CONTRA COSTA COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
255 GLACIER DRIVE, MARTINEZ, CALIFORNIA

Report Date: January 19, 2017
by: M Boucher
Preliminary

January 5-9, 2017 Storms

Analysis period:
From: 1/5/17 12:05 AM
To: 1/11/17 11:10 AM

Comparison of Rain Depths with MSP							
Recording Stations	**Station Description**	**MSP**	**Rainfall Depth for Max Return Period Duration**	**Storm Depth as % of MSP**	**Approx. Max Return Period**	**Duration**	**Notes**
ADH 37	ARROYO DEL HAMBRE	23.50 in.	6.48 in.	28%	6-Yr	96-Hr	The "Approximate Maximum Return Period" for each rain gauge is calculated on the following sheets. The return period is approximated by linear interpolation between values on the "Total Storm Rainfall Depths and Return Period" table. The first decimal place is shown to decipher between those storms that just missed qualifying for the standard return periods of 2-, 5-, 10-, 25-, 50-, 100-, 200-, and 500-years. The significant figures should not be misconstrued to indicate a confidence in the preciseness of the estimated return periods.
BAP 45	BYRON AIRPORT	12.20 in.	2.35 in.	19%	2-Yr	96-Hr	
BCO 86	BRENTWOOD CORP YARD	12.00 in.	2.92 in.	24%	4-Yr	96-Hr	
BIF 44	BETHEL ISLAND FIRE STATION	11.00 in.	2.51 in.	23%	3-Yr	96-Hr	
BIX 14	BIXLER PUMPING PLANT	11.10 in.	2.04 in.	18%	2-Yr	96-Hr	
BLD 32	BALD PEAK	33.50 in.	7.88 in.	24%	4-Yr	96-Hr	
CCP 43	CONCORD PAVILION	17.50 in.	3.08 in.	18%	2-Yr	96-Hr	
CRK 35	CUMMINGS PEAK	20.00 in.	4.69 in.	23%	4-Yr	96-Hr	
DBF 20	DUBLIN FIRE STATION	21.70 in.	4.03 in.	19%	2-Yr	96-Hr	
DBL 22	MT DIABLO PEAK	27.50 in.	9.89 in.	36%	20-Yr	96-Hr	
DVB 31	DANVILLE LIBRARY	22.00 in.	7.02 in.	32%	9-Yr	96-Hr	
FCD 11	FLOOD CONTROL HEADQUARTERS	17.40 in.	6.01 in.	35%	12-Yr	96-Hr	
HLD 10	HIGHLAND PEAK	20.50 in.	5.34 in.	26%	5-Yr	96-Hr	
ISD 39	IRONHOUSE SANITARY DISTRICT	12.00 in.	2.96 in.	25%	4-Yr	96-Hr	
KGR 38	KREGOR PEAK	21.00 in.	2.89 in.	14%	2-Yr	96-Hr	
MCF 16	MARSH CREEK FIRE STATION	19.22 in.	6.38 in.	33%	10-Yr	96-Hr	
MCR 25	MARSH CR RESERVOIR	13.50 in.	2.78 in.	21%	2-Yr	96-Hr	
MDP 13	MT DIABLO PARK HEADQUARTERS	21.36 in.	5.89 in.	28%	6-Yr	96-Hr	
MED 19	LOS MEDANOS	12.60 in.	2.77 in.	22%	3-Yr	96-Hr	
ORF 18	ORINDA FIRE STATION	29.21 in.	7.43 in.	25%	5-Yr	96-Hr	
RIC 21	RICHMOND CITY HALL	21.81 in.	4.87 in.	22%	3-Yr	96-Hr	
RKY 34	ROCKY RIDGE	28.50 in.	6.19 in.	22%	3-Yr	96-Hr	
ROF 15	RODEO FIRE STATION	18.30 in.	5.28 in.	29%	6-Yr	96-Hr	
RRG 47	RODDY RANCH GOLF CLUB	14.45 in.	3.42 in.	24%	4-Yr	96-Hr	
RSS 29	ROSSMOOR	23.00 in.	9.03 in.	39%	29-Yr	96-Hr	
SMC 12	ST. MARY'S COLLEGE	28.15 in.	10.27 in.	36%	22-Yr	96-Hr	
TAS 53	TASSAJARA	17.21 in.	5.07 in.	29%	7-Yr	96-Hr	
WSF 51	WEAPONS STATION FIRE	14.95 in.	4.13 in.	28%	5-Yr	96-Hr	
YGF 33	YGNACIO VALLEY FIRE STATION	17.00 in.	6.03 in.	35%	14-Yr	96-Hr	

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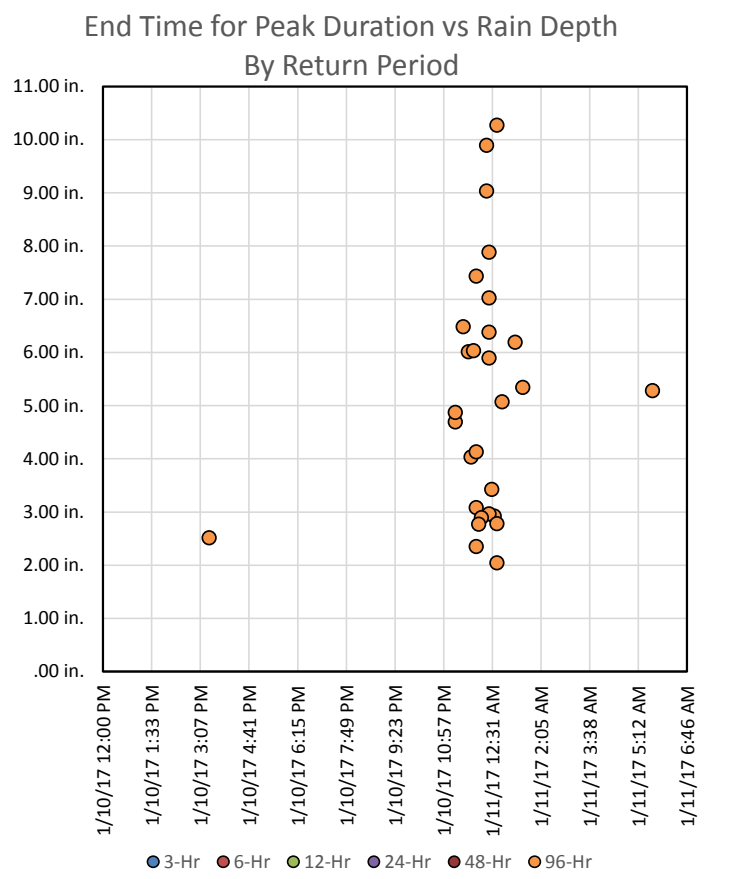
January 5-9, 2017 Storms

Analysis period:
From: 1/5/17 12:05 AM
To: 1/11/17 11:10 AM

Comparison of Rain Depths with MSP

Recording Stations	Station Description	Rainfall Depth for Max Return Period Duration	Approx. Max Return Period	Duration	Date and Time at End of Duratrion
ADH 37	ARROYO DEL HAMBRE	6.48 in.	6-Yr	96-Hr	1/10/17 11:35 PM
BAP 45	BYRON AIRPORT	2.35 in.	2-Yr	96-Hr	1/11/17 12:00 AM
BCO 86	BRENTWOOD CORP YARD	2.92 in.	4-Yr	96-Hr	1/11/17 12:35 AM
BIF 44	BETHEL ISLAND FIRE STATION	2.51 in.	3-Yr	96-Hr	**1/10/17 3:25 PM**
BIX 14	BIXLER PUMPING PLANT	2.04 in.	2-Yr	96-Hr	1/11/17 12:40 AM
BLD 32	BALD PEAK	7.88 in.	4-Yr	96-Hr	1/11/17 12:25 AM
CCP 43	CONCORD PAVILION	3.08 in.	2-Yr	96-Hr	1/11/17 12:00 AM
CRK 35	CUMMINGS PEAK	4.69 in.	4-Yr	96-Hr	1/10/17 11:20 PM
DBF 20	DUBLIN FIRE STATION	4.03 in.	2-Yr	96-Hr	1/10/17 11:50 PM
DBL 22	MT DIABLO PEAK	9.89 in.	20-Yr	96-Hr	1/11/17 12:20 AM
DVB 31	DANVILLE LIBRARY	7.02 in.	9-Yr	96-Hr	1/11/17 12:25 AM
FCD 11	FLOOD CONTROL HEADQUARTERS	6.01 in.	12-Yr	96-Hr	1/10/17 11:45 PM
HLD 10	HIGHLAND PEAK	5.34 in.	5-Yr	96-Hr	1/11/17 1:30 AM
ISD 39	IRONHOUSE SANITARY DISTRICT	2.96 in.	4-Yr	96-Hr	1/11/17 12:25 AM
KGR 38	KREGOR PEAK	2.89 in.	2-Yr	96-Hr	1/11/17 12:10 AM
MCF 16	MARSH CREEK FIRE STATION	6.38 in.	10-Yr	96-Hr	1/11/17 12:25 AM
MCR 25	MARSH CR RESERVOIR	2.78 in.	2-Yr	96-Hr	1/11/17 12:40 AM
MDP 13	MT DIABLO PARK HEADQUARTERS	5.89 in.	6-Yr	96-Hr	1/11/17 12:25 AM
MED 19	LOS MEDANOS	2.77 in.	3-Yr	96-Hr	1/11/17 12:05 AM
ORF 18	ORINDA FIRE STATION	7.43 in.	5-Yr	96-Hr	1/11/17 12:00 AM
RIC 21	RICHMOND CITY HALL	4.87 in.	3-Yr	96-Hr	1/10/17 11:20 PM
RKY 34	ROCKY RIDGE	6.19 in.	3-Yr	96-Hr	1/11/17 1:15 AM
ROF 15	RODEO FIRE STATION	5.28 in.	6-Yr	96-Hr	**1/11/17 5:40 AM**
RRG 47	RODDY RANCH GOLF CLUB	3.42 in.	4-Yr	96-Hr	1/11/17 12:30 AM
RSS 29	ROSSMOOR	9.03 in.	29-Yr	96-Hr	1/11/17 12:20 AM
SMC 12	ST. MARY'S COLLEGE	10.27 in.	22-Yr	96-Hr	1/11/17 12:40 AM
TAS 53	TASSAJARA	5.07 in.	7-Yr	96-Hr	1/11/17 12:50 AM
WSF 51	WEAPONS STATION FIRE	4.13 in.	5-Yr	96-Hr	1/11/17 12:00 AM
YGF 33	YGNACIO VALLEY FIRE STATION	6.03 in.	14-Yr	96-Hr	1/10/17 11:55 PM
Averages		5.16 in.	7-Yr	96-Hr (most)	1/11/17 12:09 AM

Plot



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Report Date: January 19, 2017
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January 5-9, 2017 Storms

Analysis period:
From: 1/5/17 12:05 AM
To: 1/11/17 11:10 AM

Depths and Return Periods for all Durations

Recording Stations		Depth	Rtn Prd.	Depth	Rtn Prd.	Depth	Rtn Prd.	Depth	Rtn Prd.	Depth	Rtn Prd.	Depth	Rtn Prd.
		3-Hr		6-Hr		12-Hr		24-Hr		48-Hr		96-Hr	
ADH 37	ARROYO DEL HAMBRE	1.16	3.4-Yr	1.62	3.4-Yr	2.36	3.9-Yr	3.05	3.6-Yr	3.66	2.8-Yr	6.48	5.8-Yr
BAP 45	BYRON AIRPORT	0.51	1.7-Yr	0.65	1.6-Yr	0.88	1.6-Yr	1.08	1.5-Yr	1.29	1.4-Yr	2.35	2.0-Yr
BCO 86	BRENTWOOD CORP YARD	0.57	1.9-Yr	0.77	1.9-Yr	1.16	2.4-Yr	1.47	2.2-Yr	1.56	1.7-Yr	2.92	3.5-Yr
BIF 44	BETHEL ISLAND FIRE STATIOI	0.43	1.5-Yr	0.60	1.5-Yr	0.79	1.5-Yr	1.03	1.6-Yr	1.57	1.8-Yr	2.51	2.9-Yr
BIX 14	BIXLER PUMPING PLANT	0.28	1.0-Yr	0.37	1.0-Yr	0.59	1.1-Yr	0.85	1.3-Yr	1.16	1.3-Yr	2.04	1.9-Yr
BLD 32	BALD PEAK	0.85	1.3-Yr	1.25	1.4-Yr	2.32	1.9-Yr	3.33	2.0-Yr	4.13	1.8-Yr	7.88	4.1-Yr
CCP 43	CONCORD PAVILION	0.53	1.4-Yr	0.71	1.3-Yr	1.00	1.4-Yr	1.53	1.6-Yr	1.91	1.5-Yr	3.08	1.9-Yr
CRK 35	CUMMINGS PEAK	0.55	1.3-Yr	0.99	1.7-Yr	1.60	2.0-Yr	2.28	2.5-Yr	2.88	2.1-Yr	4.69	3.7-Yr
DBF 20	DUBLIN FIRE STATION	0.69	1.5-Yr	1.04	1.7-Yr	1.51	1.8-Yr	2.03	1.8-Yr	2.36	1.5-Yr	4.03	2.1-Yr
DBL 22	MT DIABLO PEAK	1.30	3.3-Yr	2.05	4.3-Yr	3.09	5.4-Yr	4.42	6.6-Yr	5.48	5.0-Yr	9.89	20.0-Yr
DVB 31	DANVILLE LIBRARY	1.50	8.5-Yr	2.10	8.6-Yr	2.92	8.9-Yr	3.99	9.1-Yr	4.53	5.1-Yr	7.02	9.2-Yr
FCD 11	FLOOD CONTROL HEADQUAR	0.93	3.3-Yr	1.29	3.4-Yr	2.11	5.0-Yr	2.69	4.6-Yr	3.27	3.9-Yr	6.01	12.1-Yr
HLD 10	HIGHLAND PEAK	0.86	2.0-Yr	1.20	2.0-Yr	1.82	2.7-Yr	2.63	3.3-Yr	3.17	2.6-Yr	5.34	4.7-Yr
ISD 39	IRONHOUSE SANITARY DISTR	0.44	1.4-Yr	0.66	1.6-Yr	1.01	1.8-Yr	1.30	1.8-Yr	1.57	1.7-Yr	2.96	3.6-Yr
KGR 38	KREGOR PEAK	0.28	.6-Yr	0.41	.7-Yr	0.70	.8-Yr	1.13	1.0-Yr	1.71	1.2-Yr	2.89	1.5-Yr
MCF 16	MARSH CREEK FIRE STATION	1.11	4.2-Yr	1.55	4.3-Yr	2.16	4.5-Yr	2.96	4.7-Yr	3.53	3.8-Yr	6.38	9.9-Yr
MCR 25	MARSH CR RESERVOIR	0.56	1.7-Yr	0.77	1.7-Yr	1.14	1.9-Yr	1.41	1.8-Yr	1.54	1.5-Yr	2.78	2.5-Yr
MDP 13	MT DIABLO PARK HEADQUAR	1.13	3.7-Yr	1.61	3.9-Yr	2.16	3.8-Yr	2.87	3.7-Yr	3.36	2.7-Yr	5.89	5.6-Yr
MED 19	LOS MEDANOS	0.48	1.5-Yr	0.63	1.5-Yr	0.90	1.6-Yr	1.31	1.8-Yr	1.61	1.7-Yr	2.77	2.8-Yr
ORF 18	ORINDA FIRE STATION	0.96	1.7-Yr	1.44	1.8-Yr	2.55	3.0-Yr	3.55	3.3-Yr	4.31	2.5-Yr	7.43	4.8-Yr
RIC 21	RICHMOND CITY HALL	0.56	1.2-Yr	0.86	1.4-Yr	1.64	1.9-Yr	2.13	1.9-Yr	2.83	1.8-Yr	4.87	3.4-Yr
RKY 34	ROCKY RIDGE	0.62	1.1-Yr	0.95	1.2-Yr	1.57	1.5-Yr	2.58	1.8-Yr	3.20	1.6-Yr	6.19	3.4-Yr
ROF 15	RODEO FIRE STATION	0.63	1.6-Yr	0.92	1.7-Yr	1.62	2.5-Yr	2.22	2.8-Yr	2.84	2.5-Yr	5.28	6.2-Yr
RRG 47	RODDY RANCH GOLF CLUB	0.81	3.2-Yr	1.06	2.9-Yr	1.48	3.2-Yr	1.80	2.6-Yr	2.07	1.9-Yr	3.42	3.5-Yr
RSS 29	ROSSMOOR	1.16	3.5-Yr	1.87	4.7-Yr	2.68	5.5-Yr	4.44	13.1-Yr	5.64	9.6-Yr	9.03	28.6-Yr
SMC 12	ST. MARY'S COLLEGE	1.12	2.1-Yr	1.98	3.8-Yr	2.82	4.1-Yr	5.06	9.8-Yr	6.63	9.1-Yr	10.27	21.5-Yr
TAS 53	TASSAJARA	0.85	2.7-Yr	1.25	3.2-Yr	1.89	4.1-Yr	2.63	4.4-Yr	3.02	3.3-Yr	5.07	6.5-Yr
WSF 51	WEAPONS STATION FIRE	0.60	1.7-Yr	0.87	1.8-Yr	1.48	3.0-Yr	1.84	2.6-Yr	2.16	1.9-Yr	4.13	4.8-Yr
YGF 33	YGNACIO VALLEY FIRE STATI	0.84	2.7-Yr	1.25	3.3-Yr	1.77	3.6-Yr	2.71	4.8-Yr	3.48	4.6-Yr	6.03	14.2-Yr
	Maximum	1.50	9-Yr	2.10	9-Yr	3.09	9-Yr	5.06	13-Yr	6.63	10-Yr	10.27	29-Yr
	Minimum	0.28	1-Yr	0.37	1-Yr	0.59	1-Yr	0.85	1-Yr	1.16	1-Yr	2.04	2-Yr
	Average	0.77	2-Yr	1.13	3-Yr	1.71	3-Yr	2.42	4-Yr	2.98	3-Yr	5.16	7-Yr

Summary of rainfall return periods at gauges for each duration.

	3-hour	6-hour	12-hour	24-hour	48-hour	96-hour
Ret. Per.	Count	Count	Count	Count	Count	Count
<=5-Yr	28	28	25	25	26	18
>5-Yr <= 10-Yr	1	1	4	3	3	6
>10-Yr <= 25-Yr	0	0	0	1	0	4
>25-Yr <= 50-Yr	0	0	0	0	0	1
> 50 -Yr <= 100-Yr	0	0	0	0	0	0

Notes

Definitions:

"-yr" number indicates the return period (in years) or frequency of this event. The probability the return period will occur in any year is one divided by this number. (Ex. 1/25 yr = 5.0 % probability of occurring in any year).
"in" indicates rain depths in inches for the highest recorded rainfall depths during this storm and over the duration period. See map title for duration this map represents. The start and end times of the duration are not the same for every gauge.

MSP = Mean Seasonal Precipitation isohyets

N/A = Data for this duration is not adequate to make an evaluation.

Data has not been audited for accuracy.

Notes for Maps

The return periods shown are for rainfall and not stream flow. The runoff from a rainstorm is dependent on the antecedent conditions (watershed wetness before the storm). Therefore, the flow rates experienced on the ground could be higher or lower than the return period shown. In addition, gauges measurements can under estimate rainfall due to high winds. A low-recorded rainfall may not show the true flood return period. With all this in mind, please use this map and associated data as a general guide to the severity of the storm.

The map shows depths and return periods for rain gauges that we are relatively confident provided good data. Gauges marked as not used have suspicious rainfall amounts and we suspect poor rainfall data due to equipment errors. As we continue to review the data, we may revise the maps.

ADH 37

Station: **Arroyo Del Hambre**
Mean Seasonal Rainfall: 23.50 inches
Elevation: 800 feet
Installed 1983

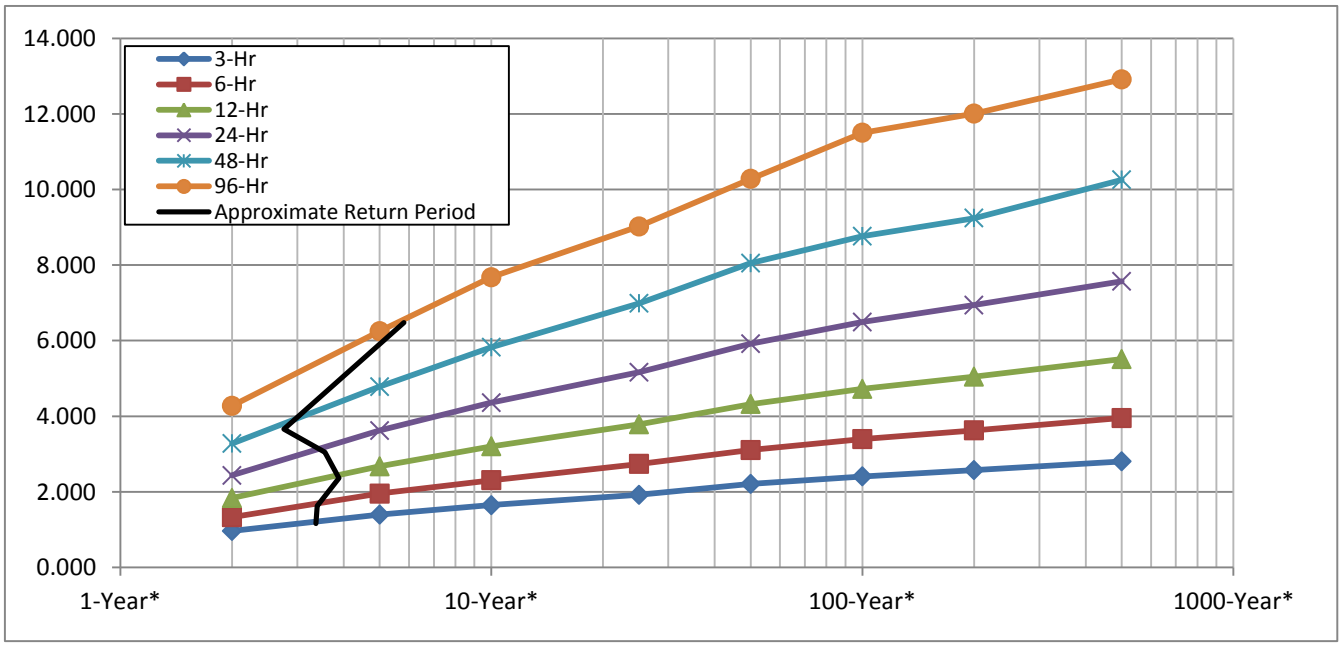
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.16	1/10/2017	7:40 PM	3.4 -years
6-Hr	1.62	1/10/2017	7:25 PM	3.4 -years
12-Hr	2.36	1/10/2017	8:00 PM	3.9 -years
24-Hr	3.05	1/10/2017	8:05 PM	3.6 -years
48-Hr	3.66	1/10/2017	9:00 PM	2.8 -years
96-Hr	6.48	1/10/2017	11:35 PM	5.8 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.960**	1.399	1.647	1.921	2.209	2.406	2.575	2.802	2.969
6-Hr	**0.000**	**1.329**	1.955	2.306	2.737	3.109	3.392	3.625	3.955	4.190
12-Hr	**0.000**	**1.834**	2.673	3.201	3.782	4.321	4.723	5.044	5.515	5.845
24-Hr	**0.000**	**2.433**	3.620	4.358	5.163	5.916	6.495	6.943	7.572	7.965
48-Hr	**0.000**	**3.279**	4.783	5.825	6.987	8.054	8.764	9.244	10.257	10.777
96-Hr	**0.000**	**4.273**	**6.249**	7.678	9.026	10.283	11.503	12.010	12.919	13.620

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



BAP 45

Station: **Byron Airport**
Mean Seasonal Rainfall: 12.20 inches
Elevation: 39 feet
Installed 2012

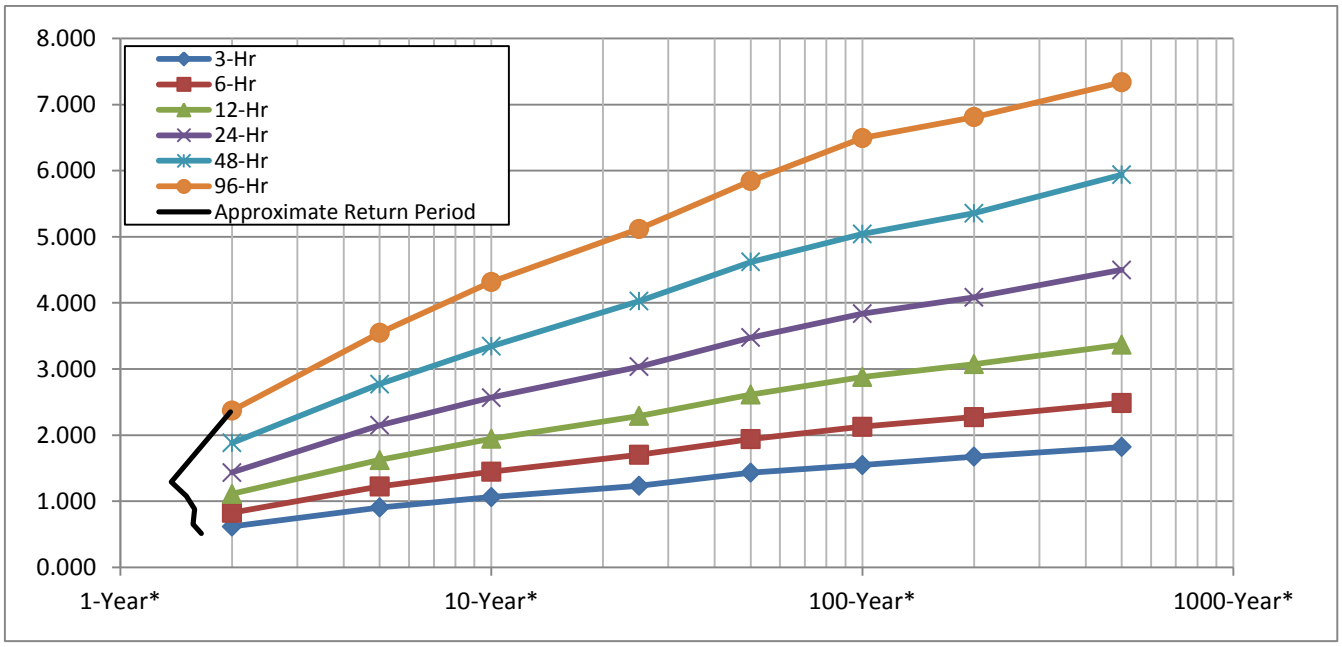
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.51	1/10/2017	9:05 PM	1.7 -years
6-Hr	0.65	1/10/2017	8:20 PM	1.6 -years
12-Hr	0.88	1/10/2017	9:05 PM	1.6 -years
24-Hr	1.08	1/11/2017	12:00 AM	1.5 -years
48-Hr	1.29	1/10/2017	8:30 PM	1.4 -years
96-Hr	2.35	1/11/2017	12:00 AM	2.0 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.617	0.906	1.064	1.234	1.431	1.547	1.675	1.821	1.907
6-Hr	**0.000**	0.828	1.223	1.447	1.702	1.938	2.126	2.273	2.486	2.608
12-Hr	**0.000**	1.111	1.624	1.945	2.290	2.613	2.879	3.074	3.368	3.531
24-Hr	**0.000**	1.434	2.147	2.568	3.034	3.475	3.837	4.086	4.498	4.688
48-Hr	**0.000**	1.882	2.772	3.343	4.026	4.619	5.044	5.357	5.940	6.234
96-Hr	**0.000**	2.370	3.546	4.315	5.120	5.844	6.495	6.812	7.337	7.744

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



BCO 86

Station: **Brentwood Corp Yard**
Mean Seasonal Rainfall: 12.00 inches
Elevation: 95 feet
Installed 1957

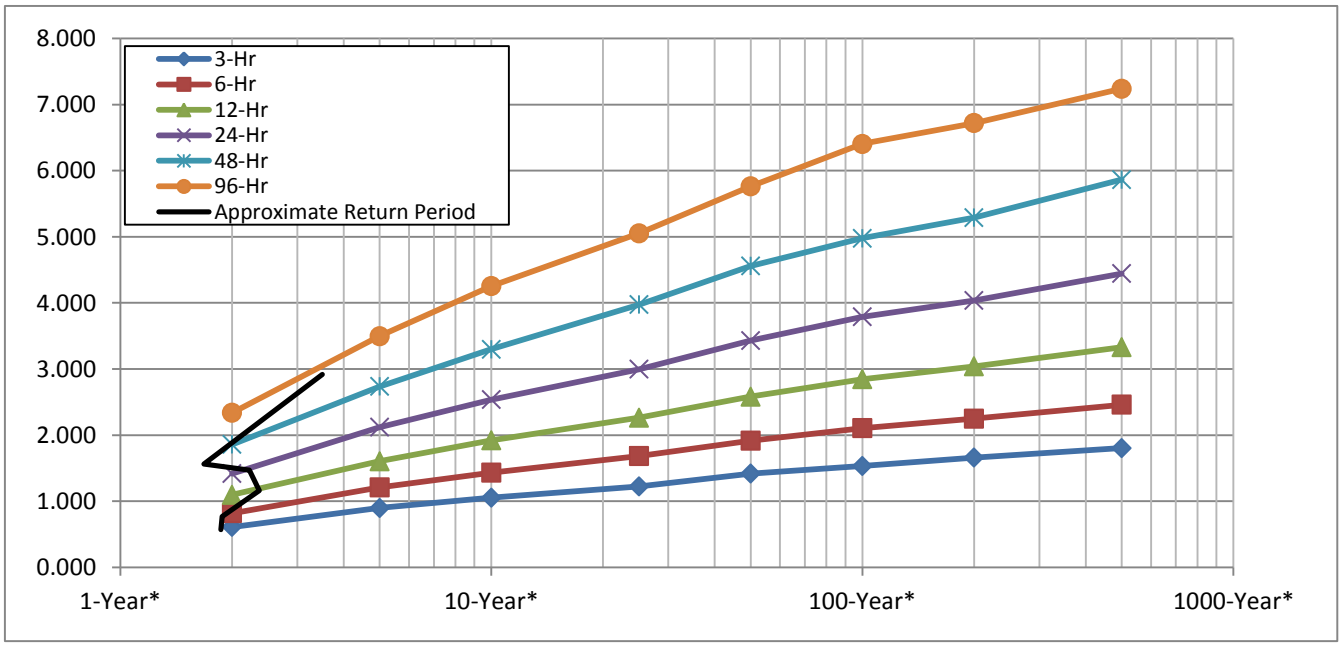
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.57	1/10/2017	8:25 PM	1.9 -years
6-Hr	0.77	1/10/2017	8:25 PM	1.9 -years
12-Hr	1.16	1/11/2017	12:35 AM	2.4 -years
24-Hr	1.47	1/11/2017	1:00 AM	2.2 -years
48-Hr	1.56	1/11/2017	1:00 AM	1.7 -years
96-Hr	2.92	1/11/2017	12:35 AM	3.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.611	0.897	1.053	1.222	1.418	1.532	1.659	1.804	1.888
6-Hr	**0.000**	0.819	1.210	1.432	1.683	1.917	2.104	2.249	2.460	2.580
12-Hr	**0.000**	**1.098**	1.606	1.922	2.264	2.582	2.846	3.039	3.330	3.490
24-Hr	**0.000**	**1.417**	2.121	2.537	2.997	3.432	3.790	4.036	4.444	4.630
48-Hr	**0.000**	1.857	2.736	3.299	3.974	4.558	4.978	5.288	5.864	6.154
96-Hr	**0.000**	**2.337**	3.498	4.255	5.051	5.766	6.406	6.720	7.238	7.640

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



BIF 44

Station: **Bethel Island Fire Station**
Mean Seasonal Rainfall: 11.00 inches
Elevation: 26 feet
Installed 2008

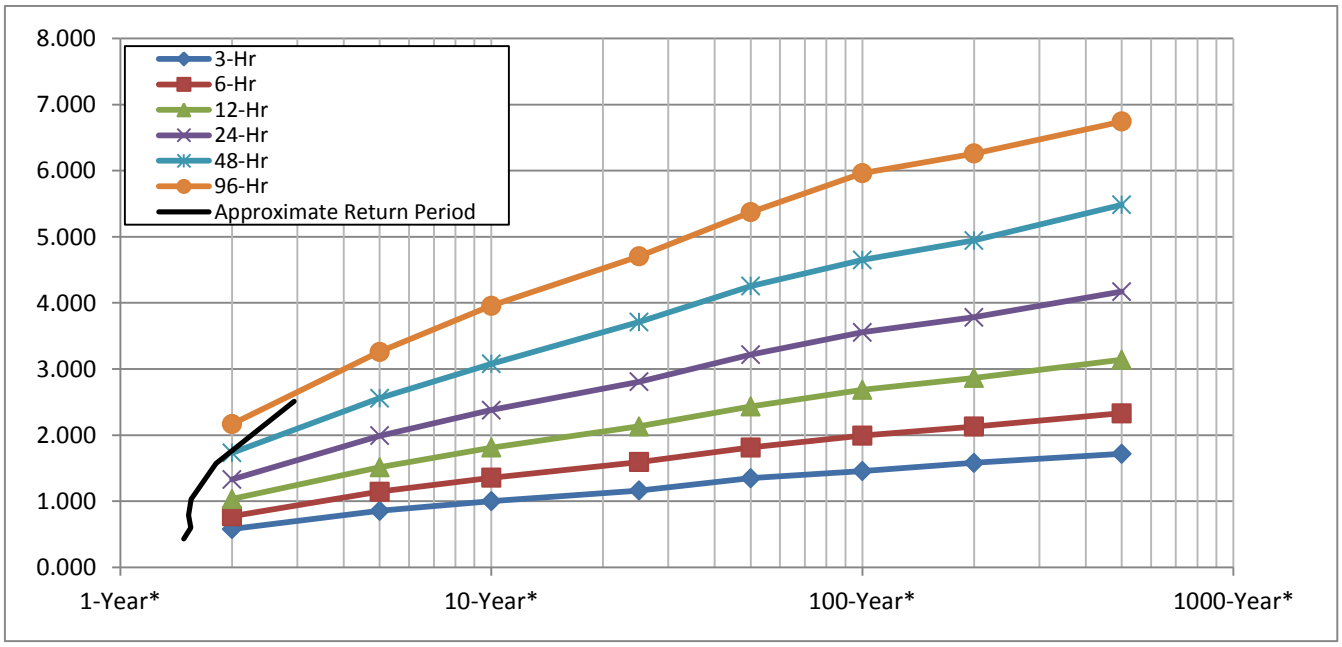
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.43	1/10/2017	3:25 PM	1.5 -years
6-Hr	0.60	1/10/2017	3:25 PM	1.5 -years
12-Hr	0.79	1/10/2017	3:25 PM	1.5 -years
24-Hr	1.03	1/8/2017	6:40 PM	1.6 -years
48-Hr	1.57	1/9/2017	1:20 AM	1.8 -years
96-Hr	2.51	1/10/2017	3:25 PM	2.9 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.580	0.854	1.002	1.161	1.349	1.456	1.580	1.717	1.794
6-Hr	**0.000**	0.774	1.145	1.356	1.592	1.814	1.992	2.130	2.330	2.440
12-Hr	**0.000**	1.034	1.513	1.811	2.132	2.431	2.683	2.864	3.140	3.285
24-Hr	**0.000**	1.328	1.990	2.378	2.808	3.216	3.555	3.783	4.172	4.340
48-Hr	**0.000**	1.734	2.558	3.080	3.712	4.254	4.649	4.944	5.482	5.752
96-Hr	**0.000**	**2.168**	3.259	3.958	4.706	5.373	5.963	6.260	6.744	7.120

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



BIX 14

Station: **Bixler Pumping Plant**
Mean Seasonal Rainfall: 11.10 inches
Elevation: 14 feet
Installed 1972

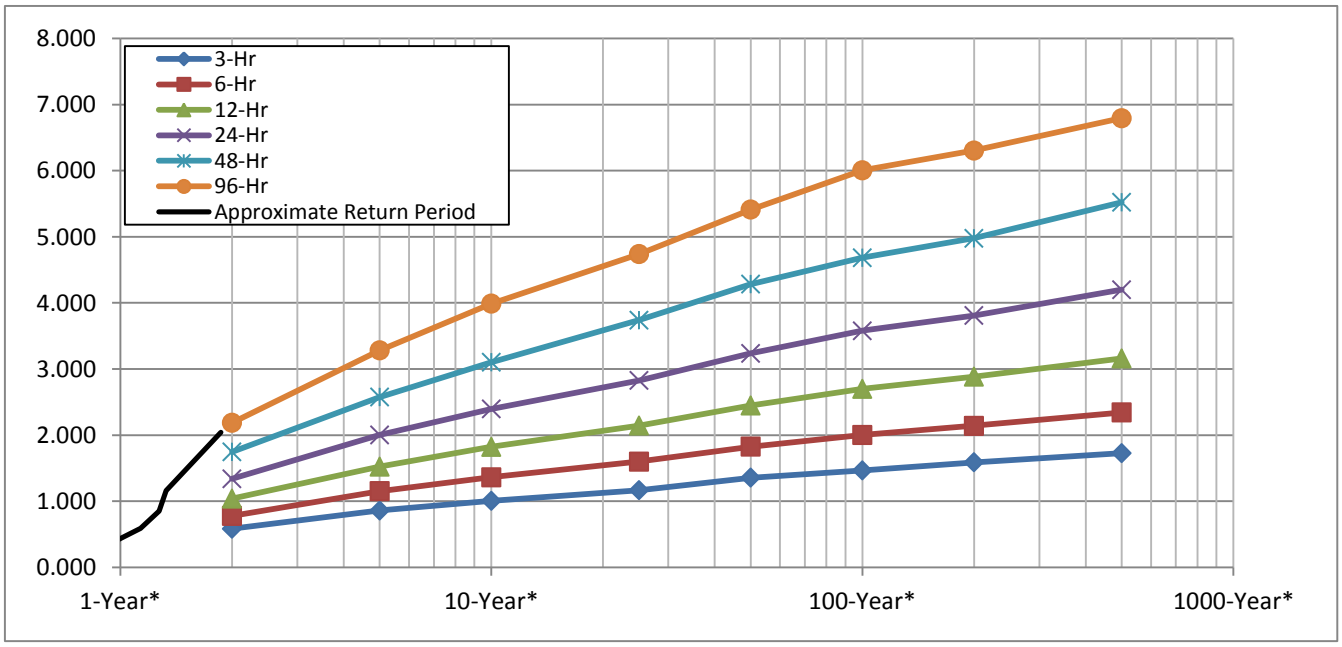
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.28	1/10/2017	8:50 PM	1.0 -years
6-Hr	0.37	1/11/2017	12:35 AM	1.0 -years
12-Hr	0.59	1/10/2017	8:20 PM	1.1 -years
24-Hr	0.85	1/11/2017	12:40 AM	1.3 -years
48-Hr	1.16	1/9/2017	1:55 AM	1.3 -years
96-Hr	2.04	1/11/2017	12:40 AM	1.9 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.583	0.858	1.007	1.167	1.356	1.464	1.588	1.725	1.803
6-Hr	**0.000**	0.779	1.151	1.364	1.601	1.824	2.003	2.142	2.343	2.454
12-Hr	**0.000**	1.040	1.522	1.822	2.145	2.446	2.700	2.882	3.159	3.305
24-Hr	**0.000**	1.337	2.003	2.394	2.827	3.238	3.579	3.808	4.199	4.369
48-Hr	**0.000**	1.746	2.576	3.102	3.738	4.284	4.682	4.978	5.520	5.792
96-Hr	**0.000**	2.185	3.283	3.987	4.740	5.412	6.008	6.306	6.793	7.172

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



BLD 32

Station: **Bald Peak**
Mean Seasonal Rainfall: 33.50 inches
Elevation: 1,905 feet
Installed 1979

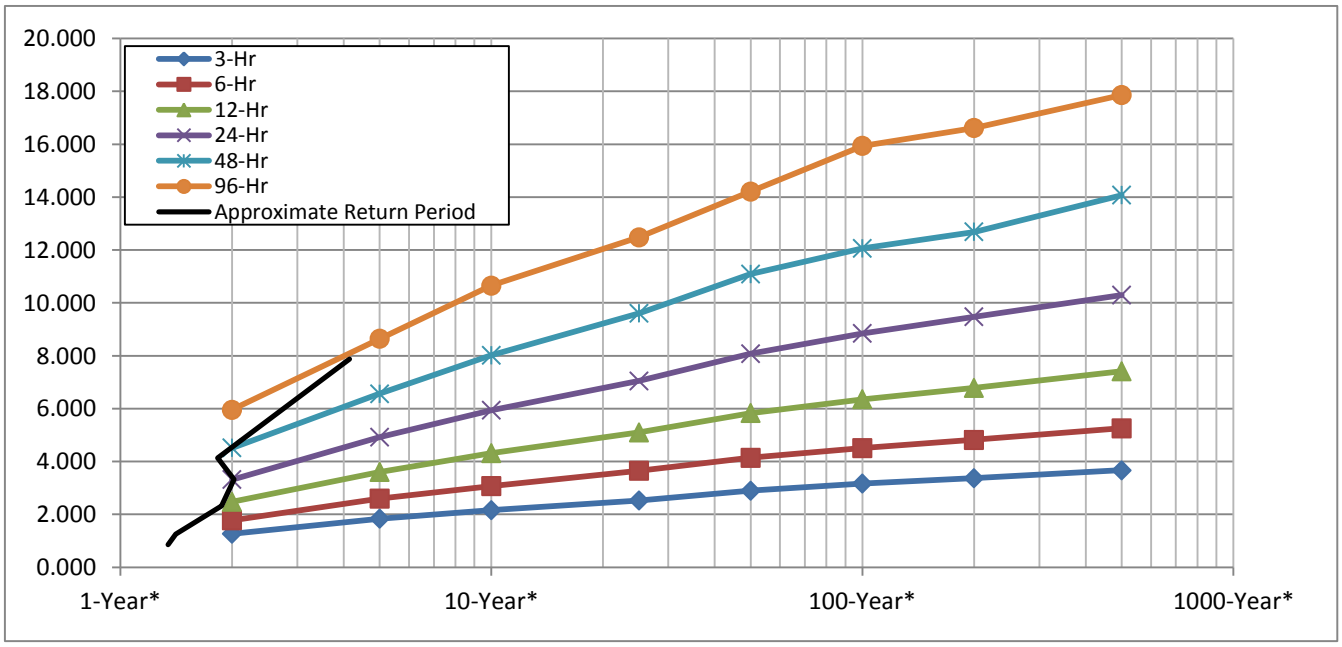
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.85	1/10/2017	7:50 PM	1.3 -years
6-Hr	1.25	1/10/2017	7:20 PM	1.4 -years
12-Hr	2.32	1/10/2017	8:05 PM	1.9 -years
24-Hr	3.33	1/10/2017	11:40 PM	2.0 -years
48-Hr	4.13	1/10/2017	11:40 PM	1.8 -years
96-Hr	7.88	1/11/2017	12:25 AM	4.1 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	1.264	1.835	2.163	2.529	2.897	3.166	3.371	3.670	3.909
6-Hr	**0.000**	1.773	2.603	3.066	3.653	4.145	4.512	4.821	5.255	5.590
12-Hr	**0.000**	2.474	3.601	4.313	5.102	5.833	6.355	6.788	7.415	7.893
24-Hr	**0.000**	**3.317**	4.924	5.942	7.047	8.076	8.847	9.471	10.292	10.865
48-Hr	**0.000**	4.515	6.563	8.021	9.607	11.094	12.056	12.684	14.077	14.797
96-Hr	**0.000**	**5.957**	8.641	10.654	12.482	14.211	15.935	16.610	17.859	18.820

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



CCP 43

Station: **Concord Pavilion**
Mean Seasonal Rainfall: 17.50 inches
Elevation: 895 feet
Installed 2007

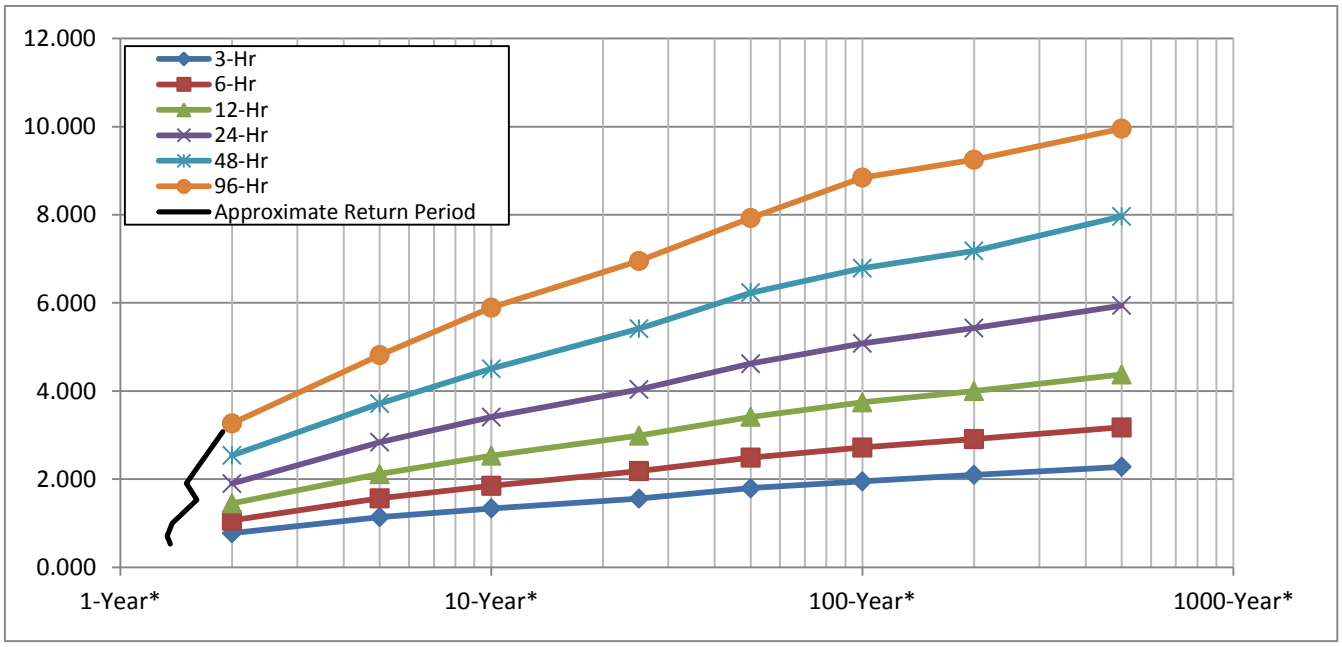
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.53	1/10/2017	8:00 PM	1.4 -years
6-Hr	0.71	1/10/2017	7:45 PM	1.3 -years
12-Hr	1.00	1/10/2017	11:50 PM	1.4 -years
24-Hr	1.53	1/11/2017	12:00 AM	1.6 -years
48-Hr	1.91	1/11/2017	12:00 AM	1.5 -years
96-Hr	3.08	1/11/2017	12:00 AM	1.9 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.778	1.137	1.337	1.556	1.796	1.950	2.097	2.281	2.405
6-Hr	**0.000**	1.063	1.566	1.850	2.187	2.487	2.720	2.907	3.175	3.350
12-Hr	**0.000**	1.450	2.116	2.534	2.990	3.414	3.744	3.998	4.375	4.616
24-Hr	**0.000**	1.903	2.838	3.408	4.033	4.620	5.084	5.426	5.940	6.225
48-Hr	**0.000**	2.537	3.715	4.507	5.415	6.230	6.789	7.180	7.965	8.365
96-Hr	**0.000**	3.263	4.814	5.892	6.952	7.926	8.844	9.250	9.955	10.500

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



CRK 35

Station: **Cummings Peak**
Mean Seasonal Rainfall: 20.00 inches
Elevation: 895 feet
Installed 1982

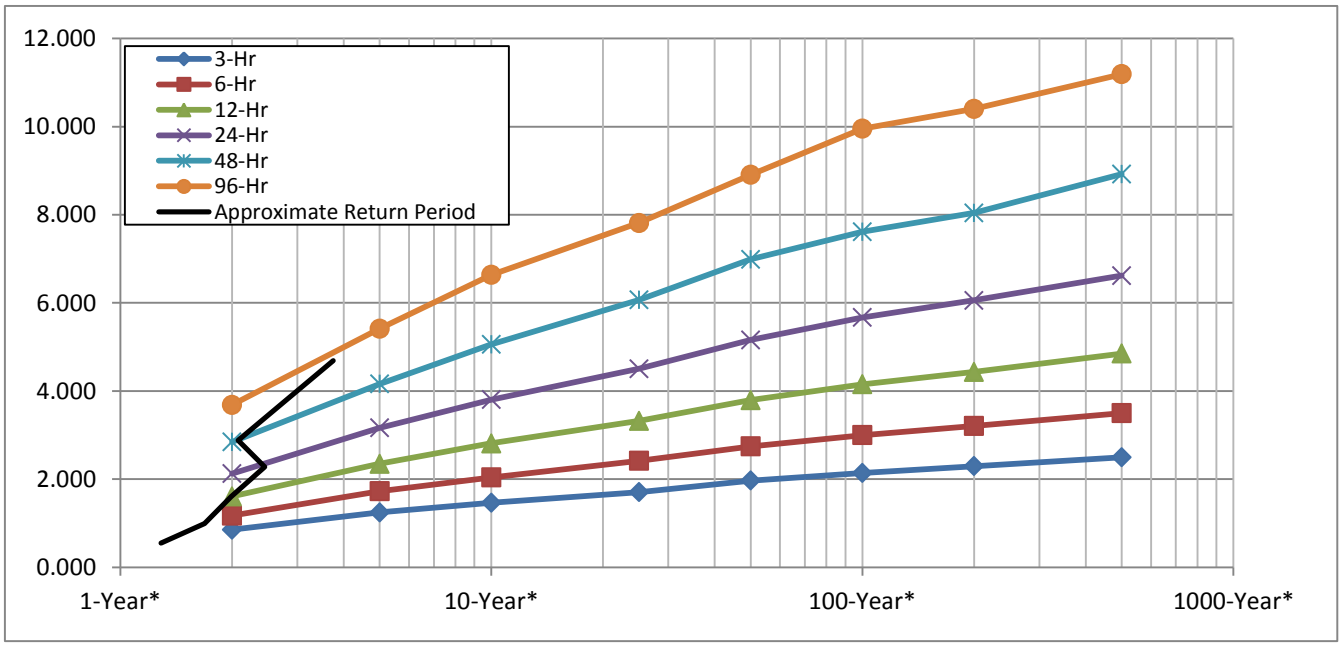
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.55	1/8/2017	11:45 AM	1.3 -years
6-Hr	0.99	1/8/2017	11:45 AM	1.7 -years
12-Hr	1.60	1/8/2017	5:10 PM	2.0 -years
24-Hr	2.28	1/8/2017	11:50 PM	2.5 -years
48-Hr	2.88	1/9/2017	12:25 AM	2.1 -years
96-Hr	4.69	1/10/2017	11:20 PM	3.7 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.854	1.246	1.466	1.708	1.968	2.140	2.296	2.498	2.640
6-Hr	**0.000**	1.174	1.728	2.040	2.416	2.746	3.000	3.206	3.500	3.700
12-Hr	**0.000**	1.610	2.348	2.812	3.320	3.792	4.152	4.434	4.850	5.128
24-Hr	**0.000**	**2.124**	3.164	3.804	4.504	5.160	5.672	6.058	6.620	6.950
48-Hr	**0.000**	**2.846**	4.160	5.056	6.070	6.990	7.612	8.040	8.920	9.370
96-Hr	**0.000**	**3.684**	5.412	6.636	7.816	8.908	9.952	10.400	11.190	11.800

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



DBF 20

Station: **Dublin Fire Station**
Mean Seasonal Rainfall: 21.70 inches
Elevation: 355 feet
Installed 1973

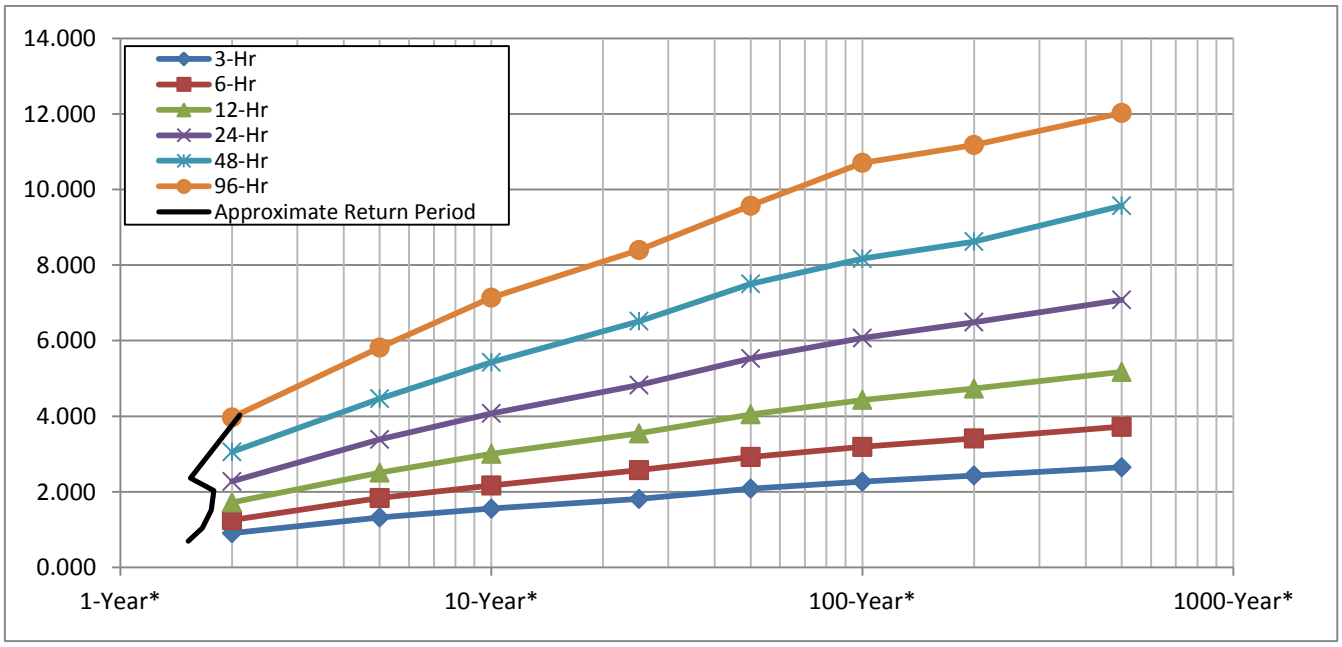
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.69	1/10/2017	8:30 PM	1.5 -years
6-Hr	1.04	1/10/2017	8:00 PM	1.7 -years
12-Hr	1.51	1/10/2017	8:30 PM	1.8 -years
24-Hr	2.03	1/10/2017	8:45 PM	1.8 -years
48-Hr	2.36	1/10/2017	8:00 PM	1.5 -years
96-Hr	4.03	1/10/2017	11:50 PM	2.1 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.906	1.320	1.554	1.811	2.085	2.269	2.431	2.646	2.800
6-Hr	**0.000**	1.249	1.838	2.169	2.572	2.922	3.190	3.409	3.721	3.938
12-Hr	**0.000**	1.719	2.506	3.001	3.544	4.049	4.429	4.730	5.173	5.476
24-Hr	**0.000**	2.274	3.386	4.073	4.824	5.527	6.072	6.488	7.082	7.443
48-Hr	**0.000**	3.056	4.463	5.429	6.515	7.507	8.172	8.625	9.569	10.053
96-Hr	**0.000**	**3.970**	5.819	7.142	8.404	9.576	10.705	11.182	12.030	12.684

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



DBL 22

Station: **Mt Diablo Peak**
Mean Seasonal Rainfall: 27.50 inches
Elevation: 3,690 feet
Installed 1974

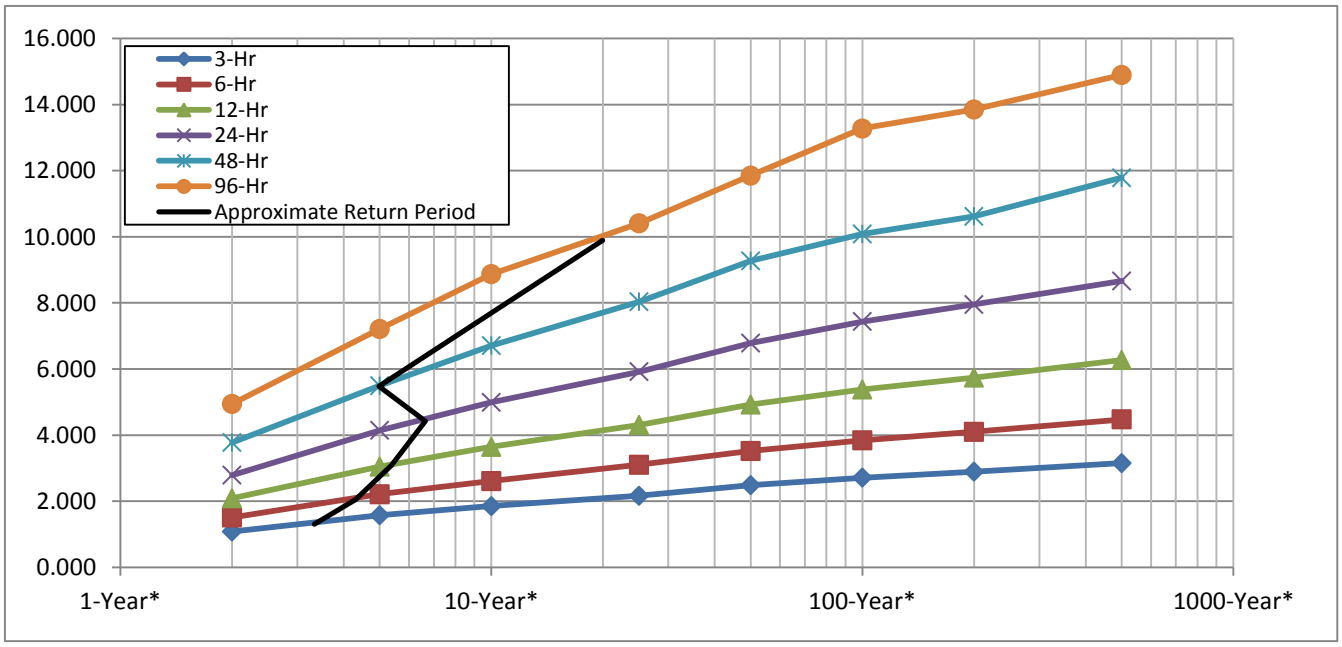
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.30	1/10/2017	8:00 PM	3.3 -years
6-Hr	2.05	1/10/2017	8:00 PM	4.3 -years
12-Hr	3.09	1/10/2017	8:10 PM	5.4 -years
24-Hr	4.42	1/10/2017	8:10 PM	6.6 -years
48-Hr	5.48	1/11/2017	12:20 AM	5.0 -years
96-Hr	9.89	1/11/2017	12:20 AM	20.0 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**1.082**	1.573	1.853	2.164	2.484	2.710	2.893	3.149	3.345
6-Hr	**0.000**	**1.507**	2.214	2.610	3.103	3.523	3.840	4.103	4.475	4.750
12-Hr	**0.000**	**2.090**	**3.044**	3.646	4.310	4.926	5.376	5.742	6.275	6.664
24-Hr	**0.000**	**2.787**	**4.142**	4.992	5.917	6.780	7.436	7.954	8.660	9.125
48-Hr	**0.000**	**3.773**	5.495	6.703	8.035	9.270	10.081	10.620	11.785	12.385
96-Hr	**0.000**	**4.947**	**7.206**	**8.868**	10.408	11.854	13.276	13.850	14.895	15.700

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



DVB 31

Station: **Danville Library**
Mean Seasonal Rainfall: 22.00 inches
Elevation: 420 feet
Installed 2006

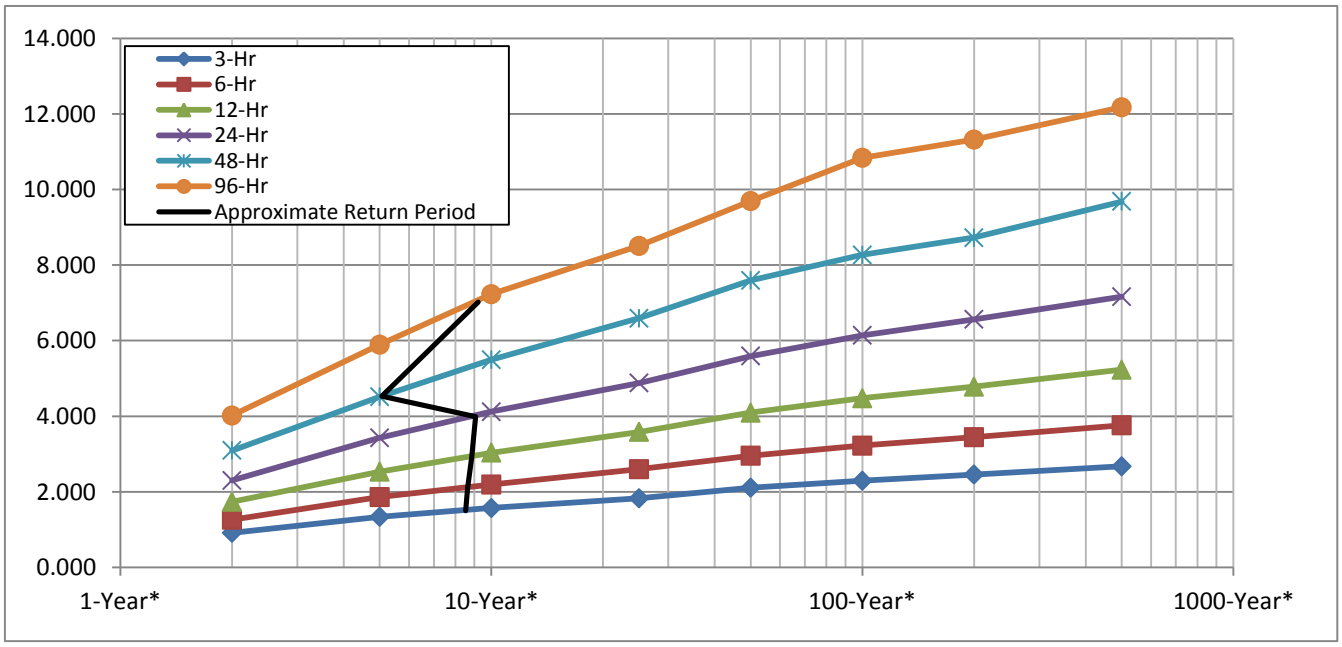
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.50	1/10/2017	7:55 PM	8.5 -years
6-Hr	2.10	1/10/2017	7:45 PM	8.6 -years
12-Hr	2.92	1/11/2017	12:20 AM	8.9 -years
24-Hr	3.99	1/11/2017	12:25 AM	9.1 -years
48-Hr	4.53	1/11/2017	12:25 AM	5.1 -years
96-Hr	7.02	1/11/2017	12:25 AM	9.2 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.915**	**1.333**	1.569	1.830	2.106	2.292	2.455	2.672	2.828
6-Hr	**0.000**	**1.263**	**1.858**	2.192	2.599	2.953	3.224	3.445	3.760	3.980
12-Hr	**0.000**	**1.738**	**2.534**	3.034	3.584	4.094	4.478	4.783	5.230	5.538
24-Hr	**0.000**	**2.301**	**3.425**	4.121	4.881	5.592	6.142	6.564	7.164	7.530
48-Hr	**0.000**	**3.093**	**4.516**	5.495	6.594	7.598	8.270	8.728	9.684	10.174
96-Hr	**0.000**	**4.021**	**5.890**	7.231	8.507	9.694	10.838	11.320	12.178	12.840

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



FCD 11

Station: **Flood Control Headquarters**
Mean Seasonal Rainfall: 17.40 inches
Elevation: 160 feet
Installed 1970

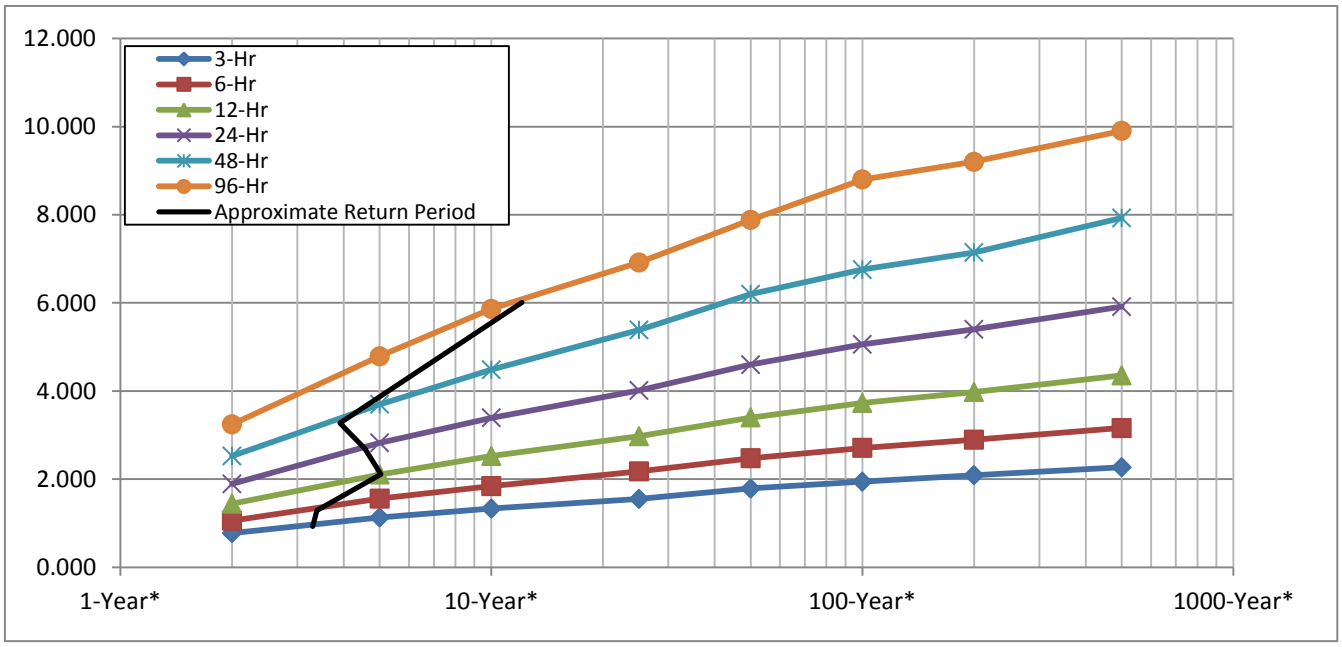
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.93	1/10/2017	7:45 PM	3.3 -years
6-Hr	1.29	1/10/2017	7:30 PM	3.4 -years
12-Hr	2.11	1/10/2017	8:10 PM	5.0 -years
24-Hr	2.69	1/10/2017	11:45 PM	4.6 -years
48-Hr	3.27	1/10/2017	11:40 PM	3.9 -years
96-Hr	6.01	1/10/2017	11:45 PM	12.1 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.775**	1.133	1.332	1.550	1.789	1.942	2.089	2.272	2.396
6-Hr	**0.000**	**1.059**	1.560	1.842	2.178	2.477	2.709	2.895	3.162	3.336
12-Hr	**0.000**	**1.444**	**2.107**	2.523	2.977	3.399	3.728	3.981	4.356	4.596
24-Hr	**0.000**	**1.894**	2.825	3.392	4.014	4.598	5.060	5.401	5.913	6.196
48-Hr	**0.000**	**2.525**	3.697	4.485	5.389	6.200	6.756	7.146	7.927	8.325
96-Hr	**0.000**	**3.246**	**4.790**	**5.862**	6.917	7.887	8.800	9.204	9.906	10.448

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



HLD 10

Station: **Highland Peak**
Mean Seasonal Rainfall: 20.50 inches
Elevation: 2,520 feet
Installed 2004

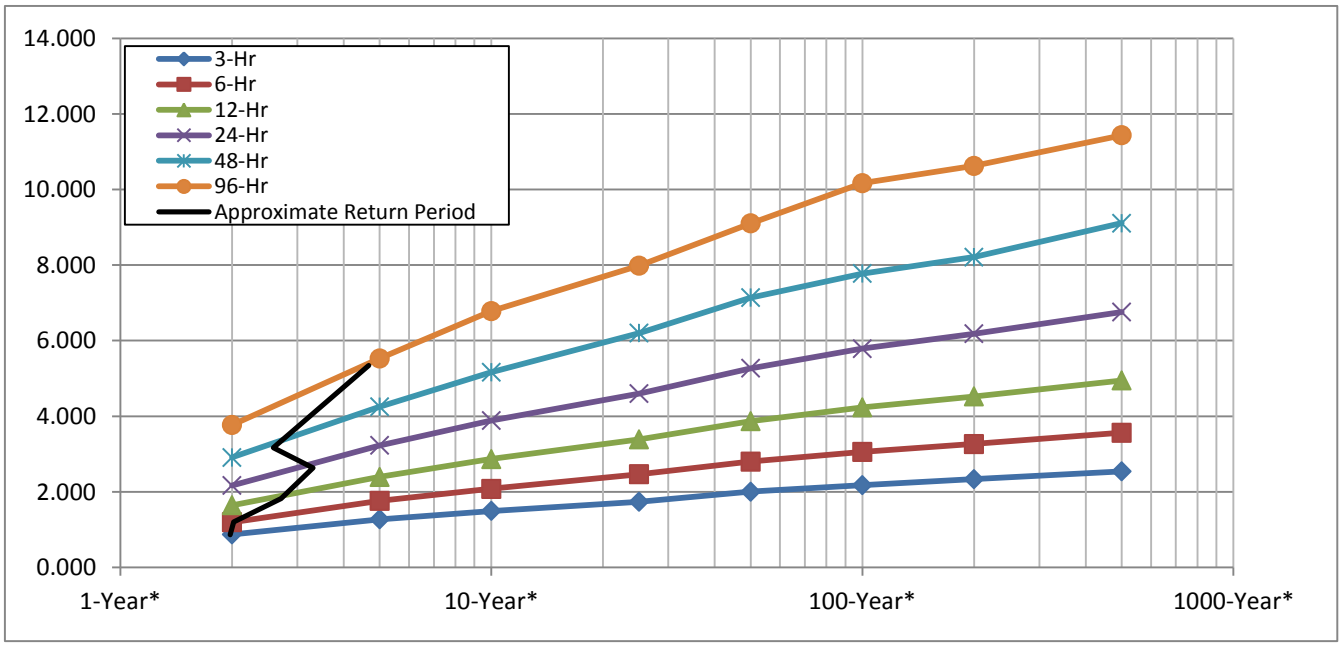
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.86	1/10/2017	8:25 PM	2.0 -years
6-Hr	1.20	1/10/2017	8:25 PM	2.0 -years
12-Hr	1.82	1/11/2017	12:55 AM	2.7 -years
24-Hr	2.63	1/11/2017	12:55 AM	3.3 -years
48-Hr	3.17	1/11/2017	12:55 AM	2.6 -years
96-Hr	5.34	1/11/2017	1:30 AM	4.7 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.869	1.268	1.492	1.738	2.002	2.178	2.336	2.541	2.687
6-Hr	**0.000**	**1.196**	1.760	2.078	2.462	2.798	3.056	3.266	3.565	3.770
12-Hr	**0.000**	**1.642**	2.394	2.868	3.386	3.868	4.234	4.521	4.945	5.230
24-Hr	**0.000**	**2.168**	3.229	3.883	4.598	5.268	5.790	6.184	6.756	7.095
48-Hr	**0.000**	**2.908**	4.249	5.166	6.201	7.142	7.777	8.212	9.111	9.571
96-Hr	**0.000**	**3.768**	5.532	6.785	7.989	9.104	10.174	10.630	11.437	12.060

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



ISD 39

Station: **Ironhouse Sanitary District**
Mean Seasonal Rainfall: 12.00 inches
Elevation: 7 feet
Installed 2006

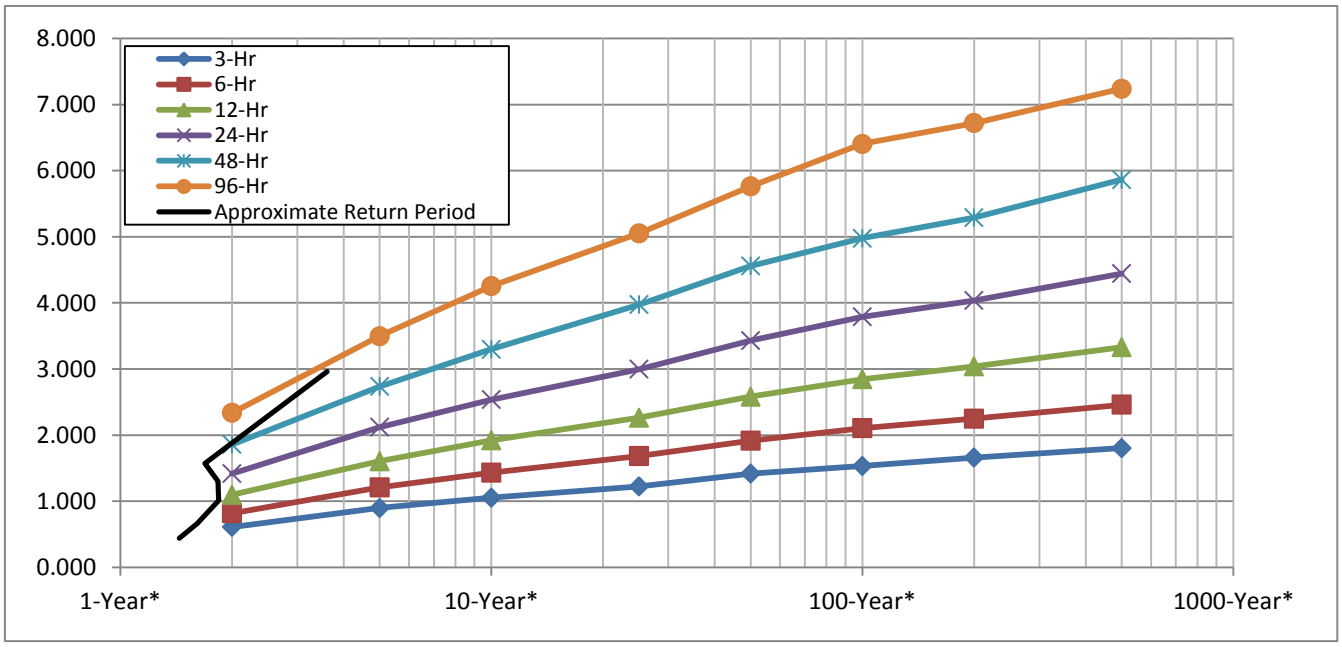
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.44	1/10/2017	8:25 PM	1.4 -years
6-Hr	0.66	1/10/2017	8:05 PM	1.6 -years
12-Hr	1.01	1/10/2017	8:30 PM	1.8 -years
24-Hr	1.30	1/11/2017	12:25 AM	1.8 -years
48-Hr	1.57	1/9/2017	1:10 AM	1.7 -years
96-Hr	2.96	1/11/2017	12:25 AM	3.6 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.611	0.897	1.053	1.222	1.418	1.532	1.659	1.804	1.888
6-Hr	**0.000**	0.819	1.210	1.432	1.683	1.917	2.104	2.249	2.460	2.580
12-Hr	**0.000**	1.098	1.606	1.922	2.264	2.582	2.846	3.039	3.330	3.490
24-Hr	**0.000**	1.417	2.121	2.537	2.997	3.432	3.790	4.036	4.444	4.630
48-Hr	**0.000**	1.857	2.736	3.299	3.974	4.558	4.978	5.288	5.864	6.154
96-Hr	**0.000**	**2.337**	3.498	4.255	5.051	5.766	6.406	6.720	7.238	7.640

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



KGR 38

Station: **Kregor Peak**
Mean Seasonal Rainfall: 21.00 inches
Elevation: 1,894 feet
Installed 1983

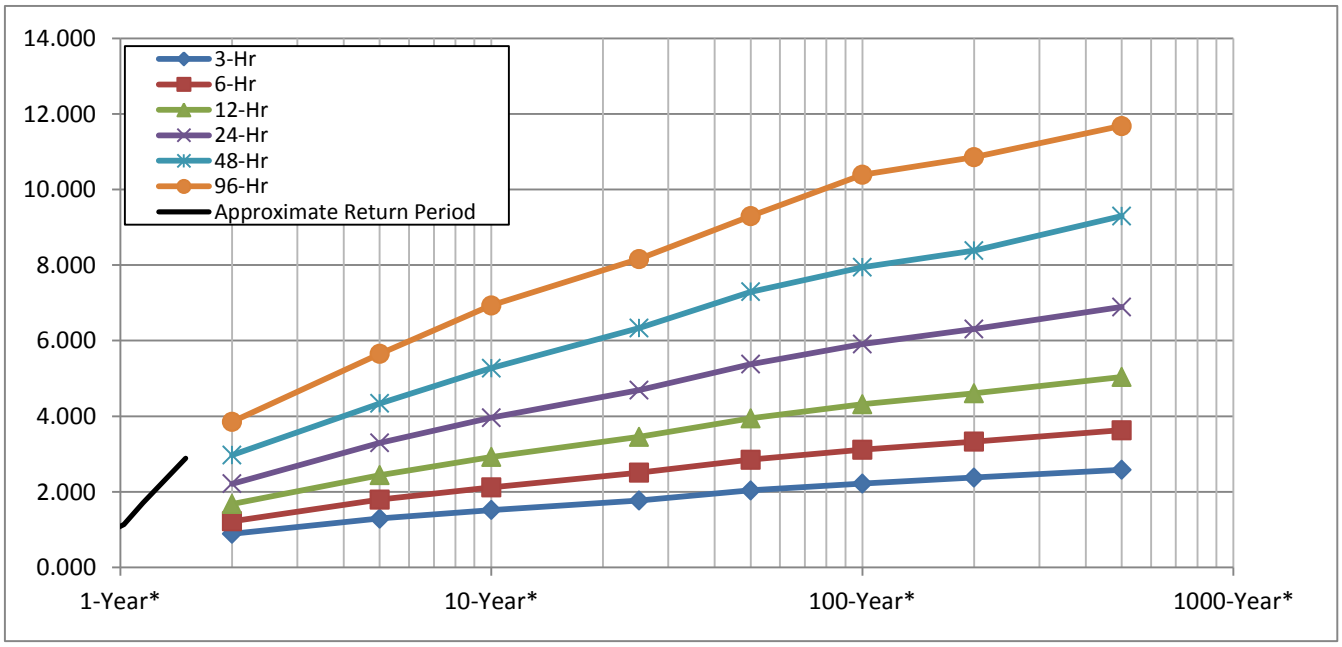
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.28	1/8/2017	3:05 AM	0.6 -years
6-Hr	0.41	1/8/2017	3:05 AM	0.7 -years
12-Hr	0.70	1/8/2017	11:35 AM	0.8 -years
24-Hr	1.13	1/8/2017	8:05 PM	1.0 -years
48-Hr	1.71	1/9/2017	1:05 AM	1.2 -years
96-Hr	2.89	1/11/2017	12:10 AM	1.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.884	1.290	1.518	1.769	2.037	2.216	2.376	2.585	2.734
6-Hr	**0.000**	1.218	1.793	2.116	2.508	2.850	3.112	3.326	3.630	3.840
12-Hr	**0.000**	1.674	2.441	2.923	3.452	3.943	4.315	4.608	5.040	5.333
24-Hr	**0.000**	2.212	3.294	3.962	4.692	5.376	5.907	6.311	6.892	7.240
48-Hr	**0.000**	2.970	4.338	5.276	6.332	7.294	7.941	8.384	9.302	9.772
96-Hr	**0.000**	3.852	5.651	6.934	8.162	9.301	10.395	10.860	11.684	12.320

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



MCF 16

Station: **Marsh Creek Fire Station**
Mean Seasonal Rainfall: 19.22 inches
Elevation: 740 feet
Installed 1951

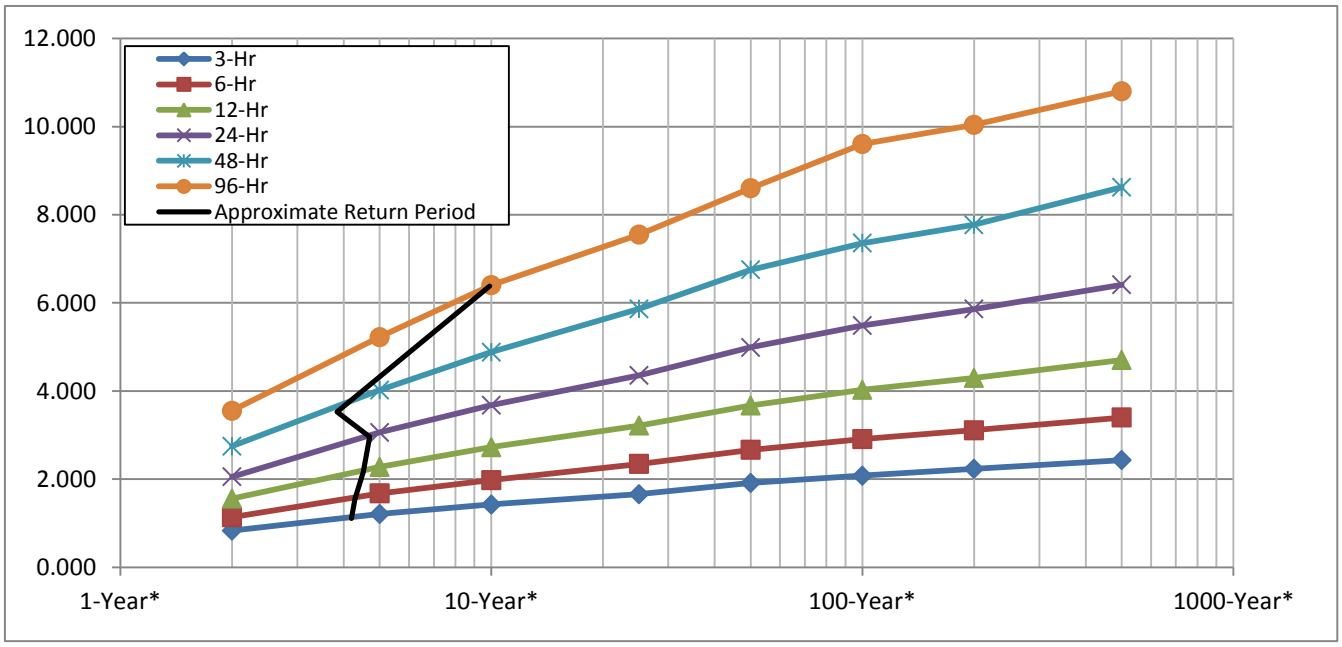
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.11	1/10/2017	8:05 PM	4.2 -years
6-Hr	1.55	1/10/2017	8:05 PM	4.3 -years
12-Hr	2.16	1/10/2017	8:35 PM	4.5 -years
24-Hr	2.96	1/11/2017	12:25 AM	4.7 -years
48-Hr	3.53	1/11/2017	12:25 AM	3.8 -years
96-Hr	6.38	1/11/2017	12:25 AM	9.9 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.830**	1.212	1.426	1.661	1.914	2.081	2.234	2.430	2.567
6-Hr	**0.000**	**1.139**	1.677	1.981	2.345	2.665	2.913	3.113	3.399	3.591
12-Hr	**0.000**	**1.560**	2.276	2.725	3.217	3.674	4.025	4.298	4.702	4.968
24-Hr	**0.000**	**2.055**	3.062	3.680	4.357	4.992	5.489	5.861	6.408	6.724
48-Hr	**0.000**	**2.750**	4.021	4.885	5.866	6.753	7.355	7.772	8.622	9.056
96-Hr	**0.000**	**3.553**	**5.225**	6.404	7.546	8.602	9.606	10.041	10.805	11.394

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



MCR 25

Station: **Marsh Cr Reservoir**
Mean Seasonal Rainfall: 13.50 inches
Elevation: 50 feet
Installed 2004

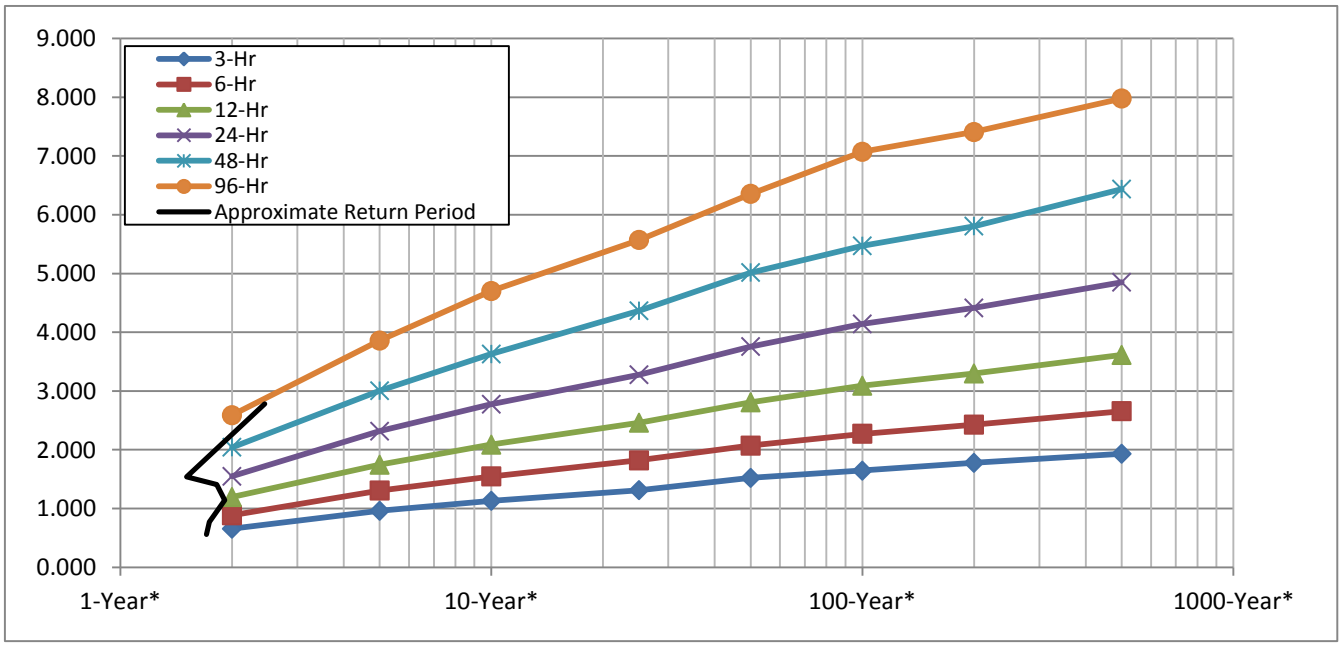
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.56	1/10/2017	8:25 PM	1.7 -years
6-Hr	0.77	1/10/2017	8:05 PM	1.7 -years
12-Hr	1.14	1/10/2017	8:25 PM	1.9 -years
24-Hr	1.41	1/11/2017	12:40 AM	1.8 -years
48-Hr	1.54	1/11/2017	12:40 AM	1.5 -years
96-Hr	2.78	1/11/2017	12:40 AM	2.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.656	0.963	1.131	1.313	1.521	1.646	1.779	1.934	2.029
6-Hr	**0.000**	0.885	1.307	1.546	1.821	2.073	2.272	2.429	2.655	2.790
12-Hr	**0.000**	1.194	1.745	2.089	2.462	2.809	3.091	3.300	3.615	3.797
24-Hr	**0.000**	1.549	2.316	2.774	3.279	3.756	4.143	4.415	4.852	5.065
48-Hr	**0.000**	2.043	3.003	3.629	4.367	5.014	5.472	5.804	6.437	6.757
96-Hr	**0.000**	**2.589**	3.857	4.702	5.570	6.355	7.071	7.410	7.979	8.420

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



MDP 13

Station: **Mt Diablo Park Headquarters**
Mean Seasonal Rainfall: 21.36 inches
Elevation: 1,600 feet
Installed 1937

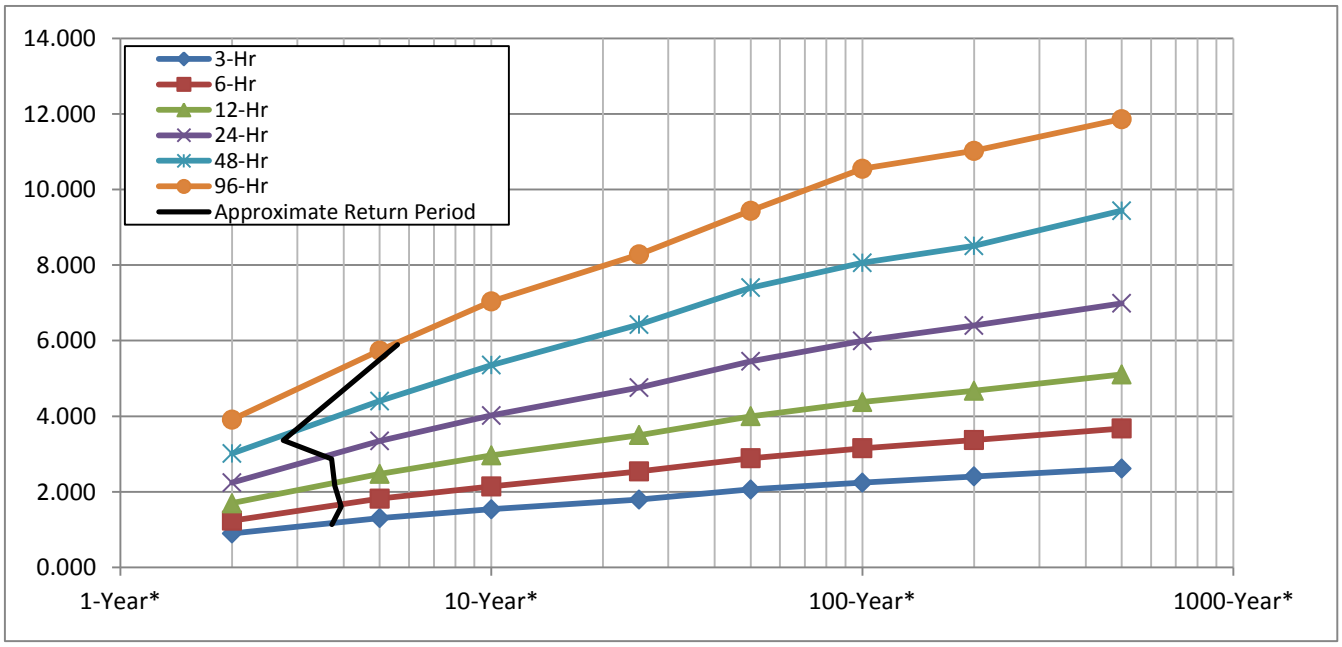
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.13	1/10/2017	7:55 PM	3.7 -years
6-Hr	1.61	1/10/2017	7:55 PM	3.9 -years
12-Hr	2.16	1/10/2017	9:15 PM	3.8 -years
24-Hr	2.87	1/11/2017	12:25 AM	3.7 -years
48-Hr	3.36	1/11/2017	12:25 AM	2.7 -years
96-Hr	5.89	1/11/2017	12:25 AM	5.6 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.895**	1.305	1.536	1.791	2.062	2.243	2.404	2.616	2.768
6-Hr	**0.000**	**1.234**	1.816	2.143	2.541	2.887	3.152	3.369	3.677	3.890
12-Hr	**0.000**	**1.697**	2.474	2.963	3.500	3.998	4.374	4.671	5.108	5.407
24-Hr	**0.000**	**2.244**	3.341	4.019	4.760	5.454	5.992	6.402	6.990	7.344
48-Hr	**0.000**	**3.014**	4.402	5.355	6.426	7.403	8.060	8.508	9.440	9.917
96-Hr	**0.000**	**3.913**	**5.737**	7.041	8.286	9.442	10.555	11.026	11.862	12.507

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



MED 19

Station: **Los Medanos**
Mean Seasonal Rainfall: 12.60 inches
Elevation: 130 feet
Installed 1973

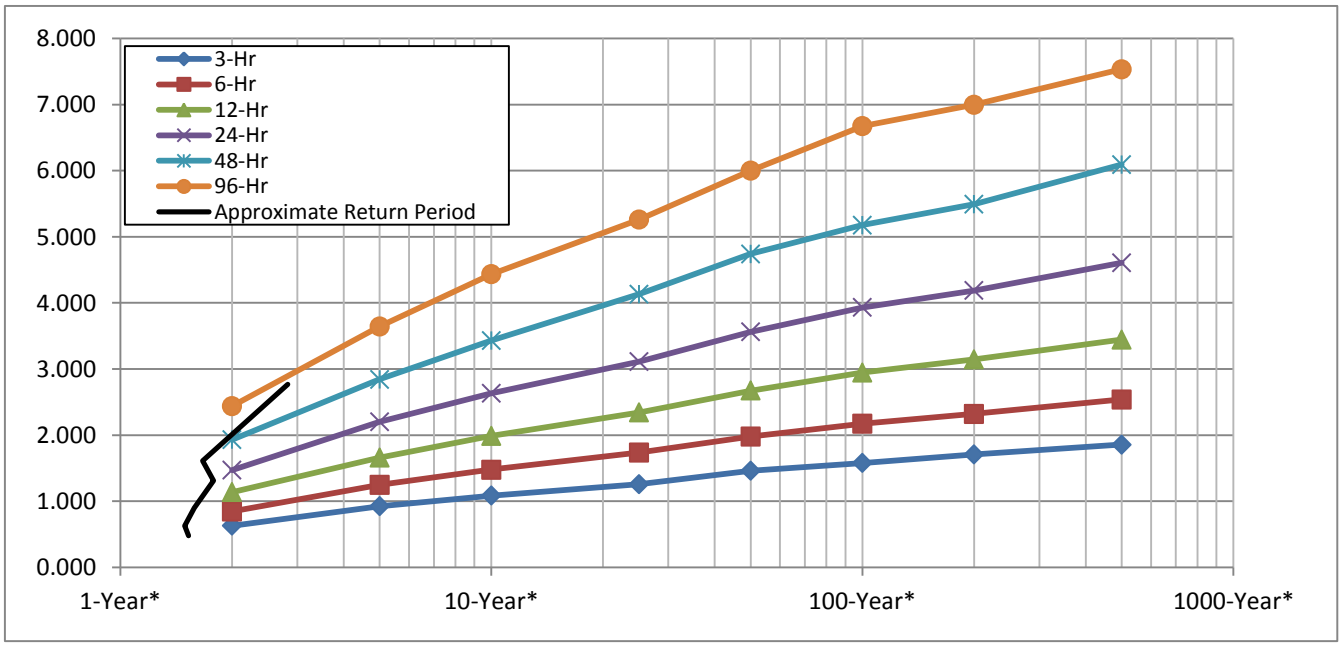
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.48	1/10/2017	8:10 PM	1.5 -years
6-Hr	0.63	1/10/2017	8:20 PM	1.5 -years
12-Hr	0.90	1/10/2017	8:30 PM	1.6 -years
24-Hr	1.31	1/11/2017	12:05 AM	1.8 -years
48-Hr	1.61	1/11/2017	12:05 AM	1.7 -years
96-Hr	2.77	1/11/2017	12:05 AM	2.8 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.629	0.923	1.084	1.258	1.459	1.578	1.707	1.856	1.944
6-Hr	**0.000**	0.845	1.248	1.478	1.738	1.979	2.171	2.321	2.538	2.664
12-Hr	**0.000**	1.136	1.661	1.989	2.343	2.673	2.944	3.143	3.444	3.612
24-Hr	**0.000**	1.470	2.199	2.632	3.110	3.562	3.932	4.187	4.607	4.804
48-Hr	**0.000**	1.931	2.843	3.431	4.131	4.740	5.176	5.494	6.093	6.395
96-Hr	**0.000**	**2.438**	3.642	4.434	5.259	6.001	6.672	6.996	7.534	7.952

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



ORF 18

Station: **Orinda Fire Station**
Mean Seasonal Rainfall: 29.21 inches
Elevation: 700 feet
Installed 1952

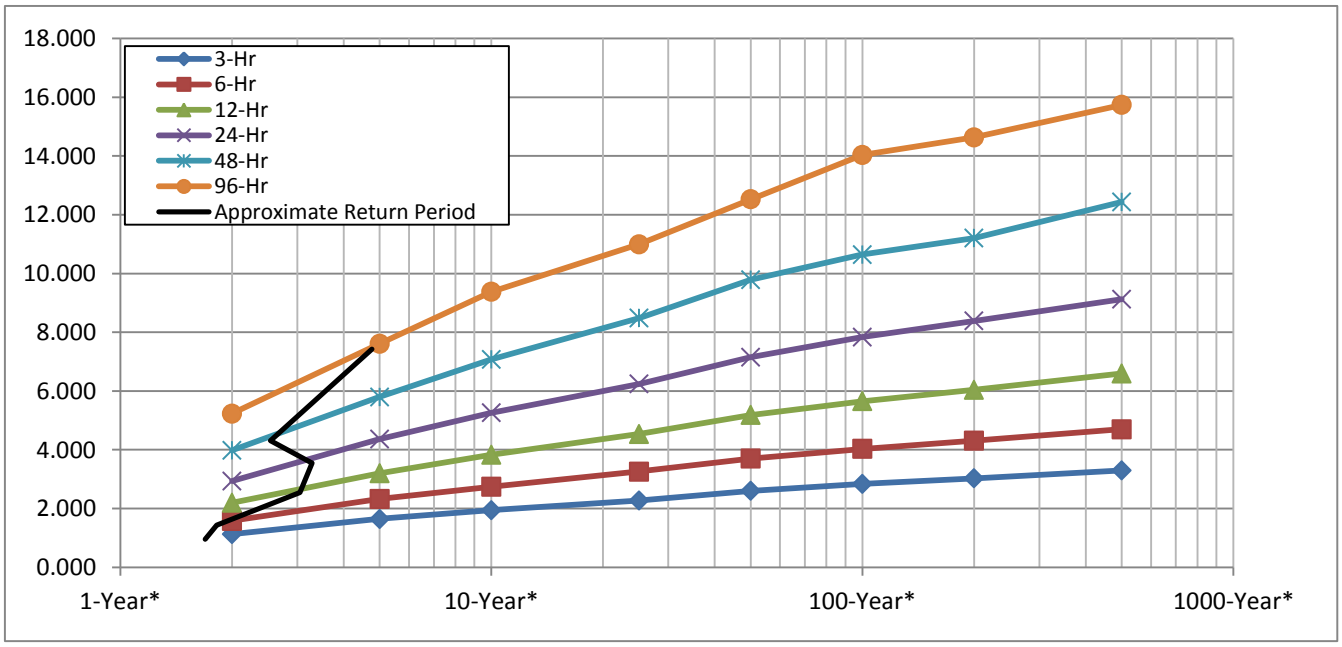
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.96	1/10/2017	7:50 PM	1.7 -years
6-Hr	1.44	1/10/2017	7:25 PM	1.8 -years
12-Hr	2.55	1/10/2017	8:10 PM	3.0 -years
24-Hr	3.55	1/10/2017	8:35 PM	3.3 -years
48-Hr	4.31	1/10/2017	11:45 PM	2.5 -years
96-Hr	7.43	1/11/2017	12:00 AM	4.8 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	1.134	1.648	1.941	2.268	2.602	2.840	3.029	3.297	3.506
6-Hr	**0.000**	1.583	2.325	2.740	3.260	3.700	4.032	4.308	4.697	4.989
12-Hr	**0.000**	**2.199**	3.203	3.836	4.536	5.185	5.655	6.040	6.600	7.014
24-Hr	**0.000**	**2.938**	4.365	5.263	6.239	7.149	7.838	8.386	9.125	9.621
48-Hr	**0.000**	**3.984**	5.799	7.079	8.483	9.790	10.644	11.208	12.438	13.072
96-Hr	**0.000**	**5.235**	7.615	9.377	10.999	12.526	14.034	14.637	15.740	16.589

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



RIC 21

Station: **Richmond City Hall**
Mean Seasonal Rainfall: 21.81 inches
Elevation: 55 feet
Installed 1974

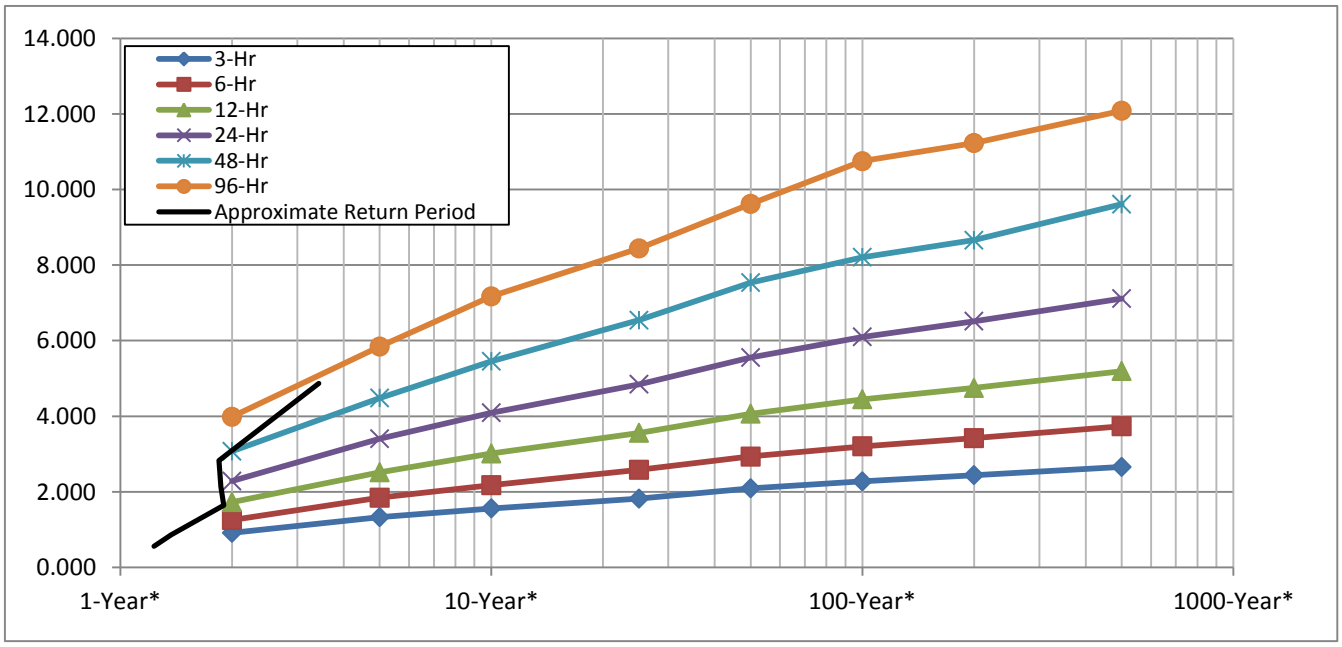
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.56	1/8/2017	2:25 AM	1.2 -years
6-Hr	0.86	1/8/2017	3:30 AM	1.4 -years
12-Hr	1.64	1/8/2017	10:50 AM	1.9 -years
24-Hr	2.13	1/8/2017	7:10 PM	1.9 -years
48-Hr	2.83	1/8/2017	11:50 PM	1.8 -years
96-Hr	4.87	1/10/2017	11:20 PM	3.4 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.909	1.325	1.559	1.818	2.093	2.278	2.440	2.655	2.810
6-Hr	**0.000**	1.254	1.845	2.178	2.582	2.934	3.203	3.422	3.735	3.953
12-Hr	**0.000**	1.726	2.516	3.013	3.559	4.066	4.447	4.750	5.194	5.499
24-Hr	**0.000**	2.284	3.400	4.091	4.845	5.551	6.098	6.516	7.112	7.475
48-Hr	**0.000**	3.070	4.482	5.453	6.544	7.540	8.208	8.663	9.611	10.098
96-Hr	**0.000**	**3.989**	5.845	7.175	8.442	9.619	10.754	11.233	12.084	12.741

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



RKY 34

Station: **Rocky Ridge**
Mean Seasonal Rainfall: 28.50 inches
Elevation: 2,020 feet
Installed 1979

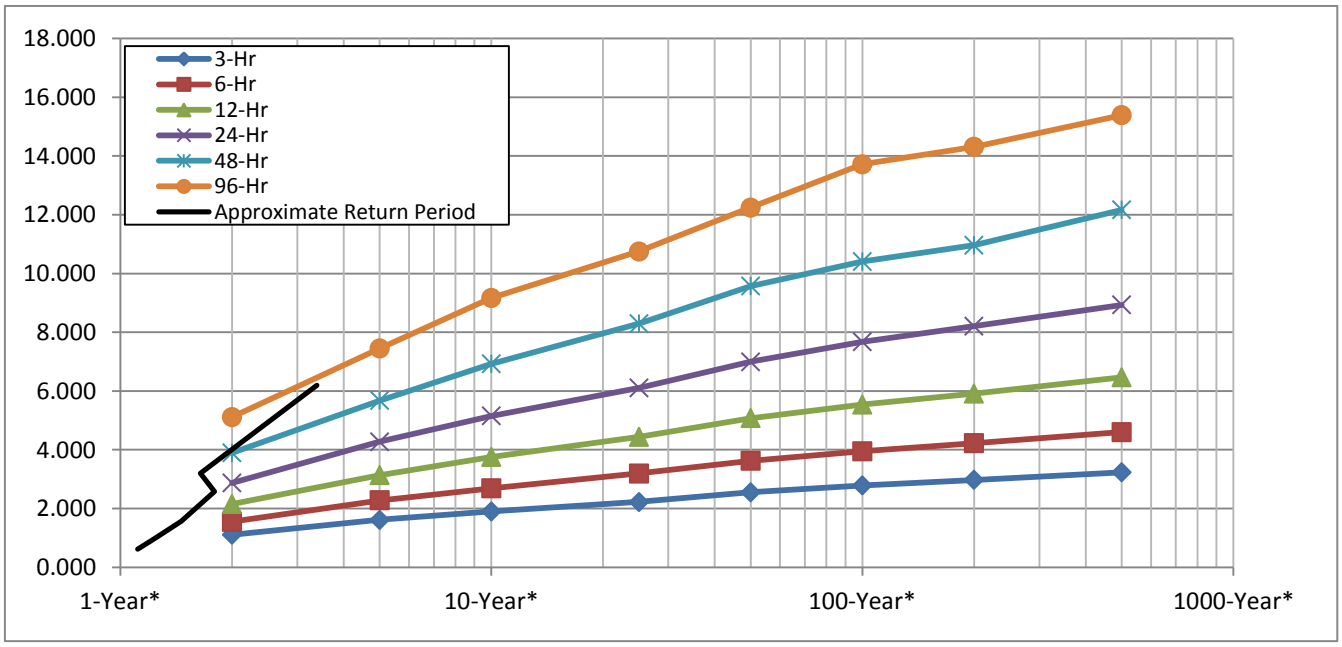
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.62	1/8/2017	3:00 AM	1.1 -years
6-Hr	0.95	1/10/2017	7:40 PM	1.2 -years
12-Hr	1.57	1/11/2017	12:45 AM	1.5 -years
24-Hr	2.58	1/11/2017	1:00 AM	1.8 -years
48-Hr	3.20	1/9/2017	1:30 AM	1.6 -years
96-Hr	6.19	1/11/2017	1:15 AM	3.4 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	1.112	1.617	1.905	2.225	2.553	2.786	2.973	3.236	3.439
6-Hr	**0.000**	1.551	2.279	2.686	3.195	3.627	3.952	4.223	4.605	4.890
12-Hr	**0.000**	2.154	3.137	3.757	4.442	5.077	5.539	5.916	6.465	6.869
24-Hr	**0.000**	2.875	4.272	5.150	6.105	6.996	7.671	8.207	8.932	9.415
48-Hr	**0.000**	3.897	5.673	6.923	8.297	9.574	10.410	10.964	12.167	12.787
96-Hr	**0.000**	**5.115**	7.445	9.166	10.754	12.247	13.719	14.310	15.389	16.220

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



ROF 15

Station: **Rodeo Fire Station**
Mean Seasonal Rainfall: 18.30 inches
Elevation: 30 feet
Installed 1972

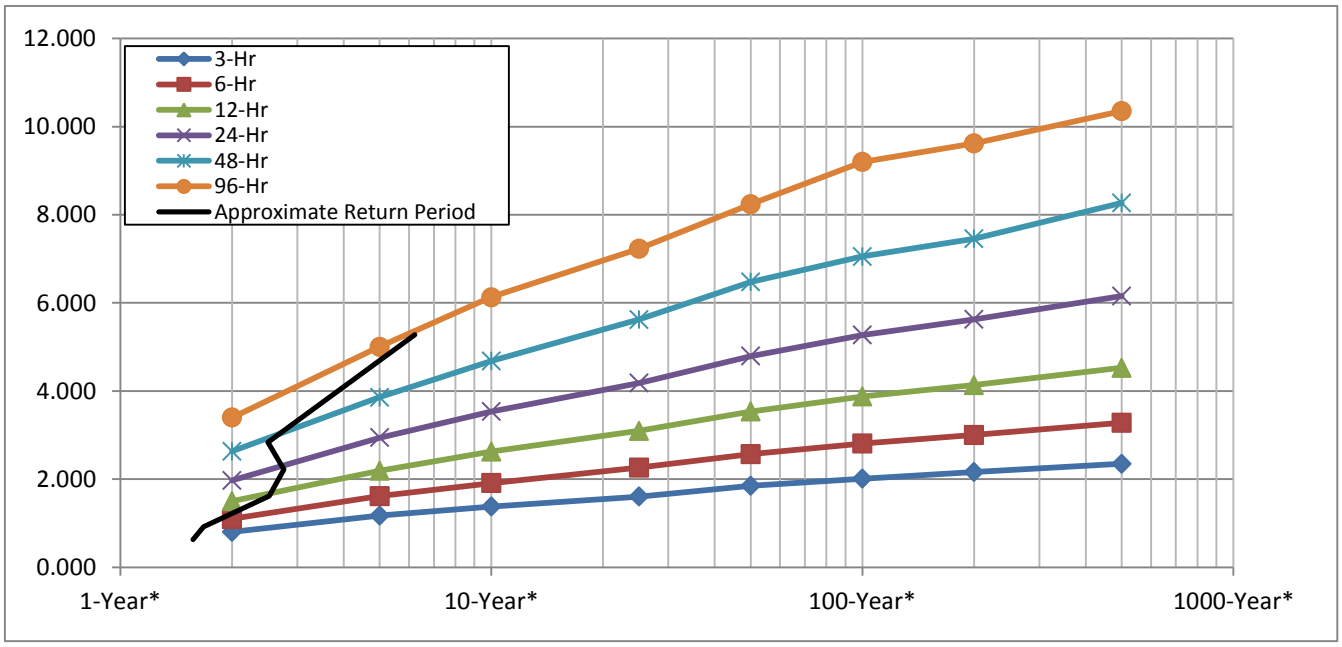
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.63	1/10/2017	7:25 PM	1.6 -years
6-Hr	0.92	1/10/2017	7:10 PM	1.7 -years
12-Hr	1.62	1/10/2017	7:25 PM	2.5 -years
24-Hr	2.22	1/10/2017	8:00 PM	2.8 -years
48-Hr	2.84	1/8/2017	11:55 PM	2.5 -years
96-Hr	5.28	1/11/2017	5:40 AM	6.2 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.802	1.172	1.378	1.605	1.851	2.011	2.161	2.350	2.480
6-Hr	**0.000**	1.099	1.618	1.911	2.260	2.570	2.810	3.003	3.279	3.462
12-Hr	**0.000**	**1.501**	2.190	2.623	3.096	3.535	3.875	4.138	4.527	4.780
24-Hr	**0.000**	**1.974**	2.942	3.535	4.184	4.793	5.272	5.628	6.158	6.457
48-Hr	**0.000**	**2.636**	3.857	4.683	5.625	6.473	7.052	7.455	8.271	8.687
96-Hr	**0.000**	**3.398**	**5.005**	6.130	7.228	8.240	9.199	9.618	10.350	10.916

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



RRG 47

Station: **Roddy Ranch Golf Club**
Mean Seasonal Rainfall: 14.45 inches
Elevation: 403 feet
Installed 2010

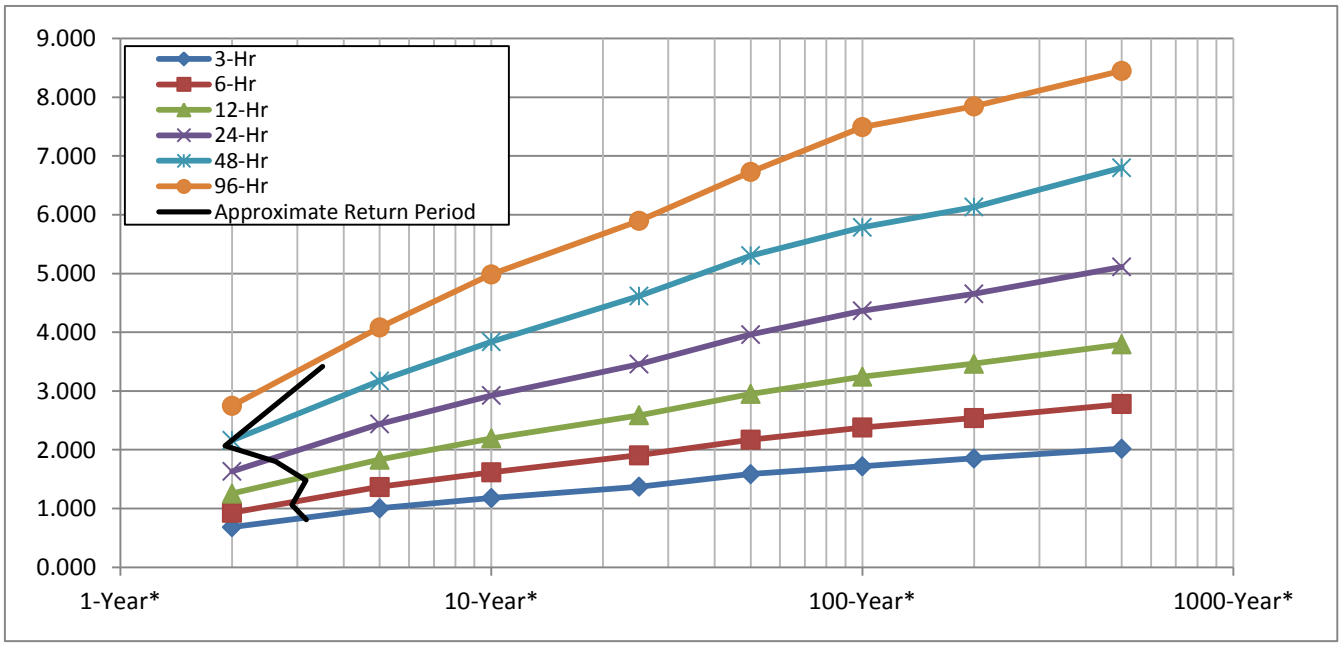
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.81	1/10/2017	8:15 PM	3.2 -years
6-Hr	1.06	1/10/2017	8:05 PM	2.9 -years
12-Hr	1.48	1/11/2017	12:25 AM	3.2 -years
24-Hr	1.80	1/11/2017	12:30 AM	2.6 -years
48-Hr	2.07	1/11/2017	12:30 AM	1.9 -years
96-Hr	3.42	1/11/2017	12:30 AM	3.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.685**	1.004	1.180	1.371	1.586	1.718	1.854	2.016	2.118
6-Hr	**0.000**	**0.928**	1.368	1.618	1.908	2.171	2.378	2.542	2.779	2.923
12-Hr	**0.000**	**1.255**	1.833	2.195	2.587	2.953	3.246	3.466	3.796	3.991
24-Hr	**0.000**	**1.633**	2.440	2.925	3.458	3.961	4.367	4.655	5.110	5.341
48-Hr	**0.000**	2.160	3.172	3.837	4.616	5.303	5.785	6.131	6.800	7.139
96-Hr	**0.000**	**2.749**	4.084	4.984	5.898	6.728	7.492	7.847	8.448	8.914

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



RSS 29

Station: **Rossmoor**
Mean Seasonal Rainfall: 23.00 inches
Elevation: 496 feet
Installed 2006

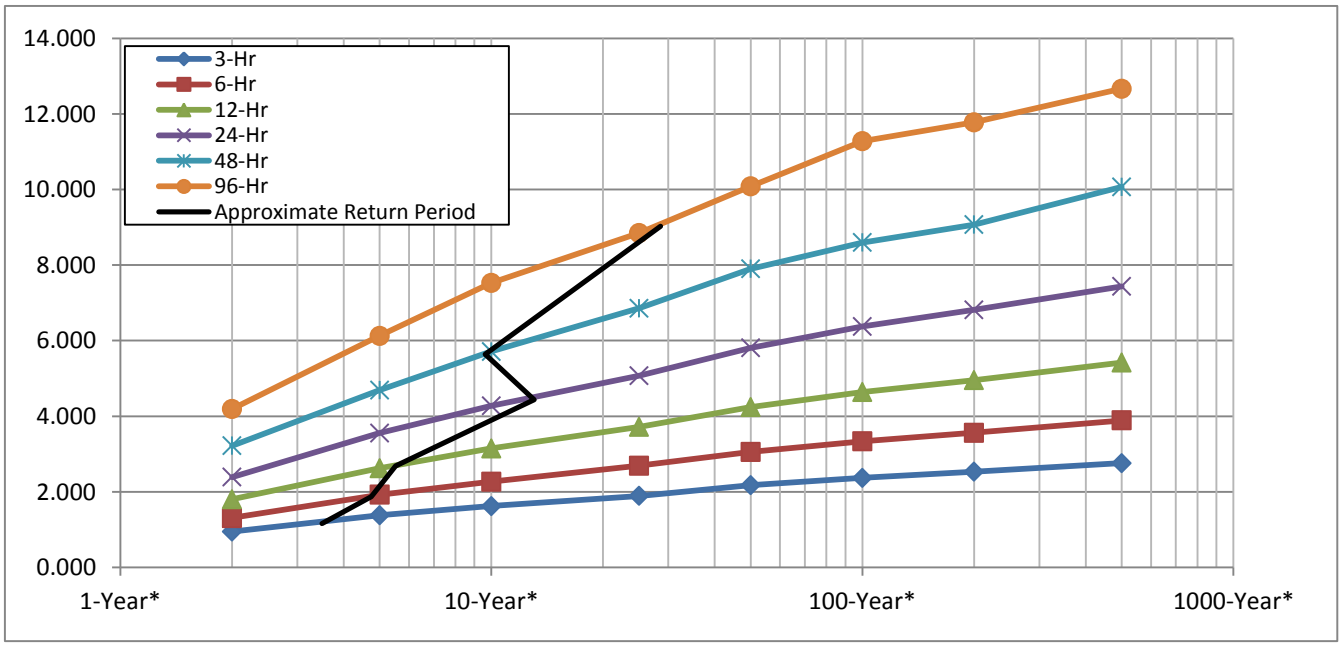
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.16	1/10/2017	7:50 PM	3.5 -years
6-Hr	1.87	1/10/2017	7:35 PM	4.7 -years
12-Hr	2.68	1/10/2017	8:15 PM	5.5 -years
24-Hr	4.44	1/11/2017	12:00 AM	13.1 -years
48-Hr	5.64	1/11/2017	12:00 AM	9.6 -years
96-Hr	9.03	1/11/2017	12:20 AM	28.6 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.945**	1.377	1.621	1.890	2.174	2.368	2.535	2.758	2.922
6-Hr	**0.000**	**1.307**	1.922	2.268	2.691	3.057	3.336	3.565	3.890	4.120
12-Hr	**0.000**	**1.802**	**2.626**	3.146	3.716	4.246	4.642	4.957	5.420	5.742
24-Hr	**0.000**	**2.389**	**3.555**	**4.279**	5.069	5.808	6.378	6.816	7.436	7.820
48-Hr	**0.000**	**3.217**	**4.694**	5.715	6.856	7.902	8.600	9.072	10.066	10.576
96-Hr	**0.000**	**4.189**	**6.130**	**7.529**	**8.853**	10.086	11.282	11.780	12.672	13.360

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



SMC 12

Station: **St. Mary's College**
Mean Seasonal Rainfall: 28.15 inches
Elevation: 620 feet
Installed 1943

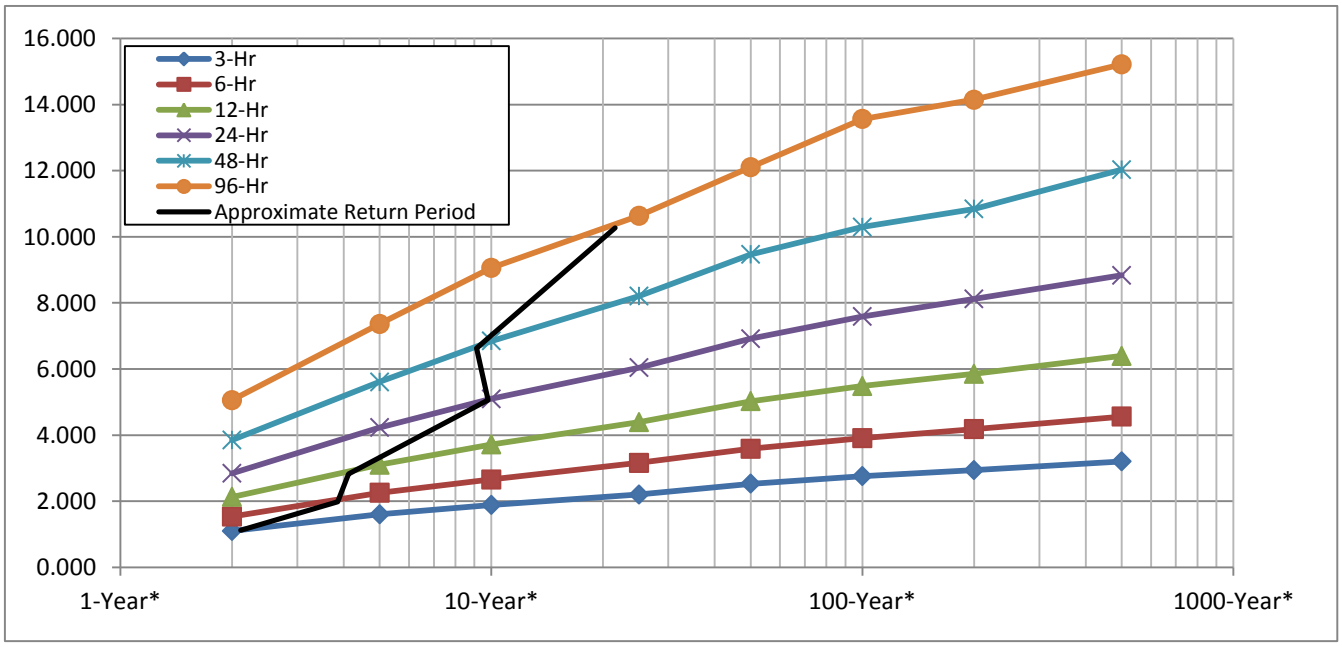
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	1.12	1/10/2017	4:35 AM	2.1 -years
6-Hr	1.98	1/10/2017	5:00 AM	3.8 -years
12-Hr	2.82	1/10/2017	8:10 PM	4.1 -years
24-Hr	5.06	1/10/2017	11:55 PM	9.8 -years
48-Hr	6.63	1/11/2017	12:05 AM	9.1 -years
96-Hr	10.27	1/11/2017	12:40 AM	21.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**1.102**	1.601	1.887	2.204	2.529	2.759	2.945	3.205	3.406
6-Hr	**0.000**	**1.536**	2.256	2.659	3.163	3.590	3.913	4.181	4.560	4.841
12-Hr	**0.000**	**2.132**	3.104	3.718	4.396	5.024	5.482	5.855	6.399	6.797
24-Hr	**0.000**	**2.844**	**4.227**	5.095	6.039	6.920	7.589	8.118	8.837	9.314
48-Hr	**0.000**	**3.853**	**5.611**	6.846	8.205	9.468	10.295	10.844	12.033	12.646
96-Hr	**0.000**	**5.056**	**7.361**	**9.061**	10.633	12.109	13.564	14.149	15.216	16.038

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



TAS 53

Station: **Tassajara**
Mean Seasonal Rainfall: 17.21 inches
Elevation: 929 feet
Installed 2012

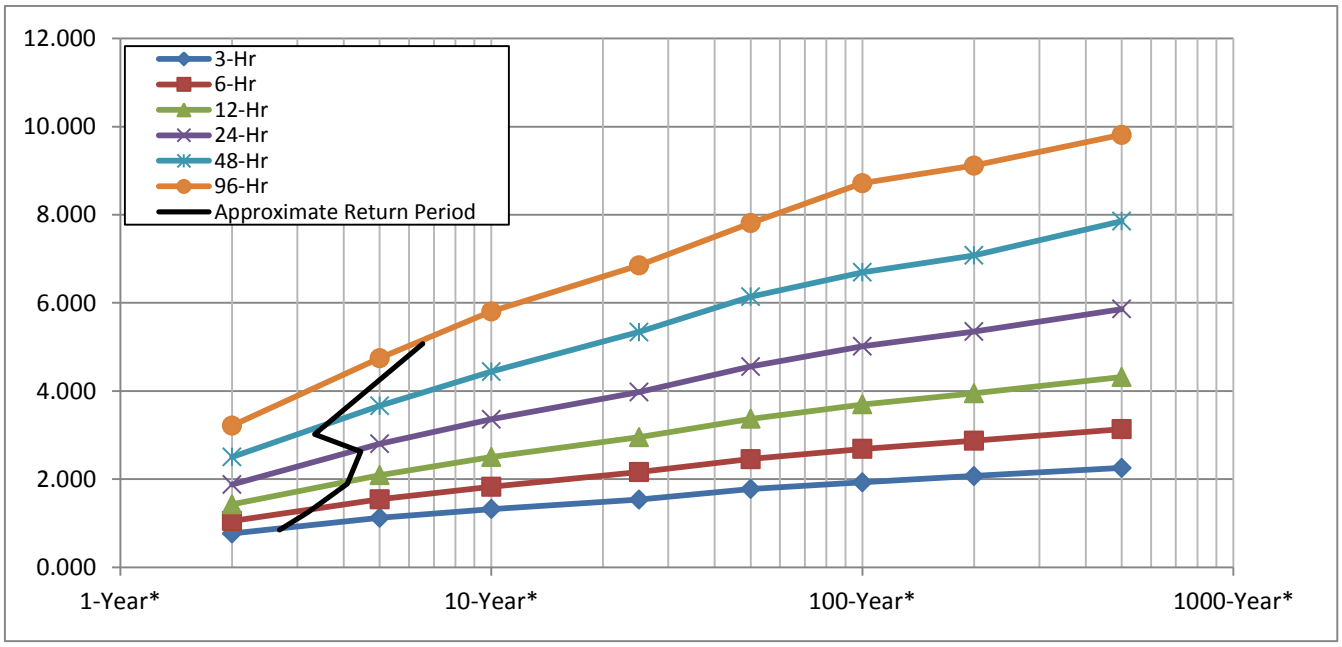
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.85	1/10/2017	8:25 PM	2.7 -years
6-Hr	1.25	1/10/2017	8:30 PM	3.2 -years
12-Hr	1.89	1/11/2017	12:50 AM	4.1 -years
24-Hr	2.63	1/11/2017	12:50 AM	4.4 -years
48-Hr	3.02	1/11/2017	12:50 AM	3.3 -years
96-Hr	5.07	1/11/2017	12:50 AM	6.5 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.769**	1.124	1.322	1.538	1.776	1.928	2.074	2.256	2.378
6-Hr	**0.000**	**1.050**	1.547	1.828	2.160	2.457	2.688	2.872	3.137	3.309
12-Hr	**0.000**	**1.431**	2.089	2.502	2.952	3.370	3.697	3.947	4.320	4.557
24-Hr	**0.000**	**1.877**	2.800	3.362	3.978	4.557	5.016	5.353	5.861	6.141
48-Hr	**0.000**	**2.501**	3.663	4.443	5.339	6.142	6.694	7.080	7.854	8.248
96-Hr	**0.000**	**3.214**	**4.745**	5.806	6.852	7.812	8.715	9.117	9.812	10.349

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



WSF 51

Station: **Weapons Station Fire**
Mean Seasonal Rainfall: 14.95 inches
Elevation: 47 feet
Installed 2011

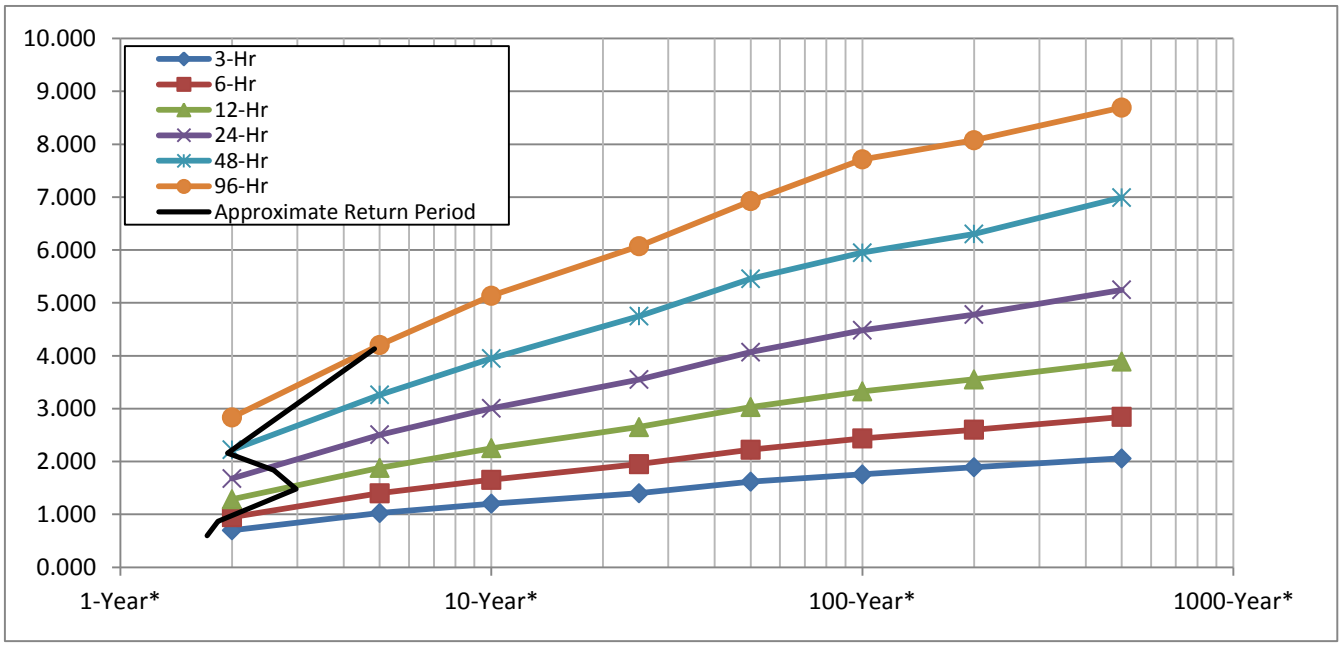
Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.60	1/10/2017	7:35 PM	1.7 -years
6-Hr	0.87	1/10/2017	7:35 PM	1.8 -years
12-Hr	1.48	1/10/2017	8:15 PM	3.0 -years
24-Hr	1.84	1/11/2017	12:00 AM	2.6 -years
48-Hr	2.16	1/9/2017	1:00 AM	1.9 -years
96-Hr	4.13	1/11/2017	12:00 AM	4.8 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	0.700	1.026	1.205	1.401	1.621	1.756	1.894	2.060	2.165
6-Hr	**0.000**	0.950	1.401	1.656	1.953	2.223	2.434	2.602	2.844	2.993
12-Hr	**0.000**	**1.287**	1.879	2.250	2.653	3.028	3.328	3.553	3.891	4.094
24-Hr	**0.000**	**1.678**	2.505	3.004	3.553	4.069	4.484	4.781	5.246	5.486
48-Hr	**0.000**	2.222	3.261	3.947	4.747	5.455	5.950	6.303	6.991	7.340
96-Hr	**0.000**	**2.834**	4.204	5.133	6.071	6.924	7.714	8.077	8.695	9.174

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.



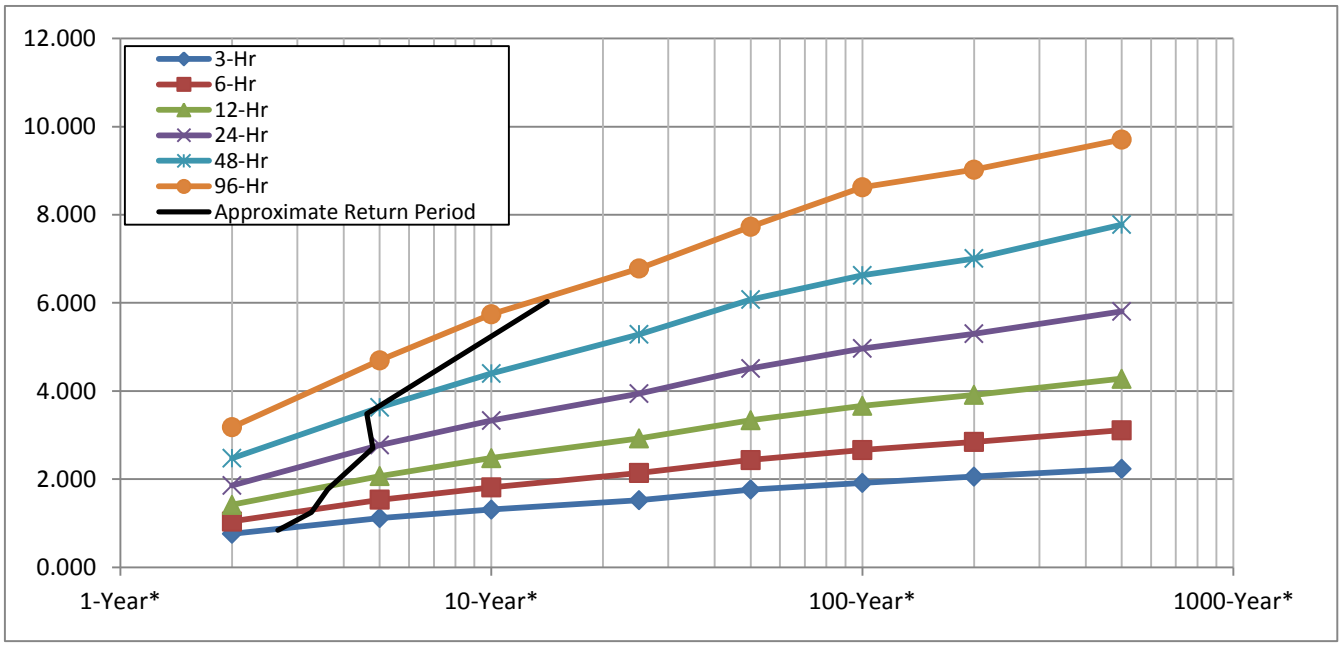
YGF 33

Station: **Ygnacio Valley Fire Station**
Mean Seasonal Rainfall: 17.00 inches
Elevation: 83 feet
Installed 1979

Station Storm Rainfall		Period Ending		Approximate Return Period
Dur.	Depth	Date	Time	
3-Hr	0.84	1/10/2017	7:45 PM	2.7 -years
6-Hr	1.25	1/10/2017	7:40 PM	3.3 -years
12-Hr	1.77	1/10/2017	9:00 PM	3.6 -years
24-Hr	2.71	1/10/2017	11:55 PM	4.8 -years
48-Hr	3.48	1/10/2017	11:55 PM	4.6 -years
96-Hr	6.03	1/10/2017	11:55 PM	14.2 -years

Total Storm Rainfall Depths and Return Period

	0-Year*	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	200-Year	500-Year	1000-Year
3-Hr	**0.000**	**0.763**	1.115	1.311	1.526	1.762	1.912	2.057	2.238	2.358
6-Hr	**0.000**	**1.041**	1.534	1.812	2.141	2.435	2.664	2.847	3.110	3.280
12-Hr	**0.000**	**1.418**	2.070	2.478	2.924	3.338	3.662	3.911	4.280	4.514
24-Hr	**0.000**	**1.859**	2.773	3.329	3.939	4.512	4.966	5.300	5.804	6.080
48-Hr	**0.000**	**2.475**	3.626	4.397	5.284	6.078	6.624	7.008	7.774	8.164
96-Hr	**0.000**	**3.179**	**4.694**	**5.743**	6.779	7.730	8.622	9.020	9.708	10.240

Depth met or exceeded.
Depth not met or exceeded.

* = Statistically, the 0-year storm is undefined. The number is used here to allow for interpolation of the return period only.