool Riffle	125	Gravel	Sand	
SY06P08	SY06053	SY06057.1	34.61401	-120.35951	Pool Riffle	72	Gravel	Gravel-Cobble	
SY06P09	SY06057.1	SY06063	34.61378	-120.35831	Bedrock	72	Bedrock	Gravel	Short bedrock forced channel
SY06P10+11	SY06063	SY06072	34.61312	-120.35640	N/A	N/A	Sand	Mud	Mainstem BFW = 161, however, side channels increase BFW. Marsh/Lake Bottom until SY06072
SY06P11+12	SY06072	SY06086	34.61206	-120.34583	Pool Riffle	138	Sand	Gravel	Some side channels.
SY06P13	SY06086	SY06096	34.61608	-120.34159	Pool Riffle	132	Gravel	Sand	
SY06P14	SY06096	SY06106	34.61900	-120.33978	Pool Riffle	56	Gravel	Sand	Side Channels in the area
SY06P15+16	SY06106	SY06112	34.61826	-120.33634	Pool Riffle	62	Gravel	Sand	Side Channels in the area
SY06P17	SY06112	SY06119	34.61748	-120.33530	Pool Riffle	140	Gravel	Sand	
SY06P18	SY06119	SY06129	34.61570	-120.33243	Pool Riffle	70	Gravel	Sand	
SY06P19	SY06129	SY06139	34.61399	-120.33073	Pool Riffle	130	Sand	Gravel-Cobble	
SY06P20	SY06139	SY06147	34.61278	-120.32875	Pool Riffle	120	Gravel	Sand	
SY06P21	SY06147	SY06155	34.61341	-120.32446	Pool Riffle	120	Sand	Gravel	Small Side Channel
SY06P22	SY06155	SY06165	34.61483	-120.32229	Pool Riffle	80	Gravel	Sand	
SY06P23	SY06165	SY06175	34.61633	-120.32058	Pool Riffle	102	Sand	Gravel	
SY06P24	SY06175	SY06185	34.61679	-120.31824	Pool Riffle	106	Gravel	Sand	
SY06P25	SY06185	SY06194	34.61596	-120.31500	Pool Riffle	55	Sand	Gravel	
SY06P26	SY06194	SY06204	34.61429	-120.31166	Pool Riffle	96	Gravel	Sand	
SY06P27	SY06204	SY06214	34.61278	-120.30827	Pool Riffle	81	Gravel	Sand	
Unsurveyed	SY06214	SYAR001	34.60951	-120.30645	Unsurveyed				
SYARP01	SYAR001	SYAR011	34.59673	-120.25457	Pool Riffle	70	Sand	Gravel	1sthalf somewhat marshish.

Lower Santa Ynez Reach 2 Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SYAR011	SYFLG001	34.59630	-120.25060	Unsurveyed				
SYFLGP01	SYFLG001	SYFLG10	34.60688	-120.19489	Pool Riffle	185	Sand	Mud	Dune Ripple, 1st Half
SYFLGP02	SYFLG010	SYFLG19	34.60688	-120.19489	Pool Riffle	81	Gravel	Gravel Cobble	
Unsurveyed	SYFLG019	SYNJCFL	34.60686	-120.19213	Unsurveyed				
END	SYNJCFL		34.60660	-120.19063					

Lower Santa Ynez Reach 3 Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SYNJCFL	SYRFA001	34.60660	-120.19063	Unsurveyed				
SYRFAP01+02	SYRFA001	SYRFA016	34.58465	-120.10021	Pool Riffle	115	Gravel	Sand	
SYRFAP03	SYRFA016	SYRFA020	34.58255	-120.08931	N/A	N/A			Multiple side channels
END	SYRFA020		34.58255	-120.08931					

Salsipuedes Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SPCCFL	SPCA001	34.62802	-120.41427	Unsurveyed				Salsipuedes Confluence
SPCAP01	SPCA001	SPCA011	34.62201	-120.42157	Pool-Riffle	40	Sand	Gravel	
SPCAP02	SPCA011	SPCA021	34.62058	-120.42375	Pool-Riffle	40	Sand	Gravel	
SPCAP03	SPCA021	SPCA031	34.61908	-120.42453	Pool-Riffle	40	Sand	Gravel	
SPCAP04	SPCA031	SPCA041	34.61738	-120.42444	Pool-Riffle	40	Sand	Gravel	200 ft section of Bedrock
SPCAP05	SPCA041	SPCA051	34.61517	-120.42506	Pool-Riffle	50	Sand	Gravel	
SPCAP06	SPCA051	SPCA061	34.61230	-120.42423	Bedrock	58	Gravel	Bedrock	Pool-riffle to bedrock at habitat unit 0053
SPCAP07	SPCA061	SPCA071	34.61236	-120.42211	Bedrock	42	Bedrock	Gravel	

Salsipuedes Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SPCAP08	SPCA071	SPCA081	34.61128	-120.41892	Pool-Riffle	46	Sand	Gravel	Bedrock to pool riffle upon entering this reach.
SPCAP09	SPCA081	SPCA091	34.60982	-120.41892	Pool-Riffle	47	Sand	Gravel	
SPCAP10	SPCA091	SPCA101	34.60701	-120.41786	Pool-Riffle	40	Sand	Gravel	
SPCAP11	SPCA101	SPCA111	34.60441	-120.41718	Pool-Riffle	49	Gravel	Sand	
SPCAP12	SPCA111	SPCA121	34.60200	-120.41645	Pool-Riffle	58	Gravel	Gravel-Cobble	
SPCAP13	SPCA121	SPCA131	34.60024	-120.41702	Pool-Riffle	40	Gravel	Gravel-Cobble	
SPCAP14	SPCA131	SPCA141	34.59877	-120.41697	Pool-Riffle	42	Gravel	Bedrock	Channel type entered bedrock section at unit 0138
SPCAP15	SPCA141	SPCA151	34.59811	-120.41432	Bedrock	42	Bedrock	Sand	Highway 1 Bridge
SPCAP16	SPCA151	SPCA161	34.59658	-120.41304	Pool-Riffle	43	Gravel	Gravel-Cobble	Pool-Riffle channel type above Highway 1 Bridge
SPCAP17	SPCA161	SPCA171	34.59515	-120.41236	Pool-Riffle	39	Sand	Gravel	
SPCAP18	SPCA171	SPCA181	34.59357	-120.41131	Pool-Riffle	35	Gravel	Sand	
SPCAP19	SPCA181	SPCA190	34.59162	-120.41163	Pool-Riffle	37	Gravel	Sand	
SPCAP20	SPCA190	SPCA200	34.59028	-120.41187	Pool-Riffle	37	Gravel	Sand	
SPCAP21	SPCA200	SPCA210	34.58984	-120.40934	Pool-Riffle	63	Gravel	Sand	Jalama Street Bridge
SPCAP22	SPCA210	SPCA220	34.58820	-120.40943	Pool-Riffle	32	Gravel	Sand	
SPCAP23	SPCA220	SPCA230	34.58622	-120.40852	Pool-Riffle	35	Gravel-Cobble	Gravel	
SPCAP24	SPCA230	SPCAELJCFL	34.58503	-120.40972	Pool-Riffle	41	Gravel	Sand	
Unsurveyed	SPCAELJCFL	SPCB239	34.58425	-120.40808	Unsurveyed				Unsurveyed section from El Jaro-Salsipuedes confluence to Freedom Ranch
SPCBP01	SPCB239	SPCB249	34.56087	-120.40717	Pool-Riffle	17	Sand	Gravel	
SPCBP02	SPCB249	SPCB259	34.55989	-120.40657	Pool-Riffle	18	Sand	Gravel	
SPCBP03	SPCB259	SPCB268	34.55874	-120.40560	Pool-Riffle	27	Sand	Gravel	
SPCBP04	SPCB268	SPCB278	34.55813	-120.40453	Pool-Riffle	23	Sand	Gravel	
SPCBP05	SPCB278	SPCB288	34.55697	-120.40453	Pool-Riffle	20	Sand	Gravel	
SPCBP06	SPCB288	SPCB298	34.55631	-120.40472	Pool-Riffle	22	Sand	Gravel	
SPCBP07	SPCB298	SPCB308	34.55529	-120.40458	Pool-Riffle	18	Sand	Gravel	

Salsipuedes Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SPCBP08	SPCB308	SPCB313	34.55385	-120.40357	Pool-Riffle	21	Sand	Gravel	
SPCBP09	SPCB313	SPCB323	34.55338	-120.40369	Pool-Riffle	23	Gravel	Sand	
SPCBP10	SPCB323	SPCB333	34.55281	-120.40403	Pool-Riffle	24	Gravel	Sand	
SPCBP11	SPCB333	SPCB343	34.55206	-120.40334	Pool-Riffle	15	Gravel	Sand	
SPCBP12	SPCB343	SPCB353	34.55144	-120.40254	Pool-Riffle	19	Gravel	Sand	
SPCBP13	SPCB353	SPCB363	34.55046	-120.40196	Pool-Riffle	14	Gravel	Sand	
SPCBP14	SPCB363	SPCB373	34.55005	-120.40165	Pool-Riffle	13	Gravel	Sand	
SPCBP15	SPCB373	SPCB383	34.54964	-120.40137	Pool-Riffle	14	Gravel	Sand	
SPCBP16	SPCB383	SPCB393	34.54928	-120.40117	Pool-Riffle	24	Gravel	Sand	
SPCBP17	SPCB393	SPCB403	34.54893	-120.40048	Pool-Riffle	12	Gravel	Sand	
SPCBP18	SPCB403	SPCB413	34.54904	-120.39946	Pool-Riffle	13	Gravel	Sand	
SPCBP19	SPCB413	SPCB423	34.54932	-120.39867	Pool-Riffle	10	Gravel	Sand	
SPCBP20	SPCB423	SPCB433	34.54960	-120.39793	Pool-Riffle	16	Gravel	Sand	
SPCBP21	SPCB433	SPCB443	34.54940	-120.39705	Pool-Riffle	23	Gravel	Sand	
SPCBP22	SPCB443	SPCB453	34.54833	-120.39599	Pool-Riffle	12	Gravel	Sand	
END	SPCB453END		34.54759	-120.39547					

El Jaro Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SPAELJCFL	EJIS001	34.58425	-120.40808	Unsurveyed	N/A			
EJISP01	EJIS001	EJIS011	34.57372	-120.37109	Pool-Riffle	67	Gravel	Gravel-Cobble	GPS: EJISTRIB01
EJISP02	EJIS011	EJIS021	34.57212	-120.36983	Pool-Riffle	42	Gravel	Sand	GPS: EJISTRIB02
EJISP03	EJIS021	EJIS031	34.56959	-120.36883	Pool-Riffle	40	Sand	Boulder	Bedrock RB through reach
EJISP04	EJIS031	EJIS041	34.56791	-120.36781	Pool-Riffle	52	Sand	Boulder	
EJISP05	EJIS041	EJIS051	34.56752	-120.36525	Pool-Riffle	53	Gravel	Sand	
EJISP06	EJIS051	EJIS061	34.56578	-120.36449	Pool-Riffle	65	Gravel	Sand	
EJISP07+08	EJIS061	EJIS076	34.56464	-120.36458	Pool-Riffle	50	Gravel	Sand	

El Jaro Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
EJISP09	EJIS076	EJIS086	34.56227	-120.36416	Pool-Riffle	55	Gravel	Sand	Cascade-like section begins @ end of page
EJISP10	EJIS086	EJIS096	34.56115	-120.36509	Cascade	42	Sand	Boulder	Cascade switches to pool-riffle
EJISP11	EJIS096	EJIS106	34.55982	-120.36467	Pool-Riffle	52	Gravel	Sand	
EJISP12	EJIS106	EJIS116	34.55788	-120.36562	Pool-Riffle	52	Gravel	Sand	
EJISP13	EJIS116	EJIS126	34.55661	-120.36395	Pool-Riffle	60	Gravel	Sand	
EJISP14	EJIS126	EJIS131	34.55568	-120.36292	Pool-Riffle	44	Gravel	Sand	
EJISBP01	EJISB001	EJISB011	34.55514	-120.36227	Pool-Riffle	55	Gravel	Sand	
EJISBP02	EJISB011	EJISB021	34.55372	-120.36163	Pool-Riffle	42	Gravel	Sand	
EJISBP03	EJISB021	EJISB030	34.55223	-120.36100	Pool-Riffle	45	Gravel	Sand	
EJISBP04	EJISB030	EJISB040	34.55154	-120.35983	Pool-Riffle	50	Gravel	Sand	
EJISBP05	EJISB040	EJISB050	34.54972	-120.35910	Pool-Riffle	57	Gravel	Sand	
EJISBP06	EJISB050	EJISB060	34.54811	-120.35948	Pool-Riffle	60	Gravel	Sand	
EJISBP07	EJISB060	EJISB066	34.54648	-120.35848	Pool-Riffle	50	Gravel	Sand	
EJISBP08	EJISB066	EJISB076	34.54606	-120.35789	Pool-Riffle	45	Gravel	Sand	
EJISBP09	EJISB076	EJISB084	34.54499	-120.35863	Pool-Riffle	52	Gravel	Sand	
EJISBP10+11	EJISB084	EJISB094	34.54431	-120.35867	Pool-Riffle	45	Gravel	Sand	
END	EJISB094		34.54338	-120.35707					

Nojoqui Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SYNJCFL	SYNJ001	34.60660	-120.19063	Unusurveyed				
SYNJP01	SYNJ001	SYNJ011	34.53812	-120.18493	Pool-Riffle	43	Gravel	Sand	
SYNJP02	SYNJ011	SYNJ021	34.53743	-120.18478	Pool-Riffle	37	Gravel	Sand	
SYNJP03	SYNJ021	SYNJA001	34.53767	-120.18348	Pool-Riffle	37	Boulder	Gravel	
SYNJAP01	SYNJA001	SYNJA011	34.53755	-120.18167	Pool-Riffle	45	Gravel-Cobble	Sand	

Nojoqui Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYNJAP02	SYNJA011	SYNJA021	34.53563	-120.18085	Pool-Riffle	34	Gravel	Sand	
SYNJAP03+ 04	SYNJA021	SYNJBBR DG01	34.53550	-120.17852	Pool-Riffle	47	Gravel	Sand	
SYNJBP01	SYNJBBRD G01	SYNJB011	34.53517	-120.17595	Pool-Riffle	23	Gravel	Gravel-Cobble	
SYNJBP02	SYNJB011	SYNJB021	34.53232	-120.17603	Step Pool	16	Boulder	Gravel	
SYNJBP03	SYNJB021	SYNJB029	34.52935	-120.17303	Step Pool	14	Boulder	Gravel	
END	SYNJB029		34.52845	-120.17228					

UPPER SANTA YNEZ MONTGOMERY-BUFFINGTON CHANNEL MORPHOLOGY

Cachuma Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	CACCFL	CAC001	34.60632	-119.93691					
CACP01	CAC001	CAC011	34.69173	-119.90709	Step-Pool	26	Cobble-Boulder	Gravel-Cobble	some plane bed
CACP02	CAC011	CAC021	34.69153	-119.90788	Step-Pool	45	Cobble-Boulder	Gravel-Cobble	some plane bed
CACP03	CAC021	CAC031	34.69259	-119.90937	Step-Pool	22	Cobble-Boulder	Gravel-Cobble	
CACP04	CAC031	CAC041	34.69388	-119.91	Step-Pool	31	Cobble-Boulder	Gravel-Cobble	
CACP05	CAC041	CAC051	34.69535	-119.91034	Step-Pool	26	Cobble-Boulder	Gravel-Cobble	
CACP06	CAC051	CAC061	34.69615	-119.91094	Step-Pool	26	Cobble-Boulder	Gravel-Cobble	
CACP07	CAC061	CAC071	34.69721	-119.91157	Step-Pool	25	Cobble-Boulder	Gravel-Cobble	
CACP08	CAC071	CAC081	34.69772	-119.91236	Step-Pool	40	Cobble-Boulder	Gravel-Cobble	
CACP09	CAC081	CAC091	34.69811	-119.91342	Step-Pool	41	Cobble-Boulder	Gravel-Cobble	
CACP10	CAC091	CAC098	34.69916	-119.91462	Step-Pool	55	Cobble-Boulder	Gravel-Cobble	
CACP11	CAC098	CAC108	34.69957	-119.91544	Step-Pool	45	Cobble-Boulder	Gravel-Cobble	
CACP12	CAC108	CAC118	34.70055	-119.91638	Step-Pool	28	Cobble-Boulder	Gravel-Cobble	
CACP13	CAC118	CAC128	34.70202	-119.91643	Step-Pool	50	Cobble-Boulder	Gravel-Cobble	
CACP14	CAC128	CAC138	34.70299	-119.91716	Step-Pool	33	Cobble-Boulder	Gravel-Cobble	
CACP15	CAC138	CAC148	34.70439	-119.91698	Step-Pool	24	Cobble-Boulder	Gravel-Cobble	
CACP16	CAC148	CAC158	34.70545	-119.91675	Step-Pool	33	Cobble-Boulder	Gravel-Cobble	
CACP17	CAC158	CAC168	34.70706	-119.91626	Step-Pool	27	Cobble-	Gravel-	

Cachuma Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Boulder	Cobble	
CACP18	CAC168	CAC178	34.7081	-119.91562	Step-Pool	18	Cobble-Boulder	Gravel-Cobble	Channel changes in how confined it is throughout page
CACP19	CAC178	CAC188	34.70943	-119.91487	Step-Pool	27	Cobble-Boulder	Gravel-Cobble	
CACP20	CAC188	CAC198	34.7103	-119.91511	Step-Pool	55	Cobble-Boulder	Gravel-Cobble	
CACP21	CAC198	CAC208	34.71167	-119.9154	Step-Pool	21	Cobble-Boulder	Bedrock	
CACP22	CAC208	CACTRIB4	34.71243	-119.91554	Step-Pool	22	Cobble-Boulder	Gravel-Cobble	
Unsurveyed	CACTRIB4	CACDRY	34.71371	-119.91494					Followed along road, channel appears to become more confined, Rosgen A type channel
END	CACDRY		34.7247	-119.91827					Stream completely dry at this point, high gradient

Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCP01	SC001	SC011	34.63000	-119.78842	Step-Pool	81	Cobble-Boulder	Gravel-Cobble	Multiple bedrock pools seperated by riffles
SCP02	SC011	SC021	34.62980	-119.78610	Step-Pool	70	Cobble-Boulder	Gravel-Cobble	Only bedrock scour pools
SCP03	SC021	SC031	34.63116	-119.78427	Step-Pool	62	Cobble-Boulder	Gravel-Cobble	Bedrock pools
SCP04	SC031	SC038	34.62943	-119.78369	Step-Pool	58	Cobble-Boulder	Gravel-Cobble	Bedrock scour pools
SCP05	SC038	SC048	34.62964	-119.78243	Step-Pool	30	Cobble-Boulder	Gravel-Cobble	Bedrock pools, one mid channel

Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCP06	SC048	SC058	34.63064	-119.78076	Step-Pool	57	Cobble-Boulder	Gravel-Cobble	Bedrock pools
SCP07	SC058	SC068	34.62850	-119.78060	Step-Pool	44	Cobble-Boulder	Gravel-Cobble	
SCP08	SC068	SC078	34.62961	-119.77879	Step-Pool	40	Cobble-Boulder	Gravel-Cobble	Bedrock pools
SCP09	SC078	SC088	34.63154	-119.77814	Step-Pool	42	Cobble-Boulder	Gravel-Cobble	Bedrock pools
SCP10	SC088	SC098	34.63194	-119.77533	Step-Pool	57	Cobble-Boulder	Gravel-Cobble	
SCP11	SC098	SC108	34.63258	-119.77254	Step-Pool	41	Cobble-Boulder	Gravel-Cobble	All bedrock pools
SCP12	SC108	SC118	34.63209	-119.77077	Step-Pool	39	Cobble-Boulder	Gravel-Cobble	Bedrock pools
SCP13	SC118	SC128	34.63179	-119.76938	Step-Pool	41	Cobble-Boulder	Gravel-Cobble	
SCP14	SC128	SC138	34.63153	-119.76696	Step-Pool	43	Cobble-Boulder	Gravel-Cobble	
SCP15	SC138	SC148	34.63144	-119.76411	Step-Pool	50	Cobble-Boulder	Gravel-Cobble	
SCP16	SC148	SC158	34.63117	-119.76173	Step-Pool	49	Cobble-Boulder	Gravel-Cobble	
SCP17	SC158	SC168	34.63293	-119.76037	Step-Pool	51	Cobble-Boulder	Gravel-Cobble	
SCP18	SC168	SC178	34.63335	-119.75817	Step-Pool	47	Cobble-Boulder	Gravel-Cobble	
SCP19	SC178	SC188	34.63483	-119.75594	Step-Pool	42	Cobble-Boulder	Gravel-Cobble	
SCP20	SC188	SC198	34.63639	-119.75387	Step-Pool	61	Cobble-Boulder	Gravel-Cobble	
SCP21	SC198	SC208	34.63661	-119.75218	Step-Pool	47	Cobble-Boulder	Gravel-Cobble	
SCP22	SC208	SC218	34.63823	-119.75131	Step-Pool	47	Cobble-Boulder	Gravel-Cobble	

Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCP23	SC218	SC228	34.63996	-119.75051	Step-Pool	57	Cobble-Boulder	Gravel-Cobble	
SCP24	SC228	SCSPLIT	34.64126	-119.75135	Step-Pool	56	Cobble-Boulder	Gravel-Cobble	
END	SCSPLIT		34.64175	-119.75108					

East Fork Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCEFP01	SCEF001	SCEF004	34.64166	-119.75096	Step-pool	40	Cobble-Boulder	Bedrock	
SCEFP02	SCEF005	SCEF015	34.64174	-119.75011	Step-pool	48	Cobble-Boulder	Bedrock	Bedrock sections with step-pool characteristics
SCEFP03	SCEF015	SCEF025	34.64204	-119.74874	Step-pool	40	Cobble-Boulder	Boulder	
SCEFP04	SCEF025	SCEF035	34.64395	-119.74744	Step-pool	54	Cobble-Boulder	Boulder	
SCEFP05	SCEF035	SCEF045	34.64497	-119.74607	Step-pool	58	Cobble-Boulder	Boulder	
SCEFP06	SCEF045	SCEF055	34.64647	-119.74508	Step-pool	40	Cobble-Boulder	Bedrock	All bedrock pools
SCEFP07	SCEF055	SCEF065	34.64727	-119.74306	Step-pool	41	Cobble-Boulder	Boulder	Mostly bedrock pools
SCEFP08	SCEF065	SCEF075	34.64768	-119.74153	Step-pool	35	Cobble-Boulder	Boulder	
SCEFP09	SCEF075	SCEF085	34.64871	-119.74063	Step-pool	47	Cobble-Boulder	Boulder	
SCEFP10	SCEF085	SCEF095	34.64903	-119.73818	Step-pool	49	Cobble-Boulder	Boulder	
SCEFP11	SCEF095	SCEF105	34.65084	-119.73564	Step-pool	33	Cobble-Boulder	Boulder	

East Fork Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCEFP12	SCEF105	SCEF115	34.65248	-119.73309	Step-pool	25	Cobble-Boulder	Silt	
SCEFP13	SCEF115	SCEF125	34.65313	-119.7312	Step-pool	46	Cobble-Boulder	Boulder	
SCEFP14	SCEF125	SCEF135	34.65391	-119.72874	Step-pool	40	Cobble-Boulder	Boulder	
END	SCEF135		34.65497	-119.72604	Step-Pool	50	Cobble-Boulder	Gravel-Cobble	

West Fork Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCWFP01	SCWF001	SCWF011	34.64172	-119.75103	Step-Pool	50	Cobble-Boulder	Bedrock	some bedrock sections, very low flow, some dry sections
SCWFP02	SCWF011	SCWF021	34.64258	-119.75170	Step-Pool	60	Cobble-Boulder	Bedrock	heavily bedrock influenced
SCWFP03	SCWF021	SCWF031	34.64492	-119.75215	Step-Pool	63	Cobble-Boulder	Bedrock	
SCWFP04	SCWF031	SCWF041	34.64649	-119.75348	Step-Pool	42	Cobble-Boulder	Gravel-Cobble	
SCWFP05	SCWF041	SCWF051	34.64778	-119.75387	Step-Pool	53	Cobble-Boulder	Bedrock	some bedrock sections
SCWFP06	SCWF051	SCWF061	34.64988	-119.75546	Step-Pool	40	Cobble-Boulder	Gravel-Cobble	
SCWFP07	SCWF061	SCWF071	34.65123	-119.75722	Step-Pool	42	Cobble-Boulder	Gravel-Cobble	Braided section, with mostly dry channels (besides main)
SCWFP08	SCWF071	SCWF081	34.65499	-119.75792	Braided	48	Cobble-Boulder	Boulder	
SCWFP09	SCWF081	SCWF091	34.65693	-119.75789	Step-Pool	36	Cobble-Boulder	Boulder	

West Fork Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCWFP10	SCWF091	SCWF101	34.65827	-119.75942	Step-Pool	39	Cobble-Boulder	Boulder	Low water and low flow
SCWFP11	SCWF101	SCWF111	34.65987	-119.76126	Braided	30	Cobble-Boulder	Gravel-Cobble	
SCWFP12	SCWF111	SCWF121	34.66088	-119.76147	Step-Pool	30	Cobble-Boulder	Boulder	
SCWFP13	SCWF121	SCWF131	34.66240	-119.76386	Braided	40	Cobble-Boulder	Boulder	Step-pool in surveyed channel
SCWFP14	SCWF131	SCWF141	34.66426	-119.76521	Step-Pool	40	Cobble-Boulder	Boulder	
SCWFP15	SCWF141	SCWF151	34.66514	-119.76556	Step-Pool	55	Cobble-Boulder	Boulder	
SCWFP16	SCWF151	SCWF161	34.66657	-119.76656	Step-Pool	40	Cobble-Boulder	Boulder	
SCWFP17	SCWF161	SCWF171	34.66784	-119.76833	Step-Pool	39	Cobble-Boulder	Boulder	
SCWFP18	SCWF171	SCWF181	34.66966	-119.76856	Step-Pool	58	Cobble-Boulder	Boulder	
SCWFP19	SCWF181	SCWF191	34.67164	-119.76895	Step-Pool	56	Cobble-Boulder	Bedrock	
SCWFP20	SCWF191	SCWF201	34.67121	-119.77109	Step-Pool	33	Cobble-Boulder	Boulder	
SCWFP21	SCWF201	SCWF211	34.67128	-119.77355	Step-Pool	42	Cobble-Boulder	Boulder	
SCWFP22	SCWF211	SCWF221	34.67216	-119.77401	Step-Pool	47	Cobble-Boulder	Boulder	
SCWFP23	SCWF221	SCWF231	34.67428	-119.77525	Step-Pool	42	Cobble-Boulder	Boulder	
SCWFP24	SCWF231	SCWF241	34.67581	-119.77563	Step-Pool	60	Cobble-Boulder	Boulder	
SCWFP25	SCWF241	SCWF251	34.67608	-119.77749	Step-Pool	50	Cobble-Boulder	Boulder	
SCWFP26	SCWF251	SCWF261	34.67725	-119.77851	Step-Pool	37	Cobble-Boulder	Boulder	

West Fork Santa Cruz Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SCWFP27	SCWF261	SCWF271	34.67697	-119.78007	Bedrock	33	Bedrock	Cobble-Boulder	Step-pool characteristics, fish will be confined to pools during low and moderate flows
SCWFP28	SCWF271	SCWF281	34.67700	-119.78113	Step-Pool	39	Cobble-Boulder	Bedrock	
SCWFP29	SCWF281	SCWF289	34.67720	-119.78231	Step-Pool	38	Cobble-Boulder	Boulder	Huge boulder step pools, with debris jam
END	SCWF289		34.67800	-119.78362					

Upper Santa Ynez River Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
Unsurveyed	SYA000	SYA001	34.55774	-119.88163	Unsurvyed				
SYAP01	SYA001	SYA011	34.54709	-119.81591	Pool Riffle	47	Gravel-Cobble	Gravel	Pool Riffle to plane bed
SYAP02	SYA011	SYA021	34.54358	-119.81457	Plane Bed	250	Gravel-Cobble	Cobble-Boulder	Plane bed w/ long stretches of dry plane. BFW estimated
SYAP03	SYA021	SYA029	34.54513	-119.80598	N/A	N/A	Gravel-Cobble	Cobble-Boulder	No MB or BFW. Split main channel.
SYAP04	SYA029	SYA039	34.54514	-119.80316	Plane Bed	75	Gravel-Cobble	Cobble-Boulder	BFW estimated
SYAP05	SYA039	SYA043.6	34.54369	-119.80076	N/A	N/A	Gravel	Gravel-Cobble	No MB/BFW. Bedrock pools before multibraided section
SYAP06+07	SYA043.6	SYA048.8	34.54221	-119.79978	N/A	N/A	Gravel-Cobble	Cobble-Boulder	No MB/BFW. Large area w/ numerous side channels.
SYAP08	SYA049	SYA058	34.54278	-119.79871	N/A	N/A	Cobble-Boulder	Gravel-Cobble	No MB/BFW. Huge braided section.
SYAP09	SYA058	SYA068	34.54418	-119.79671	N/A	N/A	Gravel-Cobble	Gravel	No MB or BFW. Large multi-braided channel.

Upper Santa Ynez River Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYAP10	SYA068	SYA078	34.54681	-119.79562	N/A	N/A	Cobble-Boulder	Gravel-Cobble	Braided Channel
SYAP11	SYA078	SYA088	34.54674	-119.79426	N/A	N/A	Cobble-Boulder	Gravel-Cobble	Braided until SYA086; stream enters plane bed.
SYAP12	SYA088	SYA098	34.54397	-119.78936	Plane Bed	90	Gravel-Cobble	Cobble-Boulder	
SYAP13	SYA098	SYA108	34.54343	-119.78677	Plane Bed	90	Cobble-Boulder	Gravel-Cobble	
SYAP14	SYA108	SYA118	34.54325	-119.78449	N/A	44	Cobble-Boulder	Bedrock	Entire Reach determined by LB Bedrock forced pools.
SYAP15	SYA118	SYA127	34.54432	-119.78193	Pool Riffle	44	Boulder	Cobble-Boulder	Pool-Riffle mixed Plane Bed from SYA118 to SYA123, and then braided.
SYAP16	SYA127	SYA137	34.54642	-119.78128	N/A	N/A	Cobble-Boulder	Gravel Cobble	No MB/BFW. Braided channel.
SYAP17	SYA137	SYA145	34.54635	-119.77727	N/A	N/A	Sand	Gravel-Cobble	No MB/BFW due to massive pools and side channels.
SYAP18	SYA145	SYA155	34.54404	-119.77251	Plane Bed	55	Gravel-Cobble	Cobble-Boulder	Plane Bed mixed pool riffle
SYAP19	SYA155	SYA164	34.54305	-119.76939	Pool Riffle	55	Gravel-Cobble	Sand	Pool Riffle
SYAP20	SYA164	SYA172	34.54151	-119.76657	Plane Bed	55	Gravel-Cobble	Gravel	Plane Bed Mixed Pool Riffle
END PHASE 1	SYA172B		34.54118	-119.75730					
SYAP21	SYA173	SYA183	34.5412	-119.75725	Plane Bed	79	Cobble-Boulder	Gravel-Cobble	
SYAP22	SYA183	SYA193	34.53837	-119.74778	Plane Bed	76	Cobble-Boulder	Gravel-Cobble	Very large dry sections
SYAP23	SYA193	SYA203	34.53845	-119.73793	Plane Bed	104	Cobble-Boulder	Gravel-Cobble	Very large dry sections
SYAP24	SYA203	SYA213	34.53371	-119.73077	Plane Bed	68	Cobble-Boulder	Gravel-Cobble	
SYAP25	SYA213	SYA223	34.53499	-119.72443	Plane Bed	50	Cobble-Boulder	Gravel-Cobble	

Upper Santa Ynez River Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYAP26	SYA223	SYA233	34.53868	-119.72384	Plane Bed	90	Cobble-Boulder	Gravel-Cobble	
SYAP27	SYA233	SYA243	34.54049	-119.71989	Plane Bed	112	Cobble-Boulder	Boulder	
SYAP28+29	SYA243	SYA256	34.54034	-119.71685	Plane Bed	90	Cobble-Boulder	Gravel-Cobble	Large dry sections and large bedrock lakes
SYAP30	SYA256	SYA266	34.5347	-119.713	Bedrock	39	Bedrock	Cobble-Boulder	some plane bed at the beginning
SYAP31	SYA266	SYA276	34.53792	-119.70915	Plane Bed	40	Cobble-Boulder	Bedrock	some bedrock sections
SYAP32+32 A	SYA276	SYA288	34.5398	-119.70586	Plane Bed	52	Cobble-Boulder	Gravel-Cobble	multiple channels, mostly dry, surveyed flowing water
SYAP33	SYA288	SYA298	34.54072	-119.70213	Plane Bed	65	Cobble-Boulder	Gravel-Cobble	multiple channels, mostly dry, surveyed flowing water
SYAP34	SYA298	SYA308	34.5389	-119.69884	Plane Bed	93	Cobble-Boulder	Gravel-Cobble	
SYAP35	SYA308	SYA318	34.5355	-119.70209	Plane Bed	77	Cobble-Boulder	Gravel-Cobble	large bedrock pools, with run and riffle between
SYAP36	SYA318	SYA328	34.53671	-119.70605	Plane Bed	52	Cobble-Boulder	Gravel-Cobble	large bedrock scour pools
SYAP37	SYA328	SYA338	34.53279	-119.70351	Plane Bed	95	Gravel-Cobble	Cobble-Boulder	large bedrock scour pools
SYAP38	SYA338	SYA346	34.52879	-119.70118	Plane Bed	68	Cobble-Boulder	Bedrock	some bedrock sections
SYAP39+39 A	SYA346	SYA355	34.52677	-119.69329	Plane Bed	50	Cobble-Boulder	Gravel-Cobble	2 large wide channels with flowing water
Unsurveyed	SYA355	SYA356	34.52218	-119.69108					Gibraltar Dam and Reservoir
SYAP40	SYA356	SYA366	34.5226	-119.64168	Pool-Riffle	75	Gravel	Sand	Above Gibraltar Reservoir, SY water is flowing into dry reservoir
SYAP41	SYA366	SYA376	34.51507	-119.6329	Braided	55	Gravel-Cobble	Gravel	at least 3-4 channels
SYAP42	SYA376	SYA386	34.51083	-119.61872	Braided	45	Gravel-Cobble	Cobble-Boulder	water flowing along far right bank
SYAP43	SYA386	SYA396	34.51091	-119.61576	Braided	119	Gravel-	Cobble-	multiple channels, mostly

Upper Santa Ynez River Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Cobble	Boulder	dry, surveyed flowing water, plane bed channel type within surveyed channels
SYAP44	SYA396	SYA406	34.51152	-119.58644	Braided	52	Gravel-Cobble	Cobble-Boulder	
SYAP45	SYA406	SYA416	34.51236	-119.58142	Braided	105	Gravel-Cobble	Cobble-Boulder	narrows near end of page
SYAP46	SYA416	SYA426	34.49821	-119.56123	Plane Bed	32	Gravel-Cobble	Cobble-Boulder	channel is more confined this page, close to Rosgen B type channel
SYAP47	SYA426	SYA436	34.49579	-119.56087	Plane Bed	62	Gravel-Cobble	Cobble-Boulder	channel becomes wide again
SYAP48	SYA436	SYA446	34.4957	-119.55953	Plane Bed	65	Gravel-Cobble	Cobble-Boulder	Channel is wide and dry for the majority of the length of this page
SYAP49	SYA446	SYA456	34.48921	-119.54456	Plane Bed	44	Gravel-Cobble	Cobble-Boulder	Channel enclosed with high canopy cover, water stagnant
SYAP50	SYA456	SYA466	34.4869	-119.54255	Plane Bed	60	Gravel-Cobble	Cobble-Boulder	
SYAP51	SYA466	SYA476	34.48599	-119.5386	Braided	65	Cobble-Boulder	Gravel-Cobble	plane bed to start then becomes braided
SYAP52	SYA476	SYAEND	34.48605	-119.52951	Plane Bed		Cobble-Boulder	Gravel-Cobble	the very start of this page was braided
END	SYAEND		34.49377	-119.51385					

Oso Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYOSOP01	SYATRB03	SYOSO011	34.54509	-119.77541	Plane-Bed	23	Gravel	Gravel-Cobble	
SYOSOP02	SYOSO011	SYOSO021	34.54561	-119.77190	Plane-Bed	97	Gravel	Gravel-Cobble	

Oso Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYOSOP03	SYOSO021	SYOSO031	34.54539	-119.77059	Plane-Bed	97	Gravel	Gravel-Cobble	
SYOSOP04	SYOSO031	SYOSO041	34.55057	-119.76989	Plane-Bed	50	Gravel	Gravel-Cobble	
SYOSOP05	SYOSO041	SYOSO051	34.55473	-119.76988	Plane-Bed	50	Gravel	Sand	One pool in section
SYOSOP06	SYOSO051	SYOSO061	34.55632	-119.77206	Plane-Bed	21	Gravel	Gravel-Cobble	One pool in section
SYOSOP07	SYOSO061	SYOSO071	34.55836	-119.77156	Plane-Bed	30	Gravel	Gravel-Cobble	
SYOSOP08	SYOSO071	SYOSO081	34.56037	-119.77069	Plane-Bed	38	Gravel	Gravel-Cobble	Plane-bed to pool riffle
SYOSOP09	SYOSO081	SYOSO091	34.56172	-119.76947	Pool-Riffle	34	Gravel	Sand	
SYOSOP10	SYOSO091	SYOSO101	34.56385	-119.76914	Pool-Riffle	37	Gravel	Gravel-Cobble	
SYOSOP11	SYOSO101	SYOSO111	34.56500	-119.76662	Pool-Riffle	38	Gravel	Gravel-Cobble	
SYOSOP12	SYOSO111	SYOSO121	34.56513	-119.76558	Pool-Riffle	35	Gravel	Gravel-Cobble	
SYOSOP13	SYOSO121	SYOSO131	34.56466	-119.76412	Pool-Riffle	40	Gravel	Gravel-Cobble	
SYOSOP14	SYOSO131	SYOSO141	34.56544	-119.76317	Pool-Riffle	44	Gravel	Gravel-Cobble	
SYOSOP15	SYOSO141	SYOSO151	34.56622	-119.76162	Pool-Riffle	32	Gravel	Gravel-Cobble	
SYOSOP16	SYOSO151	SYOSO161	34.56643	-119.76043	Pool-Riffle	44	Gravel	Gravel-Cobble	
SYOSOP17	SYOSO161	SYOSO171	34.56714	-119.75947	Pool-Riffle	36	Gravel	Gravel-Cobble	
SYOSOP18	SYOSO171	SYOSO181	34.56826	-119.75857	Pool-Riffle	44	Gravel	Gravel-Cobble	
SYOSOP19	SYOSO181	SYOSO191	34.56866	-119.75731	Pool-Riffle	33	Gravel	Gravel-Cobble	
SYOSOP20	SYOSO191	SYOSO201	34.56947	-119.75693	Pool-Riffle	35	Gravel	Sand	
SYOSOP21	SYOSO201	SYOSO211	34.57049	-119.75684	Pool-Riffle	42	Gravel	Gravel-Cobble	

Oso Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
SYOSOP22+ 23	SYOSO211	SYOSO228	34.57131	-119.75702	Pool-Riffle	37	Gravel	Cobble-Boulder	Pool-Riffle with isolated cascade units
SYOSOP24	SYOSO228	SYOSO238	34.57291	-119.75601	Step Pool	30	Gravel-Cobble	Cobble-Boulder	Step Pool with Cascade sections
SYOSOP25	SYOSO238	SYOSO248	34.57329	-119.75534	Step Pool	36	Gravel	Cobble-Boulder	
SYOSOP26	SYOSO248	SYOSO258	34.57377	-119.75499	Step Pool	31	Gravel-Cobble	Gravel	
SYOSOP27	SYOSO258	SYOSO267	34.57392	-119.75384	Step Pool	25	Gravel-Cobble	Sand	
SYOSOP28	SYOSO267	SYOSO278	34.57441	-119.75281	Step Pool	20	Gravel-Cobble	Gravel	
SYOSOP29	SYOSO278	SYOSO287	34.57489	-119.75150	Step Pool	27	Gravel-Cobble	Cobble-Boulder	
SYOSOP30	SYOSO287	SYOSO297	34.57514	-119.75087	Step Pool	22	Gravel-Cobble	Cobble-Boulder	
SYOSOP31	SYOSO297	SYOSO307	34.57504	-119.74908	Step Pool	24	Gravel-Cobble	Gravel	Step pool into pool riffle.
SYOSOP32	SYOSO307	SYOSO317	34.57550	-119.74868	Pool-Riffle	29	Gravel-Cobble	Gravel	
SYOSOP33	SYOSO317	SYOSO327	34.57571	-119.74783	Pool-Riffle	20	Gravel-Cobble	Sand	
SYOSOP34	SYOSO327	SYOSO337	34.57598	-119.74683	Pool-Riffle	22	Gravel	Sand	
SYOSOP35	SYOSO337	SYOSO347	34.57599	-119.74569	Pool-Riffle	20	Gravel	Gravel-Cobble	
END	SYOSO347		34.57619	-119.74478					

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
MONOP01	SYMONO	MONO011	34.5195	-119.63322	Pool-Riffle	75	Gravel	Sand	

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
	CFL								
MONOP02	MONO011	MONO021	34.5223	-119.63078	Pool-Riffle	70	Gravel	Sand	
MONOP03	MONO021	MONO031	34.52363	-119.62767	Pool-Riffle	74	Gravel	Gravel-Cobble	
MONOP04	MONO031	MONO037	34.52725	-119.62897	Pool-Riffle	65	Gravel	Gravel-Cobble	
MONOP05	MONO037	MONODAM	34.52877	-119.63048	Pool-Riffle	47	Gravel	Gravel-Cobble	Ends at Mono debris dam
MONOP06+07	MONO047	MONO061	34.53048	-119.63057	Plane Bed	79	Gravel-Cobble	Gravel	Change to cobble dominated
MONOP08	MONO061	MONO071	34.53448	-119.63297	Plane Bed	50	Gravel-Cobble	Gravel	
MONOP09	MONO071	MONO081	34.539	-119.63135	Plane Bed	75	Gravel-Cobble	Cobble-Boulder	
MONOP10	MONO081	MONO091	34.53978	-119.62717	Plane Bed	78	Gravel-Cobble	Cobble-Boulder	
MONOP11+11A	MONO091	MONO102	34.54192	-119.6245	Plane Bed	46	Cobble-Boulder	Gravel-Cobble	Becoming steeper with increasing large cobbles and boulders
MONOP12	MONO102	MONO112	34.54325	-119.62818	Plane Bed	30	Cobble-Boulder	Gravel-Cobble	Becoming steeper with more boulders
MONOP13	MONO112	MONO121	34.54622	-119.62912	Plane Bed	57	Cobble-Boulder	Gravel-Cobble	Steeper with slightly narrower channel
MONOP14	MONO121	MONO131	34.54653	-119.6268	Plane Bed	88	Cobble-Boulder	Gravel-Cobble	Moving toward step-pool
MONOP15	MONO131	MONO141	34.54565	-119.6232	Plane Bed	94	Cobble-Boulder	Gravel-Cobble	Moving toward step-pool
MONOP16	MONO141	MONO151	34.5492	-119.62247	Plane Bed	67	Cobble-Boulder	Gravel-Cobble	
MONOP17	MONO151	MONO161	34.55063	-119.62103	Plane Bed	82	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP18	MONO161	MONO171	34.55147	-119.62005	Plane Bed	59	Cobble-Boulder	Gravel-Cobble	More boulder dominated
MONOP19	MONO171	MONO181	34.55335	-119.62142	Plane Bed	60	Gravel-Cobble	Cobble-Boulder	
MONOP20	MONO181	MONO191	34.55562	-119.62085	Plane Bed	70	Gravel-	Cobble-	

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Cobble	Boulder	
MONOP21	MONO191	MONO201	34.55632	-119.61835	Plane Bed	58	Cobble-Boulder	Gravel-Cobble	
MONOP22	MONO201	MONO211	34.55846	-119.61514	Plane Bed	62	Cobble-Boulder	Gravel-Cobble	
MONOP23+P24	MONO211	MONO223	34.56073	-119.60936	Plane Bed	60	Cobble-Boulder	Gravel-Cobble	
MONOP25	MONO223	MONO233	34.56287	-119.60707	Plane Bed	66	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP26	MONO233	MONO243	34.56407	-119.60524	Plane Bed	95	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP27	MONO243	MONO253	34.56597	-119.60663	Plane Bed	75	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP28	MONO253	MONO263	34.56745	-119.60585	Plane Bed	70	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP29	MONO263	MONO273	34.56911	-119.60444	Plane Bed	66	Cobble-Boulder	Gravel-Cobble	step-pool areas, channel becoming more confined
MONOP30	MONO273	MONO283	34.57282	-119.60317	Plane Bed	73	Cobble-Boulder	Gravel-Cobble	step-pool areas, more step-runs
MONOP31	MONO283	MONO293	34.57547	-119.60418	Plane Bed	59	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP32	MONO293	MONO303	34.57771	-119.60423	Plane Bed	50	Cobble-Boulder	Gravel-Cobble	Some step-pool, step-runs and HGR
MONOP33	MONO303	MONO313	34.58002	-119.60231	Plane Bed	109	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP34	MONO313	MONO323	34.58233	-119.60106	Plane Bed	102	Cobble-Boulder	Gravel-Cobble	Step-pool at end
MONOP35	MONO323	MONO333	34.58431	-119.59996	Plane Bed	83	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP36	MONO333	MONO343	34.58705	-119.59928	Plane Bed	61	Cobble-Boulder	Gravel-Cobble	higher gradient, some step-pool
MONOP37	MONO343	MONO353	34.5887	-119.60002	Plane Bed	104	Cobble-Boulder	Gravel-Cobble	Some step-pool
MONOP38	MONO353	MONO363	34.59113	-119.60049	Step-Pool	75	Cobble-	Boulder	Some plane bed, steps up

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Boulder		then levels
MONOP39	MONO363	MONO373	34.59301	-119.6013	Step-Pool	95	Cobble-Boulder	Gravel-Cobble	
MONOP40	MONO373	MONO383	34.59379	-119.60011	Step-Pool	72	Cobble-Boulder	Gravel-Cobble	
MONOP41	MONO383	MONO393	34.59428	-119.59888	Step-Pool	96	Cobble-Boulder	Gravel-Cobble	
MONOP42	MONO393	MONO403	34.5951	-119.59816	Step-Pool	78	Cobble-Boulder	Gravel-Cobble	
MONOP43	MONO403	MONO413	34.59716	-119.5964	Step-Pool	59	Cobble-Boulder	Gravel-Cobble	
MONOP44	MONO413	MONO423	34.59741	-119.59693	Step-Pool	85	Cobble-Boulder	Gravel-Cobble	
MONOP45+45A	MONO423	MONO432	34.59805	-119.59615	Step-Pool	105	Cobble-Boulder	Gravel-Cobble	
MONOP46	MONO432	MONO442	34.59959	-119.5938	Step-Pool	90	Cobble-Boulder	Gravel-Cobble	
MONOP47	MONO442	MONO449	34.60006	-119.59257	Step-Pool	60	Cobble-Boulder	Gravel-Cobble	
MONOP48	MONO449	MONO459	34.59982	-119.59157	Step-Pool	99	Cobble-Boulder	Gravel-Cobble	
MONOP49	MONO459	MONO469	34.60066	-119.58962	Step-Pool	73	Cobble-Boulder	Boulder	Channel becoming more confined
MONOP50	MONO469	MONO479	34.60213	-119.63322	Step-Pool	49	Cobble-Boulder	Gravel-Cobble	
MONOP51	MONO479	MONO489	34.60309	-119.63078	Step-Pool	68	Cobble-Boulder	Gravel-Cobble	Some bedrock sections
MONOP52	MONO489	MONO499	34.60314	-119.62767	Step-Pool	73	Cobble-Boulder	Bedrock	Bedrock sections
MONOP53	MONO499	MONO509	34.60194	-119.62897	Step-Pool	65	Cobble-Boulder	Bedrock	Bedrock sections
MONOP54	MONO509	MONO519	34.60243	-119.63048	Step-Pool	73	Cobble-Boulder	Bedrock	Bedrock sections
MONOP55	MONO519	MONO529	34.60367	-119.63057	Step-Pool	79	Cobble-	Bedrock	Bedrock sections

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Boulder		
MONOP56	MONO529	MONO539	34.60469	-119.63297	Step-Pool	85	Cobble-Boulder	Gravel-Cobble	
MONOP57	MONO539	MONO546	34.60534	-119.63135	Step-Pool	55	Cobble-Boulder	Gravel-Cobble	
MONOP58	MONO546	MONO556	34.60563	-119.62717	Step-Pool	76	Cobble-Boulder	Boulder	
MONOP59	MONO556	MONO566	34.6066	-119.6245	Step-Pool	62	Cobble-Boulder	Boulder	
MONOP60	MONO566	MONO576	34.60732	-119.62818	Step-Pool	58	Cobble-Boulder	Boulder	
MONOP61	MONO576	MONO586	34.60891	-119.62912	Step-Pool	60	Cobble-Boulder	Boulder	
MONOP62	MONO586	MONO596	34.60884	-119.6268	Step-Pool	47	Cobble-Boulder	Boulder	
MONOP63	MONO596	MONO606	34.61075	-119.6232	Step-Pool	63	Cobble-Boulder	Boulder	
MONOP64	MONO606	MONO616	34.61191	-119.62247	Step-Pool	57	Cobble-Boulder	Boulder	
MONOP65	MONO616	MONO626	34.6121	-119.62103	Step-Pool	53	Cobble-Boulder	Boulder	
MONOP66	MONO626	MONO636	34.61218	-119.62005	Step-Pool	46	Cobble-Boulder	Boulder	
MONOP67	MONO636	MONO646	34.61143	-119.62142	Step-Pool	63	Cobble-Boulder	Boulder	
Unsurveyed	MONO646	MONO647	34.61097	-119.58962					
MONOP68	MONO647	MONO657	34.65653	-119.5042	Pool-Riffle	18	Cobble-Boulder	Cohesive mud of silt	
MONOP69	MONO657	MONO667	34.65806	-119.50486	Pool-Riffle	25	Gravel-Cobble	Gravel	Channel changing from unconfined to moderately confined. Very small wetted width
MONOP70	MONO667	MONO677	34.65948	-119.50513	Pool-Riffle	18	Gravel-Cobble	Gravel	one small step-pool section

Mono Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
MONOP71	MONO677	MONO687	34.66041	-119.5074	Step-Pool	34	Gravel-Cobble	Cobble-Boulder	Higher gradient, with more boulders
MONOP72	MONO687	MONO697	34.66234	-119.50711	Pool-Riffle	28	Gravel-Cobble	Gravel	
MONOP73+74	MONO697	ENDMONO	34.66325	-119.50901	Pool-Riffle	26	Gravel-Cobble	Gravel	
END	ENDMONO		34.66565	-119.5109					

Indian Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
INDP01	IND001	IND011	34.53321	-119.63313	Pool-Riffle	38	Gravel-Cobble	Gravel	
INDP02	IND011	IND021	34.53551	-119.63382	Pool-Riffle	60	Gravel-Cobble	Gravel	
INDP03	IND021	IND031	34.53837	-119.63367	Pool-Riffle	64	Gravel-Cobble	Gravel	
INDP04	IND031	IND041	34.5401	-119.63526	Pool-Riffle	57	Gravel-Cobble	Gravel	some areas of plane bed
INDP05	IND041	IND051	34.54039	-119.63642	Plane Bed	35	Gravel-Cobble	Bedrock	Bedrock section in middle of subreach
INDP06	IND051	IND061	34.54303	-119.63631	Plane Bed	58	Gravel-Cobble	Gravel	Bedrock sections
INDP07	IND061	IND071	34.54291	-119.64019	Plane Bed	59	Gravel-Cobble	Gravel	A areas with step-pool characteristics
INDP08	IND071	IND081	34.54379	-119.64247	Plane Bed	76	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP09	IND081	IND091	34.54488	-119.64017	Plane Bed	62	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP10	IND091	IND101	34.54667	-119.64213	Plane Bed	60	Cobble-Boulder	Gravel-Cobble	some step-pool

Indian Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
INDP11	IND101	IND111	34.5487	-119.63945	Bedrock	67	Bedrock	Cobble-Boulder	Bedrock in channel and on banks
INDP12	IND111	IND121	34.54992	-119.63903	Plane Bed	95	Cobble-Boulder	Bedrock	Bedrock sections
INDP13	IND121	IND131	34.5517	-119.64214	Plane Bed	42	Gravel-Cobble	Bedrock	Bedrock sections
INDP14	IND131	IND141	34.55308	-119.64417	Plane Bed	80	Gravel-Cobble	Bedrock	Bedrock sections
INDP15	IND141	IND151	34.55207	-119.64639	Plane Bed	93	Gravel-Cobble	Bedrock	Bedrock sections where bedrock common on one bank and sometimes in channel
INDP16	IND151	IND161	34.55458	-119.6479	Plane Bed	37	Gravel-Cobble	Bedrock	Bedrock sections
INDP17	IND161	IND171	34.55307	-119.64739	Plane Bed	62	Gravel-Cobble	Cobble-Boulder	
INDP18	IND171	IND181	34.55209	-119.6495	Plane Bed	60	Gravel-Cobble	Bedrock	
INDP19	IND181	IND191	34.55394	-119.65221	Plane Bed	52	Gravel-Cobble	Bedrock	Bedrock sections
INDP20	IND191	IND201	34.55533	-119.65425	Plane Bed	38	Gravel-Cobble	Bedrock	Bedrock sections
INDP21	IND201	IND211	34.5565	-119.65419	Plane Bed	42	Gravel-Cobble	Bedrock	Bedrock sections
INDP22	IND211	IND221	34.55693	-119.65629	Plane Bed	55	Gravel-Cobble	Bedrock	Bedrock sections
INDP23	IND221	IND231	34.55797	-119.65699	Plane Bed	50	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP24	IND231	IND241	34.5614	-119.65829	Plane Bed	45	Gravel-Cobble	Cobble-Boulder	
INDP25	IND241	IND251	34.5631	-119.65961	Plane Bed	61	Gravel-Cobble	Cobble-Boulder	
INDP26	IND251	IND261	34.56408	-119.66077	Plane Bed	63	Gravel-Cobble	Cobble-Boulder	

Indian Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
INDP27	IND261	IND271	34.56408	-119.66288	Plane Bed	65	Gravel-Cobble	Cobble-Boulder	Channel becomes unconfined for this page
INDP28	IND271	IND281	34.56595	-119.66352	Plane Bed	58	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP29	IND281	IND291	34.56668	-119.66238	Plane Bed	65	Cobble-Boulder	Gravel-Cobble	some step-pool
INDP30	IND291	IND301	34.56714	-119.66445	Step-Pool	57	Cobble-Boulder	Gravel-Cobble	some plane bed
INDP31	IND301	IND311	34.56825	-119.66562	Step-Pool	73	Cobble-Boulder	Gravel-Cobble	some plane bed
INDP32+32A	IND311	IND321	34.56964	-119.66693	Plane Bed	65	Cobble-Boulder	Gravel-Cobble	some step-pool
INDP33	IND321	IND331	34.57079	-119.66906	Plane Bed	45	Cobble-Boulder	Gravel-Cobble	some step-pool
INDP34	IND331	IND341	34.57161	-119.67177	Plane Bed	58	Cobble-Boulder	Bedrock	Bedrock section
INDP35	IND341	IND351	34.57192	-119.67011	Plane Bed	66	Cobble-Boulder	Bedrock	some step-pool
INDP36	IND351	IND361	34.57332	-119.66908	Plane Bed	50	Cobble-Boulder	Gravel-Cobble	some step-pool and bedrock sections
INDP37	IND361	IND371	34.57449	-119.66926	Plane Bed	35	Cobble-Boulder	Bedrock	Bedrock sections
INDP38	IND371	IND381	34.57626	-119.67061	Step-Pool	65	Cobble-Boulder	Bedrock	some step-pool and bedrock sections
INDP39	IND381	IND391	34.57795	-119.67055	Plane Bed	47	Gravel-Cobble	Cobble-Boulder	
INDP40	IND391	IND401	34.57311	-119.6695	Step-Pool	39	Gravel-Cobble	Cobble-Boulder	some plane bed
INDP41	IND401	IND411	34.57992	-119.66821	Step-Pool	67	Gravel-Cobble	Cobble-Boulder	
INDP42	IND411	IND421	34.58033	-119.66711	Step-Pool	52	Cobble-Boulder	Boulder	short bedrock section
INDP43	IND421	IND431	34.58215	-119.6675	Step-Pool	40	Cobble-Boulder	Bedrock	Bedrock section

Indian Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
INDP44	IND431	IND438	34.58315	-119.66807	Step-Pool	46	Gravel-Cobble	Cobble-Boulder	
INDP45	IND438	IND448	34.58472	-119.66754	Step-Pool	50	Gravel-Cobble	Cobble-Boulder	some plane bed
INDP46	IND448	IND458	34.58707	-119.66772	Step-Pool	49	Gravel-Cobble	Cobble-Boulder	some plane bed
INDP47	IND458	IND468	34.58806	-119.66873	Step-Pool	60	Gravel-Cobble	Cobble-Boulder	some plane bed
INDP48	IND468	IND478	34.59039	-119.66838	Step-Pool	50	Gravel-Cobble	Cobble-Boulder	some plane bed
INDP49	IND478	IND488	34.59224	-119.66776	Plane Bed	41	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP50	IND488	IND498	34.59371	-119.6673	Plane Bed	49	Gravel-Cobble	Cobble-Boulder	some step-pool
INDP51	IND498	IND508	34.5949	-119.66794	Step-Pool	48	Cobble-Boulder	Boulder	some plane bed
INDP52	IND508	IND518	34.59627	-119.668	Step-Pool	45	Cobble-Boulder	Bedrock	Bedrock section
INDP53	IND518	IND528	34.59725	-119.66797	Step-Pool	41	Cobble-Boulder	Boulder	
INDP54	IND528	IND538	34.59811	-119.66737	Step-Pool	49	Cobble-Boulder	Boulder	
INDP55	IND538	IND548	34.60059	-119.66777	Step-Pool	36	Cobble-Boulder	Boulder	
INDP56	IND548	IND558	34.60197	-119.66836	Step-Pool	48	Cobble-Boulder	Boulder	mostly bedrock scour pools
INDP57	IND558	IND568	34.60408	-119.66784	Step-Pool	43	Cobble-Boulder	Boulder	
INDP58	IND568	IND576	34.605	-119.66739	Step-Pool	45	Cobble-Boulder	Boulder	
INDP59	IND576	IND586	34.60597	-119.66883	Step-Pool	31	Cobble-Boulder	Boulder	
INDP60	IND586	IND593	34.60647	-119.67029	Step-Pool	40	Cobble-Boulder	Boulder	
INDP61	IND593	IND603	34.6074	-119.67003	Step-Pool	41	Cobble-	Boulder	

Indian Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Boulder		
INDP62	IND603	IND613	34.60778	-119.6725	Step-Pool	41	Cobble-Boulder	Boulder	
INDP63	IND613	IND623	34.60917	-119.67361	Step-Pool	55	Cobble-Boulder	Boulder	
INDP64	IND623	IND633	34.61194	-119.67417	Step-Pool	38	Cobble-Boulder	Boulder	
INDP65	IND633	IND643	34.61306	-119.67333	Step-Pool	45	Cobble-Boulder	Boulder	
INDP66	IND643	IND653	34.61417	-119.67306	Step-Pool	33	Cobble-Boulder	Boulder	
INDP67	IND653	IND663	34.61583	-119.67194	Step-Pool	43	Cobble-Boulder	Boulder	
INDP68	IND663	IND673	34.61758	-119.67305	Step-Pool	52	Cobble-Boulder	Boulder	
INDP69	IND673	IND683	34.61865	-119.67165	Step-Pool	46	Cobble-Boulder	Boulder	
INDP70	IND683	IND693	34.62085	-119.67138	Step-Pool	34	Cobble-Boulder	Boulder	
INDP71	IND693	INDBARRIER	34.62183	-119.67033	Step-Pool		Cobble-Boulder	Boulder	Unsurveyed, walked to barrier
END	INDBARRIER		34.62381	-119.66611					

Buckhorn Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
BUCKP01	BUCK001	BUCK011	34.57797	-119.67065	Pool-Riffle	14	Gravel	Gravel-Cobble	moderate gradient
BUCKP02	BUCK011	BUCK019	34.57886	-119.67105	Pool-Riffle	28	Gravel-Cobble	Gravel	moderate gradient
BUCKP03	BUCK019	BUCK029	34.58029	-119.67281	Pool-Riffle	23	Gravel-Cobble	Gravel	
BUCKP04	BUCK029	BUCK039	34.58201	-119.67289	Step-Pool	24	Cobble-	Gravel-Cobble	increase in gradient

Buckhorn Creek Montgomery-Buffington Channel Morphology

			GPS START						
			NAD 82; Dec. Deg.						
PAGE	GPS START	GPS END	LAT	LONG	M-B TYPE	BFW	1st Sub	2nd Sub	NOTES
							Boulder		with larger substrate
BUCKP05	BUCK039	BUCK049	34.58374	-119.67255	Step-Pool	27	Cobble-Boulder	Gravel-Cobble	
BUCKP06	BUCK049	BUCK059	34.58502	-119.6735	Step-Pool	25	Cobble-Boulder	Gravel-Cobble	
BUCKP07	BUCK059	BUCK069	34.58569	-119.67531	Step-Pool	22	Gravel-Cobble	Cobble-Boulder	
BUCKP08	BUCK069	BUCK079	34.58623	-119.6782	Step-Pool	24	Cobble-Boulder	Gravel-Cobble	
BUCKP09	BUCK079	BUCK089	34.58786	-119.68036	Step-Pool	24	Gravel-Cobble	Cobble-Boulder	
BUCKP10	BUCK089	BUCK099	34.58925	-119.68296	Step-Pool	25	Cobble-Boulder	Gravel-Cobble	
BUCKP11	BUCK099	BUCK109	34.59005	-119.68496	Step-Pool	22	Gravel-Cobble	Cobble-Boulder	
BUCKP12	BUCK109	BUCK119	34.58952	-119.68671	Step-Pool	19	Gravel-Cobble	Bedrock	
BUCKP13	BUCK119	BUCK129	34.58786	-119.68791	Step-Pool	17	Gravel-Cobble	Cobble-Boulder	Alders and oaks along banks
BUCKP14	BUCK129	BUCK139	34.58709	-119.68974	Step-Pool	24	Gravel-Cobble	Bedrock	
BUCKP15 + P16	BUCK139	BUCK150	34.58488	-119.69131	Step-Pool	15	Gravel-Cobble	Cobble-Boulder	Increased boulders in dry section
END	BUCKBARRIER		34.59056	-119.70461					