

San Joaquin River Restoration Project  
Geodetic Survey Network - Staff Gage Survey  
December 2011

Primary Control Stations

Point #	California State Plane, Zone 4		NAD 83		NAVD 88	Projection Scale Factor	Height Scale Factor	Combined Scale Factor	Convergence Angle	Description
	Northing	Easting	Latitude	Longitude	Elev					
101	2213141.13	6133281.36	36°53'51.23250"	-120°27'54.26739"	141.80	0.9999519700	0.9999984294	0.9999503995	-0°52'27"	X989
102	2187923.09	6279022.72	36°50'00.12997"	-119°57'56.93398"	227.00	0.9999472975	0.9999942394	0.9999415372	-0°34'34"	DNB
103	2185777.97	6243281.25	36°49'35.14105"	-120°05'16.27206"	235.22	0.9999468673	0.9999938898	0.9999407574	-0°38'56"	SKAGGS
104	2167435.98	6185519.88	36°46'26.73017"	-120°17'03.66549"	180.59	0.9999440959	0.9999965685	0.9999406646	-0°45'58"	CBP/SJB
105	2170239.66	6177218.96	36°46'53.34150"	-120°18'46.16040"	165.22	0.9999444368	0.9999973076	0.9999417445	-0°47'00"	SJN
106	2304707.54	6093792.64	37°08'50.25888"	-120°36'19.20747"	109.68	0.9999820886	0.9999998857	0.9999819743	-0°57'28"	ELN
107	2326052.93	6067401.85	37°12'16.78895"	-120°41'49.78081"	106.75	0.9999916960	1.0000000166	0.9999917126	-1°00'45"	EBM
108	2342536.69	6022775.71	37°14'51.58644"	-120°51'05.21693"	79.14	0.9999995566	1.0000013437	1.0000009003	-1°06'16"	SSH
109	2358524.12	6023075.51	37°17'29.68072"	-120°51'05.32143"	79.67	1.0000081683	1.0000012941	1.0000094624	-1°06'16"	SJS
110	2379250.12	5986636.49	37°20'47.37028"	-120°58'41.43057"	71.39	1.0000197674	1.0000016894	1.0000214569	-1°10'49"	SMN/NEW
111	2248471.78	6351131.26	37°00'05.07472"	-119°43'15.52392"	384.82	0.9999621848	0.9999865259	0.9999487112	-0°25'48"	CTK
112	2241351.56	6349234.57	36°58'54.53192"	-119°43'38.24116"	309.04	0.9999600058	0.9999901551	0.9999501613	-0°26'02"	SJF
113	2224030.75	6348300.84	36°56'03.20029"	-119°43'48.12618"	312.31	0.9999552007	0.9999900167	0.9999452179	-0°26'08"	LDC
114	2173745.69	6226012.87	36°47'34.18460"	-120°08'46.89407"	210.81	0.9999449924	0.9999950809	0.9999400736	-0°41'02"	GRF
115	2122146.20	6215832.96	36°39'02.76434"	-120°10'44.25692"	173.17	0.9999408558	0.9999969282	0.9999377842	-0°42'12"	JBP
116	2181208.00	6158129.75	36°48'39.14433"	-120°22'42.73514"	155.06	0.9999459567	0.9999978019	0.9999437587	-0°49'21"	MEN
119	2420921.47	6035543.27	37°27'48.81225"	-120°48'45.63688"	111.28	1.0000475796	0.9999996866	1.0000472663	-1°04'53"	109.28
120	2246626.02	6356803.66	36°59'47.24011"	-119°42'05.42969"	606.68	0.9999616228	0.9999759246	0.9999375483	-0°25'07"	604.164
121	2244410.17	6123306.18	36°58'58.85939"	-120°30'03.07763"	129.76	0.9999601361	0.9999989820	0.9999591181	-0°53'43"	375 USE
122	2166402.70	6153888.57	36°46'12.15517"	-120°23'32.24678"	168.00	0.9999439162	0.9999971986	0.9999411150	-0°49'50"	ALEX 5
123	2232691.12	6167201.64	36°57'09.43735"	-120°21'00.08244"	162.66	0.9999569766	0.9999973864	0.9999543631	-0°48'19"	WES
124	2280839.13	6138903.33	37°05'01.38406"	-120°26'57.63788"	149.56	0.9999726161	0.9999979755	0.9999705917	-0°51'53"	D 158 RESET
125	2185890.19	6122120.09	36°49'20.09848"	-120°30'06.41638"	184.18	0.9999466155	0.9999964367	0.9999430523	-0°53'45"	DWIGHT
126	2355392.88	6132094.72	37°17'17.40203"	-120°28'35.80079"	167.38	1.0000074783	0.9999970103	1.0000044885	-0°52'51"	E 1420
127	2195250.76	6199772.72	36°51'03.59619"	-120°14'12.88984"	182.87	0.9999484558	0.9999964290	0.9999448849	-0°44'17"	USHER
128	2114491.87	6074855.71	36°37'26.48484"	-120°39'32.48835"	619.26	0.9999407622	0.9999756382	0.9999164019	-0°59'23"	F 928
129	2198475.32	6133714.10	36°51'26.29737"	-120°27'46.19026"	146.36	0.9999488930	0.9999982239	0.9999471171	-0°52'22"	FIREPORT
130	2365903.81	6000988.83	37°18'38.33194"	-120°55'40.41570"	73.31	1.0000120916	1.0000016053	1.0000136969	-1°09'01"	FREEMONT
131	2332746.43	6191751.99	37°13'41.95569"	-120°16'13.94907"	243.12	0.9999959508	0.9999934086	0.9999893594	-0°45'29"	G 706 RESET 1962
132	2249201.47	6122773.83	36°59'46.14687"	-120°30'10.56218"	127.14	0.9999615886	0.9999991016	0.9999606902	-0°53'48"	G 990
133	2273311.25	6111332.04	37°03'42.71314"	-120°32'36.36590"	122.28	0.9999696451	0.9999993121	0.9999689572	-0°55'15"	H 1235 RESET
134	2202620.39	6330007.58	36°52'30.06695"	-119°47'31.26816"	290.00	0.9999501861	0.9999911371	0.9999413236	-0°28'21"	H41 1941
135	2280213.61	6203601.77	37°05'04.11476"	-120°13'39.14228"	236.72	0.9999727219	0.9999937894	0.9999665115	-0°43'56"	HPGN CA 06 03
137	2271706.38	6053044.20	37°03'16.98646"	-120°44'35.03083"	101.05	0.9999687051	1.0000003756	0.9999690807	-1°02'24"	HPGN CA 10 01
138	2423374.06	5929562.86	37°27'51.28777"	-121°10'40.41476"	239.11	1.0000477554	0.9999936375	1.0000413926	-1°17'57"	HPGN CA 10 04
139	2099649.71	6250234.98	36°35'24.28665"	-120°03'39.04359"	186.99	0.9999409558	0.9999962524	0.9999372084	-0°37'58"	HPGN D CA 06 NF
140	2172846.92	6309610.27	36°47'33.93580"	-119°51'39.02147"	292.41	0.9999449889	0.9999910784	0.9999360678	-0°30'49"	HPGN D CA 06 QF
141	2207496.63	6274591.76	36°53'13.22188"	-119°58'53.89858"	285.41	0.9999511153	0.9999914506	0.9999425663	-0°35'08"	HPGN D CA 06 RF
142	2239184.29	6329798.04	36°58'31.58110"	-119°47'37.56648"	430.40	0.9999593221	0.9999844091	0.9999437318	-0°28'25"	HPGN D CA 06 RG
143	2282575.54	6342236.49	37°05'41.59638"	-119°45'08.46972"	1107.19	0.9999741911	0.9999520252	0.9999262175	-0°26'56"	HPGN D CA 06 SG
144	2221992.46	6029550.83	36°55'01.19899"	-120°49'13.18395"	314.24	0.9999536319	0.9999902055	0.9999438379	-1°05'10"	HPGN D CA 10 BK

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	Northing	Easting	Latitude	Longitude	Elev	Scale Factor	Factor	Scale Factor	Angle	
145	2199134.51	6397420.40	36°52'00.29608"	-119°33'41.32075"	494.09	0.9999495705	0.9999812370	0.9999308085	-0°20'06"	J 1233
146	2275034.32	5961519.30	37°03'31.98347"	-121°03'24.76182"	285.34	0.9999692512	0.9999915076	0.9999607590	-1°13'38"	K 361
147	2238612.26	6104481.34	36°57'58.56692"	-120°33'53.90130"	124.22	0.9999583603	0.999992697	0.9999576301	-0°56'01"	KELLIE
148	2392467.49	6061625.74	37°23'12.29808"	-120°43'15.87696"	134.38	1.0000288577	0.9999985901	1.0000274477	-1°01'36"	LIVINGSTON RESET
150	2376151.70	5971948.29	37°20'13.71506"	-121°01'42.47200"	97.26	1.0000177275	1.0000004614	1.0000181889	-1°12'37"	NEWMAN NW BASE
152	2322364.17	6025789.06	37°11'32.74794"	-120°50'23.17678"	84.68	0.9999895630	1.0000011066	0.9999906696	-1°05'51"	SALT RM 1
153	2183877.34	6142113.66	36°49'03.21821"	-120°26'00.16372"	154.69	0.9999463392	0.9999978309	0.9999441702	-0°51'18"	SHAWN
154	2149040.21	6261382.71	36°43'33.85616"	-120°01'28.81284"	229.94	0.9999422852	0.9999941467	0.9999364322	-0°36'41"	SPEAK AZ MK CADH
155	2319104.54	6078482.35	37°11'10.01331"	-120°39'31.35514"	110.75	0.9999884797	0.999998269	0.9999883067	-0°59'22"	T 987 CADWR
156	2292291.93	6098548.56	37°06'48.29962"	-120°35'17.93684"	113.56	0.9999768875	0.9999997140	0.9999766015	-0°56'51"	W 990 CADWR
157	2263167.59	6102759.09	37°02'01.05435"	-120°34'20.07415"	114.88	0.9999660217	0.9999996873	0.9999657090	-0°56'17"	WILLAM3 WILLIAM3
158	2198310.18	6154768.96	36°51'27.75766"	-120°23'27.10634"	150.68	0.9999489216	0.9999979999	0.9999469216	-0°49'47"	RBF1026
159	2186287.79	6159874.94	36°49'29.61659"	-120°22'22.16842"	151.74	0.9999467742	0.9999979549	0.9999447292	-0°49'08"	RBF1027
160	2184438.09	6226802.81	36°49'19.99957"	-120°08'38.74865"	214.36	0.9999466138	0.9999949043	0.9999415184	-0°40'57"	RBF1047
162	2284179.37	6121191.41	37°05'31.70859"	-120°30'36.84672"	121.97	0.9999738003	0.999993024	0.9999731027	-0°54'04"	RBF1057
163	2178561.25	6256399.76	36°48'25.22359"	-120°02'33.95813"	249.67	0.9999457417	0.9999931899	0.9999389320	-0°37'20"	RBF 1125
165	2210796.56	6330511.64	36°53'50.95199"	-119°47'25.89286"	372.88	0.9999519635	0.9999871755	0.9999391396	-0°28'18"	HELMER
166	2366194.68	6030519.73	37°18'46.91343"	-120°49'35.02301"	91.14	1.0000125899	1.0000007271	1.0000133170	-1°05'23"	KRUGER
167	2348711.58	6006971.18	37°15'49.56903"	-120°54'22.15864"	74.31	1.0000026465	1.0000015751	1.0000042215	-1°08'14"	MSG
Station CTK (111) - Supplemental Points										
1002	2248428.699	6351556.362	37°00'04.68033"	-119°43'10.27940"	364.75	0.9999621723	0.9999874897	0.9999496624	-0°25'45"	NAIL+SHINER
1004	2248416.383	6351591.894	37°00'04.56119"	-119°43'09.84024"	364.14	0.9999621685	0.9999875186	0.9999496876	-0°25'45"	SG1@2.0
1005	2248399.592	6351579.915	37°00'04.39427"	-119°43'09.98636"	368.16	0.9999621632	0.9999873269	0.9999494906	-0°25'45"	SG2@6.0
1006	2248399.32	6351579.63	37°00'04.39151"	-119°43'09.98989"	369.14	0.9999621631	0.9999872801	0.9999494436	-0°25'45"	SG3@7
Station H41 (134) - Supplemental Points										
1008	2203232.73	6329744.73	36°52'36.10016"	-119°47'34.56549"	294.07	0.9999503134	0.9999909460	0.9999412598	-0°28'23"	3"BD BOR "H41"
1029	2203059.21	6329678.95	36°52'34.37914"	-119°47'35.35744"	257.89	0.9999502770	0.9999927475	0.9999430248	-0°28'23"	SG@5.98
1030	2203124.53	6329625.00	36°52'35.02059"	-119°47'36.02801"	271.73	0.9999502905	0.9999920058	0.9999422967	-0°28'24"	TBM CONC
Station SJF (112) - Supplemental Points										
1012	2242096.46	6350213.89	36°59'01.97033"	-119°43'26.24056"	312.11	0.9999602301	0.9999900093	0.9999502398	-0°25'55"	3"BD USGS
1014	2242140.09	6350213.85	36°59'02.40176"	-119°43'26.24509"	306.83	0.9999602431	0.9999903231	0.9999505666	-0°25'55"	SG1@10.2
1016	2242155.08	6350213.49	36°59'02.54992"	-119°43'26.25095"	303.57	0.9999602476	0.9999904727	0.9999507207	-0°25'55"	SG2@7.0
1018	2242159.28	6350213.58	36°59'02.59147"	-119°43'26.25018"	302.42	0.9999602489	0.9999905628	0.9999508120	-0°25'55"	SG3@5.86
Station LDC (113) - Supplemental Points										
1023	2224010.36	6348438.07	36°56'03.00901"	-119°43'46.43412"	311.38	0.9999551958	0.9999900552	0.9999452514	-0°26'07"	TBM CONC
1025	2224059.16	6348522.15	36°56'03.49776"	-119°43'45.40301"	306.10	0.9999552085	0.9999903536	0.9999455625	-0°26'06"	SG@5.32
Station DNB (102) - Supplemental Points										
1033	2187927.22	6278985.22	36°50'00.16703"	-119°57'57.39584"	221.03	0.9999472981	0.9999945896	0.9999418880	-0°34'35"	SG1@6.0
1034	2187913.82	6278981.02	36°50'00.03416"	-119°57'57.44587"	217.54	0.9999472958	0.9999947626	0.9999420587	-0°34'35"	SG2@2.5
Station SKAGGS (103) - Supplemental Points										
1035	2184520.98	6243093.28	36°49'22.69140"	-120°05'18.40873"	228.84	0.9999466585	0.9999941949	0.9999408537	-0°38'58"	NAIL+SHINER
1037	2184482.49	6243058.14	36°49'22.30686"	-120°05'18.83546"	221.20	0.9999466521	0.9999945579	0.9999412103	-0°38'58"	TBM SE BOLT
1039	2184474.33	6243107.52	36°49'22.23172"	-120°05'18.22701"	206.40	0.9999466509	0.9999952661	0.9999419172	-0°38'58"	SG1@10.00
1040	2184461.47	6243107.28	36°49'22.10453"	-120°05'18.22827"	202.48	0.9999466488	0.9999954533	0.9999421023	-0°38'58"	SG2@6.00
1041	2184464.74	6243101.58	36°49'22.13621"	-120°05'18.29876"	201.91	0.9999466493	0.9999954805	0.9999421300	-0°38'58"	SG3@5.5

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Station SKAGGS (103) - Supplemental Points, Cont.

Point #	California State Plane, Zone 4		NAD 83		NAVD 88	Projection Scale Factor	Height Scale Factor	Combined Scale Factor	Convergence Angle	Description
	Northing	Easting	Latitude	Longitude	Elev					
1042	2184478.19	6243097.14	36°49'22.26870"	-120°05'18.35530"	219.14	0.9999466515	0.9999946582	0.9999413100	-0°38'58"	TOP METAL TABLE
Station GRF (114) - Supplemental Points										
1048	2175564.76	6222101.68	36°47'51.70647"	-120°09'35.24787"	199.95	0.9999452428	0.9999956041	0.9999408471	-0°41'31"	BM DWR "GRF RM2"
1050	2175569.39	6222129.73	36°47'51.75561"	-120°09'34.90375"	199.76	0.9999452435	0.9999956192	0.9999408629	-0°41'31"	3"BD BOR
1051	2175492.92	6222128.03	36°47'50.99929"	-120°09'34.91322"	198.14	0.9999452325	0.9999956845	0.9999409172	-0°41'31"	N+S SOUTH
1053	2175587.50	6222111.12	36°47'51.93238"	-120°09'35.13522"	198.78	0.9999452460	0.9999956596	0.9999409059	-0°41'31"	N+S NORTH
1055	2175616.64	6222117.85	36°47'52.22136"	-120°09'35.05678"	184.88	0.9999452502	0.9999963232	0.9999415736	-0°41'31"	SG@3.3
1058	2175567.59	6222109.45	36°47'51.73538"	-120°09'35.15282"	197.59	0.9999452432	0.9999957103	0.9999409538	-0°41'31"	INSIDE SG@16.00
Station JBP (115) - Supplemental Points										
1062	2122633.05	6215479.32	36°39'07.53531"	-120°10'48.66997"	175.78	0.9999408661	0.9999968040	0.9999376703	-0°42'15"	TBM BOLT
1063	2122662.78	6215505.36	36°39'07.83244"	-120°10'48.35489"	166.13	0.9999408667	0.9999973387	0.9999382056	-0°42'15"	SG@19.00
1066	2122289.95	6215897.64	36°39'04.19355"	-120°10'43.48479"	175.21	0.9999408588	0.9999968278	0.9999376868	-0°42'12"	3"BD-FRESNO COUNTY-LG4 1984
1068	2122143.56	6215833.00	36°39'02.73823"	-120°10'44.25601"	173.13	0.9999408557	0.9999969301	0.9999377860	-0°42'12"	1"BD SURVEY MARK
Station CBP/SJB (104) - Supplemental Points										
1102	2167191.88	6185256.99	36°46'24.28187"	-120°17'06.85640"	180.52	0.9999440653	0.9999965718	0.9999406374	-0°46'00"	3"BD "DWR 4"
1103	2167217.71	6185210.31	36°46'24.53089"	-120°17'07.43489"	164.67	0.9999440684	0.9999973121	0.9999413807	-0°46'01"	SG@6.64 ON CONC WALL
Station SJN (105) - Supplemental Points										
1107	2169348.37	6178961.35	36°46'44.76399"	-120°18'24.59495"	168.72	0.9999443251	0.9999971450	0.9999414703	-0°46'47"	TBM CONC SE COR
1109	2169369.18	6178960.36	36°46'44.96958"	-120°18'24.61069"	163.27	0.9999443278	0.9999974860	0.9999418140	-0°46'47"	SLY SG@13.18
Station MEN (116) - Supplemental Points										
1113	2181065.86	6158165.28	36°48'37.74370"	-120°22'42.27389"	154.41	0.9999459348	0.9999978329	0.9999437678	-0°49'20"	3IN BD STAMPED "BOR EL 154.81FT"
1114	2181074.49	6158202.85	36°48'37.83439"	-120°22'41.81343"	142.43	0.9999459363	0.9999986242	0.9999445606	-0°49'20"	SG@8.14
Station SDP (132) - Supplemental Points										
1119	2248409.60	6123204.13	36°59'38.38452"	-120°30'05.10580"	126.17	0.9999613466	0.9999991527	0.9999604993	-0°53'45"	TBM CONC
1121	2248417.28	6123203.88	36°59'38.46034"	-120°30'05.11041"	125.13	0.9999613489	0.9999991929	0.9999605418	-0°53'45"	60D NAIL SE
1123	2248474.96	6123171.33	36°59'39.02560"	-120°30'05.52263"	126.69	0.9999613665	0.9999991286	0.9999604952	-0°53'45"	60D NAIL NW
1125	2248402.58	6123215.82	36°59'38.31686"	-120°30'04.96031"	121.50	0.9999613445	0.9999993653	0.9999607098	-0°53'45"	SG1@122.00
1126	2248401.89	6123221.33	36°59'38.31093"	-120°30'04.89238"	118.54	0.9999613443	0.9999995073	0.9999608516	-0°53'44"	SG2@119.00
1127	2248399.94	6123224.25	36°59'38.29212"	-120°30'04.85592"	113.51	0.9999613437	0.9999997476	0.9999610913	-0°53'44"	SG3@114.00
Station SWA (156) - Supplemental Points										
1131	2291643.22	6097933.48	37°06'41.78578"	-120°35'25.39691"	111.33	0.9999766196	0.9999998253	0.9999764448	-0°56'56"	60D NAIL
1133	2291585.90	6097862.19	37°06'41.20740"	-120°35'26.26520"	111.43	0.9999765958	0.9999998199	0.9999764157	-0°56'56"	BOLT
1136	2291530.86	6097891.12	37°06'40.66803"	-120°35'25.89682"	99.45	0.9999765737	1.0000003919	0.9999769656	-0°56'56"	SG2@100.00
Station ELN (106) - Supplemental Points										
1138	2304751.14	6093744.14	37°08'50.68192"	-120°36'19.81540"	111.06	0.9999821073	0.9999998212	0.9999819285	-0°57'28"	60D NAIL
1140	2304744.20	6093753.27	37°08'50.61486"	-120°36'19.70129"	111.21	0.9999821043	0.9999998135	0.9999819179	-0°57'28"	RR SPIKE
1146	2304721.90	6093807.80	37°08'50.40340"	-120°36'19.02320"	107.26	0.9999820950	1.0000000024	0.9999820974	-0°57'28"	SG1@21.00
1147	2304734.39	6093818.45	37°08'50.52859"	-120°36'18.89426"	104.24	0.9999821005	1.0000001465	0.9999822471	-0°57'28"	SG2@18.00
1148	2304761.13	6093859.34	37°08'50.79969"	-120°36'18.39481"	99.26	0.9999821125	1.0000003840	0.9999824965	-0°57'27"	SG3@13.00
Station EBM (107) - Supplemental Points										
1152	2326033.84	6067421.65	37°12'16.60367"	-120°41'49.53200"	106.03	0.9999916870	1.0000000600	0.9999917470	-1°00'45"	BOLT
1157	2326587.09	6067107.51	37°12'22.01794"	-120°41'53.53526"	93.64	0.9999919524	1.0000006427	0.9999925950	-1°00'47"	60D NAIL S
1159	2326714.02	6067219.87	37°12'23.29235"	-120°41'52.17429"	103.91	0.9999920149	1.0000001523	0.9999921672	-1°00'46"	GINNIE N

San Joaquin River Restoration Project  
Geodetic Survey Network - Staff Gage Survey  
December 2011

Station EBM (107) - Supplemental Points, Cont.

Point #	California State Plane, Zone 4		NAD 83		NAVD 88	Projection Scale Factor	Height Scale Factor	Combined Scale Factor	Convergence Angle	Description
	Northing	Easting	Latitude	Longitude	Elev					
1161	2326689.91	6067232.23	37°12'23.05622"	-120°41'52.01630"	101.07	0.9999920033	1.0000002881	0.9999922914	-1°00'46"	TBM CONC
1163	2326687.22	6067193.70	37°12'23.02285"	-120°41'52.49190"	98.27	0.9999920017	1.0000004217	0.9999924234	-1°00'47"	SG1@97.00
1165	2326565.33	6067109.94	37°12'21.80328"	-120°41'53.50045"	96.32	0.9999919418	1.0000005149	0.9999924567	-1°00'47"	SG2@95.00
1166	2326536.77	6067090.65	37°12'21.51760"	-120°41'53.73263"	93.34	0.9999919278	1.0000006571	0.9999925849	-1°00'47"	SG3@92.00
1167	2326547.43	6067070.57	37°12'21.61949"	-120°41'53.98310"	89.34	0.9999919328	1.0000008481	0.9999927809	-1°00'48"	SG4@88.00
1168	2326527.47	6067078.69	37°12'21.42353"	-120°41'53.87840"	86.29	0.9999919232	1.0000009935	0.9999929167	-1°00'47"	SG5@84.90

Station SSH (108) - Supplemental Points

1172	2342560.62	6022657.51	37°14'51.80047"	-120°51'06.68424"	77.05	0.9999995678	1.0000014521	1.0000010199	-1°06'17"	3"AD USFWS
1173	2342549.33	6022643.23	37°14'51.68608"	-120°51'06.85808"	68.79	0.9999995618	1.0000019034	1.0000014652	-1°06'17"	SG@66.50
1174	2342643.73	6022658.77	37°14'52.62221"	-120°51'06.68842"	80.38	0.9999996111	1.0000012932	1.0000009043	-1°06'17"	2"BD BOR
1175	2342584.48	6022593.45	37°14'52.02409"	-120°51'07.48206"	77.28	0.9999995796	1.0000014413	1.0000010209	-1°06'18"	3"BD USGS
1176	2342564.72	6022589.77	37°14'51.82803"	-120°51'07.52281"	75.50	0.9999995693	1.0000015262	1.0000010955	-1°06'18"	OLD SG - NOT LEVELLED TO

Station MSG (167) - Supplemental Points

1182	2348678.24	6006961.08	37°15'49.23771"	-120°54'22.27744"	72.31	1.0000026286	1.0000016790	1.0000043076	-1°08'14"	60D NAIL
1184	2348686.48	6006940.11	37°15'49.31514"	-120°54'22.53890"	67.78	1.0000026328	1.0000018950	1.0000045277	-1°08'14"	SG@7.00

Station FFB (130) - Supplemental Points

1188	2365531.27	6000149.25	37°18'34.48306"	-120°55'50.71450"	71.67	1.0000118687	1.0000016940	1.0000135627	-1°09'07"	3"BD USGS STAMPED "GAGING STATION"
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Station SJS (109) - Supplemental Points

1190	2358544.31	6023083.76	37°17'29.88236"	-120°51'05.22538"	82.77	1.0000081796	1.0000011573	1.0000093369	-1°06'16"	MAG NAIL
1195	2359790.00	6025423.83	37°17'42.64112"	-120°50'36.56892"	78.98	1.0000089004	1.0000013233	1.0000102237	-1°05'59"	TBM CONC - CHIS'D SQUARE
1197	2359741.67	6025435.59	37°17'42.16504"	-120°50'36.41070"	67.86	1.0000088742	1.0000019991	1.0000108734	-1°05'59"	SG1@65.35
1198	2359732.48	6025437.31	37°17'42.07461"	-120°50'36.38718"	65.51	1.0000088691	1.0000020670	1.0000109362	-1°05'59"	SG2@63.00

Station SMN - Supplemental Points

1204	2379498.27	5987235.16	37°20'49.94505"	-120°58'34.08164"	67.41	1.0000199246	1.0000018882	1.0000218128	-1°10'44"	3"BD USGS
1212	2379497.91	5987238.37	37°20'49.94208"	-120°58'34.04186"	66.94	1.0000199244	1.0000019122	1.0000218367	-1°10'44"	60D NAIL WEST
1214	2379593.63	5987389.06	37°20'50.91890"	-120°58'32.20060"	58.13	1.0000199841	1.0000023299	1.0000223140	-1°10'43"	60D NAIL EAST
1217	2379474.37	5987243.94	37°20'49.71057"	-120°58'33.96687"	59.86	1.0000199103	1.0000022501	1.0000221605	-1°10'44"	SG1@57.30
1218	2379463.24	5987244.50	37°20'49.60068"	-120°58'33.95713"	54.23	1.0000199036	1.0000025186	1.0000224222	-1°10'44"	SG2@51.7

Station NEW - Supplemental Points

1200	2380673.68	5987001.91	37°21'01.51595"	-120°58'37.26923"	66.01	1.0000206328	1.0000019478	1.0000225807	-1°10'46"	BRASS MON STAMPED "NEW"
1208	2380664.65	5987004.91	37°21'01.42730"	-120°58'37.22976"	65.38	1.0000206274	1.0000019846	1.0000226120	-1°10'46"	60D NAIL SOUTH
1210	2380745.89	5986971.58	37°21'02.22357"	-120°58'37.66316"	66.93	1.0000206762	1.0000019123	1.0000225886	-1°10'46"	60D NAIL NORTH
1221	2380672.71	5987006.84	37°21'01.50737"	-120°58'37.20788"	68.98	1.0000206323	1.0000018128	1.0000224451	-1°10'46"	SG1@66.60
1222	2380670.28	5987012.35	37°21'01.48451"	-120°58'37.13910"	65.09	1.0000206309	1.0000019983	1.0000226292	-1°10'46"	SG2@62.70
1223	2380642.07	5987038.10	37°21'01.21086"	-120°58'36.81308"	55.28	1.0000206141	1.0000024667	1.0000230808	-1°10'46"	SG3@52.9
1224	2380607.97	5987032.13	37°21'00.87255"	-120°58'36.87826"	56.98	1.0000205934	1.0000023856	1.0000229790	-1°10'46"	SG4@54.60

Station MIL - Supplemental Points

1226			37°00'00" +/-	-119°42'17" +/-	587.15					Nub on stainless steel socket in Block 36 of Friant Dam. Socket lies in front of gage house door (not accessed at time of survey). Horizontal location is approximate only.
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