6.0 ADDITIONAL ACTIONS

None.

7.0 REFERENCES

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Table 3-1 Diablo Creek Location Used in Storm Calculations

Elevation Used	100 feet	
Location Used	Latitude	Longitude
	35.211	120.855

Table 3-2 Storms Used in the Diablo Creek Site-Specific PMP Calculation

Station Name	State	Lat	Lon	Year	Mon	Day	Maximum 1-hour Rainfall	DCPP Total Adjustment Factor	DCPP 1-hour LIP
OAKLAND SOUTH	CA	37.7830	-122.1500	1999	11	19	3.26	1.38	4.50
BEL AIR HOTEL	CA	34.0860	-118.4550	1983	3	1	3.00	1.40	4.20
OCEANSIDE	CA	33.2560	-117.3200	1993	1	16	2.95	1.39	4.10
LAGUNA BEACH	CA	33.5510	-117.8000	1997	12	6	2.50	1.47	3.68
WHEELER GORGE	CA	34.3670	-119.3830	1992	2	12	2.32	1.43	3.32
SAN MARCOS TROUT	CA	34.4830	-119.8000	1995	1	9	2.15	1.48	3.18
DOULTON TUNNEL	CA	34.4650	-119.7080	1973	2	11	2.25	1.35	3.04
STANDWOOD FIRE STATION	CA	34.4500	-119.6830	1983	9	29	2.40	1.19	2.86
BOULDER CREEK	CA	37.0916	-122.1668	1955	12	24	2.20	1.29	2.84
NOJOQUI	CA	34.5340	-120.1780	2002	12	20	2.09	1.24	2.59
GONZALES	CA	36.5150	-121.5100	1994	11	10	2.09	1.16	2.42
SIGNAL HILL	CA	33.8000	-118.1667	1995	1	4	2.00	1.19	2.38
CANYON CREEK	CA	34.0832	-118.8418	1943	1	22	1.96	1.21	2.37
ARROYO SECO	CA	36.3590	-121.2900	1993	11	11	2.01	1.06	2.13

Rainfall and LIP values are in inches.

Table 3-3 Site-Specific LIP for Various Durations at the DCPP Power Block

Duration (hours)	DCPP LIP (inches)
0	0
0.25	2.5
0.5	3.6
0.75	4.1
1-hour	4.5
2-hour	5.1
3-hour	5.4
4-hour	5.6
5-hour	5.8
6-hour	5.9

Table 3-4 Temporal Distributions of 15-Minute Incremental Point PMP at DCPP Site

Duration (hours)	Front End Peaking		One-Third Peaking		Center Peaking		Two-Third Peaking		End Peaking	
	ILIP* (in)	PLIP**	ILIP (in)	PLIP	ILIP (in)	PLIP	ILIP (in)	PLIP	ILIP (in)	PLIP
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.250	2.475	0.423	0.043	0.007	0.026	0.005	0.006	0.001	0.006	0.001
0.500	3.555	0.608	0.093	0.016	0.054	0.009	0.032	0.006	0.032	0.006
0.750	4.095	0.700	0.173	0.030	0.084	0.014	0.059	0.010	0.059	0.010
1.000	4.500	0.769	0.269	0.046	0.118	0.020	0.086	0.015	0.086	0.015
1.250	4.683	0.801	0.422	0.072	0.161	0.028	0.115	0.020	0.115	0.020
1.500	4.841	0.828	0.605	0.103	0.211	0.036	0.146	0.025	0.146	0.025
1.750	4.994	0.854	1.145	0.196	0.291	0.050	0.177	0.030	0.177	0.030
2.000	5.130	0.877	3.620	0.619	0.387	0.066	0.211	0.036	0.211	0.036
2.250	5.226	0.893	4.700	0.803	0.540	0.092	0.254	0.043	0.246	0.042
2.500	5.318	0.909	5.105	0.873	0.723	0.124	0.304	0.052	0.289	0.049
2.750	5.397	0.923	5.263	0.900	1.263	0.216	0.384	0.066	0.335	0.057
3.000	5.465	0.934	5.399	0.923	3.738	0.639	0.480	0.082	0.385	0.066
3.250	5.515	0.943	5.491	0.939	4.818	0.824	0.633	0.108	0.453	0.077
3.500	5.561	0.951	5.558	0.950	5.223	0.893	0.816	0.139	0.532	0.091
3.750	5.604	0.958	5.604	0.958	5.381	0.920	1.356	0.232	0.624	0.107
4.000	5.639	0.964	5.639	0.964	5.517	0.943	3.831	0.655	0.720	0.123
4.250	5.673	0.970	5.673	0.970	5.608	0.959	4.911	0.839	0.856	0.146
4.500	5.704	0.975	5.704	0.975	5.676	0.970	5.316	0.909	1.009	0.172
4.750	5.735	0.980	5.735	0.980	5.721	0.978	5.474	0.936	1.167	0.199
5.000	5.764	0.985	5.764	0.985	5.757	0.984	5.610	0.959	1.350	0.231
5.250	5.791	0.990	5.791	0.990	5.789	0.989	5.701	0.975	1.755	0.300
5.500	5.818	0.994	5.818	0.994	5.817	0.994	5.769	0.986	2.295	0.392
5.750	5.844	0.999	5.844	0.999	5.844	0.999	5.814	0.994	3.375	0.577
6.000	5.850	1.000	5.850	1.000	5.850	1.000	5.850	1.000	5.900	1.000

* ILIP = cumulative LIP; ** PLIP = Portion of cumulative LIP

Table 3-5 Maximum LIP Flooding Parameters near the Doors and Areas to the West of the Turbine and Buttress Buildings

No	Door/Unit No *	Door [1]Thr. Elev. or Area Elev. (PG&E Local Datum)	Grid No	Grid Elev. (ft-PG&E Local Datum)	Max WSE (ft-PG&E Local Datum)	Max WD (above grid surface) ft	Max WD [2] (above Door Thr. or Area) - Elev. ft	Max Duration (hours)
(1)	(2)	(3)	(4)	(5)	(6)	(7) = (6) - (5)	(8) = (6) - (3)	(9)
Turbine Building Unit 1: North West								
1	A1	86.8	1034	86.58	86.73	0.15	-0.07	0.58
2	A2	86.5•	1177	86.57	86.59	0.05**	0.09	0.24
3	A3	86.5•	1634	86.53	86.63	0.10	0.13	0.17
4	101-1	86.8	2302	86.85	86.99	0.14	0.19	0.26
5	102-1	86.8	1975	86.82	86.94	0.12	0.14	0.22
6	119-1	86.8	3689	86.67	87.09	0.42	0.29	0.87
7	122-1	86.8*	4622	86.54	87.12	0.58	0.32	3.42
8	C	86.8	3115	86.49	86.69	0.20	-0.11	0.00
Turbine Building Unit 2: South West								
9	B1	86.8	6357	86.69	87.31	0.62	0.51	2.68
10	B2	86.5•	5352	86.77	86.77	0.05**	0.27	0.00
11	B3	86.5•	3451	86.07	86.07	0.05**	-0.43	0.00
12	101-2	86.8	8059	86.65	87.39	0.74	0.59	2.73
13	102-2	86.8	7625	86.61	87.37	0.76	0.57	2.75
14	119-2	86.8	8729	86.77	87.46	0.69	0.66	2.43
15	122-2	86.8*	7860	86.65	87.48	0.83	0.68	2.76
Unit 1 - Auxiliary Building Area (Ventilation Building)								
16	192-1	86.8	5200	87.43	87.48	0.05	0.68	0.21
17	191-1	86.8	7055	86.81	87.19	0.38	0.39	3.11
18	194-1	86.8	6427	86.65	87.14	0.48	0.34	1.10
Unit 2 - Auxiliary Building Area (Ventilation Building)								
19	192-2	86.8	7437	87.34	87.48	0.14	0.68	0.41
20	191-2	86.8*	11759	88.05	88.2	0.16	1.4	0.56
21	194-2	86.8	11281	86.81	87.5	0.69	0.7	1.94
Fuel Handling Building (East of Unit 1)								
22	363-1	116.8	9691	116.48	116.66	0.18	-0.14	0.55
23	361-1	116.8	9682	116.72	116.91	0.19	0.11	0.59
24	360-1	116.8	9681	116.82	116.92	0.09	0.12	0.16
25	355-1	116.8	10601	116.87	117.15	0.28	0.35	1.62
26	354-1	116.8	10599	116.96	117.16	0.20	0.36	1.00
Fuel Handling Building (East of Unit 2)								
27	360-2	116.8	11303	116.91	117.19	0.29	0.39	2.70
28	361-2	116.8	11539	116.8	117.19	0.39	0.39	4.41
29	363-2	116.8	12726	116.53	116.61	0.09	-0.19	0.26

1. Thr.-Elev. – Threshold Elevation
2. Negative value reflects no LIP exceedance near the doors or areas

* Door/Unit Nos. are shown in Figure 3-2.

** Minimum ponding depth taken as 0.05 feet.

Table 3-6 Hydrodynamic and Total Associated Effects Resulting from LIP Flood Event

No	Door/Unit No *	Max WD (above grid surface) ft	Max Velocity (ft/s)	Hydrostatic Load		Hydrodynamic Load		
				Pressure (lb/ft2)	Force (lb/ft)	Pressure (lb/ft2)	Force (lb/ft)	Total Force (lb/ft) ***
Turbine Building Unit 1: North West								
1	A1	0.15	0.28	9.36	0.70	0.15	0.02	0.72
2	A2	0.05**	0.13	3.74	0.11	0.03	0.00	0.11
3	A3	0.10	0.06	3.74	0.11	0.01	0.00	0.11
4	101-1	0.14	0.20	8.74	0.61	0.08	0.01	0.62
5	102-1	0.12	0.12	7.49	0.45	0.03	0.00	0.45
6	119-1	0.42	0.32	26.21	5.50	0.20	0.08	5.59
7	122-1	0.58	0.21	36.19	10.50	0.09	0.05	10.55
8	C	0.20	0.00	1.87	0.03	0.00	0.00	0.03
Turbine Building Unit 2: South West								
9	B1	0.62	1.16	38.69	11.99	2.61	1.62	13.61
10	B2	0.05**	0.00	1.87	0.03	0.00	0.00	0.03
11	B3	0.05**	0.00	1.87	0.03	0.00	0.00	0.03
12	101-2	0.74	0.62	46.18	17.09	0.74	0.55	17.64
13	102-2	0.76	0.64	47.42	18.02	0.79	0.60	18.62
14	119-2	0.69	0.32	43.06	14.85	0.20	0.14	14.99
15	122-2	0.83	0.10	51.79	21.49	0.02	0.02	21.51
Unit 1 - Auxiliary Building Area (Ventilation Building)								
16	192-1	0.05	0.35	3.12	0.08	0.24	0.01	0.09
17	191-1	0.38	0.80	23.71	4.51	1.24	0.47	4.98
18	194-1	0.48	0.45	29.95	7.19	0.39	0.19	7.38
Unit 2 - Auxiliary Building Area (Ventilation Building)								
19	192-2	0.14	0.12	8.74	0.61	0.03	0.00	0.62
20	191-2	0.16	1.02	9.98	0.80	2.02	0.32	1.12
21	194-2	0.69	0.37	43.06	14.85	0.27	0.18	15.04
Fuel Handling Building (East of Unit 1)								
22	363-1	0.18	0.38	19.34	3.00	0.28	0.09	3.09
23	361-1	0.19	0.24	11.86	1.13	0.11	0.02	1.15
24	360-1	0.09	0.10	5.62	0.25	0.02	0.00	0.25
25	355-1	0.28	0.32	17.47	2.45	0.20	0.06	2.50
26	354-1	0.20	0.18	12.48	1.25	0.06	0.01	1.26
Fuel Handling Building (East of Unit 2)								
27	360-2	0.29	0.10	18.10	2.62	0.02	0.01	2.63
28	361-2	0.39	0.14	24.34	4.75	0.04	0.01	4.76
29	363-2	0.09	0.16	5.62	0.25	0.05	0.00	0.26

* Door/Unit Nos. are shown in Figure 3-2.
** Minimum ponding depth taken as 0.05 feet.
*** Total force is the sum of the hydrostatic load force and the hydrodynamic load force.

Table 3-7 GEV Fitted Precipitation Estimates and 90% CI at DCPP Site

Return Period, years	2	5	10	25	50	100	200	500	1000	10,000	100,000	1,000,000
Lower 90%_MCS	0.48	0.67	0.79	0.96	1.08	1.21	1.34	1.51	1.64	2.09	2.55	2.86
Upper 90%_MCS	0.49	0.67	0.80	0.96	1.09	1.21	1.34	1.52	1.66	2.16	2.76	3.62
GEV_Mean	0.49	0.67	0.80	0.96	1.08	1.21	1.34	1.52	1.65	2.13	2.64	3.19

* Units are inches calibrated for a one-hour maximum.

Table 3-8General Storm PMP (Page 1 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
0	0.0000	0.0000	0.0000	0.0000	0.0000
0.25	0.6551	0.0711	0.0199	0.0192	0.0192
0.5	0.6174	0.0719	0.0212	0.0199	0.0199
0.75	0.5812	0.0727	0.0225	0.0205	0.0205
1	0.5464	0.0735	0.0238	0.0212	0.0212
1.25	0.3187	0.0742	0.0251	0.0219	0.0219
1.5	0.3157	0.0749	0.0264	0.0225	0.0225
1.75	0.3127	0.0757	0.0277	0.0232	0.0232
2	0.3097	0.0764	0.0290	0.0238	0.0238
2.25	0.3068	0.0771	0.0302	0.0245	0.0245
2.5	0.3038	0.0778	0.0315	0.0251	0.0251
2.75	0.3007	0.0785	0.0327	0.0258	0.0258
3	0.2977	0.0792	0.0339	0.0264	0.0264
3.25	0.2947	0.0798	0.0351	0.0271	0.0271
3.5	0.2917	0.0805	0.0363	0.0277	0.0277
3.75	0.2886	0.0811	0.0375	0.0283	0.0283
4	0.2856	0.0818	0.0387	0.0290	0.0290
4.25	0.2825	0.0824	0.0399	0.0296	0.0296
4.5	0.2794	0.0830	0.0410	0.0302	0.0302
4.75	0.2764	0.0836	0.0422	0.0309	0.0309
5	0.2733	0.0842	0.0433	0.0315	0.0315
5.25	0.2702	0.0847	0.0444	0.0321	0.0321
5.5	0.2671	0.0853	0.0455	0.0327	0.0327
5.75	0.2640	0.0858	0.0466	0.0333	0.0333
6	0.2608	0.0864	0.0477	0.0339	0.0339
6.25	0.2577	0.0869	0.0488	0.0345	0.0345
6.5	0.2546	0.0874	0.0498	0.0351	0.0351
6.75	0.2514	0.0879	0.0509	0.0357	0.0357
7	0.2482	0.0884	0.0519	0.0363	0.0363
7.25	0.2451	0.0889	0.0530	0.0369	0.0369
7.5	0.2419	0.0894	0.0540	0.0375	0.0375
7.75	0.2387	0.0898	0.0550	0.0381	0.0381
8	0.2355	0.0903	0.0560	0.0387	0.0387
8.25	0.2323	0.0907	0.0570	0.0393	0.0393
8.5	0.2291	0.0911	0.0579	0.0399	0.0399
8.75	0.2259	0.0915	0.0589	0.0404	0.0404
9	0.2227	0.0919	0.0598	0.0410	0.0410
9.25	0.2194	0.0923	0.0608	0.0416	0.0416
9.5	0.2162	0.0927	0.0617	0.0422	0.0422
9.75	0.2129	0.0931	0.0626	0.0427	0.0427
10	0.2097	0.0934	0.0635	0.0433	0.0433
10.25	0.2064	0.0938	0.0644	0.0439	0.0439
10.5	0.2031	0.0941	0.0653	0.0444	0.0444

Table 3-8General Storm PMP (Page 2 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
10.75	0.1998	0.0944	0.0661	0.0450	0.0450
11	0.1965	0.0947	0.0670	0.0455	0.0455
11.25	0.1932	0.0950	0.0679	0.0461	0.0461
11.5	0.1899	0.0953	0.0687	0.0466	0.0466
11.75	0.1866	0.0956	0.0695	0.0472	0.0472
12	0.1832	0.0959	0.0703	0.0477	0.0477
12.25	0.0988	0.0961	0.0711	0.0482	0.0482
12.5	0.0988	0.0964	0.0719	0.0488	0.0488
12.75	0.0988	0.0966	0.0727	0.0493	0.0493
13	0.0988	0.0968	0.0735	0.0498	0.0498
13.25	0.0988	0.0970	0.0742	0.0504	0.0504
13.5	0.0988	0.0972	0.0749	0.0509	0.0509
13.75	0.0988	0.0974	0.0757	0.0514	0.0514
14	0.0988	0.0976	0.0764	0.0519	0.0519
14.25	0.0988	0.0977	0.0771	0.0524	0.0524
14.5	0.0988	0.0979	0.0778	0.0530	0.0530
14.75	0.0987	0.0980	0.0785	0.0535	0.0535
15	0.0987	0.0982	0.0792	0.0540	0.0540
15.25	0.0987	0.0983	0.0798	0.0545	0.0545
15.5	0.0987	0.0984	0.0805	0.0550	0.0550
15.75	0.0986	0.0985	0.0811	0.0555	0.0555
16	0.0986	0.0986	0.0818	0.0560	0.0560
16.25	0.0986	0.0986	0.0824	0.0565	0.0565
16.5	0.0985	0.0987	0.0830	0.0570	0.0570
16.75	0.0985	0.0987	0.0836	0.0574	0.0574
17	0.0984	0.0988	0.0842	0.0579	0.0579
17.25	0.0984	0.0988	0.0847	0.0584	0.0584
17.5	0.0983	0.0988	0.0853	0.0589	0.0589
17.75	0.0983	0.0988	0.0858	0.0594	0.0594
18	0.0982	0.0988	0.0864	0.0598	0.0598
18.25	0.0982	0.1866	0.0869	0.0603	0.0603
18.5	0.0981	0.1932	0.0874	0.0608	0.0608
18.75	0.0980	0.1998	0.0879	0.0612	0.0612
19	0.0980	0.2064	0.0884	0.0617	0.0617
19.25	0.0979	0.2129	0.0889	0.0622	0.0622
19.5	0.0978	0.2194	0.0894	0.0626	0.0626
19.75	0.0977	0.2259	0.0898	0.0631	0.0631
20	0.0977	0.2323	0.0903	0.0635	0.0635
20.25	0.0976	0.2387	0.0907	0.0640	0.0640
20.5	0.0975	0.2451	0.0911	0.0644	0.0644
20.75	0.0974	0.2514	0.0915	0.0648	0.0648
21	0.0973	0.2577	0.0919	0.0653	0.0653
21.25	0.0972	0.2640	0.0923	0.0657	0.0657

Table 3-8General Storm PMP (Page 3 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
21.5	0.0971	0.2702	0.0927	0.0661	0.0661
21.75	0.0970	0.2764	0.0931	0.0666	0.0666
22	0.0969	0.2825	0.0934	0.0670	0.0670
22.25	0.0968	0.2886	0.0938	0.0674	0.0674
22.5	0.0967	0.2947	0.0941	0.0679	0.0679
22.75	0.0966	0.3007	0.0944	0.0683	0.0683
23	0.0965	0.3068	0.0947	0.0687	0.0687
23.25	0.0964	0.3127	0.0950	0.0691	0.0691
23.5	0.0962	0.3187	0.0953	0.0695	0.0695
23.75	0.0961	0.5812	0.0956	0.0699	0.0699
24	0.0960	0.6551	0.0959	0.0703	0.0703
24.25	0.0959	0.6174	0.0961	0.0711	0.0707
24.5	0.0957	0.5464	0.0964	0.0719	0.0711
24.75	0.0956	0.3157	0.0966	0.0727	0.0715
25	0.0955	0.3097	0.0968	0.0735	0.0719
25.25	0.0953	0.3038	0.0970	0.0742	0.0723
25.5	0.0952	0.2977	0.0972	0.0749	0.0727
25.75	0.0950	0.2917	0.0974	0.0757	0.0731
26	0.0949	0.2856	0.0976	0.0764	0.0735
26.25	0.0947	0.2794	0.0977	0.0771	0.0738
26.5	0.0946	0.2733	0.0979	0.0778	0.0742
26.75	0.0944	0.2671	0.0980	0.0785	0.0746
27	0.0943	0.2608	0.0982	0.0792	0.0749
27.25	0.0941	0.2546	0.0983	0.0798	0.0753
27.5	0.0939	0.2482	0.0984	0.0805	0.0757
27.75	0.0938	0.2419	0.0985	0.0811	0.0760
28	0.0936	0.2355	0.0986	0.0818	0.0764
28.25	0.0934	0.2291	0.0986	0.0824	0.0768
28.5	0.0933	0.2227	0.0987	0.0830	0.0771
28.75	0.0931	0.2162	0.0987	0.0836	0.0775
29	0.0929	0.2097	0.0988	0.0842	0.0778
29.25	0.0927	0.2031	0.0988	0.0847	0.0782
29.5	0.0925	0.1965	0.0988	0.0853	0.0785
29.75	0.0923	0.1899	0.0988	0.0858	0.0788
30	0.0921	0.1832	0.0988	0.0864	0.0792
30.25	0.0919	0.0988	0.1866	0.0869	0.0795
30.5	0.0917	0.0988	0.1932	0.0874	0.0798
30.75	0.0915	0.0988	0.1998	0.0879	0.0802
31	0.0913	0.0988	0.2064	0.0884	0.0805
31.25	0.0911	0.0988	0.2129	0.0889	0.0808
31.5	0.0909	0.0987	0.2194	0.0894	0.0811
31.75	0.0907	0.0987	0.2259	0.0898	0.0814
32	0.0905	0.0986	0.2323	0.0903	0.0818

Table 3-8General Storm PMP (Page 4 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
32.25	0.0903	0.0985	0.2387	0.0907	0.0821
32.5	0.0900	0.0984	0.2451	0.0911	0.0824
32.75	0.0898	0.0983	0.2514	0.0915	0.0827
33	0.0896	0.0982	0.2577	0.0919	0.0830
33.25	0.0894	0.0981	0.2640	0.0923	0.0833
33.5	0.0891	0.0980	0.2702	0.0927	0.0836
33.75	0.0889	0.0978	0.2764	0.0931	0.0839
34	0.0887	0.0977	0.2825	0.0934	0.0842
34.25	0.0884	0.0975	0.2886	0.0938	0.0844
34.5	0.0882	0.0973	0.2947	0.0941	0.0847
34.75	0.0879	0.0971	0.3007	0.0944	0.0850
35	0.0877	0.0969	0.3068	0.0947	0.0853
35.25	0.0874	0.0967	0.3127	0.0950	0.0856
35.5	0.0872	0.0965	0.3187	0.0953	0.0858
35.75	0.0869	0.0962	0.5812	0.0956	0.0861
36	0.0866	0.0960	0.6551	0.0959	0.0864
36.25	0.0864	0.0957	0.6174	0.0961	0.0866
36.5	0.0861	0.0955	0.5464	0.0964	0.0869
36.75	0.0858	0.0952	0.3157	0.0966	0.0872
37	0.0856	0.0949	0.3097	0.0968	0.0874
37.25	0.0853	0.0946	0.3038	0.0970	0.0877
37.5	0.0850	0.0943	0.2977	0.0972	0.0879
37.75	0.0847	0.0939	0.2917	0.0974	0.0882
38	0.0844	0.0936	0.2856	0.0976	0.0884
38.25	0.0842	0.0933	0.2794	0.0977	0.0887
38.5	0.0839	0.0929	0.2733	0.0979	0.0889
38.75	0.0836	0.0925	0.2671	0.0980	0.0891
39	0.0833	0.0921	0.2608	0.0982	0.0894
39.25	0.0830	0.0917	0.2546	0.0983	0.0896
39.5	0.0827	0.0913	0.2482	0.0984	0.0898
39.75	0.0824	0.0909	0.2419	0.0985	0.0900
40	0.0821	0.0905	0.2355	0.0986	0.0903
40.25	0.0818	0.0900	0.2291	0.0986	0.0905
40.5	0.0814	0.0896	0.2227	0.0987	0.0907
40.75	0.0811	0.0891	0.2162	0.0987	0.0909
41	0.0808	0.0887	0.2097	0.0988	0.0911
41.25	0.0805	0.0882	0.2031	0.0988	0.0913
41.5	0.0802	0.0877	0.1965	0.0988	0.0915
41.75	0.0798	0.0872	0.1899	0.0988	0.0917
42	0.0795	0.0866	0.1832	0.0988	0.0919
42.25	0.0792	0.0861	0.0988	0.1866	0.0921
42.5	0.0788	0.0856	0.0988	0.1932	0.0923
42.75	0.0785	0.0850	0.0988	0.1998	0.0925

Table 3-8General Storm PMP (Page 5 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
43	0.0782	0.0844	0.0988	0.2064	0.0927
43.25	0.0778	0.0839	0.0988	0.2129	0.0929
43.5	0.0775	0.0833	0.0987	0.2194	0.0931
43.75	0.0771	0.0827	0.0987	0.2259	0.0933
44	0.0768	0.0821	0.0986	0.2323	0.0934
44.25	0.0764	0.0814	0.0985	0.2387	0.0936
44.5	0.0760	0.0808	0.0984	0.2451	0.0938
44.75	0.0757	0.0802	0.0983	0.2514	0.0939
45	0.0753	0.0795	0.0982	0.2577	0.0941
45.25	0.0749	0.0788	0.0981	0.2640	0.0943
45.5	0.0746	0.0782	0.0980	0.2702	0.0944
45.75	0.0742	0.0775	0.0978	0.2764	0.0946
46	0.0738	0.0768	0.0977	0.2825	0.0947
46.25	0.0735	0.0760	0.0975	0.2886	0.0949
46.5	0.0731	0.0753	0.0973	0.2947	0.0950
46.75	0.0727	0.0746	0.0971	0.3007	0.0952
47	0.0723	0.0738	0.0969	0.3068	0.0953
47.25	0.0719	0.0731	0.0967	0.3127	0.0955
47.5	0.0715	0.0723	0.0965	0.3187	0.0956
47.75	0.0711	0.0715	0.0962	0.5812	0.0957
48	0.0707	0.0707	0.0960	0.6551	0.0959
48.25	0.0703	0.0703	0.0957	0.6174	0.0960
48.5	0.0699	0.0699	0.0955	0.5464	0.0961
48.75	0.0695	0.0695	0.0952	0.3157	0.0962
49	0.0691	0.0691	0.0949	0.3097	0.0964
49.25	0.0687	0.0687	0.0946	0.3038	0.0965
49.5	0.0683	0.0683	0.0943	0.2977	0.0966
49.75	0.0679	0.0679	0.0939	0.2917	0.0967
50	0.0674	0.0674	0.0936	0.2856	0.0968
50.25	0.0670	0.0670	0.0933	0.2794	0.0969
50.5	0.0666	0.0666	0.0929	0.2733	0.0970
50.75	0.0661	0.0661	0.0925	0.2671	0.0971
51	0.0657	0.0657	0.0921	0.2608	0.0972
51.25	0.0653	0.0653	0.0917	0.2546	0.0973
51.5	0.0648	0.0648	0.0913	0.2482	0.0974
51.75	0.0644	0.0644	0.0909	0.2419	0.0975
52	0.0640	0.0640	0.0905	0.2355	0.0976
52.25	0.0635	0.0635	0.0900	0.2291	0.0977
52.5	0.0631	0.0631	0.0896	0.2227	0.0977
52.75	0.0626	0.0626	0.0891	0.2162	0.0978
53	0.0622	0.0622	0.0887	0.2097	0.0979
53.25	0.0617	0.0617	0.0882	0.2031	0.0980
53.5	0.0612	0.0612	0.0877	0.1965	0.0980

Table 3-8General Storm PMP (Page 6 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
53.75	0.0608	0.0608	0.0872	0.1899	0.0981
54	0.0603	0.0603	0.0866	0.1832	0.0982
54.25	0.0598	0.0598	0.0861	0.0988	0.0982
54.5	0.0594	0.0594	0.0856	0.0988	0.0983
54.75	0.0589	0.0589	0.0850	0.0988	0.0983
55	0.0584	0.0584	0.0844	0.0988	0.0984
55.25	0.0579	0.0579	0.0839	0.0988	0.0984
55.5	0.0574	0.0574	0.0833	0.0987	0.0985
55.75	0.0570	0.0570	0.0827	0.0987	0.0985
56	0.0565	0.0565	0.0821	0.0986	0.0986
56.25	0.0560	0.0560	0.0814	0.0985	0.0986
56.5	0.0555	0.0555	0.0808	0.0984	0.0986
56.75	0.0550	0.0550	0.0802	0.0983	0.0987
57	0.0545	0.0545	0.0795	0.0982	0.0987
57.25	0.0540	0.0540	0.0788	0.0981	0.0987
57.5	0.0535	0.0535	0.0782	0.0980	0.0987
57.75	0.0530	0.0530	0.0775	0.0978	0.0988
58	0.0524	0.0524	0.0768	0.0977	0.0988
58.25	0.0519	0.0519	0.0760	0.0975	0.0988
58.5	0.0514	0.0514	0.0753	0.0973	0.0988
58.75	0.0509	0.0509	0.0746	0.0971	0.0988
59	0.0504	0.0504	0.0738	0.0969	0.0988
59.25	0.0498	0.0498	0.0731	0.0967	0.0988
59.5	0.0493	0.0493	0.0723	0.0965	0.0988
59.75	0.0488	0.0488	0.0715	0.0962	0.0988
60	0.0482	0.0482	0.0707	0.0960	0.0988
60.25	0.0477	0.0477	0.0699	0.0957	0.1832
60.5	0.0472	0.0472	0.0691	0.0955	0.1866
60.75	0.0466	0.0466	0.0683	0.0952	0.1899
61	0.0461	0.0461	0.0674	0.0949	0.1932
61.25	0.0455	0.0455	0.0666	0.0946	0.1965
61.5	0.0450	0.0450	0.0657	0.0943	0.1998
61.75	0.0444	0.0444	0.0648	0.0939	0.2031
62	0.0439	0.0439	0.0640	0.0936	0.2064
62.25	0.0433	0.0433	0.0631	0.0933	0.2097
62.5	0.0427	0.0427	0.0622	0.0929	0.2129
62.75	0.0422	0.0422	0.0612	0.0925	0.2162
63	0.0416	0.0416	0.0603	0.0921	0.2194
63.25	0.0410	0.0410	0.0594	0.0917	0.2227
63.5	0.0404	0.0404	0.0584	0.0913	0.2259
63.75	0.0399	0.0399	0.0574	0.0909	0.2291
64	0.0393	0.0393	0.0565	0.0905	0.2323
64.25	0.0387	0.0387	0.0555	0.0900	0.2355

Table 3-8General Storm PMP (Page 7 of 7)

Time (hours)	15-Minute Incremental General Storm PMP Depths (inches) for Five Temporal Distributions				
	Front Peaking	One-Third Peaking	Center Peaking	Two-Thirds Peaking	End Peaking
64.5	0.0381	0.0381	0.0545	0.0896	0.2387
64.75	0.0375	0.0375	0.0535	0.0891	0.2419
65	0.0369	0.0369	0.0524	0.0887	0.2451
65.25	0.0363	0.0363	0.0514	0.0882	0.2482
65.5	0.0357	0.0357	0.0504	0.0877	0.2514
65.75	0.0351	0.0351	0.0493	0.0872	0.2546
66	0.0345	0.0345	0.0482	0.0866	0.2577
66.25	0.0339	0.0339	0.0472	0.0861	0.2608
66.5	0.0333	0.0333	0.0461	0.0856	0.2640
66.75	0.0327	0.0327	0.0450	0.0850	0.2671
67	0.0321	0.0321	0.0439	0.0844	0.2702
67.25	0.0315	0.0315	0.0427	0.0839	0.2733
67.5	0.0309	0.0309	0.0416	0.0833	0.2764
67.75	0.0302	0.0302	0.0404	0.0827	0.2794
68	0.0296	0.0296	0.0393	0.0821	0.2825
68.25	0.0290	0.0290	0.0381	0.0814	0.2856
68.5	0.0283	0.0283	0.0369	0.0808	0.2886
68.75	0.0277	0.0277	0.0357	0.0802	0.2917
69	0.0271	0.0271	0.0345	0.0795	0.2947
69.25	0.0264	0.0264	0.0333	0.0788	0.2977
69.5	0.0258	0.0258	0.0321	0.0782	0.3007
69.75	0.0251	0.0251	0.0309	0.0775	0.3038
70	0.0245	0.0245	0.0296	0.0768	0.3068
70.25	0.0238	0.0238	0.0283	0.0760	0.3097
70.5	0.0232	0.0232	0.0271	0.0753	0.3127
70.75	0.0225	0.0225	0.0258	0.0746	0.3157
71	0.0219	0.0219	0.0245	0.0738	0.3187
71.25	0.0212	0.0212	0.0232	0.0731	0.5464
71.5	0.0205	0.0205	0.0219	0.0723	0.5812
71.75	0.0199	0.0199	0.0205	0.0715	0.6174
72	0.0192	0.0192	0.0192	0.0707	0.6551
Total	30.90	30.90	30.90	30.90	30.90

Table 3-9 Wind Speeds and Direction (by date) of Analyzed NDBC Buoys along the California Central Coast

			Wind Direction Avg			St Dev Wind Direction			Max Daily Wind Speed			Avg Daily Wind Speed			St Dev Wind Speed		
Year	Month	Date	46011	46023	46028	46011	46023	46028	46011	46023	46028	46011	46023	46028	46011	46023	46028
2008	2	24	175.0	179.8		24.4	30.4		17.5	20.1		9.8	10.0		4.2	5.0	
2008	2	25	316.8	326.3		32.1	33.3		9.5	9.9		6.0	7.1		2.0	2.1	
2007	12	4	329.7	340.0		11.3	8.3		10.8	11.8		7.2	8.1		1.8	2.1	
2001	1	11	218.7	214.0	206.4	33.6	32.3	27.7	14.5	16.3	13.3	8.7	10.0	9.1	2.4	2.4	2.3
2001	1	12	189.1	189.3	229.3	40.9	44.4	90.4	12.9	12.8	9.8	7.2	7.4	5.8	3.2	3.9	2.7
2007	12	5	336.3	340.6		10.9	9.1		11.5	12.5		8.3	10.0		1.5	1.2	
2004	2	26	216.4	238.8	234.3	56.6	52.5	35.8	7.2	7.7	8.6	4.5	5.2	5.9	1.7	1.4	1.4
2007	1	5	319.8	283.5	347.0	68.7	128.0	5.5	16.4	18.6	17.3	12.9	14.5	15.5	2.4	2.9	1.0
2008	1	5	191.5	210.8		34.6	34.7		14.2	14.2		5.4	5.6		3.8	4.1	
2000	12	22	330.4	312.5	306.9	10.1	8.0	17.0	10.2	11.4	9.1	7.6	8.7	5.2	1.7	1.8	2.4
1999	4	4	308.2	299.5	312.0	11.3	7.5	5.7	18.4	20.9	18.1	12.7	15.2	14.3	3.1	3.0	2.3
1999	1	27	169.7	258.0	322.3	154.9	132.2	6.6	10.7	13.2	13.0	6.3	8.4	9.9	1.6	2.0	1.6
2001	12	21	267.8		268.1	37.4		37.3	11.8	13.0	13.8	8.1	9.2	10.1	1.9	2.1	2.0
1998	12	9	174.5	282.0	278.2	164.9	124.7	90.8	10.9	13.1	13.0	7.1	8.9	9.5	1.8	1.8	4.0
1998	12	1	192.3	163.4	220.8	137.1	135.7	98.7	10.7	12.7	10.6	5.2	5.5	6.9	2.6	3.4	2.3
1999	1	26	259.0	256.2	265.0	20.2	14.3	14.0	11.2	14.0	10.7	6.6	8.1	7.0	2.2	2.6	2.0
2000	12	23	316.5	312.2	318.5	67.4	9.1	6.5	10.5	12.6	11.8	6.7	10.2	9.1	2.6	1.7	0.9
2001	5	2	321.8	324.4	315.8	4.1	5.2	4.4	12.3	14.0	17.2	9.8	12.0	14.9	1.4	1.2	1.2
2009	11	8	332.3	272.5		15.6	141.1		10.5	13.4	13.3	8.2	9.8	8.7	1.3	1.5	2.6
1998	11	26	260.6	299.0	249.5	125.9	59.9	90.4	9.5	9.7	6.0	4.5	5.8	3.1	2.0	1.6	1.8
2009	11	7	319.2	333.5		5.2	4.3		11.8	14.2	14.5	9.5	11.2	11.5	1.3	1.6	2.1
2008	5	22	315.7	327.5	326.6	5.6	4.8	3.2	15.1	18.2	17.2	13.4	15.8	15.8	1.5	1.6	1.1
2008	1	6	229.0	224.3		62.8	74.3		10.6	11.4		5.5	6.0		2.5	2.8	
1999	2	17	221.4	290.7	241.5	118.3	20.0	65.9	8.2	9.0	6.1	3.3	4.3	3.9	2.1	2.2	1.1

Wind Speeds – m/s
Wind Direction - degrees

Table 3-10 Maximum Daily Wave Heights and Direction (by date) of Analyzed NDBC Buoys along the California Central Coast

			Maxi Daily Wave Height					Max Daily Peak Wave Period					Avg Daily Wave Direction				Std Dev, Wave Direction			
Year	Month	Date	46011	46023	46028	46215	46218	46011	46023	46028	46215	46218	46011	46028	46215	46218	46011	46028	46215	46218
2008	2	24	6.99	7.42	5.78	5.58	9.97	21.05	20.00	19.05	20.00	20.00	228.0	210.8	225.2	214.4	43.0	46.2	30.5	57.9
2008	2	25	6.95	7.26	5.68	5.04	7.5	17.39	20.00	16.00	18.18	18.18	272.5	281.6	254.9	271.1	5.1	10.1	7.1	4.6
2007	12	4	5.05	5.73	5.92	4.2	7.37	19.05	20.00	19.05	20.00	20.00	272.6	275.1	254.3	267.3	8.6	9.5	5.2	5.0
2001	1	11	6.98	7.66	8.51	6.5	7.23	16.67	16.67	16.67	16.67	16.67			269.9	293.6			7.0	5.1
2001	1	12	7.04	6.67	6.95	5.6	7.21	16.67	16.67	16.67	16.67	16.67			267.4	294.7			8.6	4.3
2007	12	5	5.62	7.23	5.59	4.72	7.14	19.05	20.00	19.05	20.00	18.18	273.3	280.2	251.0	266.1	7.5	6.5	7.5	4.1
2004	2	26	7.16	6.75	7.65	5.94	7.13	16.67	20.00	20.00	18.18	18.18		259.3	264.2	287.0		39.3	13.7	6.0
2007	1	5	6.22	6.66	6.92	3.96	7.12	17.39	16.67	17.39	18.18	16.67	299.3	311.0	264.8	305.5	9.4	13.5	11.7	8.8
2008	1	5	8.62	7.61	8.96	6.42	7.08	19.05	20.00	19.05	20.00	20.00	276.5	268.5	254.8	278.0	34.4	33.1	18.8	23.1
2000	12	22	6.21	5.28	7.91	6.05	6.4	20.00	20.00	20.00	20.00	20.00			261.8	283.9			6.7	7.8
1999	4	4	6.64	6.58	7.72	3.66	6.57	12.50	14.29	14.29	15.38	15.38			274.8	311.0			5.5	3.4
1999	1	27	6.65	6.26	7.7	5.33	6.06	16.67	16.67	16.67	16.67	16.67			269.8	302.1			3.4	4.7
2001	12	21	6.37	7.1	7.68	5.45	6.12	16.67	16.67	16.67	16.67	16.67			264.5	287.2			5.5	4.8
1998	12	9	6.52	6.84	7.5	4.15	4.83	20.00	20.00	20.00	20.00	18.18			270.6	301.0			6.9	5.8
1998	12	1	6.27	6.71	7.44	5.33	5.78	20.00	20.00	20.00	20.00	18.18			264.3	289.4			6.5	6.2
1999	1	26	4.22	3.73	7.31	4.37	4.07	16.67	16.67	16.67	16.67	16.67			273.5	302.8			4.0	6.1
2000	12	23	7.21	6.78	7.27	6.12	6.39	20.00	16.67	16.67	18.18	18.18			266.1	288.3			5.2	3.4
2001	5	2	6.33	5.86	7.22	4.33	6.05	16.67	16.67	14.29	16.67	15.38			272.4	305.5			3.9	4.5
2009	11	8	5.35	6.68	7.19	3.42	6.37	19.05	20.00	17.39	18.18	18.18	317.5	317.5	265.3	307.5	7.2	6.3	4.9	3.4
1998	11	26	4.92	5.67	7.09	4.36	4.87	20.00	20.00	20.00	18.18	18.18			269.5	293.2			5.2	4.4
2009	11	7	5.51	6.06	7.03	3.93	6.93	19.05	20.00	19.05	20.00	20.00	314.2	317.8	269.6	305.4	8.6	3.0	4.6	6.3
2008	5	22	5.98	6.02	7	3.7	6.82	12.12	12.50	12.90	13.33	13.33	318.3	316.0	277.3	315.1	4.6	3.6	3.9	4.1
2008	1	6	7.19	7.14	6.14	4.4	5.77	17.39	16.67	17.39	18.18	18.18	298.6	293.9	261.4	296.6	5.1	6.1	4.7	3.9
1999	2	17	7.13	5.4	5.35	4.15	5.55	20.00	20.00	20.00	20.00	20.00			269.1	291.8			6.2	3.8

Wave Heights – meters
Wave Direction - degrees

Table 3-11 Estimated 200 Year Return Period Calibrated to DELFT3D Significant Wave Height

NDBC Buoy	200 Yr RP (Hsig) [m]	Delft3D (Hsig) [m]	Percent Difference
46028	11.407	11.5510	-1.26%
46215	7.9061	7.9058	0.00%
46011	11.049	11.0456	-1.37%
46023	11.306	11.2005	-0.43%
46218	11.042	11.3541	-0.03%

Table 3-12 Boundary and Physical Inputs Used in the DELFT3D Simulation

- Significant wave height, 11.2 m
- Peak wave period, 20 s
- Wave Direction, 270° (westerly)
- Directional spreading, 4°
- Wind Velocity, 10 m/s
- Wind Direction, 270° (westerly)
- Water Density, 1,025 kg/m^3
- Collins Bottom Friction Coefficient, 0.1118 (calibrated)

Table 3-13 Maximum Amplitude of Far-Field Coseismic Tsunamis Recorded at Avilla Beach (AB) and Port San Luis (PSL) Tide Gauges

	Far-Field Coseismic Tsunamis (since 1946)						Max. Ampl. (m)	
No.	Date	Region/source	Lat. (deg.)	Lon. (deg.)	Dist. (km)	Mw	PSL	AB
1	4/1/1946	Alaska/Unimak	53.492	-162.832	3839	8.6	1.2	
2	12/20/1946	Japan/E. Honshu	33	135.6	9039	8.1		0.1
3	11/4/1952	Kamchatka/Kuril	52.755	160.057	6289	9		1.4
4	3/9/1957	Alaska	51.292	-175.629	4668	8.6		0.53
5	11/6/1958	Kamchatka/Kuril	44.53	148.54	7411	8.3		0.14
6	5/22/1960	S. America/Chile	-39.5	-74.5	9565	9.6		0.99
7	10/13/1963	Kamchatka/Kuril	44.77	149.798	7310	8.5		0.3
8	3/28/1964	Alaska	61.017	-147.648	3448	9.2		1.6
9	10/17/1966	S. America/Peru	-10.748	-78.638	6759	8.1		0.1
10	5/16/1968	Japan/E. Honshu	40.8	143.2	7994	8.2		0.1
11	11/29/1975	Hawaii	19.451	-155.033	3785	7.7	0.39	
12	6/22/1977	S. Pac./Tonga Tr.	-22.878	-175.9	8685	7.2	0.12	
13	10/4/1994	Kamchatka/Kuril	43.773	147.321	7535	8.3	0.15	
14	7/30/1995	S. America/Chile	-23.34	-70.294	8402	8	0.12	
15	12/3/1995	Kamchatka/Kuril	44.663	149.3	7349	7.9	0.07	
16	6/10/1996	Alaska/Andreanov	51.564	-177.632	4805	7.9	0.09	
17	11/26/1999	S. Pacific/Vanuatu	-16.423	168.214	9423	7.5	0.05	
18	6/23/2001	S. America/Peru	-16.265	-73.641	7577	8.4	0.14	
19	9/25/2003	Japan/Hokaido	41.815	143.91	7884	8.3	0.03	
20	12/26/2004	Indonesia/Sumatra	3.316	95.854	14286	9.1	0.27	
21	11/15/2006	Kamchatka/Kuril	46.592	153.266	6979	8.3	0.56	
22	1/13/2007	Kamchatka/Kuril	46.243	154.524	6906	8.1	0.11	
23	4/1/2007	S. Pac./Solomon Isl.	-8.466	157.043	9851	8.1	0.09	
24	8/15/2007	S. America/Peru	-13.386	-76.603	7127	8	0.08	
25	1/3/2009	S. Pac./PNG	-0.414	132.885	11518	7.6	0.08	
26	9/29/2009	S. Pac./Samoa Is.	-15.489	-172.095	7812	8	0.28	
27	10/7/2009	S. Pac./Vanuatu Is.	-13.006	166.51	9329	7.6	0.08	
28	2/27/2010	S. America/Chile	-36.122	-72.898	9350	8.8	0.80	
29	3/11/2011	Japan/Honshu	38.297	142.372	8200	9	2.02	
30	10/28/2012	Canada/Queen Ch.	52.788	-132.101	2153	7.7	0.27	
31	2/6/2013	S. Pac./Solomon Isl.	-10.799	165.114	9295	7.9	0.14	
32	4/1/2014	S. America/Chile	-19.642	-70.817	8056	8.2	0.22	

Table 3-14 Maximum Amplitude of Near-Field Coseismic Tsunamis

	Far-Field Coseismic Tsunamis (since 1946)						Max. Ampl. (m)	
No.	Date	Region/source	Lat. (deg.)	Lon. (deg.)	Dist. (km)	Mw	PSL	AB
	11/22/1878	San Luis Obispo				N/A*		
33	11/4/1927	California/Lompoc	34.813	-120.774	40	7.3**	1.2***	
34	4/25/1992	California/Humboldt	40.368	-124.316	657	7.2	0.07	

* 11/22/1878 event was likely caused by a local submarine mass failure

** Original magnitude was Mw 7.0; increased magnitude was recommended by Ellsworth (2003)

*** Reported in literature. Tide gauge not yet installed.

Table 3-15 Maximum Expected Magnitudes (Mw) Used in RPMT Simulations

Sources		Max M_w	References
Far-Field	Alaska (ASZ)	9.2	Johnson et al. (1996)
		9.2	Ichinose et al. (2007)
		9.2	Suito and Freimueller (2009)
	Semidi (SSZ)	9.1	Ross et al. (2013), Whitmore et al. (2013)
	Kamchatka (KSZ)	9.2	Gonzalez et al. (2009)* (Zone KSZ1)
			Gonzalez et al. (2009)* (Zone KSZ2)
	Japan (JSZ)	9.1	Grilli et al. (2013a,b; Tappin et al., 2014)
Near-Field	Hosgri fault (HFS)	7.66	Petersen et al. (2008), Wills et al. (2007)*
	San Lucia fault (SLFS)	7.49	Petersen et al. (2008), Wills et al. (2007)*

* Parameters revised in present study

Table 3-16 SMF Parameters Used in RPMT Simulations

SMF proxy simulations In NHWAVE	**Goleta SMF proxy**	**Big Sur North SMF proxy**
Grid used for generation	Goleta 125	Big Sur 500
Center of mass location (x_o, y_o)	35.153 N -120.985 W	35.097 N -121.904 W
Width w (km)	10.5	10
Length b (km)	7.45	15
Thickness T (m)	75	235
Depth d (m) at center of mass	300 (100-400)	2600
Mean slope β of failure surface (deg)	2	4
Azimuth θ of SMF movement (deg. true N)	245	255
Initial acceleration a_o (m/s^2)	0.14	0.26
Maximum velocity u_{max} (m/s)	25.0	51.9
Motion duration t_f (s)	559.0	635.4
Motion runout s_f (km)	8.88	21.04

Table 3-17 Summary of RPMT Runup and Drawdown Results

	Far-Field (Distant) Seismic Tsunami		Near-Field (Local) Seismic Tsunami		Goleta Proxy SMF Tsunami		Goleta Proxy SMF Tsunami with Reduced Breakwater Evaluation (no CLB)
	CLB	Reevaluation (SSZ)	CLB	Reevaluation (HFS)	CLB	Reevaluation	
Max. Water Elevation in the Area of the Intake Structure (HHWL)	30.3 ft.	17.4 ft.[5]	34.9 ft.	1.3 ft. [5]	N/A	27.9 ft.[4]	32.8 ft.
Max. Runup Elevation Behind Intake Structure[3] (HHWL)	N/A	N/A	N/A	N/A	N/A	32.8 ft.	62.3 ft.
Combined[2] Drawdown Elevation	-8.7 ft.	-9.2 ft.	-3.8 ft.	N/A	-8.7 ft.[6]	-15.7 ft.	-15.7 ft.
Splash	N/A	N/A[1]	60.32 ft.	N/A[1]	N/A	N/A[1]	N/A[1]

All elevations are in NAVD88.

1. RPMT did not result in any splash due to the longer period waves that are seen in the model.
2. The CLB included effects from tsunami, storm waves, storm surge, and tide. Combinations stipulated in NUREG/CR-7046 do not combine the effects from tsunami, storm waves, storm surge, & tide. The RPMT combination includes tsunami, tide, and long-term sea level rise. See Section 3.9.
3. In cases where the water level is high enough to continue over the intake structure, the maximum elevation that is reached up the steep hill behind the intake structure is provided.
4. The HAWL value is reported because it is more limiting than the HHWL.
5. Water levels shown are in the front of the intake structure since levels were not high enough to flow over the top deck of the structure (i.e., less that elevation 20.4 ft. NAVD88 [17.5 ft. MSL]).
6. Even though there is no CLB for the Goleta Proxy SMF, it is compared to -8.7 ft. since this is the most-limiting CLB drawdown value.

Table 3-18 Maximum Water Current Velocities and Impulse Forces for RPMTs

Safety-Related SSC	Water Velocity	Water Impulse Force
ASW Ventilation Huts / ASW Ventilation Snorkels	26.2 ft/s	0.86 kip/ft
Intake Structure Curtain Wall	18.0 ft/s	11.3 kip/ft
ASW Forebay Ceiling	18.0 ft/s	20.4 kip/ft
Intake Structure Top Deck	39.4 ft/s	11.6 kip/ft

* The velocity and impulse force for the ASW ventilation snorkels are zero because they are not inundated by the RPMTs.

Table 3-19 Potential Tsunami Debris

#	Commodity	Weight Class	Material Type
1	Bar Racks	3	Steel
2	Aux Salt Water Pump Screen Gate	5	Steel
3	Screen Wash Pumps	5	Steel
4	Traveling Screen Housing or Internal Parts (Outer covers are fiberglass)	2, 3, 4	Steel
5	Control/office building	1, 2, 3, 4, 5	Masonry Concrete
6	Intake Access Control & Security building cement blocks, roofing material, interior commodities	1, 2, 3, 4, 5	Masonry Concrete, Wood, Steel
7	Maintenance Machine Shop Building cement blocks, roofing material, interior commodities	1, 2, 3, 4, 5	Masonry Concrete, Wood, Steel
8	Maintenance and Storage Sea Trains	1, 2, 3, 4, 5, 6	Steel
9	Chlorination Tanks	4, 5, 6	Plastic
10	Security Fences and Gratings	2, 3, 4	Steel
11	Security Guard Towers	5, 6	Wood, Steel
12	PVC Piping for Biolab (located on hillside)	2	Plastic
13	Lighting/camera posts (permanently mounted)	3	Steel
14	Lighting stanchions (with concrete base)	4	Reinforced Concrete, Steel
15	Portable powered lighting carts	4	Steel
16	Gantry Crane	6	Steel
17	Movable Crane	6	Steel
18	Chemical Storage Tank	4, 5, 6	Plastic
19	Chemical Transferring Station	5	Steel, Plastic
20	Moored Intake Cove Boats	5	Steel, Wood
21	Kelp Cutter Boat and Trailer	6	Steel
22	Intake Cove Docks	2, 3, 4, 5	Wood
23	Maintenance and operations vehicles (pickup trucks)	5	Steel
24	Smaller 'golf cart' vehicles for personnel transport	4	Steel
25	Employee and visitor personal vehicles	5	Steel
26	Spare Tribars for breakwater construction	6	Reinforced Concrete
27	Lumber/cribbing	1	Wood
28	Meteorologist/Shower/Offices – Building 123	1, 2, 3, 4, 5, 6	Wood
29	Lumber fence located near Building 123	2	Wood
30	Lumber used as retaining walls.	1	Wood
31	Concrete block used as retaining walls directly to east of intake protected area	1	Masonry Concrete

#	Commodity	Weight Class	Material Type
32	'Porta Potties'	2	Plastic
33	Metal storage bins/dumpsters	2, 3	Steel
34	Plastic storage bins	2	Plastic
35	Compressed air/welding/CO^2 cylinders	1	Steel
36	Portable commodities associated with plant operation and maintenance including commodities temporarily stored/staged for maintenance activities	1, 2, 3, 4, 5, 6	Steel, Wood
37	Machine shop tools (metal-working floor mounted tools)	4, 5	Steel
38	Manmade and Natural items found in the landscape of areas expected to be inundated	1, 2, 3 ,4	Soil, Sand, Rock
39	Navigation buoys	2	Plastic
40	Concrete wheel chocks (for vehicle parking)	2	Reinforced Concrete
41	Eyewash Station	2	Plastic
42	Ladders	1	Steel
43	Sandbags	1	Soil, Sand, Rock
44	BBQs	1	Steel
45	Yellow Flotation Devices	1	Plastic
46	Small temporary building	3	Steel

Weight Classes are as follows:

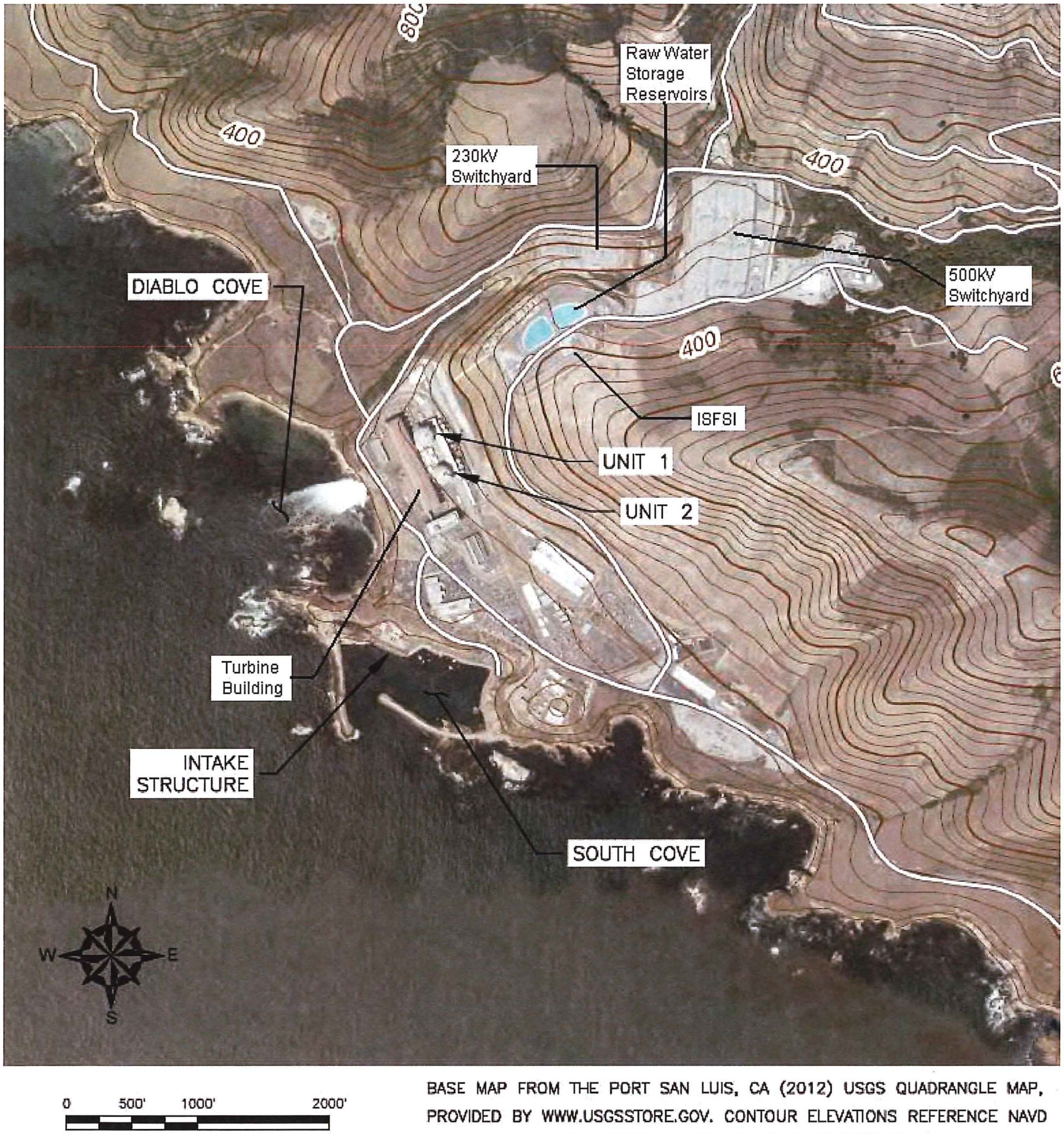
1 < 100 lbs.
2 > 100 lbs. and < 500 lbs.
3 > 500 lbs. and < 1,000 lbs.
4 > 1,000 lbs. and < 2,000 lbs.
5 > 2,000 lbs. and < 10,000 lbs.
6 > 10,000 lbs.

Table 3-20 Tsunami Debris Projectile Impact, Debris Damming, and Combined Forces

Civil Commodity	Limiting RPMT Projectile Force	Limiting CLB Tornado-Generated Missile Force	Bounded/ Not Bounded
Intake Structure Curtain Wall	4,188 kips	44,206 kips	Bounded
Intake Structure Top Deck	231.9 kips	44,206 kips	Bounded
ASW Forebay Ceiling[1]	N/A	N/A	N/A
ASW Ventilation Huts	224.3 kips	44,206 kips	Bounded
ASW Ventilation Snorkels[2]	N/A	N/A	N/A

1. The ASW forebay ceiling is an interior structural commodity. The ASW pump forebay draws seawater that enters under the curtain wall. As the height of the incoming wave exceeds the height of the bottom of the curtain wall (elevation -4.9 ft. NAVD88), floating projectiles would be excluded from entry to the ASW forebay. Projectiles in the flowstream for the tsunami at an elevation under the bottom of the curtain wall could enter the ASW forebay, but will not strike the forebay ceiling, located at elevation -0.7 ft. NAVD88, 4.2 feet above the bottom of the curtain wall, as they are not expected to have a velocity component after the forebay area is re-flooded after drawdown. Therefore, projectile impact to the forebay ceiling is not considered a credible event.

2. The ASW ventilation snorkels are not inundated by the RPMT. The maximum inundation height at the ASW ventilation huts is 5.8 feet. The height of the ASW ventilation huts is 14.5 feet from the intake structure top deck. Therefore, a floating projectile (such as the kelp harvesting vessel) that has a profile above the maximum inundation height is insufficient height to impact the ASW ventilation snorkels.



BASE MAP FROM THE PORT SAN LUIS, CA (2012) USGS QUADRANGLE MAP, PROVIDED BY WWW.USGSSTORE.GOV. CONTOUR ELEVATIONS REFERENCE NAVD 88, CONTOURS ARE SHOWN IN FEET AT 40 FOOT INTERVALS.

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Diablo Canyon Power Plant

Figure 2-1
DCPP Site Location

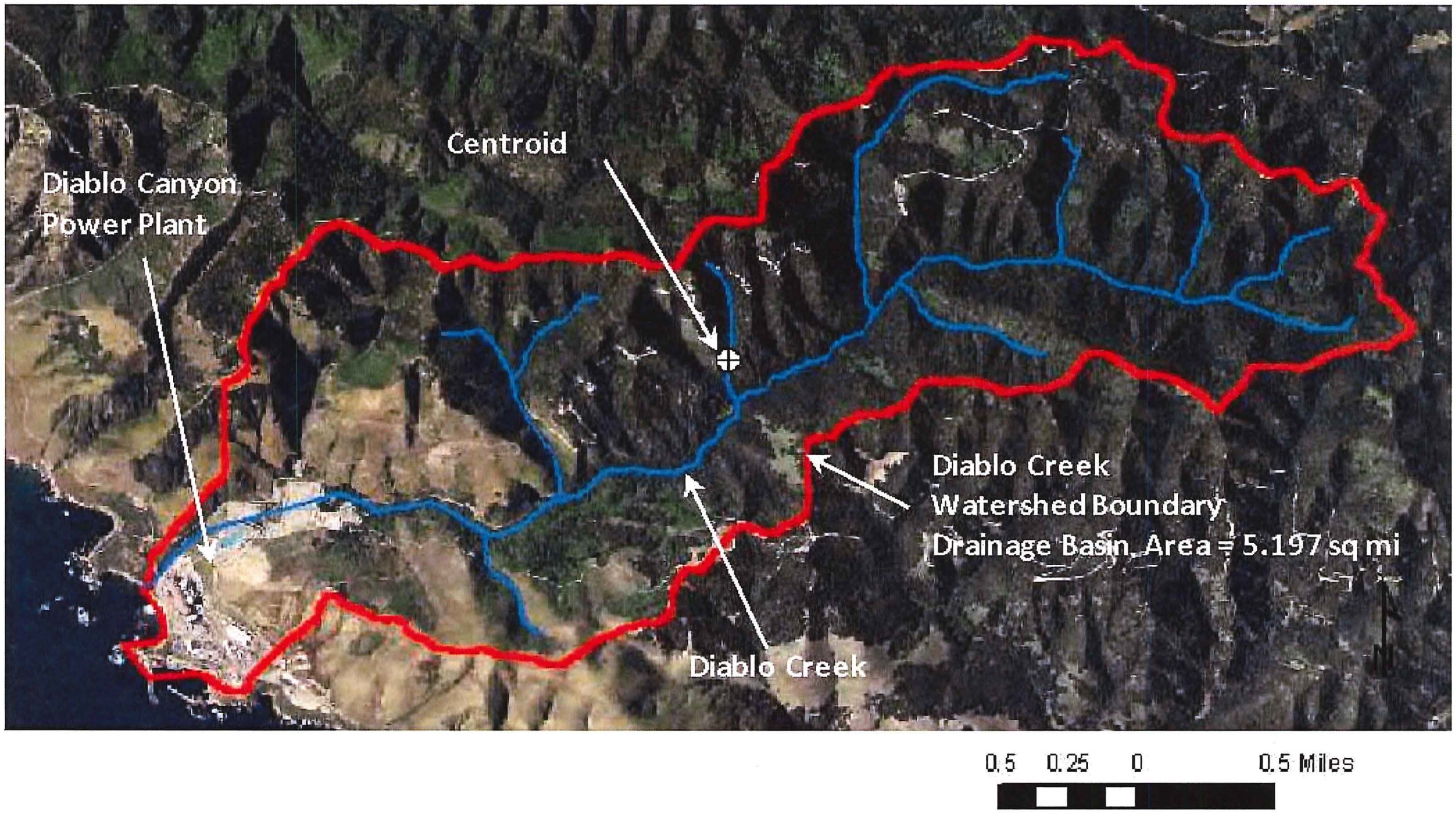

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Figure 2-2
Diablo Creek Watershed

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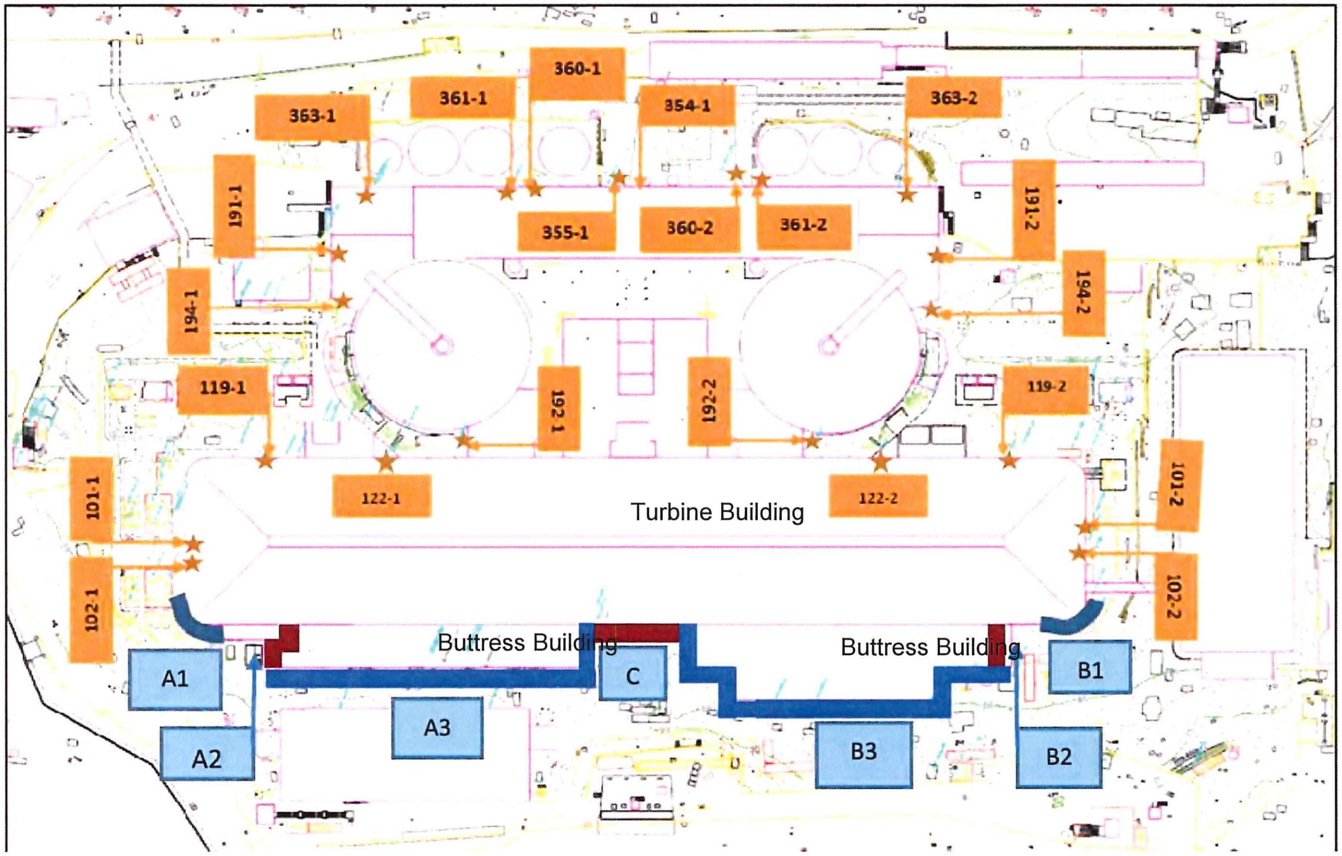
Figure 3-1
Locations of Storms Used in LIP Determination



Orange = doors

Blue = areas

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Figure 3-2
Locations of Doors, Safety and Non Safety-Related Structures, and Areas to the West of the Turbine and Buttress Buildings Evaluated for LIP

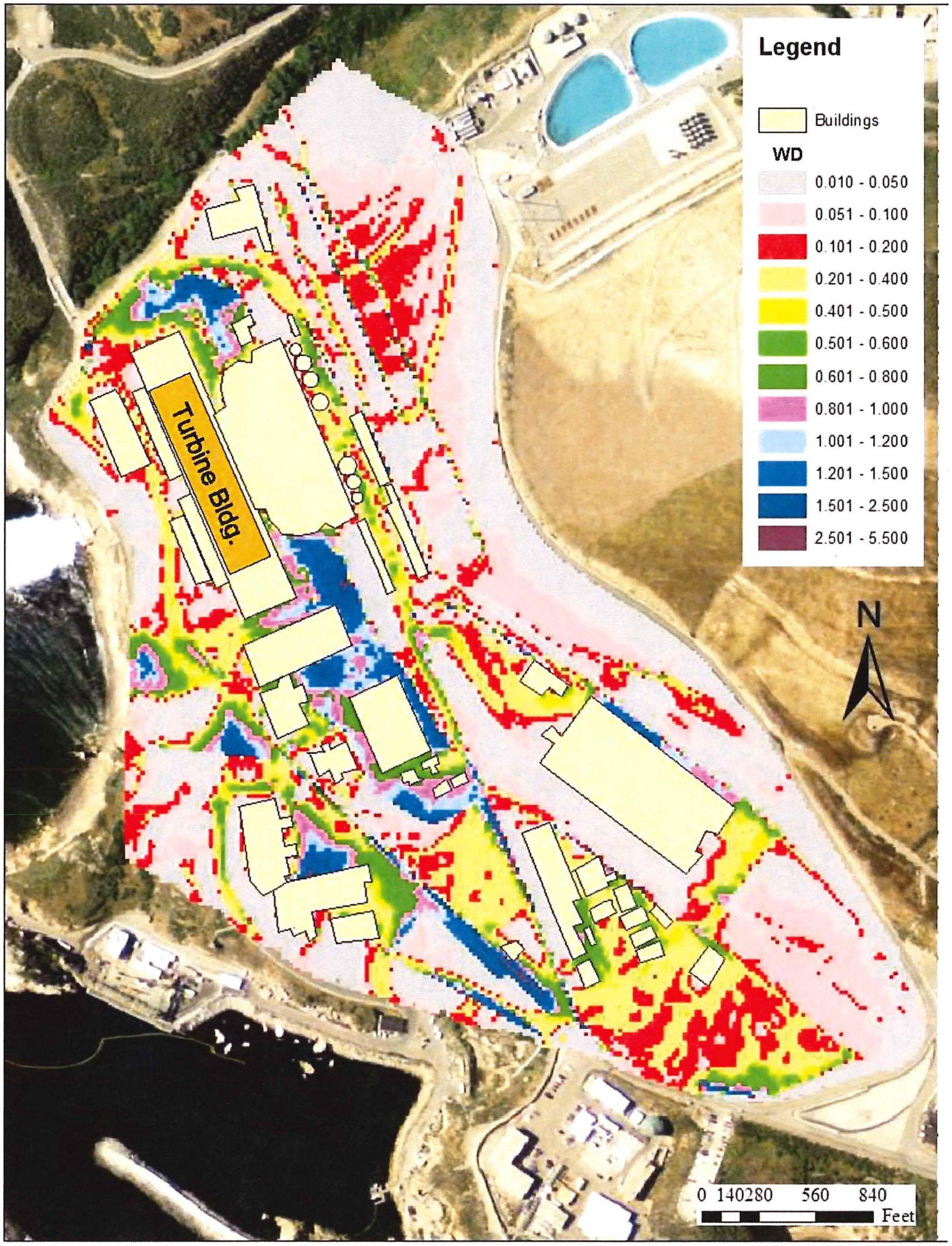

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Figure 3-3
Maximum Water Depth from LIP (ft.)

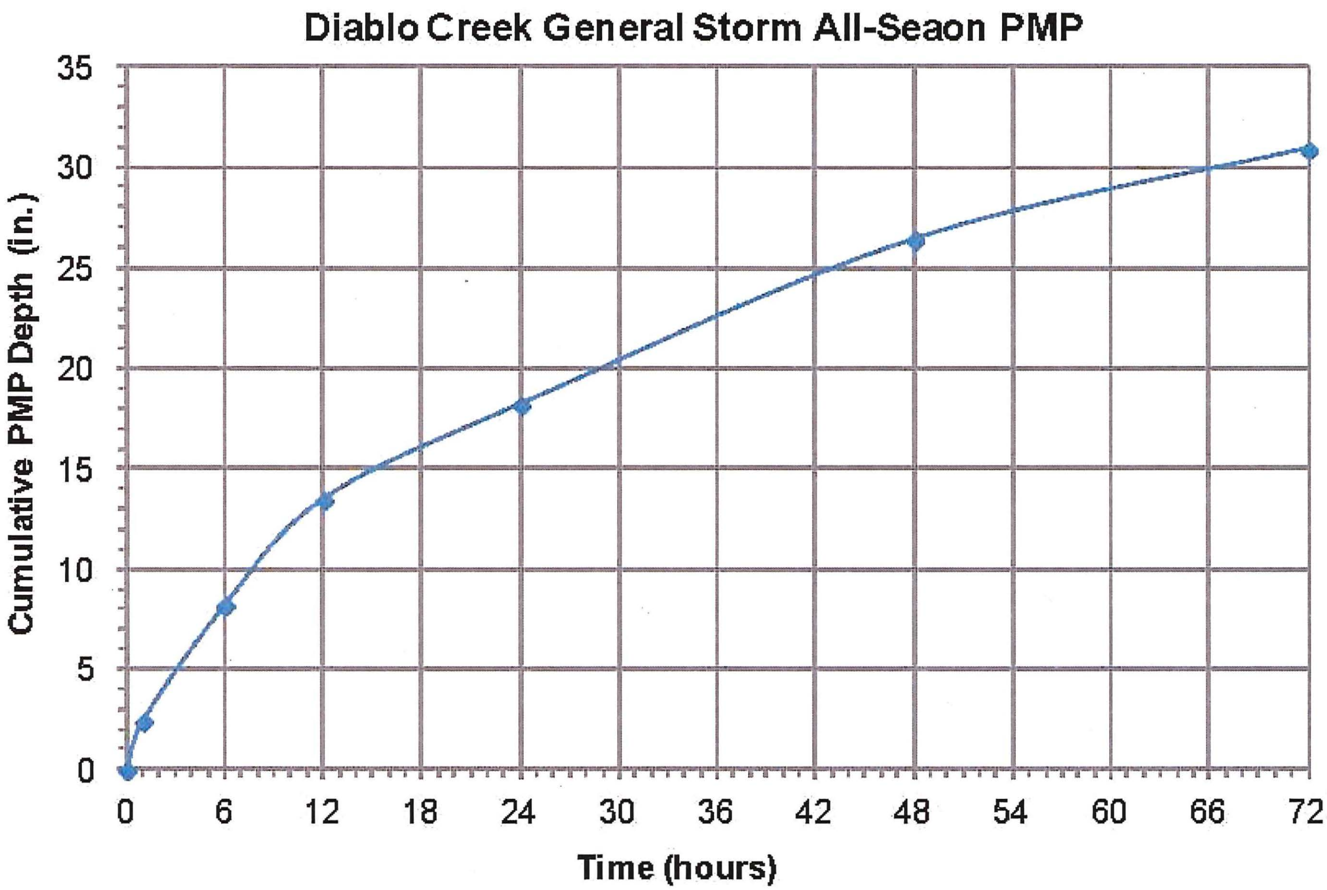

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Figure 3-4 Diablo Creek General Storm All-Season Cumulative PMP Values

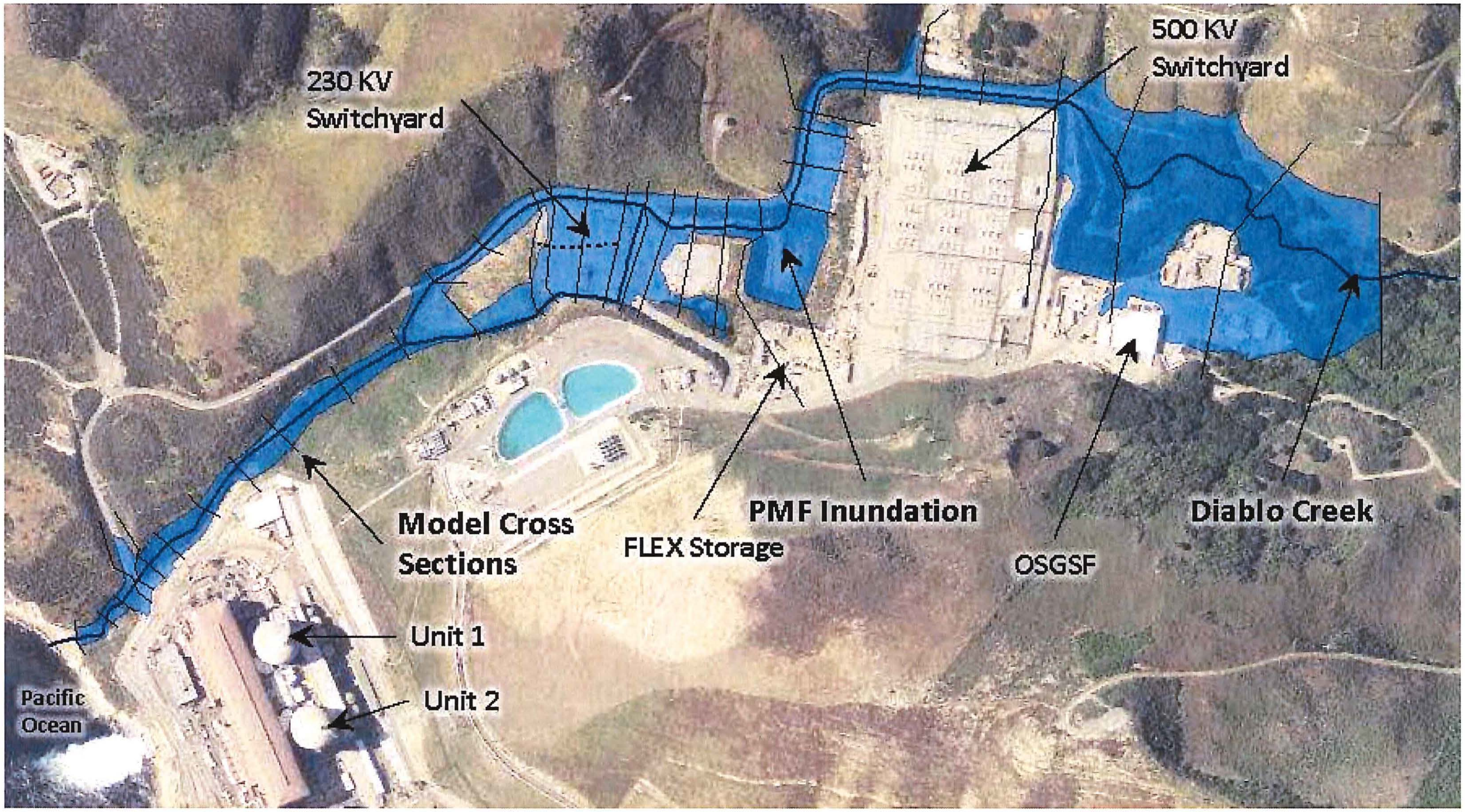

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Figure 3-5
DCPP Site Locations of PMF Inundation

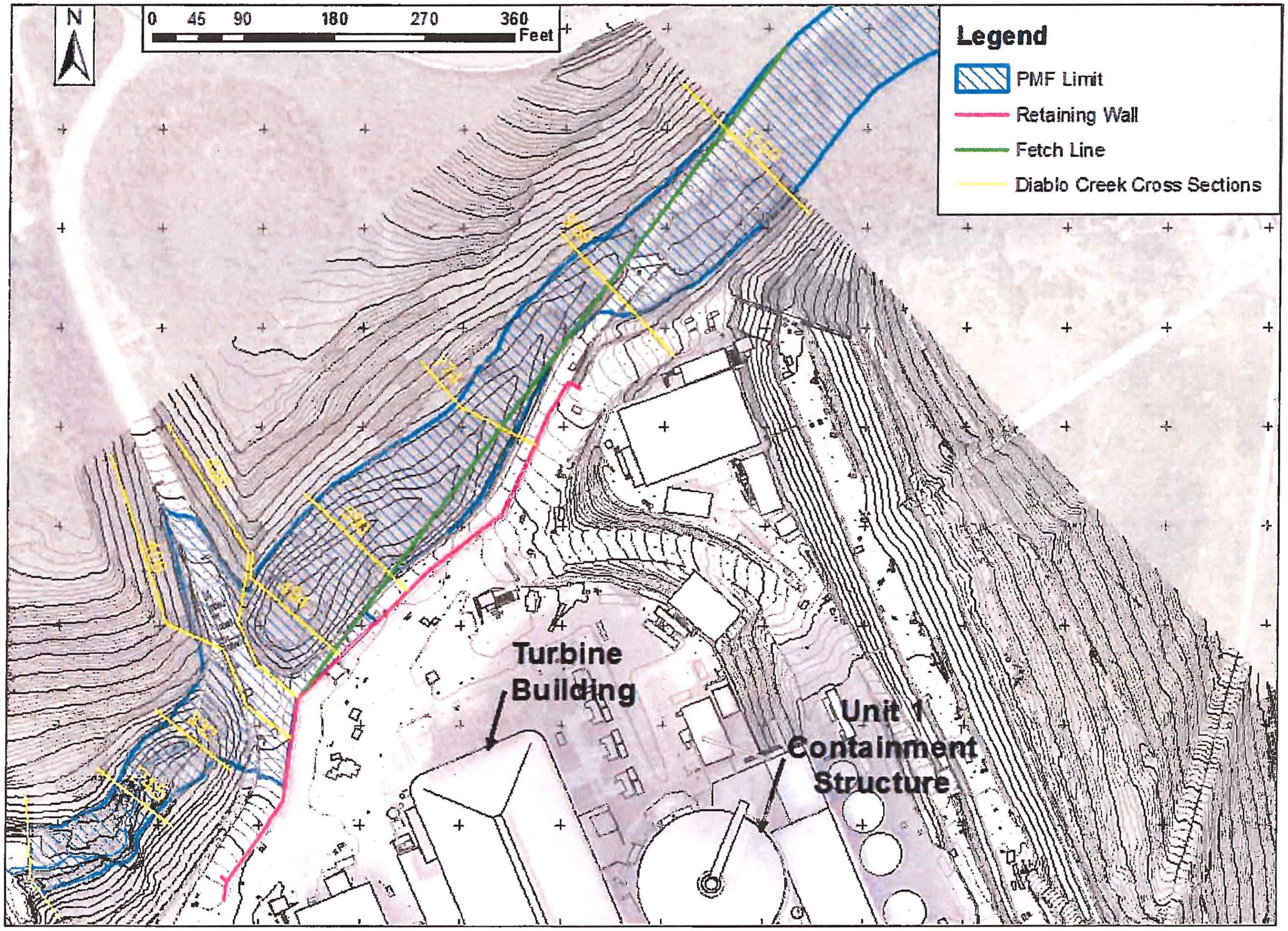

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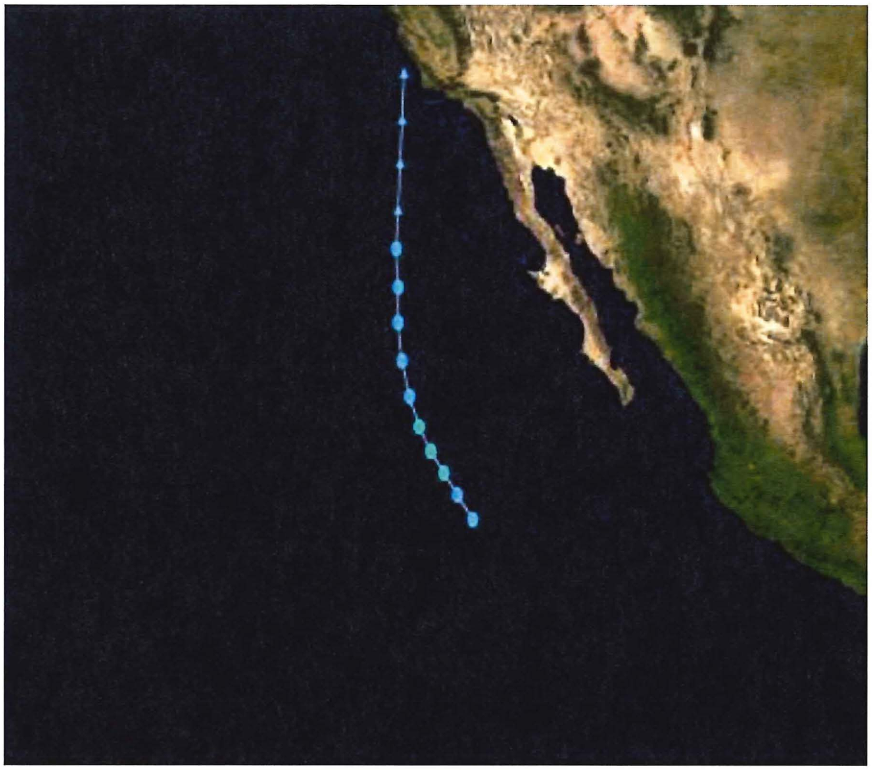
Figure 3-6
Critical Fetch Line from Wind Wave Analysis



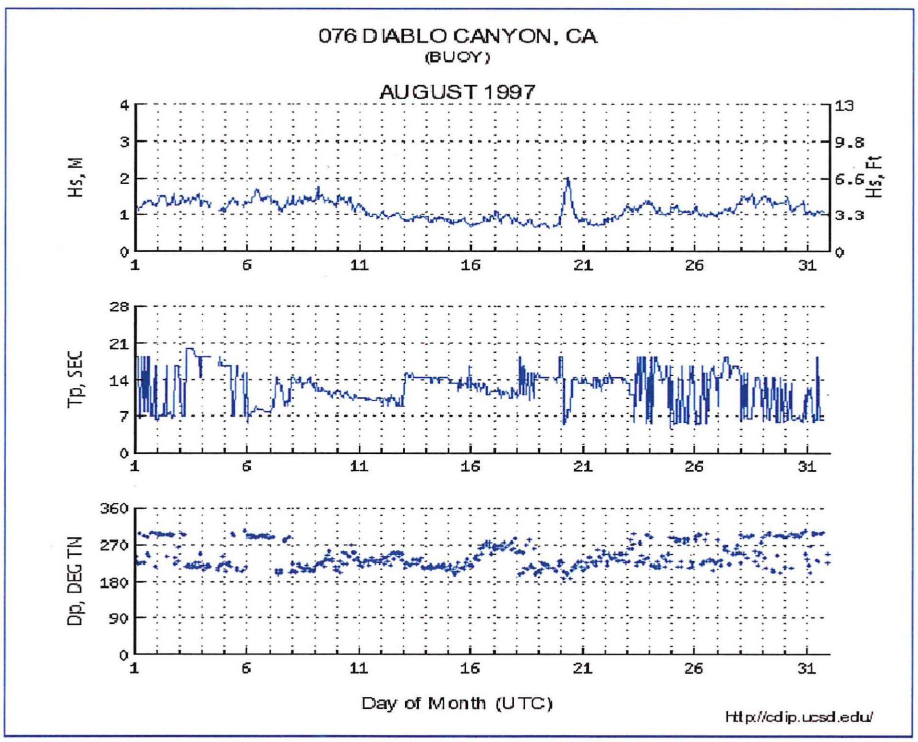


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Figure 3-7
Tropical Storm Ignacio and Resulting Significant Wave Heights at the DCPP Waverider Buoy (August 20, 1997)

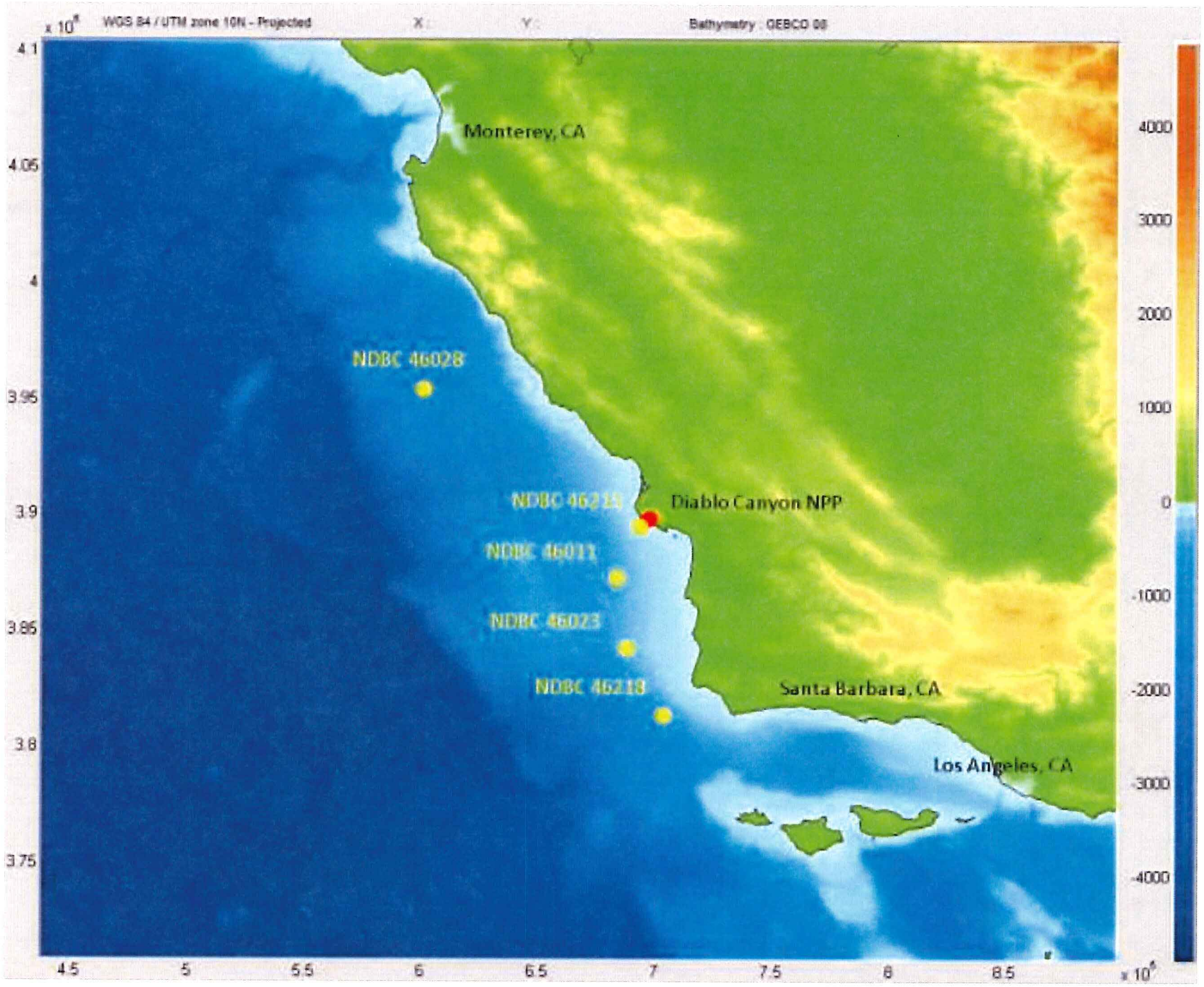

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Figure 3-8
Locations of Analyzed NDBC Buoys Along the California Central Coast

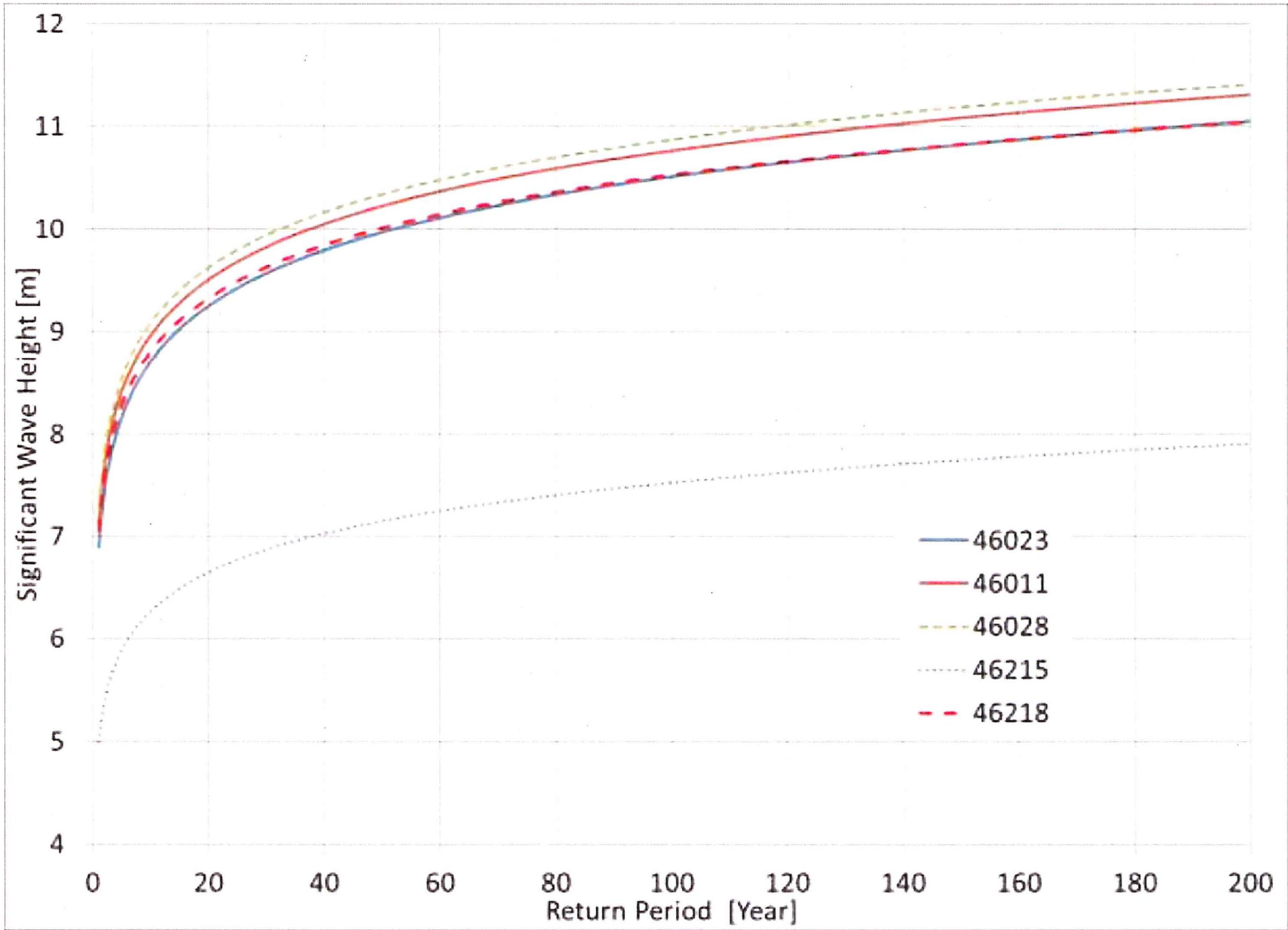

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Figure 3-9
Return Periods for Significant Wave Heights at Analyzed NDBC Buoys Along the California Central Coast

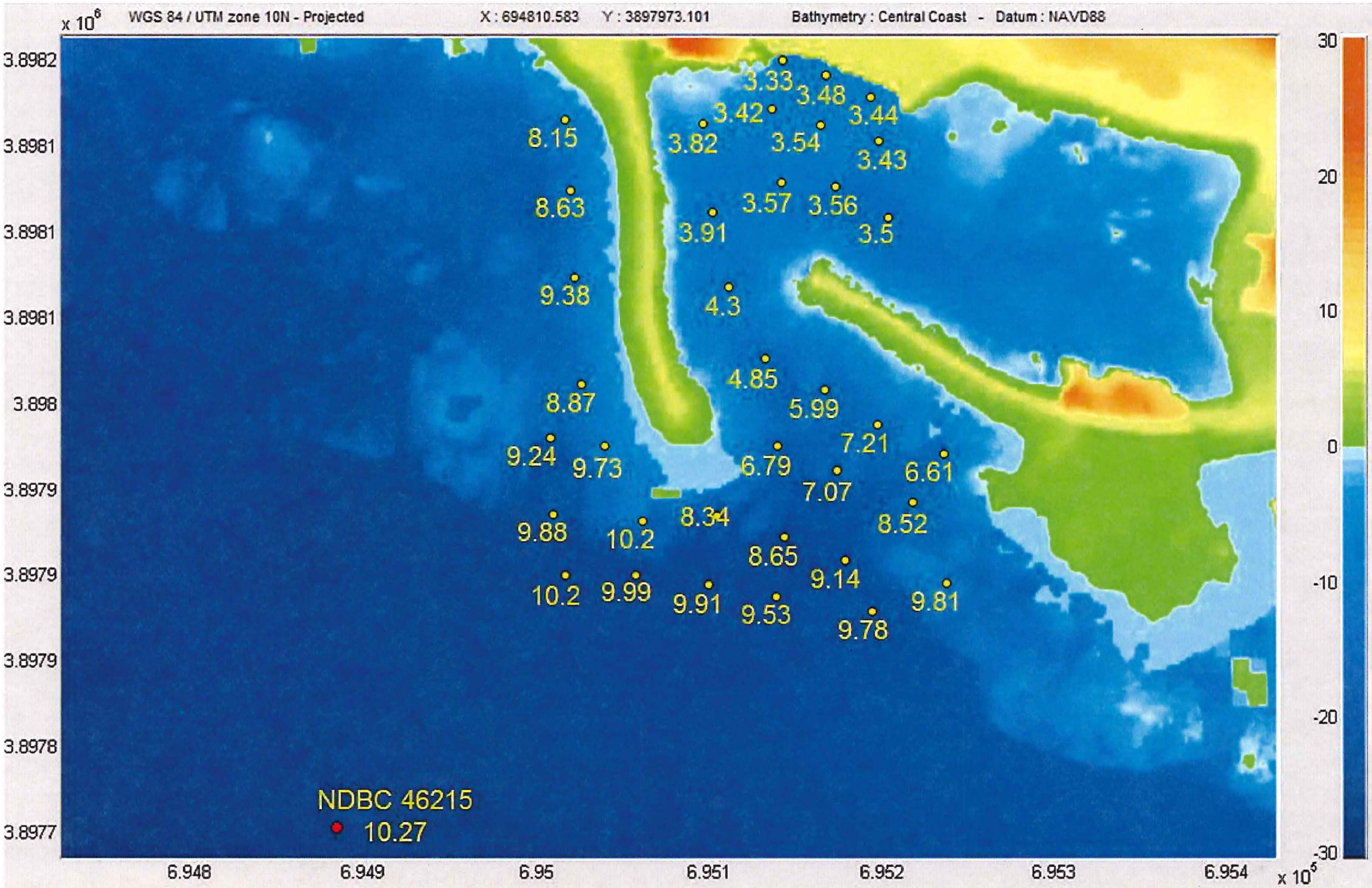

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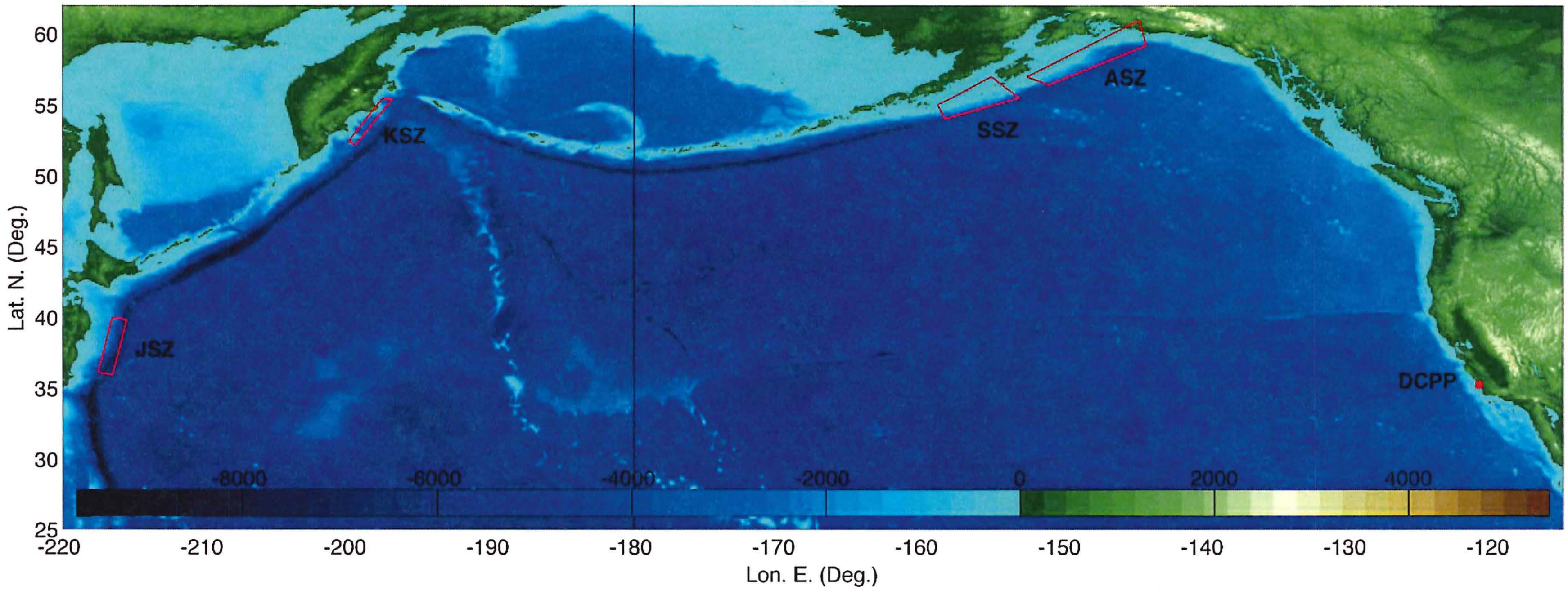
Figure 3-10
Maximum Crest Wave Level (m) at Various Observation Points at the DCPP Breakwaters (with SAWL)



Acronyms: Alaska Subduction Zone (ASZ), Semidi Subduction Zone (SSZ), Kamchatka Subduction Zone (KSZ), Japan Subduction
Zone (JSZ).

Color scale denotes bathymetry (<0) and topography (> 0) in meter.

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Figure 3-11 Location of Various Tsunami Source Areas for DCPP

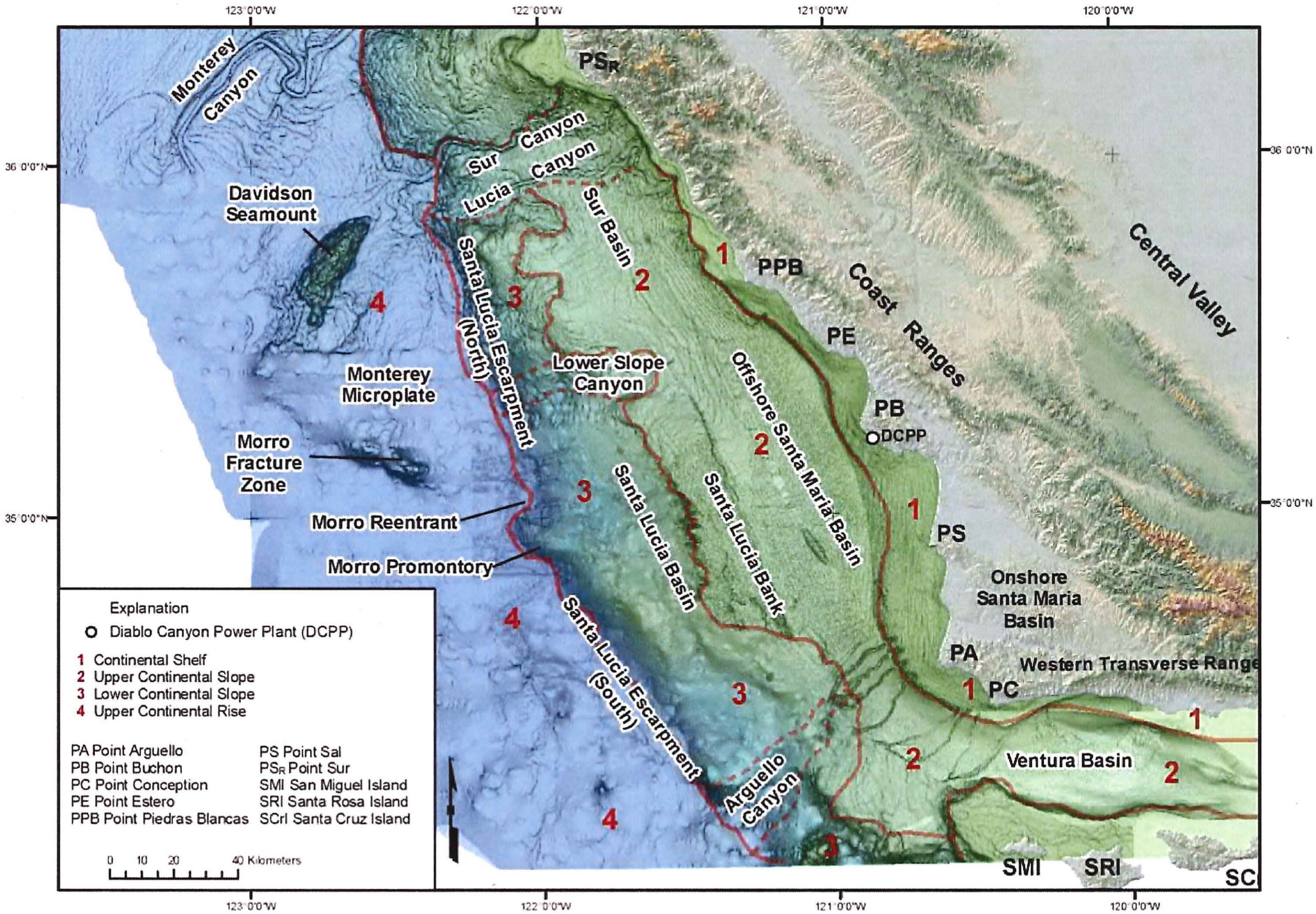

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Figure 3-12
Physiographic Features in the DCPP Area

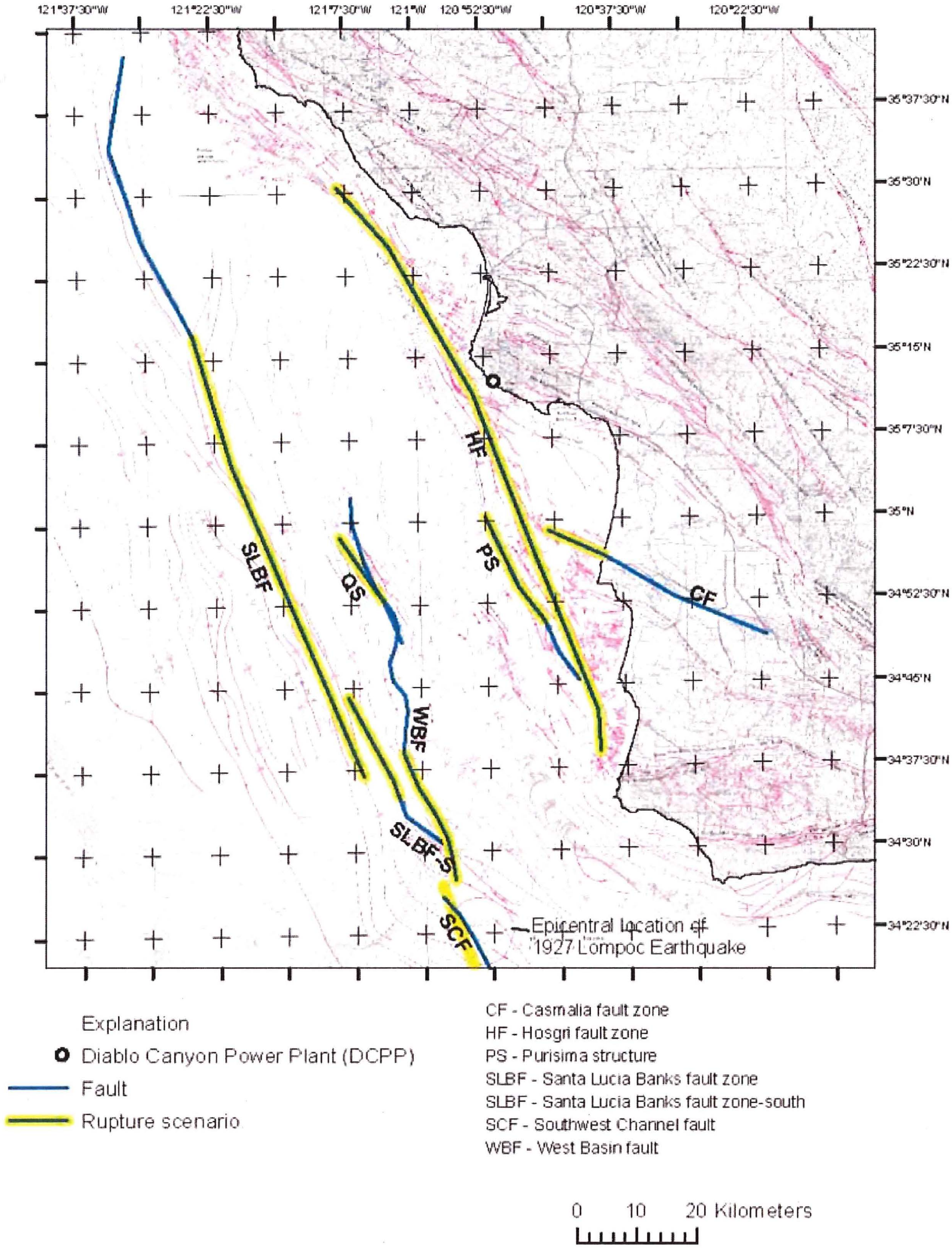

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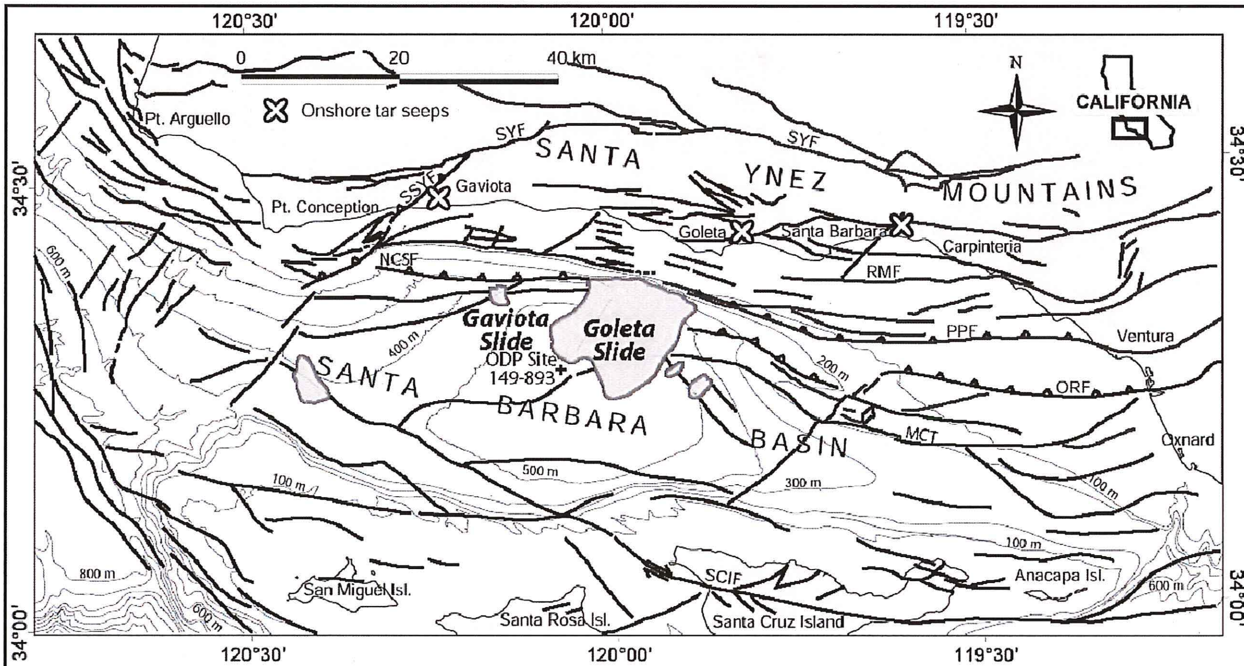
Figure 3-13
Fault Zones Used in the RPMT Modeling



SCIF = Santa Cruz Island Fault
SSYF = South Santa Ynez Fault
NCSF = North Channel Slope Fault
RMF = Red Mountain Fault
PPF = Pita Point Fault
ORF = Oak Ridge Fault
SYF = Santa Ynez Fault
MCT = Mid channel Trend

a

From Greene et al. (2006)

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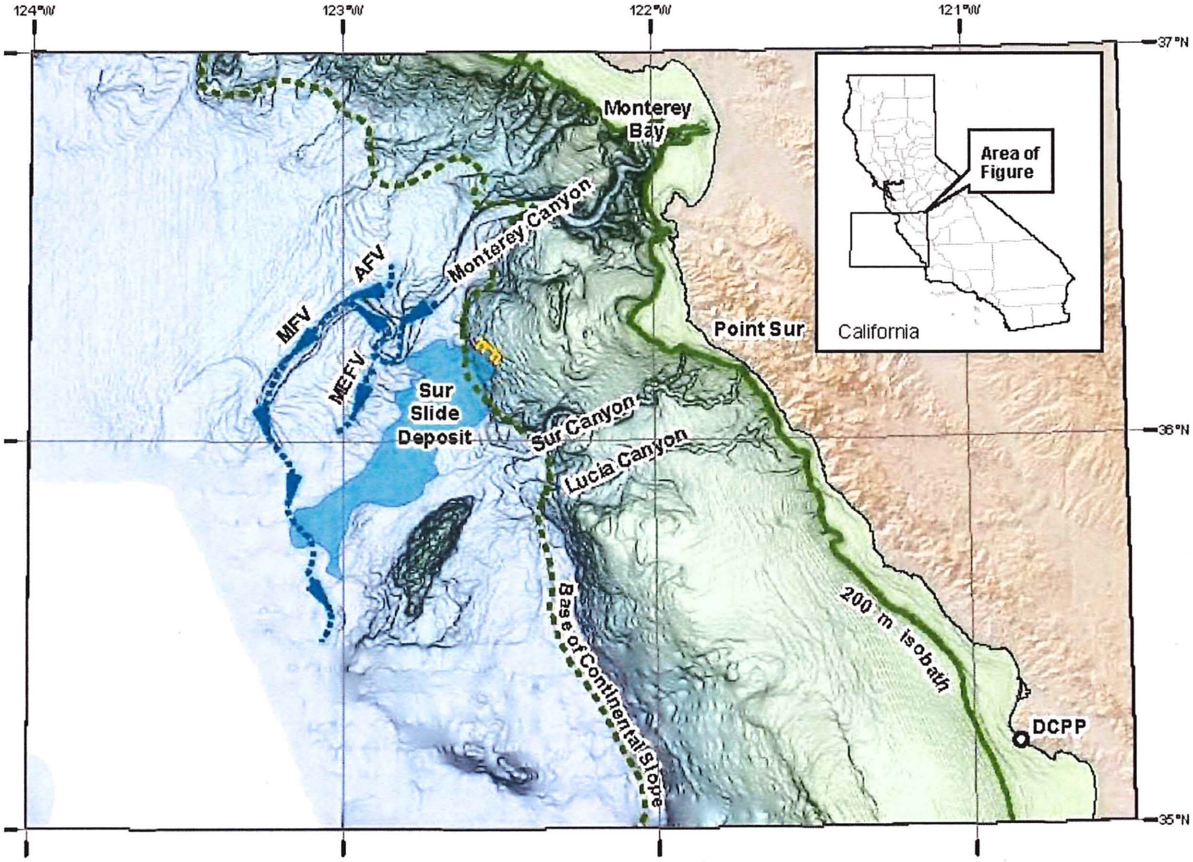
Figure 3-14
Location of Goleta and Gaviota Slides



Explanation

Major fan valley
MFV Monterey fan valley
AFV Ascension fan valley
MEFV Monterey East fan valley

Headwall scarp of Sur Slide

DCPP Diablo Canyon Power Plant

Notes:
1) Modified from Gutmacher and Normark (1993).
2) Offshore base map dfrom NCDC/NCAA Coastal Relief DEM (NDGC, 2005).
3) Onshore base map from U.S.G.S. 90-meter DEM.

0 50 100 Kilometers

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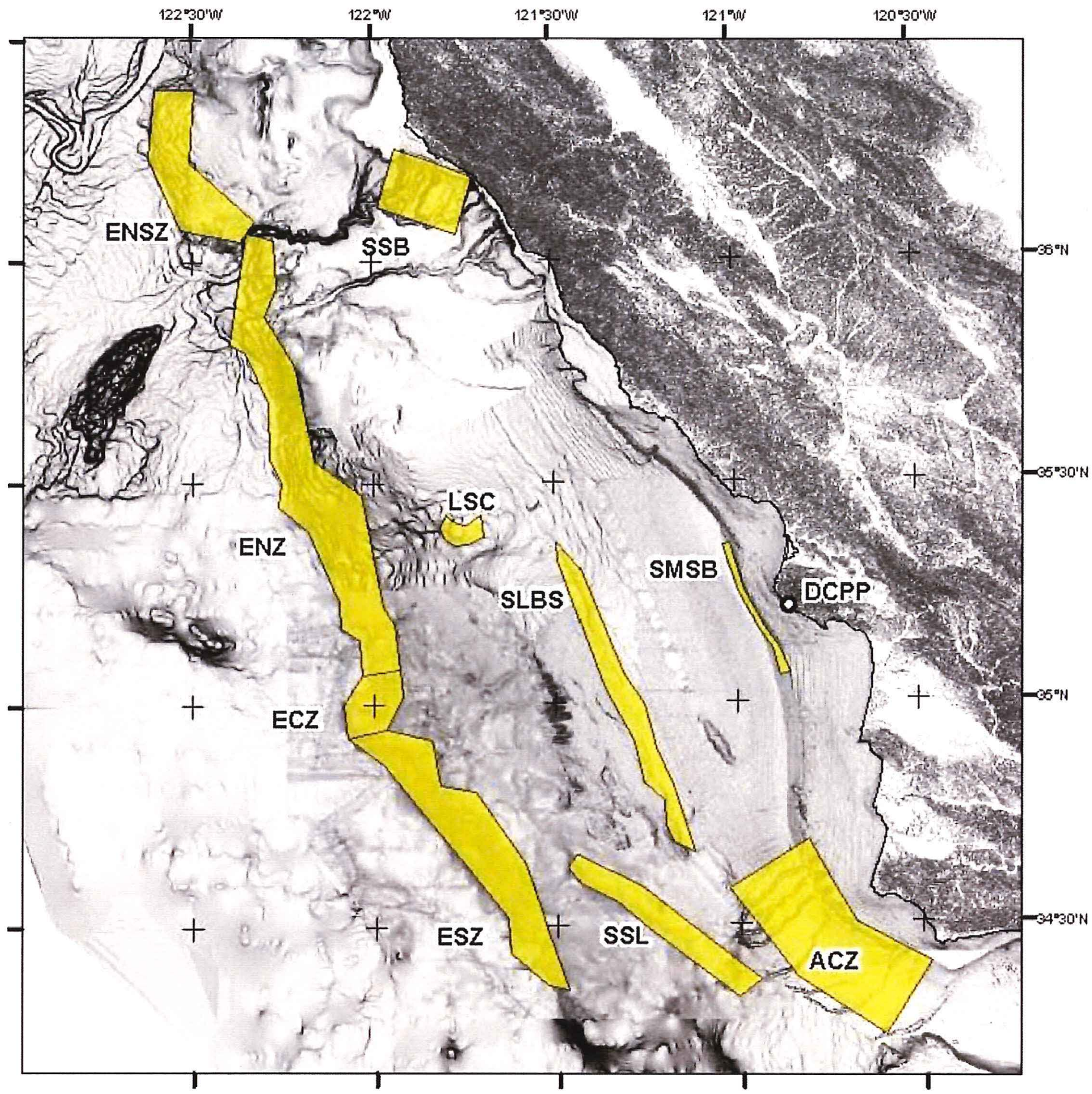
Figure 3-15
Location of Sur Slide



SMSB - Santa Maria Slope Break zone
SSB - Sur Shelf Break zone
ACZ - Arguello-Conception zone
SLBS - Santa Lucia Bank scarp zone
LSC - Lower Slope Canyon zone
SSL - Southern Santa Lucia Basin zone
ENSZ - Escarpment-northern Sur zone
ENZ - Escarpment-northern zone
ECZ - Escarpment-central zone
ESZ - Escarpment-southern zone

Explanation

DCPP Diablo Canyon Power Plant

Landslide source zones

0 40 80 Kilometers

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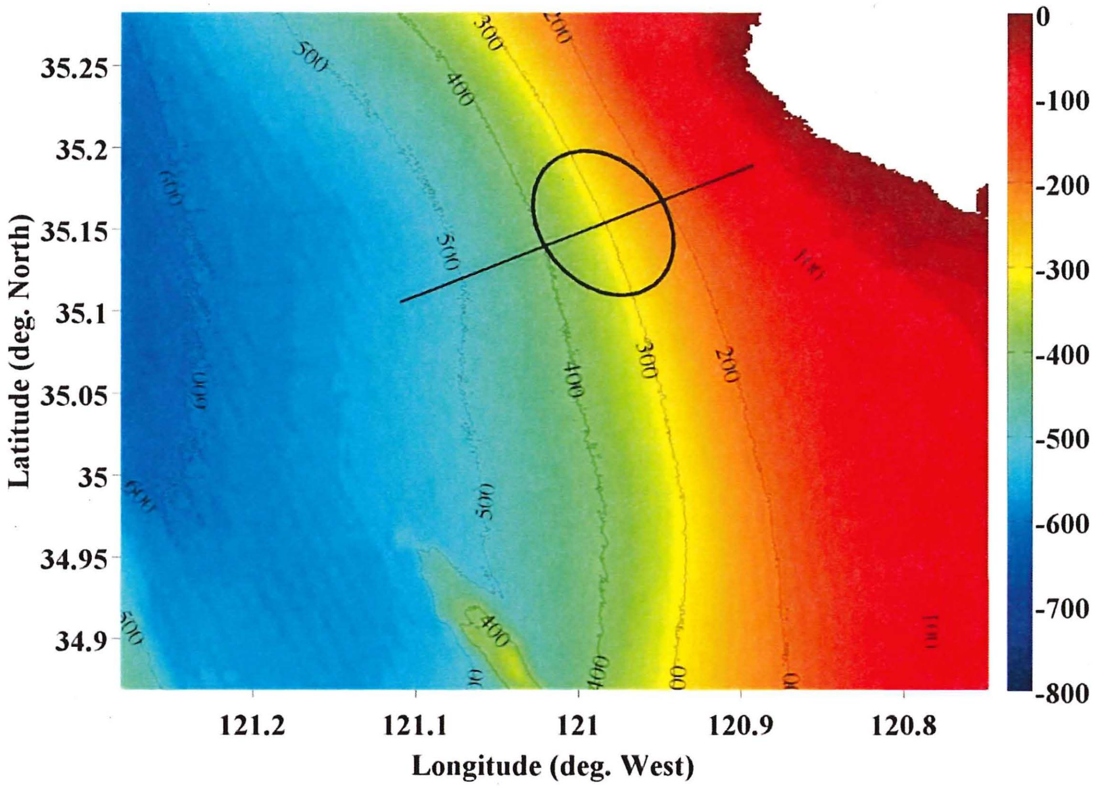
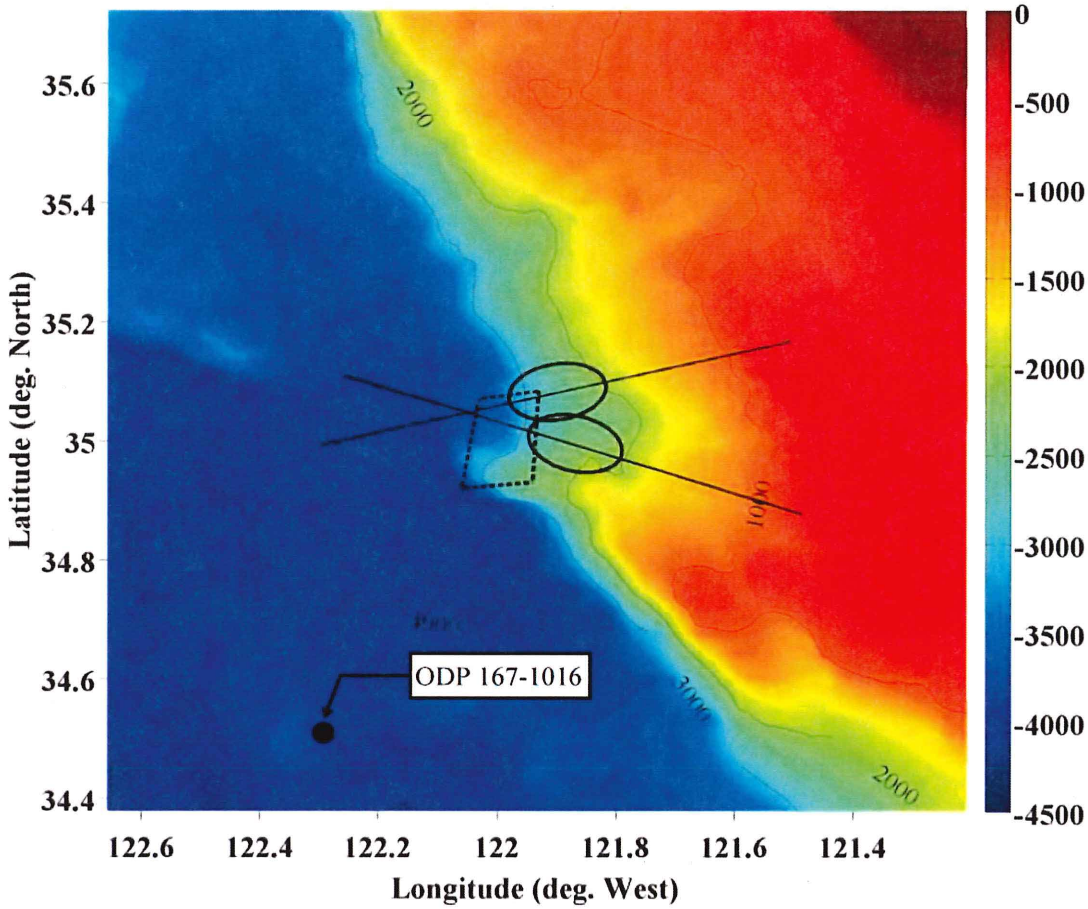
Diablo Canyon Power Plant

Figure 3-16
Landslide Source Zones Used in Previous Tsunami Analyses



The black ellipse is the *w* =10.5 km by *b* = 7.45 km footprint of a 1.75 km^3 slide on the slope, with center of mass located at 35.153N-120.985W. The black straight line is a transect in the direction of the steepest slope from DCPP in azimuth θ = 245 deg. from North. Bathymetry is color scale in meters.

Flooding Hazard Reevaluation Report Diablo Canyon Power Plant
Figure 3-17 Goleta SMF Proxy Location and Bathymetry



Black ellipses are the *w* = *10* km by *b* = 15 km footprint of 4.5 (or 10.5) km^3 slides on the slope, with center of mass located at 35.097N-121.904W and 34.993N-121.872W, respectively. The black straight lines are transects in the direction of the steepest slope in azimuths θ = 255 and 290 deg. from North, respectively. Bathymetry is color scale in meters.

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Figure 3-18
Big Sur SMF Proxy Location and Bathymetry

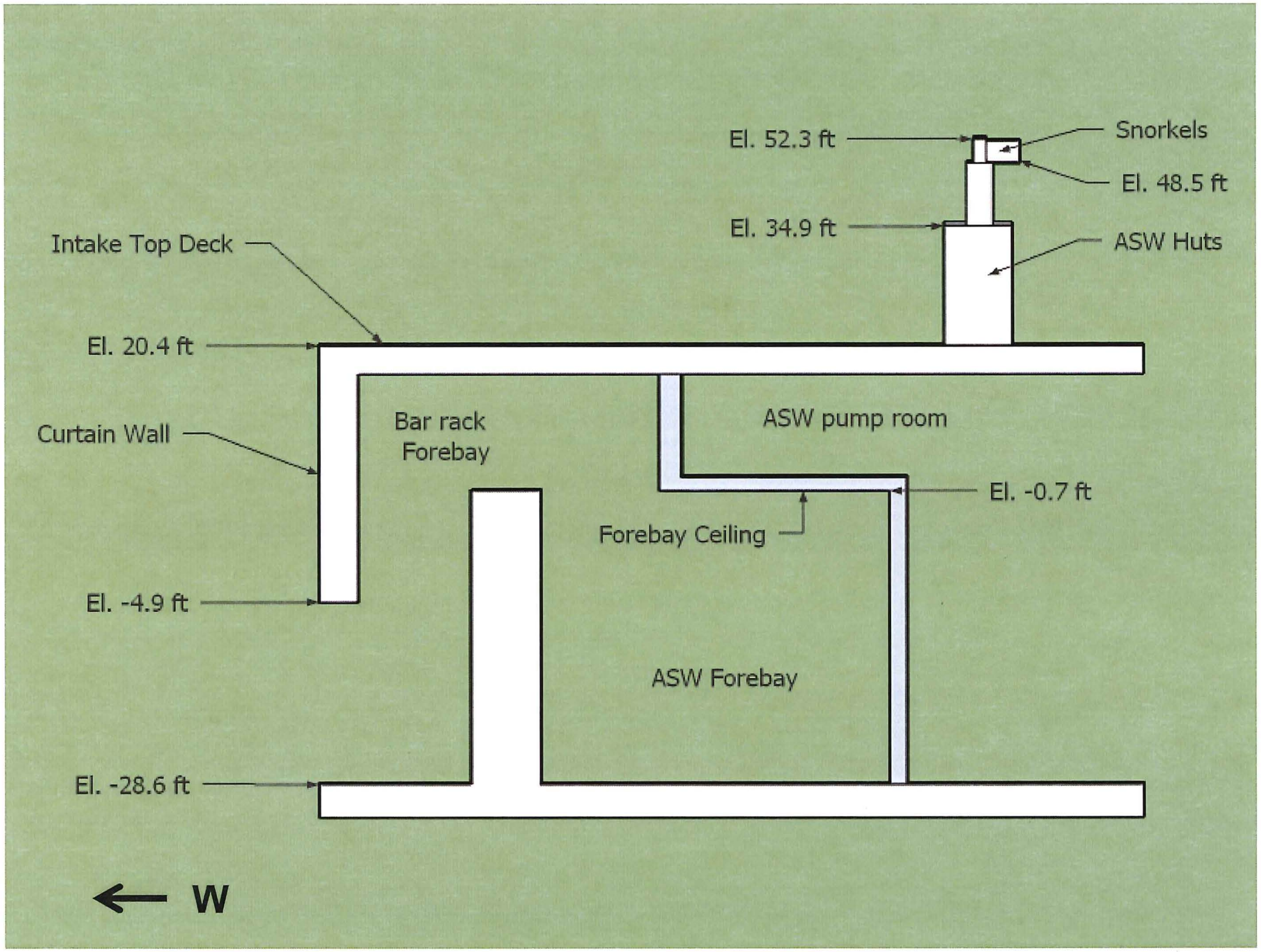

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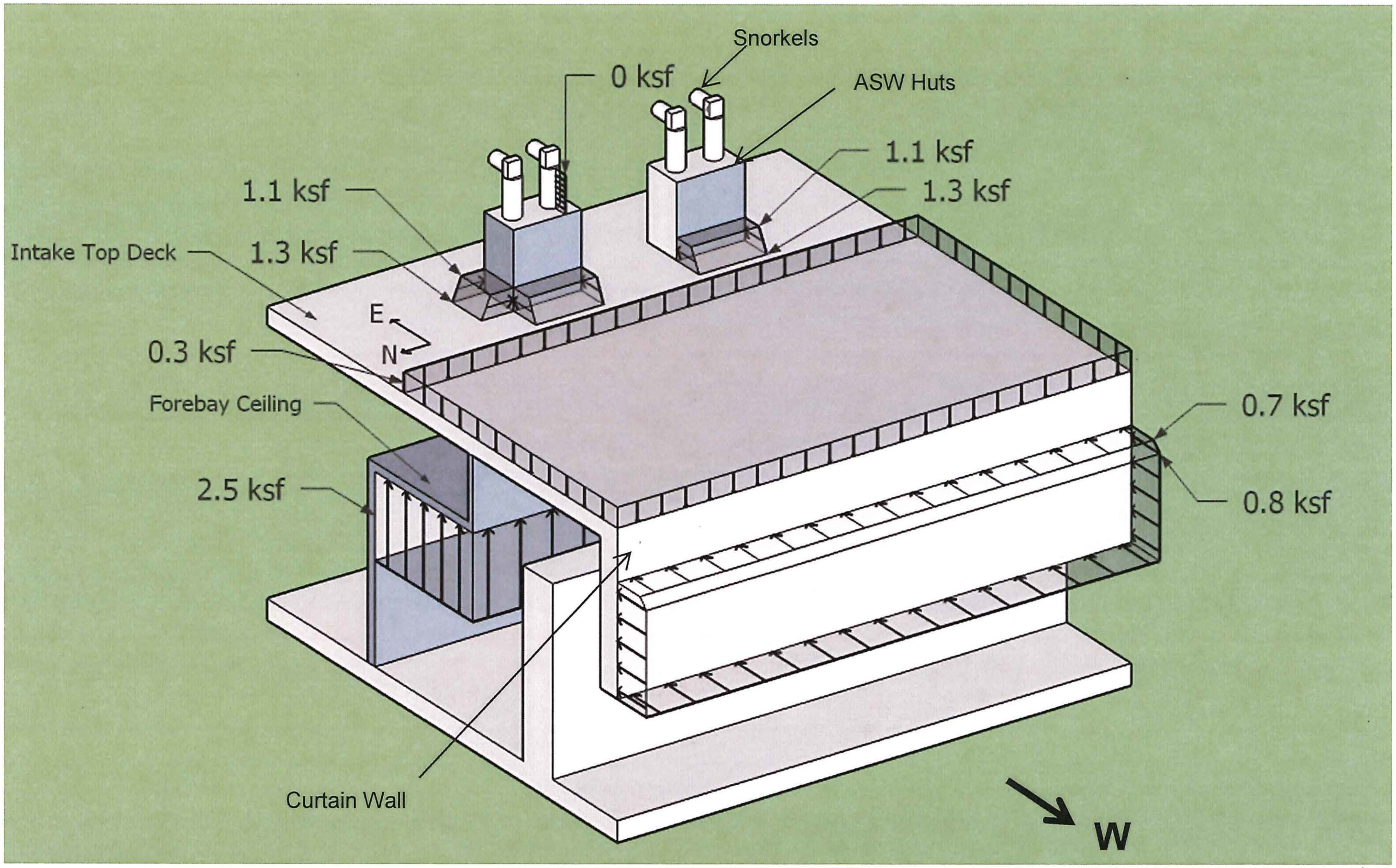
Figure 3-19
Elevation Profile of SSCs of Intake Structure (NAVD88)



Flooding Hazard Reevaluation Report
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Figure 3-20
RPMT Hydrodynamic & Hydrostatic Forces on the Intake Structure

Regulatory Commitment

Pacific Gas and Electric Company (PG&E) is making the following regulatory commitment (as defined by NEI 99-04) in this submittal:

Commitment	Due Date
PG&E has implemented, and will maintain, interim actions as set forth in Enclosure 1 until PG&E has completed the Integrated Assessment Report.	March 13, 2017