Santa Barbara County Hydrology Report

Precipitation, Rivers/Streams, & Reservoirs 2010-2011

Sisquoc River at Tepusquet Bridge – Dec 19, 2010

Bradbury Dam / Cachuma Rsvr – Mar 23, 2011

Public Works Department
Water Resources Division, Flood Control District

October 2011

SANTA BARBARA COUNTY

Public Works Department

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Scott McGolpin

Report prepared under the direction of

Thomas Fayram, Public Works Deputy Director
Water Resources Division, Flood Control District
Jonathan Frye, Engineering Manager

by the Flood Control District - Hydrology Section

Shawn Johnson, Sr. Hydrologist

October 1st, 2011

ACKNOWLEDGMENTS

The Santa Barbara County Public Works Department wishes to thank the National Weather Service (NWS) in Oxnard for providing forecast information and related figures in this report, the US Geological Survey (USGS) for furnishing burn-area rainfall threshold values, and the Santa Barbara "Multi Use Trails Coalition" and "Ribbitt Photography" for inclusion of several "TEA" & "Jesusita" burn-area photographs.

PREFACE

This report documents the significant Hydrology (surface water) related events for the 2010-2011 water-year in Santa Barbara County.

The report includes a 1-page executive summary, which is followed by more detailed discussion of Hydrologic Monitoring Systems, Weather Forecast, Burn-Areas, Rainfall, Rivers & Streams, Reservoirs, Flood-Flow Modeling, Storm Damage, and other related topics.

Report Appendices are inclusive of reference information on Hydrologic Gauge Station listings, Hydrologic Station Installation pictures, Yearly/Monthly Rainfall listings, and Rainfall Average Recurrence Interval (ARI) Statistics.

The rainfall year and water year (WY2011) referred to in this report runs from September 1, 2010 through August 31, 2011.

This report is not intended to be a complete or exhaustive documentation of WY2011 surface water hydrology events in Santa Barbara County.

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1.0 EXECUTIVE SUMMARY

The 2011 hydrology water-year (WY) can be summarized as a year with a 50% greater than average rainfall, a record-setting December storm rainfall event (& FEMA declared disaster), an unusually dry January, and a significant March storm that resulted in full County reservoirs (Cachuma, Jameson, Gibraltar).

Rivers and stream flows within the County during WY2011 were moderate, with the exception of two 10-year peak-discharge events recorded at Sisquoc River @Garey (Dec 2010) and the Lower Santa Ynez River (Lompoc Narrows - March 2011)

It is also a water-year that was preceded by five substantial wild fires over the past four years that had the potential to result in significant flooding and property damage - namely the Zaca Fire (9/07), Gap Fire (7/08), Tea Fire (11/08), Jesusita Fire (5/09), and La Brea Fire (8/09). Fortunately, the burn-areas experienced 2 to 3 prior years of generally moderate yearly rainfall totals, favorable spacing of rain events, and moderate rainfall intensities - resulting in desirable burn-area re-growth recovery conditions.

Moderate storm related flood damage was realized from the December 2010 and March 2011 storm events. Isolated flooding occurred on AG land in the Lower Santa Ynez River (March 2011), and moderate damage occurred at some County maintained FCD Debris Basins.

The National Weather Service incorrectly predicted a dryer-than-normal water-year (La Nina conditions), however long term weather forecast trends are inherently difficult to predict.

At 154% of County-wide normal rainfall, WY2011 ranked as the 2rd wettest year over the past 10 years, preceded only by WY 2005. The County, on average this past decade, has experienced a close to normal percentage of rainfall (~98%), but has also experienced some very dry years (2002, 2004, 2007, 2009), and a couple of fairly wet years (2005, 2011).

Recent years have also seen enhancements in the County hydrologic flood-warning systems & technology that have afforded more comprehensive and timely dissemination of both flood related information, and flood forecasting.

Enhancements include continued upgrades to the public accessible County website (OneRain) where rainfall, stream-flow, weather, and reservoir data can be observed in near real-time. Over the past few years, the County FCD has also installed (& occasionally relocated) three automated remote field cameras that afford timely images of rivers & streams. Additionally 3 new automated gauges (rain, stream, weather) and 6 gauge upgrades have been added to the County hydrologic network this past year to enable more comprehensive hydrologic data & monitoring capability.

2.0 HYDROLOGY INTRODUCTION

Santa Barbara County encompasses approx 2800 sq. miles of predominantly rugged mountain terrain, which can result in rapid local and regional watershed flow during major rain events.

The County's climate is normally warm and dry in the summer, and cool and wet in the winter months. The wet winter months generally range from October through April, with January & February typically bringing the largest amount of precipitation.

The County Flood Control District "Hydrology Section" maintains and operates a comprehensive ALERT (Automated Local Evaluation in Real Time) storm monitoring system consisting of rain gauges, stream flow gauges, weather gauges, and reservoir level & gate opening gauges.

The network of flood warning systems consists of 84 County-wide automated monitoring installation sites (rainfall, stream-flow, reservoir level, weather).

In recent years the Flood Control District has augmented its hydrologic warning capability with the use of "remote real-time" camera installations. These cameras assist in providing a valuable visual record and also enabling correlation with the ALERT flood warning system observations.

The County near real-time rainfall, stream flow, and reservoir level monitoring system was introduced online to the public in October 2009 - accessible through the County Public Works Hydrology website. This comprehensive monitoring system enables County Flood Control, associated agencies, and the general public to access timely Hydrologic data during the course of storm events.

The "Hydrologic Flood Warning System" real-time gauge network aids in flood forecasting and in making operational decisions during rainfall events, with software equipped to issue "warning alerts" to users (via email and/or cell phone) when thresholds are exceeded. Hydrologic data is also transmitted in real-time to the National Weather Service for tracking storms, which assists in the issuance of Special Weather Statements (Flash Flood Warnings & Watches)

Staff from the County Flood Control District also provides 24hr emergency response assistance during storm monitoring – inclusive of field patrols and Hydrologic computer modeling/flood-flow forecasting.

The past four years were highlighted by five substantial wild fires that had the potential to result in significant flooding, property damage, and hazards to residents. Since burn areas typically require 5 years of recovery rehabilitation, all these burn areas were of concern.

3.0 HYDROLOGY INSTRUMENTATION & CONFIGURATION

The Santa Barbara County Flood Control District (SBCFCD) "Hydrology Section" maintains and operates a comprehensive automated ALERT storm monitoring system consisting of rain gauges, stream flow gauges, and reservoir level & gate opening gauges.

The network of automated flood warning systems consists of 84 County-wide ALERT monitoring installations (53 ALERT rain gauges, 16 ALERT stream-flow gauges, and 9 ALERT Weather stations, and 6 ALERT Reservoir gauge sites).

The County FCD services, repairs, and maintains the gauge network – inclusive of annual maintenance (Sept-Oct) that involves comprehensive servicing, integrity tests, and calibration.

3.1 County-Wide Gauge Network

The entire County-wide hydrologic gauge network (inclusive of both automated ALERT & self-recording gauges) consists of 118 installation sites operating 165 individual sensors (Rain, Stream, Reservoirs, and Weather sensors)

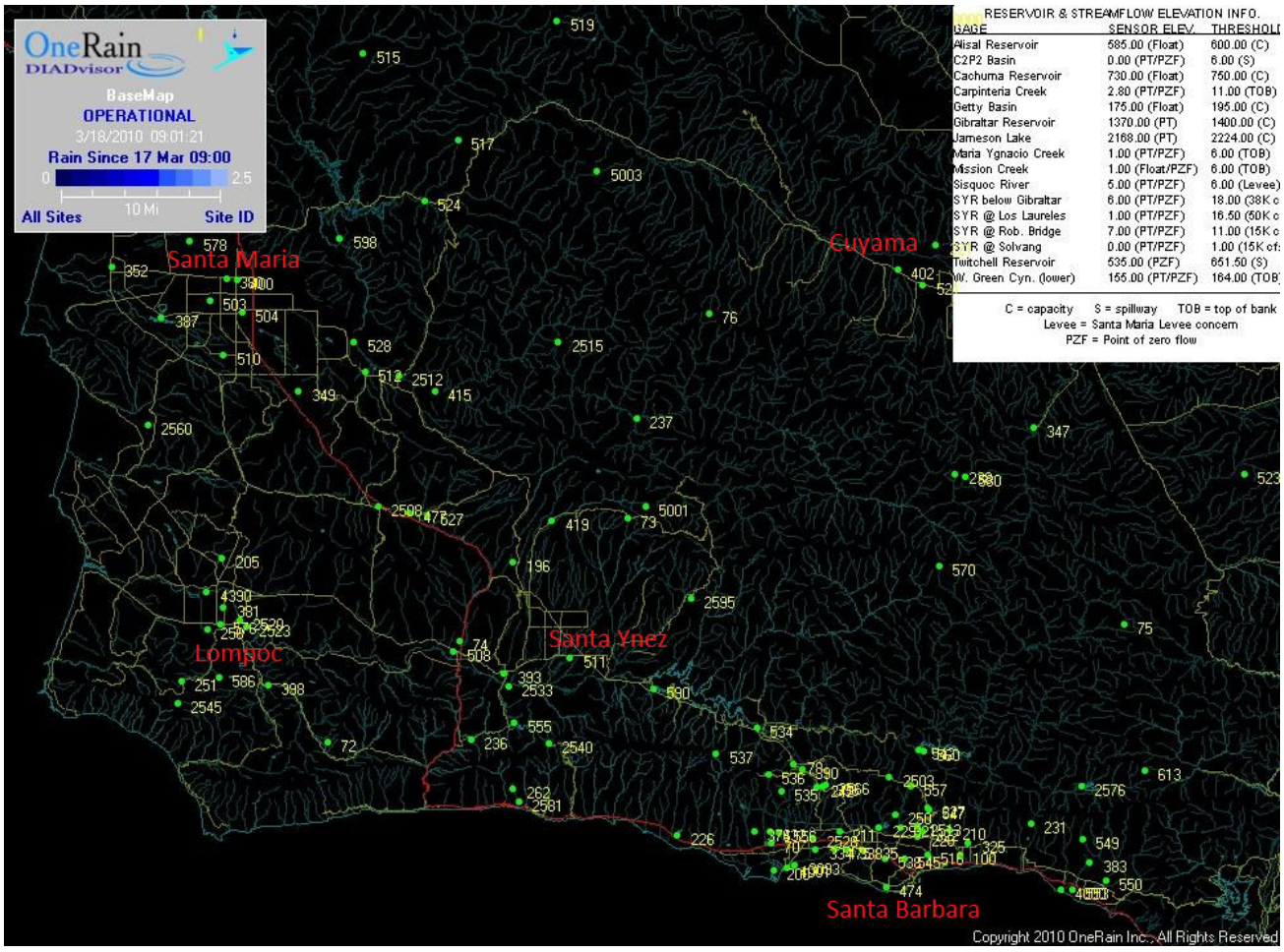


Figure 1 – Hydrology County-Wide Gauge Network (118 Sites / 165 Sensors)

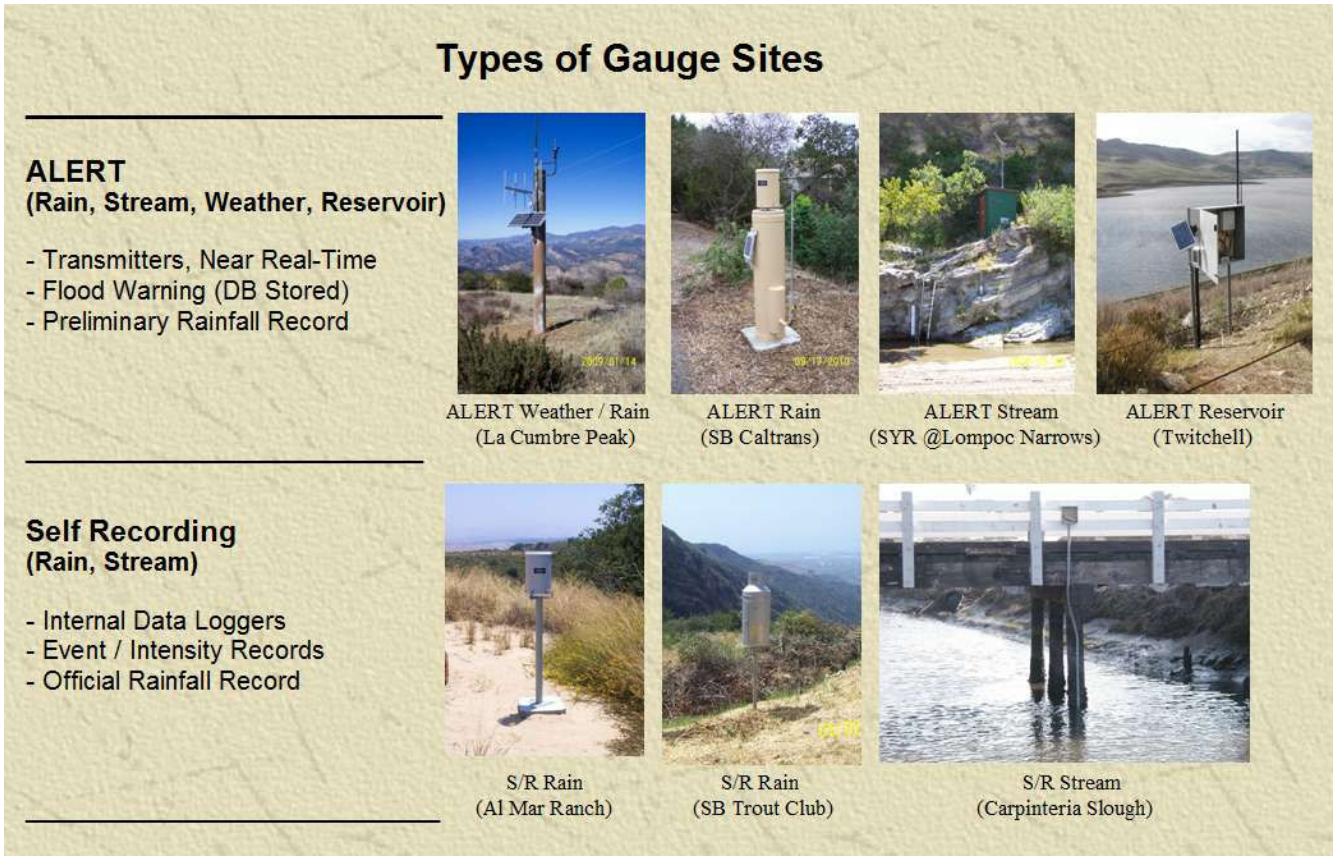
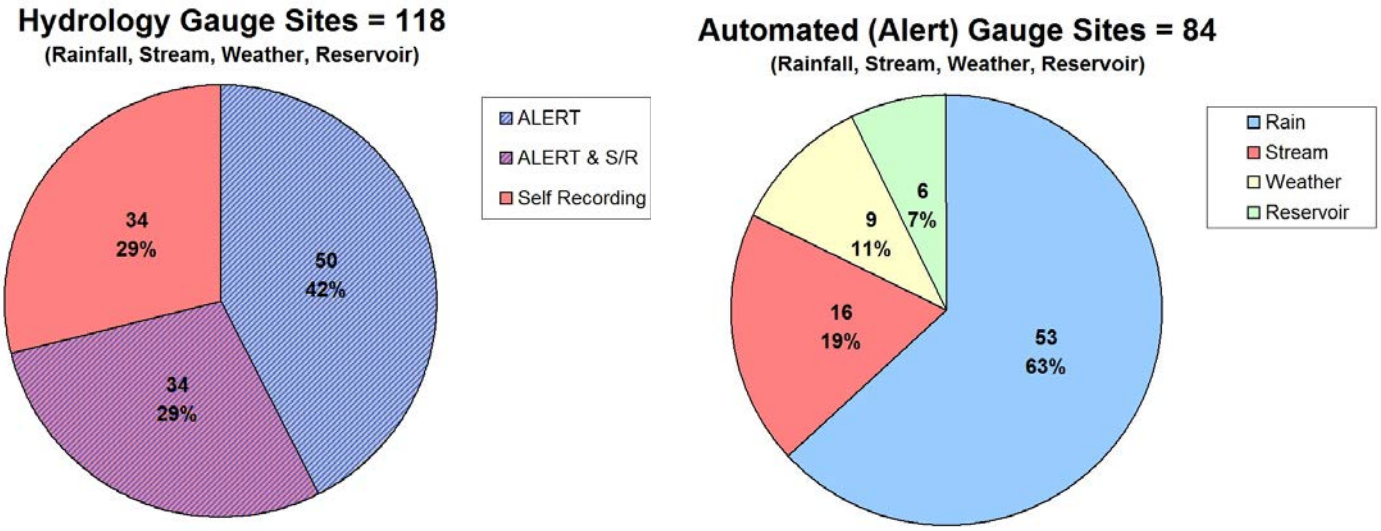


Figure 2 – Types of County Hydrologic Gauges

Of the 118 hydrologic gauge sites within the County, 84 are automated (Alert) transmission sites, 34 are (non-transmitting) self-recording data logger stations, and the remaining 34 sites are equipped with both automated (Alert) transmission capability and self-recording data loggers.

Although automated (Alert) transmission sites are valuable for flood-warning, it is desirable from a data integrity standpoint to rely on self-recording data loggers for official (rainfall) data.



Figures 3 & 4 – Gauge Type Distribution

3.2 Real-Time Web-based Hydrologic Monitoring System

The County "near real-time" rainfall, stream flow, and reservoir level monitoring system was introduced online in October 2009, accessible through the County Public Works Hydrology website.

http://santabarbara.onerain.com/home.php

This comprehensive monitoring system enables County Flood Control, associated agencies, and the public to access timely County-wide Hydrologic data during the course of storm events.

Typical resources available to users of this website includes real-time County-wide rainfall, rainfall totals (15 min through 48 hours), rainfall intensity table, stream flow data, reservoir levels, weather system data, and other relevant Hydrologic data.

This real-time system provides direct access to the County network of automated flood warning systems consisting of 84 County-wide ALERT monitoring installations.

USGS stream gauge data is also accessible within this system, as a separate "Map-overlay" option.

The user-displays of this system have been enhanced to optimize ease of access to the most commonly viewed data, and include "Radio Style" quick-select buttons. Automated default overlays provide informative County background maps - inclusive of topography, watersheds, burn-area outlines, streams/rivers, lakes, major roads, and cities.

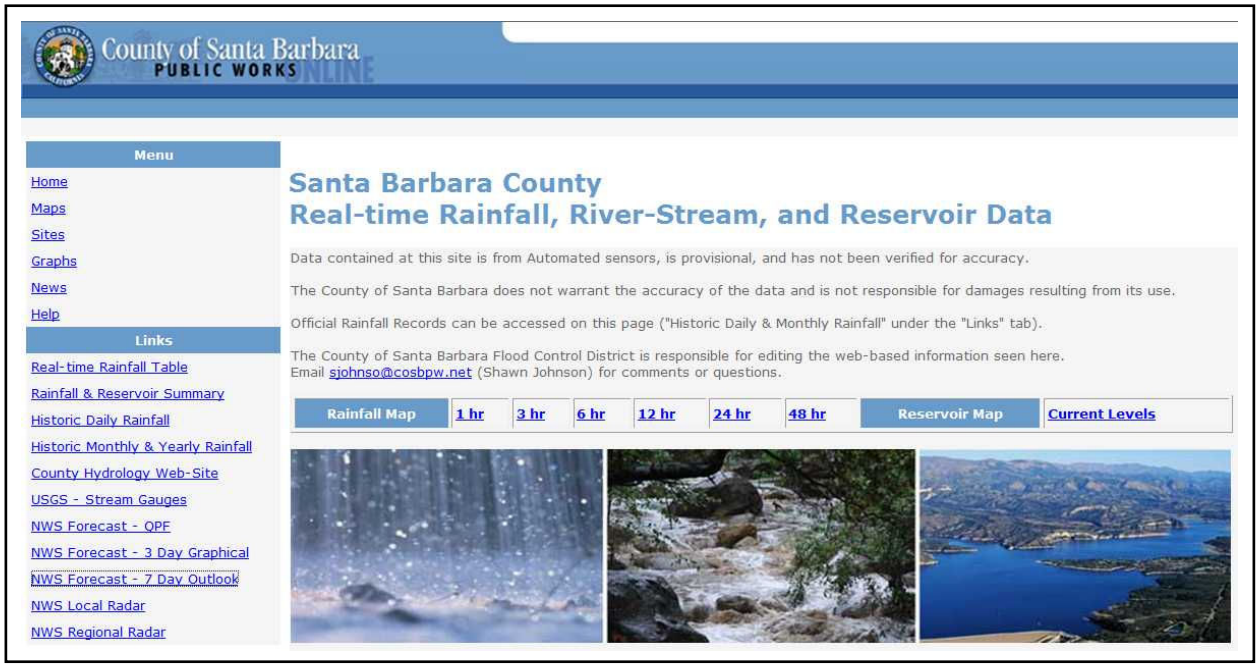


Figure 5 – Real Time Hydrologic Monitoring System (website page)

3.3 Remote Camera Monitoring Systems

Installation of County Flood Control field observation cameras was initiated in 2008, with the first camera installed to support the GAP burn-area-response (San Pedro Creek, Goleta). Two additional Flood Control remote cameras were subsequently installed in support of the TEA fire (Sycamore Creek, Montecito), and La Brea Fire (Sisquoc River, Garey).
The USGS also installed two cameras, one each for the GAP & Jesusita burn-area response.
Figure 6 & Table 1 (below) depict the location & characteristics of these camera installations.

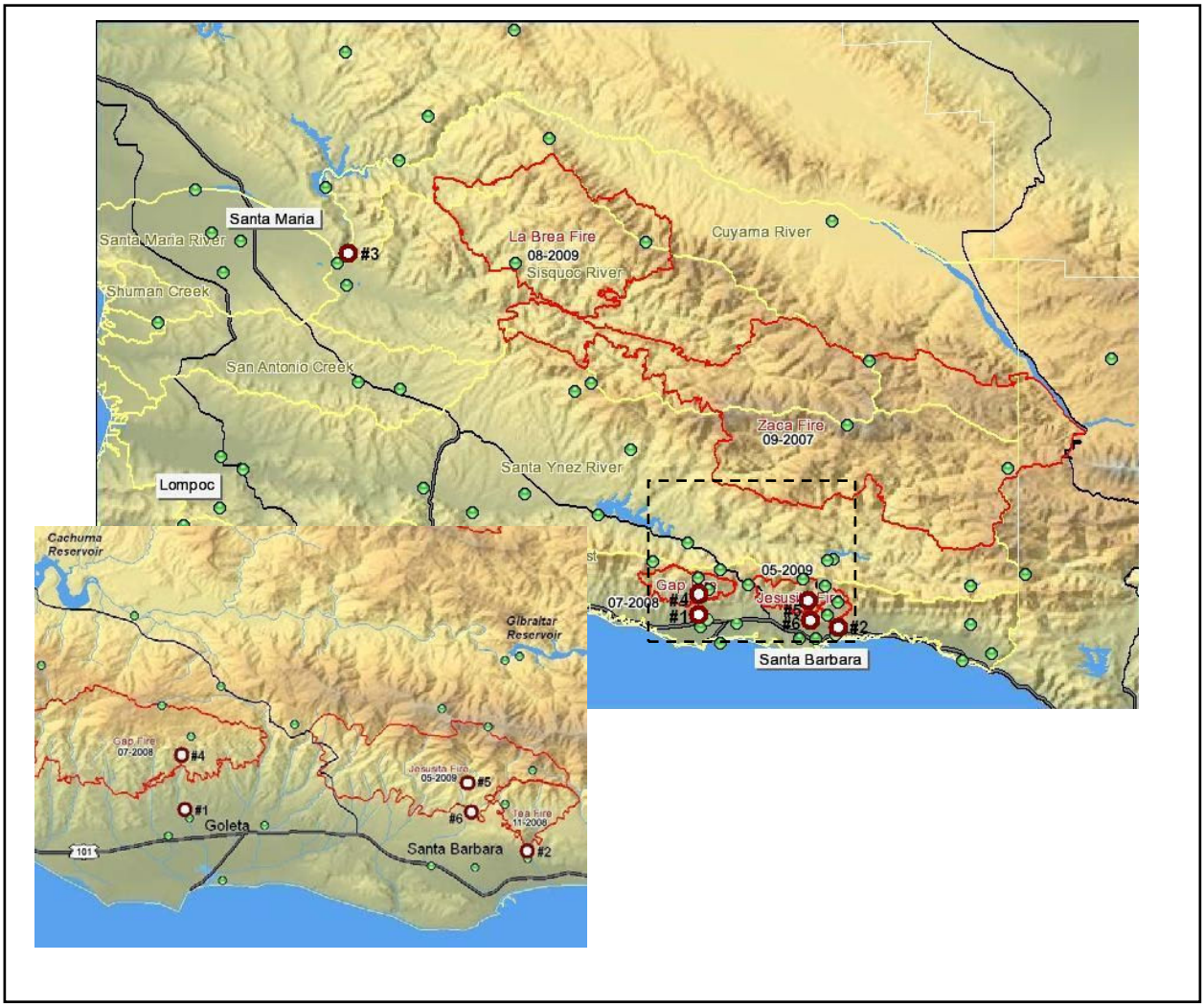


Figure 6 – Remote Camera Installation Sites

CAMERA	RIVER/ CREEK	LOCATION	INSTALLED	BURN AREA
1. SBCFCD	San Pedro Creek	Stow Canyon Road, Goleta	Sept 2008	GAP
2. SBCFCD	Sycamore Creek	Five Points, Montecito	Nov 2008	TEA
3. SBCFCD	Sisquoc River	Garey Bridge, Garey	Sept 2009	La Brea
4. USGS	San Pedro Creek	La Patera Ranch, Goleta	Sept 2009	GAP
5. USGS	Mission Creek	Debris Basin, Mission Canyon	Nov 2009	Jesusita

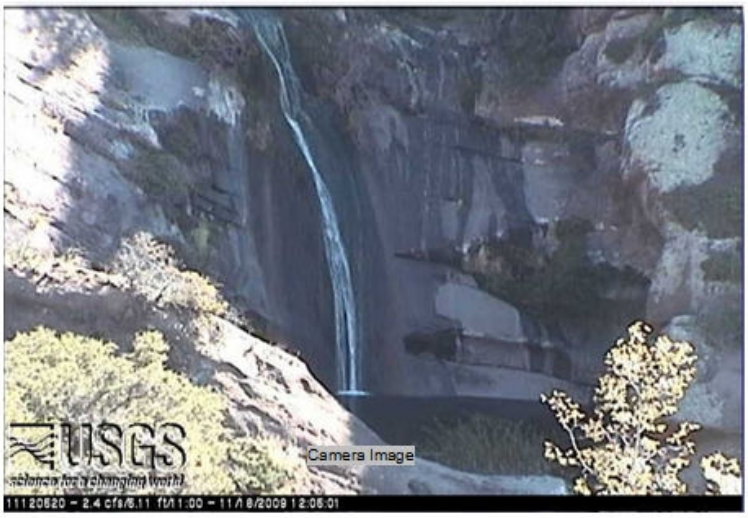
Table 1 – Remote Camera Installations

1. **San Pedro Creek @Stow Canyon Rd, Goleta** (FCD Dial-up Camera #1)

2. **Sycamore Creek @5-Points, Montecito** (FCD Dial-up Camera #2)

3. **Sisquoc River @Garey Bridge, Garey** (FCD Dial-up Camera #3)

Figure 7 – COSB Remote Camera Installations



4. San Pedro Creek @La Patera Ranch, Goleta (USGS Web Camera)
- Site Link = http://ca.water.usgs.gov/webcams/goleta/

5. Mission Creek @Debris Basin, SB (USGS Web Camera)
- Site Link = http://ca.water.usgs.gov/webcams/missioncr/

Figure 8 – USGS Remote Camera Installations

3.4 County-Wide Automated Flood Warning System

The County "Automated Flood Warning System" has been in place since 1999, and has been enhanced in recent years to include more field gauges, website accessible real-time sensor data, and remote camera observation systems.

The County-wide 84 station ALERT gauge network provides the basis for the automated flood warning system - the data from which feeds into the County real-time monitoring system, and is also simultaneously routed to the NOAA National Weather Service office (in Oxnard CA).

The flood warning system also has the capability to issue automated (cell phone & email) text messages in the event that established (rain/ stream / reservoir) thresholds have been exceeded. This valuable warning system enables County Hydrology & Flood Control personnel to be immediately informed of potential flood risk information - that may result in more detailed field observations, coordinated agency action plans, and field remediation action.

Hydrology section personnel continuously monitor weather conditions and the integrity of the flood monitoring system during storm operation activities.

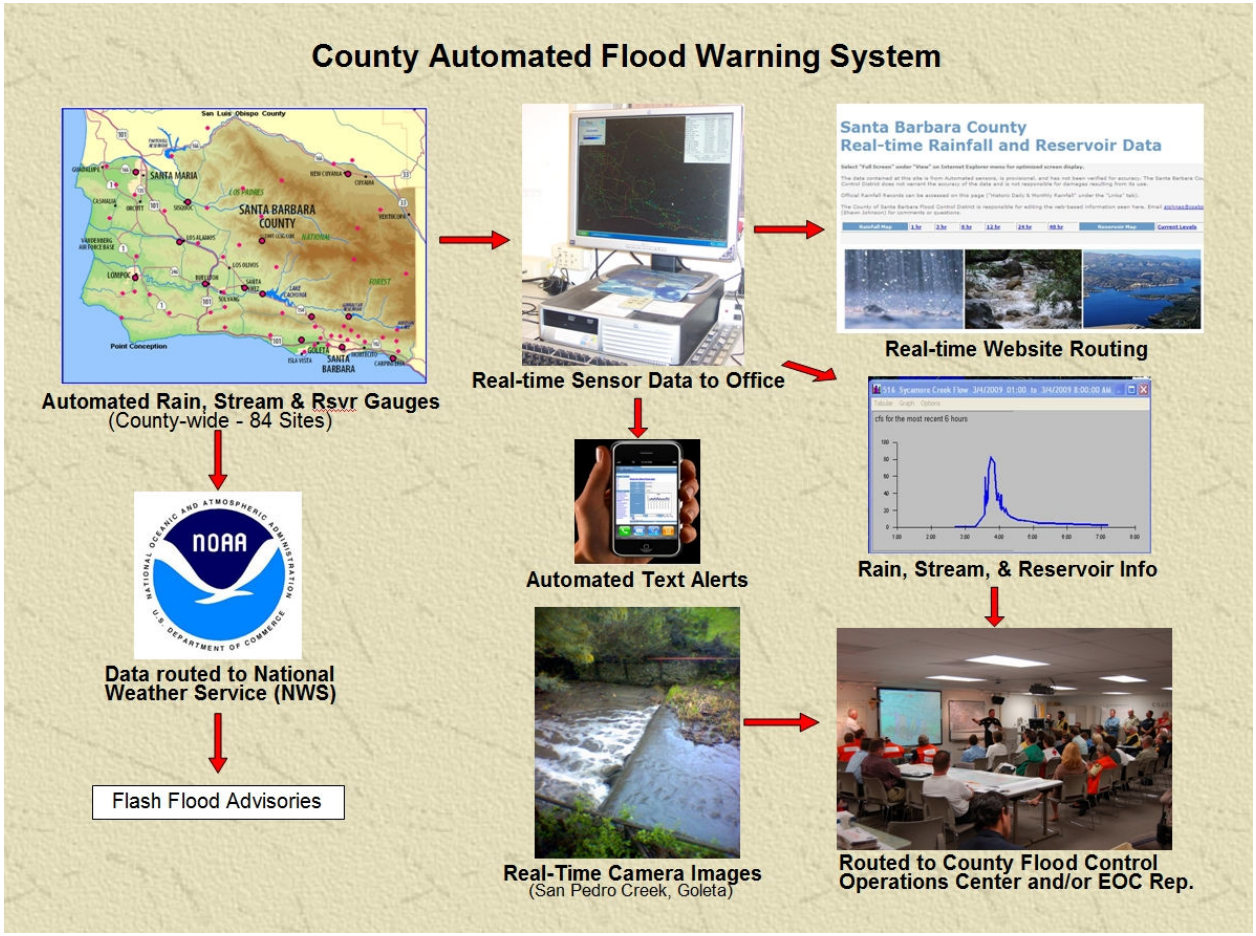


Figure 9 – County Automated Flood Warning System

4.0 WEATHER FORECAST & CLIMATE DISCUSSION

The National Weather Service (NWS) coordinates winter-weather forecast meetings with (among others) regional government agencies (including the County of Santa Barbara).

The 2010-11 NWS winter-weather outlook meeting was presented on October 19th by the NWS (Oxnard CA.), at the Ventura County Public Works facility located in Saticoy.

Principal discussion items included NWS forecast predictions for a "drier than normal" rainfall year for the southern California region (moderate "La Niña" conditions), and the USGS/NWS issued rainfall threshold criteria for County areas burned in recent years.

The NWS prediction of less than normal rainfall was based on a number of factors, including the "El Niño Southern Oscillation" (ENSO). ENSO represents the "El Niño" and "La Niña" characteristics, defined by Eastern Pacific ocean surface temperatures. (Figure 10)

El Nino is a disruption of the oceanic and atmospheric cycles of the equatorial Pacific, and is a major climatic phenomenon known to affect weather throughout the world. These effects include increased rainfall in the southern United States and drought conditions in the US north-west. During El Niño events, ocean-surface temperatures in the Eastern Pacific are warmer than normal. Conversely, La Niña events (cooling Eastern Pacific ocean temperature) typically results in decreased rainfall.

Locally, strong El Niño events are often associated with greater than average rainfall, but this trend is generally only an indication of what may be expected. It has also been observed that moderate to weak El Niño events do not always correlate with increased precipitation.

The majority of La Niña's have a history of "below normal rainfall" in southern California, however there is no definitive pattern of rainfall between weak, moderate, or strong La Niña's. The last "moderate La Niña" was the most recent year (2010-11), but the County experienced above normal rainfall. The last "strong La Niña" was 1999-2000 (below normal rainfall).

Beginning in September & October, a moderate strength La Niña developed and remained through the winter months. During moderate La Niña events, the Eastern Pacific ocean-surface temperatures are less than one degree (Celsius) below normal.

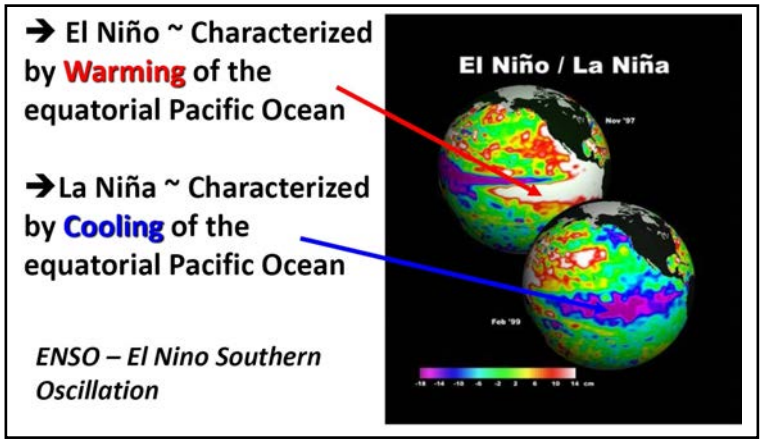


Figure 10 – ENSO Weather System Characterization

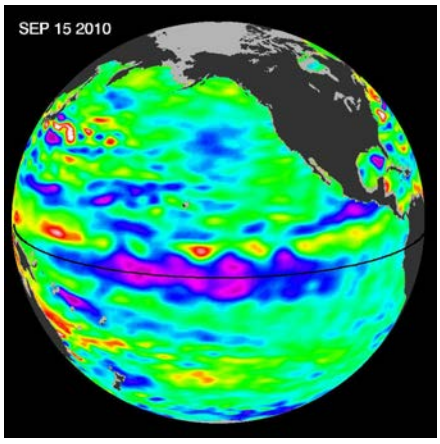


Figure 11 – Sept. 2010 "La Niña" Trend

The NWS2010-11 "US Winter Outlook" model depicted national precipitation forecast trends characteristic of a moderate "La Niña", projecting drier conditions in the US Southwest & Southern California (Figures 12 & 13).

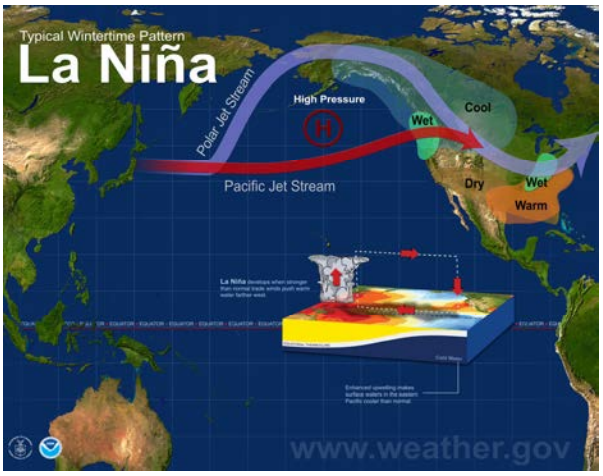


Figure 12 – NWS "La Nina" Wintertime Pattern

Figure 13 – NWS National 2010-11 Precip. Forecast Map

Concerns regarding flash-flooding in the region were addressed during the NWS winter forecast meeting - as five major burn-areas were experienced in the County within the past 4 years. (Zaca, Gap, Tea, Jesusita, La Brea)

Since any storm can create flash flooding (in either La Nina or El Nino years), precautions are necessary to provide advance-warning for emergency decision making processes. Flood advisories are issued directly by the NWS.

The USGS (in conjunction with the NWS) maintained continuity with the previously established rainfall thresholds for burn-areas within Santa Barbara County (Table 2).

USGS 2010-2011 Rainfall Gauge Alarm Thresholds (for burn-areas)

2nd to 3rd Winter after Fires (Jesusita, La Brea, Gap, Tea):
0.6" rainfall in 30 min
1.0" rainfall in 1 hour

Table 2 – USGS / NWS Burn-Area Rainfall Thresholds

County hydrology "Alarm Notifications" using the above criteria for the burn-areas were established for rainfall intensity (in addition to stream-flow) within the flood-warning OneRain (DIADvisor) system. The rainfall alarm values represent "Burn-area Rainfall Intensity Thresholds", which typically conform to criteria that trigger NWS Flood Advisories.

5.0 BURN AREAS (Zaca, Gap, Tea, Jesusita, La Brea)

Santa Barbara County experienced five major wild fire incidents within the past four years that created the potential for significant flooding, property damage, and resident safety.

Burn areas typically require 5 years of rehabilitation (from a hydrology perspective) to recover to their pre-burn stability.

Post-wildfire changes in basin hydrology typically include a shift toward greater runoff volumes and higher magnitude peak runoff rates during subsequent rainstorms. One cause is the removal of vegetation that normally provides interception, attenuation, and evapo-transpiration. Another cause is the formation of soil hydrophobicity. Hydrophobic layers form in soil during intense fires that vaporize a waxy substance found in plant material. The vapors penetrate the soil and cool, causing the waxy substance to solidify and cling to soil particles forming a water repellent layer. Increased soil erosion and the occurrence of mass movements including debris flows are concerns in watersheds where fire has destroyed vegetation.

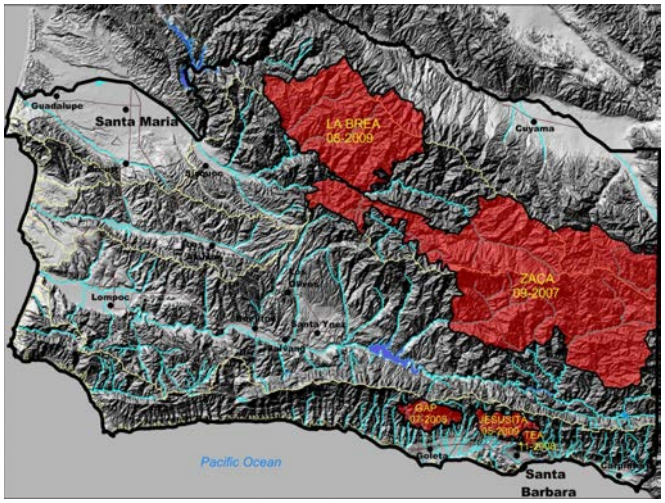


Figure 14 – County-Wide Burn Areas (2007-09)

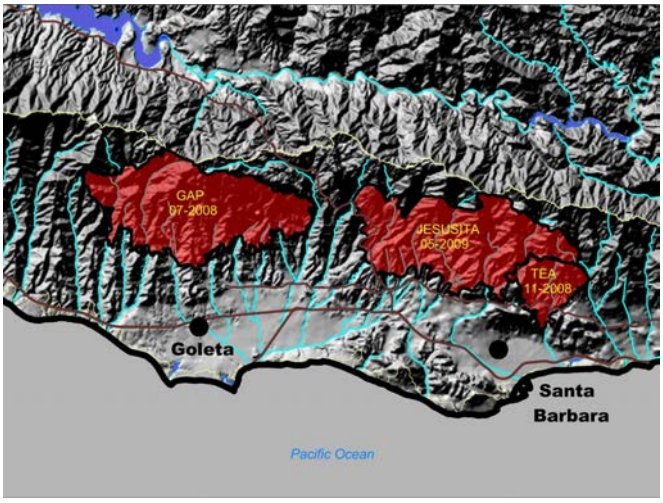


Figure 15 – South-Coast Burn Areas (2008-09)

ZACA Fire – 240,000 Acres – 61 days - Sept 2007

In July 2007, the Zaca wildfire broke out in Santa Barbara County and burned a total of approximately 240,400 acres before it was contained on September 2, 2007. The fire began on July 4, 2007 on private land located approximately 15 miles northeast of Buellton and spread quickly to the east and south into the San Rafael and Dick Smith wilderness areas of the Los Padres National Forest (Figure 14).

The burned area affected the Santa Maria River, Santa Ynez River, Cuyama River, and Sisquoc River watersheds. In the Cuyama watershed, the fire occurred on land upstream of Twitchell Reservoir, burning approximately 45,280 acres (6%) of the watershed. A total of 76,800 acres (25%) of the Sisquoc River watershed was affected by the fire. No dams or other debris or water retention facilities exist on the Sisquoc River. In the Santa Ynez River watershed, the fire occurred on land upstream of Cachuma Lake, burning 118,374 acres (44%) of the watershed upstream of Cachuma. To mitigate the potential of increased flows in the Santa Maria River, County Flood Control constructed pilot channels and placed strategic piles of rock rip rap for potential flood fighting efforts.

5.1 2008 Burn Areas (Gap & Tea)

GAP Fire – 9400 Acres – 28 days - July 2008

In July of 2008, the Gap fire burned over 9400 acres in the foothills of north-west Santa Barbara, with the exposed area resulting in high risk flooding to urban areas. County Flood Control allocated considerable resources into mitigating the flood impact from the event, including installing four new Alert rain & stream gauges, and a remote-camera at the stream site. Additionally, the County undertook comprehensive aerial hydro-mulching deployment, and installed debris containment racks.

TEA Fire – 1940 Acres – 7 days - Nov 2008

Four months after the GAP fire, in November, (just as the rain season was due to commence) another major fire (TEA Fire) burned approximately 1940 acres in the foothills of north-east Santa Barbara - and destroyed 210 residences in the process. One of our Alert rain gauges (Mt Calvary) was also burned, and was subsequently replaced within 5 days. Rapid response from the County Flood Control was necessary to minimize possible effects from flood & slides in this area. Likewise, additional ALERT gauges, a remote camera, and debris racks were installed and existing debris basins were prepared and/or enhanced.

Both the GAP & TEA fire burn areas created the potential for major flooding that could impact populated areas during the 2008-2009 winter rains, with the GAP burn area critically affecting potential flooding of the Santa Barbara Airport & regional vicinity.

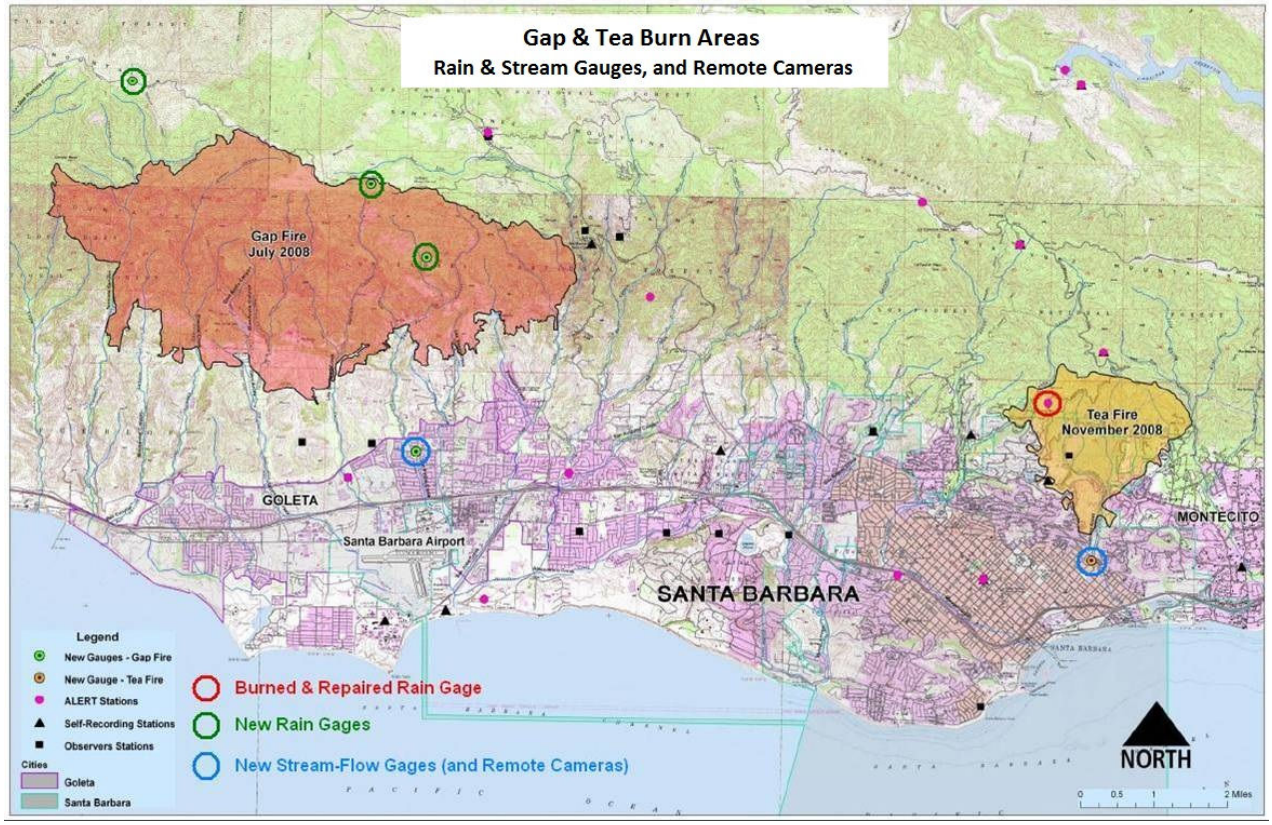


Figure 16 - GAP & TEA Burn Area, and Gauges

The GAP & TEA burn-areas have experienced 3 winter rain seasons (and recovery) since the occurrence of these 2008 fires.

The fortunate sequence of light rainfall & rain intensities in the first winter rain season after the fire, to progressively increasing yearly rain volume and rainfall intensity over the last three years, has enabled favorable vegetation recovery and limited burn-area induced flooding & damage. (see table 3 – Burn-Area Rainfall - Years 1 to 3)

WY 2009 rainfall (1st year after fire) was characterized by less than average rainfall year (~ 67% of norm), favorable distribution of rainfall events, and moderate rainfall intensity.
Little or no burn-area related flooding or damage was evident.

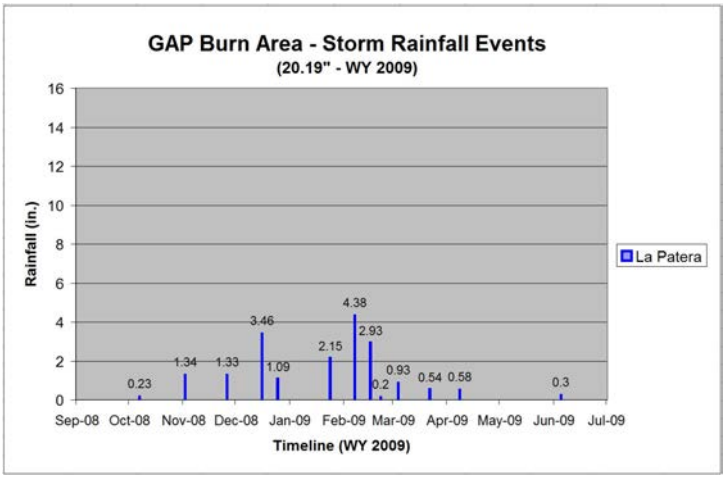
WY 2010 (2nd year after fire) brought a higher volume rainfall to the burn areas (~117% of norm), an early season near-record storm (Oct 14), generally favorable distribution of rainfall events, and slightly higher rainfall intensity levels (than WY 2009). Similar to WY 2009, little or no burn-area related flooding or damage occurred.

WY 2011 (3rd year after fire) had a much higher volume rainfall in the burn areas (~154% of norm), two substantial storm events (Dec 2010, March 2011), and higher rainfall intensity levels. While flood related damage did occur during WY2011, no substantial burn-area slides or debris flows were observed.

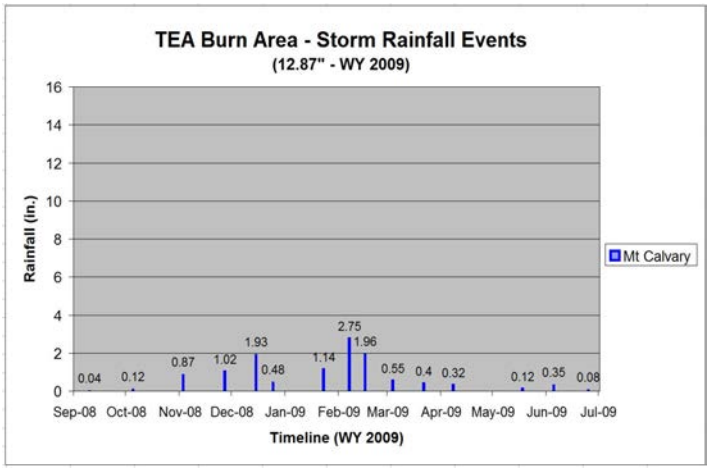
Recovery progress of vegetation in the burn areas is depicted in a series of photograph taken at approximately yearly intervals (pages 16 & 17).

GAP & TEA Burn Areas – Years 1, 2, & 3 Maximum Rainfall Intensity						
Years after Fire	**Burn Site**	**Rainfall Gauge**	**WY Rain**	**Storm 12-15-08**	**Storm 02-07-09**	**Storm 02-14-09**
Year 1 (08-09)	**GAP**	La Patera (535)	20.19”	0.98”/hr	0.69”/hr	0.49”/hr
	TEA	Mt Calvary (2513)	12.87”	0.47”/hr	0.43”/hr	0.40”/hr
Years after Fire	**Burn Site**	**Rain Gauge**	**WY Rain**	**Storm 10-14-09**	**Storm 01-18-10**	**Storm 02-26-10**
Year 2 (09-10)	**GAP**	La Patera (535)	35.85”	0.89”/hr	0.99”/hr	1.03”/hr
	TEA	Mt Calvary (2513)	24.88”	0.67”/hr	0.67”/hr	0.83”/hr
Years after Fire	**Burn Site**	**Rain Gauge**	**WY Rain**	**Storm 12-20-10**	**Storm 02-17-11**	**Storm 03-19-11**
Year 3 (10-11)	**GAP**	La Patera (535)	42.38”	0.96”/hr	0.52”/hr	0.66”/hr
	TEA	Mt Calvary (2513)	31.97”	0.87”/hr	0.43”/hr	0.59”/hr

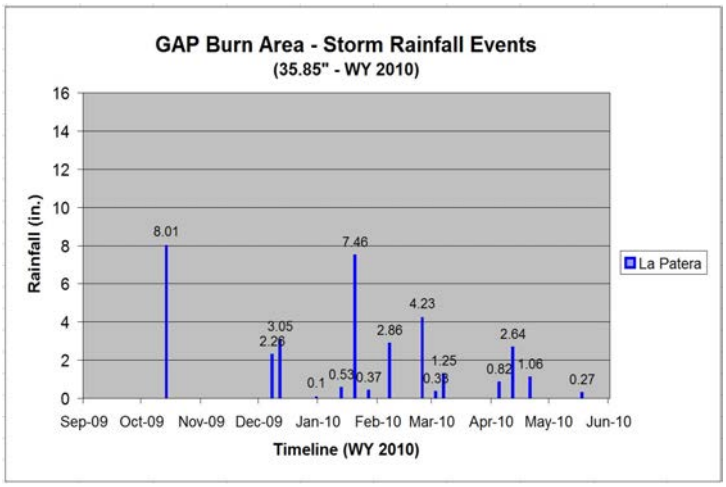
Table 3 – GAP & TEA Burn-Area Rainfall Totals & Intensity



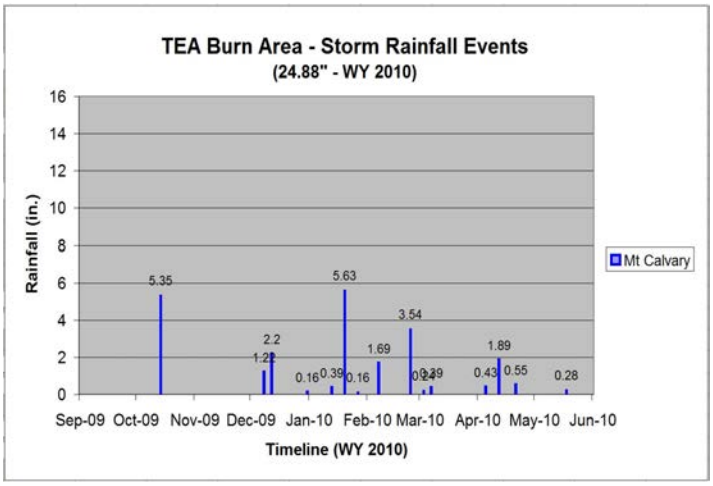
GAP - Water Year 2009



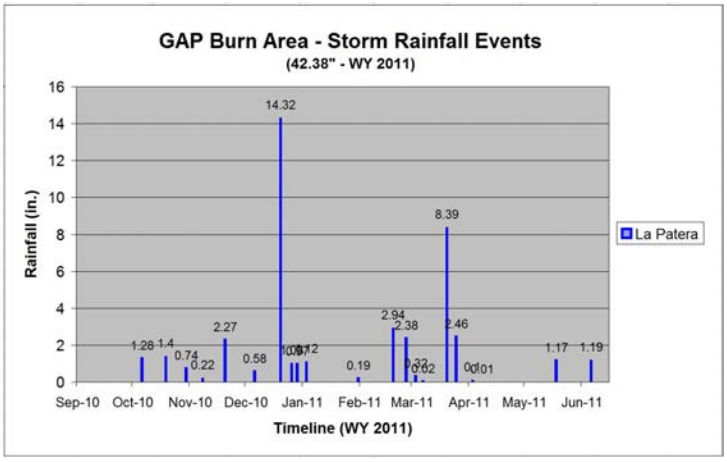
TEA – Water Year 2009



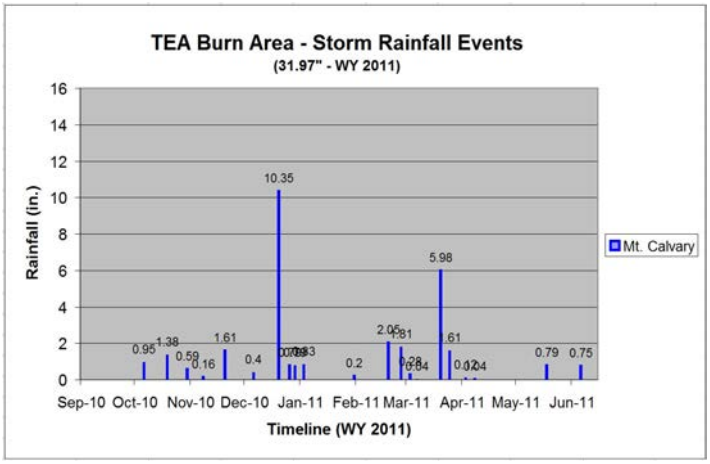
GAP - Water Year 2010



TEA – Water Year 2010



GAP - Water Year 2011



TEA – Water Year 2011

Figure 17 – GAP & TEA Burn-Area 3-Year Rainfall Distribution (WY2009 to WY2011)

GAP Burn Area
(West Camino Cielo Gauge Site – 2825 ft elev.)

Figure 18 – GAP Burn Area (WC Cielo Gauge) Sept 2008 (2 Months after the Fire)

Figure 19 - GAP Burn Area (WC Cielo Gauge) Feb 2010 (~1½ Years after the Fire)

Figure 20 – GAP Burn Area (WC Cielo Gauge) July 2011 (~3 Years after the Fire)

TEA Burn Area
(Rattlesnake Canyon ~ 1500 ft elev.)

Figure 21 – Pre TEA Fire (RS Cyn) – 2007

(~1 Year before the Fire)

Figure 22 – TEA Burn Area (RS Cyn) – Nov 2008

(1 Week after the Fire)

Figure 23 – TEA Burn Area (RS Cyn) – March 2009

(5 Months after the Fire)

Figure 24* – TEA Burn Area (RS Cyn) – May 2011

(2½ Years after the Fire)

* Picture Courtesy of the "Ribbit Photography"

5.2 2009 Burn Areas (Jesusita & La Brea)

JESUSITA Fire – 8740 Acres – 16 days - May 2009

In May 2009, the Jesusita Fire burned approximately 8,740 acres of watershed along the foothills and peaks of the Santa Ynez mountain range adjacent to the City of Santa Barbara and Goleta.

The fire started on May 5th near the Jesusita Trail above Santa Barbara, and burned approximately 8700 acres above Eastern Goleta and Western Santa Barbara. The fire was contained 16 days later on May 20th. The fire burned dense chaparral vegetation on the slopes and canyons that had not previously burned since the (1964) Coyote fire.

The elevation within the burn area ranged from 3985 feet (La Cumbre Peak) in the Santa Ynez Mountain Range, to approximately 500 feet at the northern part of the City of Santa Barbara (Figure 25).

Consistent with the Gap and Tea burn-areas, County Flood Control undertook flood mitigation projects in advance of the first winter rains of water-year 2010 - that included the deployment of aerial hydro-mulching, installation of debris racks and the preparation and/or enhancement of existing debris basins.

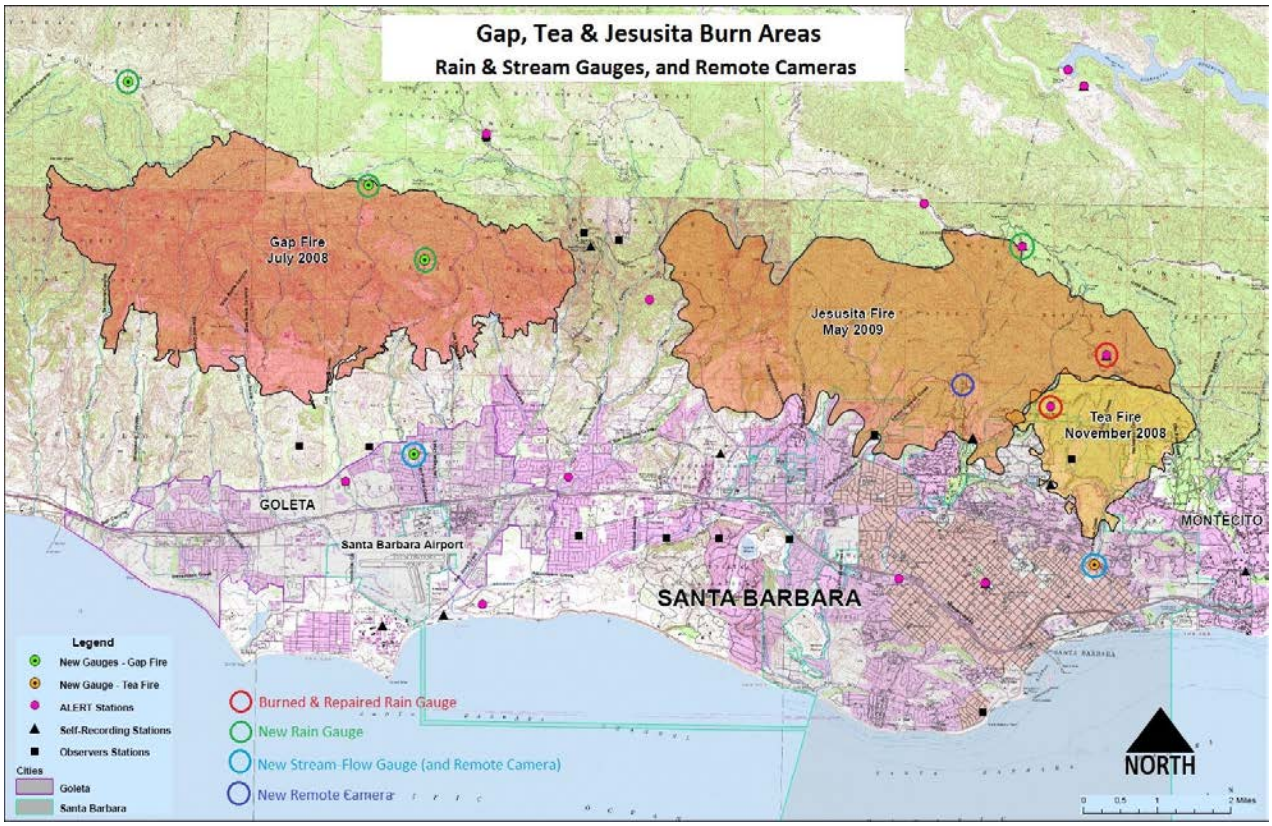


Figure 25– Jesusita Burn Area & Gauges

La Brea Fire – 89,489 Acres – 15 days - Aug 2009

The La Brea Fire started August 8th, 2009 in the back country of Santa Barbara County, approximately 15 miles east of the City of Santa Maria - the fifth major fire in the County since 2007. The 15-day duration fire was contained August 22nd.

The fire burned almost 90,000 acres of watershed in the Los Padres National Forest, most of which was in the Sisquoc River Watershed. A smaller portion of the fire perimeter was a tributary to the Cuyama River, which flows into Twitchell Reservoir (Figure 26).

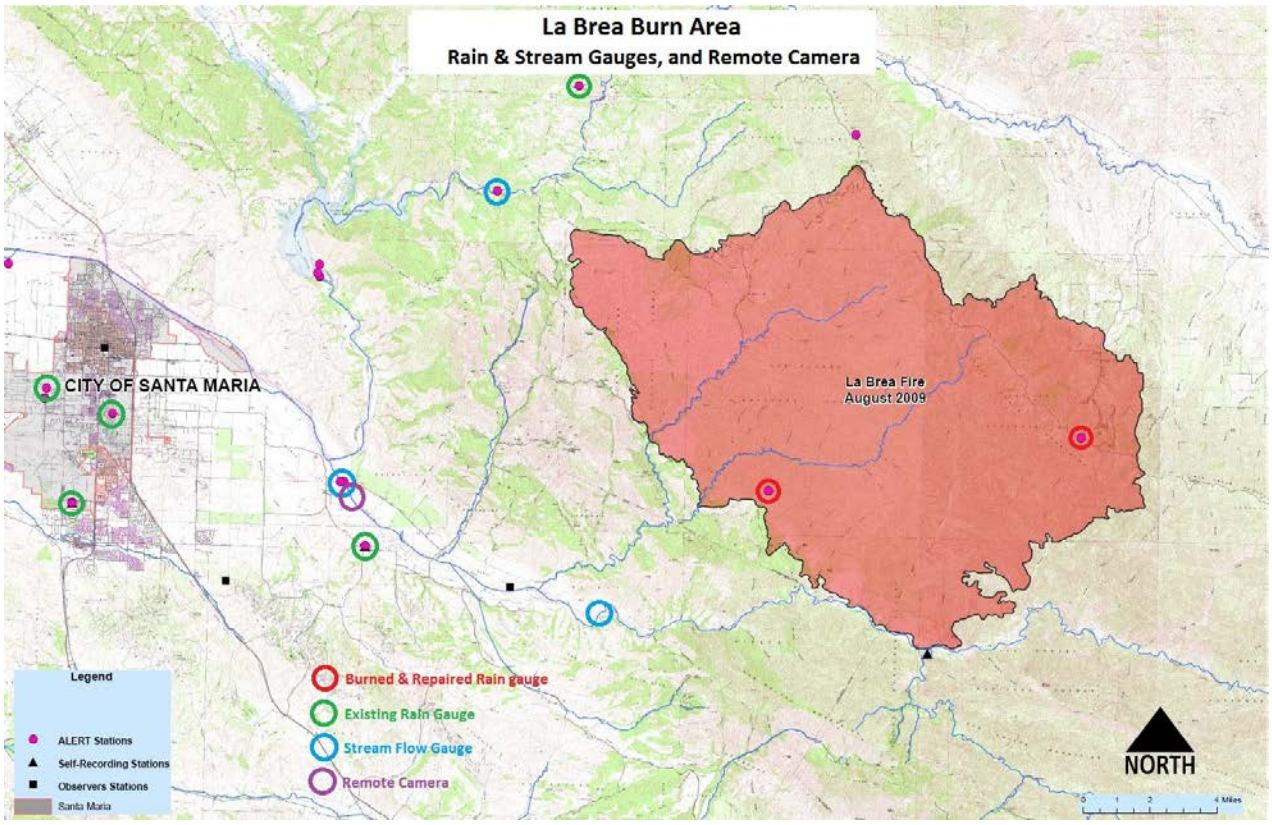


Figure 26 – La Brea Burn Area & Gauges

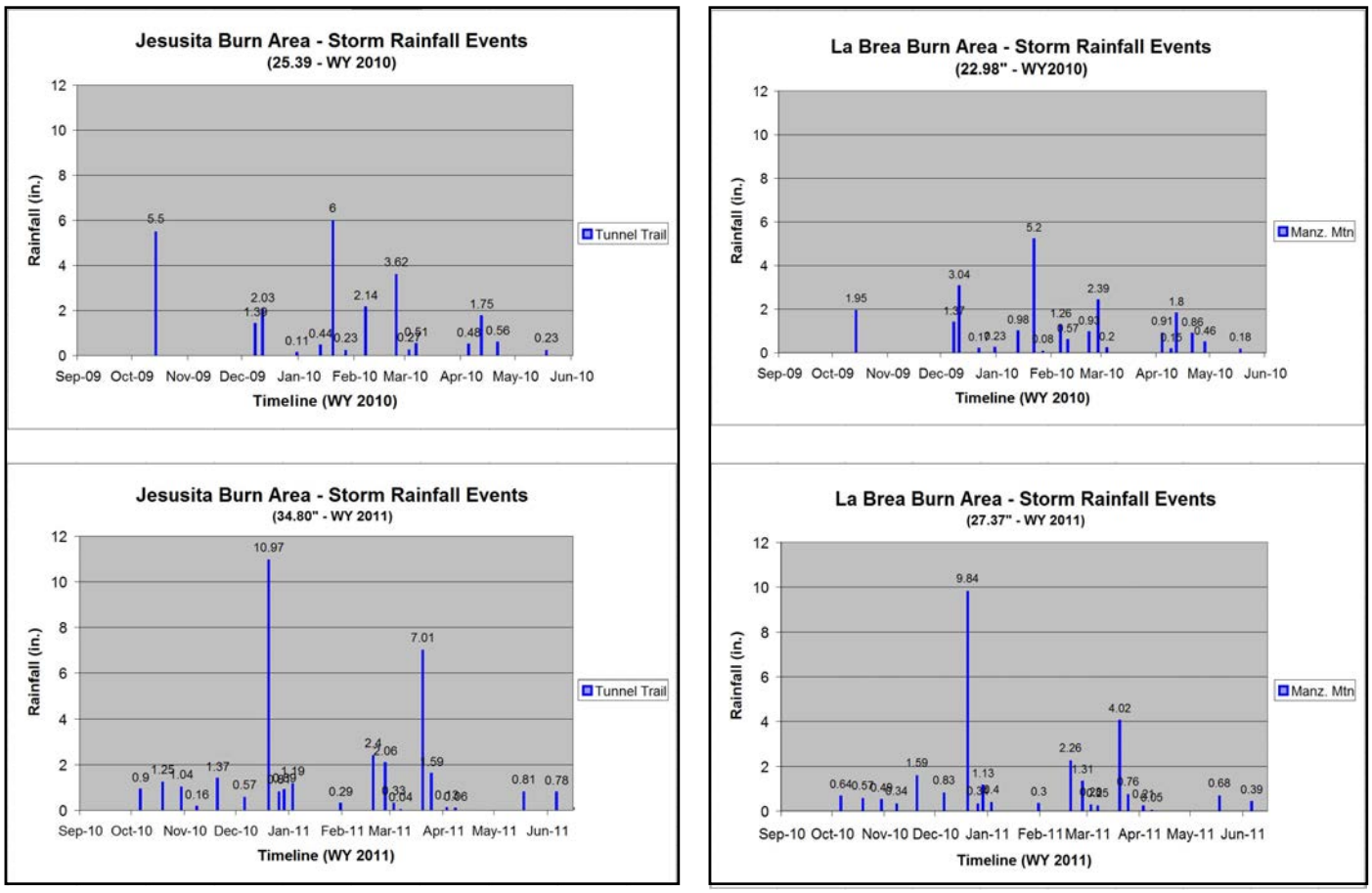
The Jesusita & La Brea burn-area WY2010 rainfall (1st year after fire) was characterized by a slightly above average rainfall year (117% of norm), a rare high-volume October rainfall event (up to 8.21" in 24 hrs), moderately favorable spacing of rainfall events (Figures 27 & 28), and moderate rainfall intensity (Table 4). Minimal slides or flooding were realized from these events.

WY2011 rainfall was of a higher volume (154% of norm), with generally higher intensity rainfall - yet these burn areas also experienced minimal impacts from mud slides and flooding. A more detailed discussion of WY2011 rainfall, distribution, and intensity is included in Sect 7.0

Jesusita & La Brea Burn Areas – Years 1 & 2 Maximum Rainfall Intensity

Years after Fire	Burn Site	Rainfall Gauge	WY Rain	Storm 10-14-09	Storm 01-18-10	Storm 02-26-10
Year 1 (09-10)	**Jesusita**	Tunnel Trail (250)	25.39"	0.57"/hr	0.65"/hr	0.92"/hr
	La Brea	Manz. Mtn (249)	22.98"	0.42"/hr	0.47"/hr	0.57"/hr
Years after Fire	**Burn Site**	**Rainfall Gauge**	**WY Rain**	**Storm 12-20-10**	**Storm 02-17-11**	**Storm 03-19-11**
Year 2 (10-11)	**Jesusita**	Tunnel Trail (250)	34.80"	0.76"/hr	0.48"/hr	0.81"/hr
	La Brea	Manz. Mtn (249)	27.37"	1.19"/hr	0.28"/hr	0.55"/hr

Table 4 – Jesusita & La Brea Burn-Area Rainfall Intensity



Figures 27 & 28 – Jesusita & La Brea Burn-Area 2-Year Rainfall Distribution (WY 2010 & WY2011)

JESUSITA Burn Area
(Jesusita Trail, Santa Barbara ~ 1500 ft elev.)

Figure 29* – Pre Jesusita Fire – March 2009

(2 Months before the Fire)

Figure 30* – Post Jesusita Fire – May 2009

(1 Week after the Fire)

Figure 31* – Post Jesusita Fire - February 2010

(9 Months after the Fire)

Figure 32* – Post Jesusita Fire – May 2011

(2 Years after the Fire)

* Pictures Courtesy of the "Multi-Use Trails Coalition"

JESUSITA Burn Area
(Jesusita Trail, Santa Barbara ~1500 to 2000 ft elev.)

Figure 33 - Post Jesusita Fire – August, 2009
(3 Months after the Fire)

Figure 34 - Post Jesusita Fire – March, 2011
(~2 Years after the Fire)

* Pictures Courtesy of the "Multi-Use Trails Coalition"

JESUSITA Burn Area
(Barger Canyon Rd, Santa Barbara ~ 750 ft elev.)

Photo by Anne Cusack, May 10, 2009 (Los Angeles Times)
Remnants of Jesusita Santa Barbara Fire from La Vista Road

Figure 35 – Post Jesusita Fire – May 10, 2009
(1 Day after the Fire)

Figure 36 - Post Jesusita Fire – July 19, 2011
(~2 Years after the Fire)

LA BREA Burn Area
(Bates Ridge, Sierra Madre Mtns - 5120 ft elev.)

Figure 37 – Post La Brea Fire – Sept 2009
(1 Month after the Fire)

Figure 38 – Post La Brea Fire – July 2011
(~2 Years after the Fire)

6.0 SIGNIFICANT STORM EVENT SUMMARY

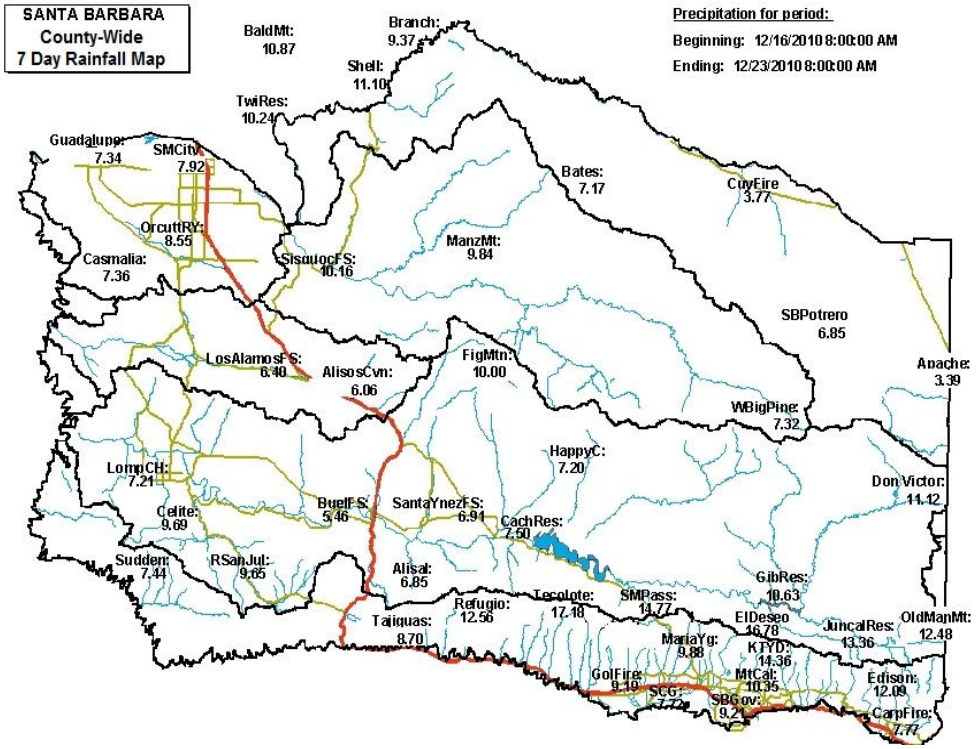
6.1 Storm Period: December 17th to 23rd, 2010 (7 days)

A. RAINFALL

- 7 day Rainfall Accumulation Maximum = 17.18" (Tecolote Canyon)
- Rainfall Intensity Maximum = 1.19"/hour (Dec 19th, Manzanita Mtn)
- County-wide Normal Rainfall = 280% (through Dec 23rd, 2010)
- 100-year 24-hour Rainfall event at Santa Maria & Sisquoc (see table below)

Maximum Rainfall Intensities & Recurrence Intervals (December 17th to 23rd, 2010)

Location	ID	5 min	10 min	15 min	30 min	1 hour	2 hour	3 hour	6 hour	8 hour	12 hour	24 hour
Santa Maria	380	0.18"	0.24"	0.28"	0.42"	0.71"	1.09"	1.36"	1.91"	2.28"	2.87"	3.94"
		2 yrs	2 yrs	2 yrs	2 yrs	5 yrs	5 yrs	5 yrs	10 yrs	25 yrs	50 yrs	100 yrs
Sisquoc	256	0.20"	0.31"	0.41"	0.77"	1.15"	1.50"	1.77"	2.15"	2.41"	2.89"	5.23"
		5 yrs	5 yrs	5 yrs	25 yrs	25 yrs	10 yrs	10 yrs	10 yrs	10 yrs	25 yrs	100 yrs
Cuyama	436	0.06"	0.11"	0.14"	0.21"	0.36"	0.55"	0.71"	0.87"	0.94"	1.09"	1.86"
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	10 yrs
Lompoc	439	0.08"	0.13"	0.18"	0.31"	0.46"	0.78"	0.91"	1.25"	1.56"	1.89"	2.59"
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs
Santa Barbara	234	0.16"	0.25"	0.34"	0.54"	0.69"	0.73"	0.91"	1.45"	1.69"	2.20"	4.09"
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	5 yrs
San Marcos Pass	212	0.24"	0.24"	0.37"	0.54"	1.02"	1.81"	2.20"	3.21"	3.90"	4.78"	6.85"
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs



B. RIVERS & STREAMS

River / Stream	7-Day Storm Peak-Discharge	Date/Time
Sisquoc River @ Garey	9440 cfs	Dec 19 – 1230 hrs
Cuyama River@ Buckhorn	3930 cfs	Dec 19 – 2015 hrs
Santa Ynez River @ Los Laureles	4080 cfs	Dec 22 – 1630 hrs
Santa Ynez River @ Lompoc	1940 cfs	Dec 22 – 0545 hrs
Mission Creek @ S. Barbara	800 cfs	Dec 22 – 1215 hrs
Carpinteria Creek	574 cfs	Dec 22 – 1300 hrs

Sisquoc River @ Garey – Peak Discharge Statistics (Dec 19, 2010 – 9440 cfs)

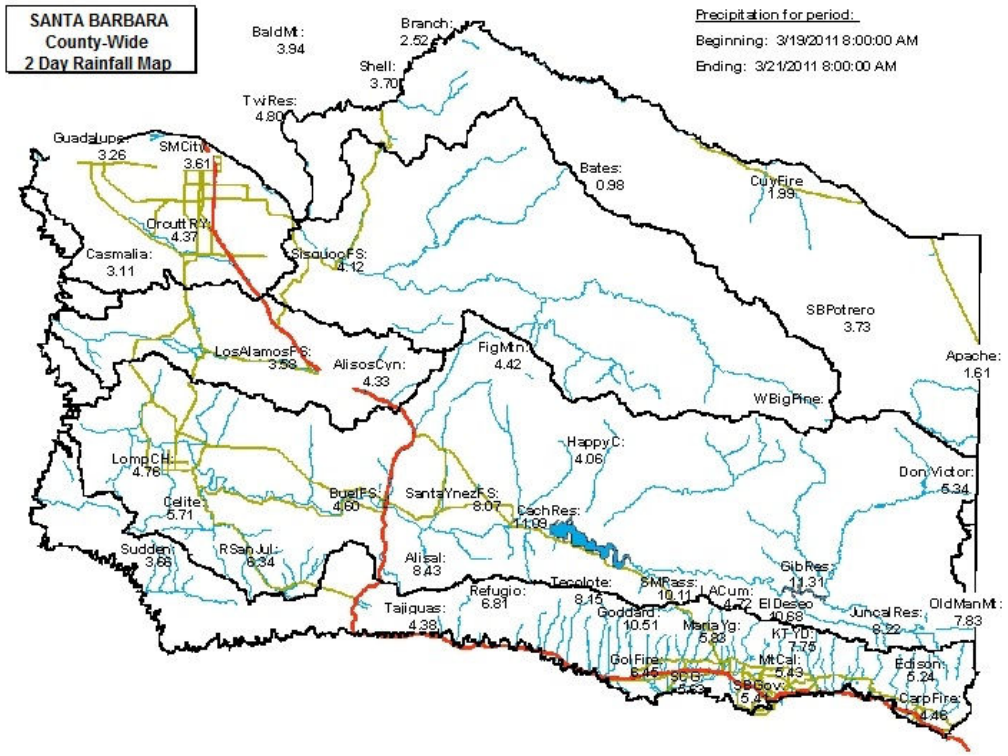
- Peak exceeded 10 times in last 69 years (since records started in 1941)
- Peak exceeded 1 time (prior to Jan) in last 69 years (Dec 1966)

6.2 Storm Period: March 19th to 21st, 2011 (3 days)

A. RAINFALL

- 2 day Rainfall Accumulation Maximum (March 20-21) = 11.31" (Gibraltar Dam)
- Rainfall Intensity Maximum = 1.64"/hour (March 20th, San Marcos Pass)
- County-wide Normal Rainfall = 162% (through March 21, 2011)
- 100-year 24-hour Rainfall event at Gibraltar Dam (see table below)
- County-wide typical 10 to 50 year storm rainfall event (for 8, 12, & 24 hour periods)

Maximum Rainfall Intensities & Recurrence Intervals (March 20-21, 2011)												
Location	**ID**	**5 min**	**10 min**	**15 min**	**30 min**	**1 hour**	**2 hour**	**3 hour**	**6 hour**	**8 hour**	**12 hour**	**24 hour**
Gibraltar Dam	230	0.12	0.18	0.25	0.46	0.84	1.51	2.10	4.02	5.24	7.25	10.90
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	5 yrs	10 yrs	25 yrs	100 yrs
San Marcos Pass	212	0.44	0.58	0.73	1.13	1.64	2.06	2.54	4.48	5.47	6.56	9.61
		10 yrs	5 yrs	5 yrs	5 yrs	5 yrs	2 yrs	2 yrs	2 yrs	10 yrs	5 yrs	10 yrs
Lompoc	439	0.11	0.18	0.27	0.46	0.71	1.07	1.39	2.38	2.98	3.98	4.58
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	5 yrs	5 yrs	10 yrs	10 yrs
Cuyama	436	0.07	0.09	0.11	0.18	0.28	0.45	0.63	1.11	1.37	1.57	1.98
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	5 yrs	10 yrs	10 yrs	25 yrs
Santa Maria	380	0.17	0.27	0.35	0.55	0.92	1.38	1.66	2.34	2.58	3.10	3.45
		2 yrs	2 yrs	5 yrs	2 yrs	10 yrs	10 yrs	10 yrs	50 yrs	50 yrs	100 yrs	50 yrs
Santa Barbara	234	0.16	0.25	0.35	0.54	0.70	1.05	1.40	2.34	2.75	3.36	5.20
		2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	2 yrs	10 yrs



B. RIVERS & STREAMS

River / Stream	3-Day Storm Peak-Discharge	Date/Time
Santa Ynez River @ Lompoc	31,200 cfs	March 21 – 0730 hrs
Santa Ynez River @ Los Laureles	19,100 cfs	March 20 – 1840 hrs
Sisquoc River @ Garey	7,300 cfs	March 20 – 1830 hrs
Cuyama River@ Buckhorn	4,800 cfs	March 21 – 0545 hrs
Mission Creek @ Santa Barbara	1,050 cfs	March 20 – 0720 hrs
Carpinteria Creek	950 cfs	March 20 – 2100 hrs

Santa Ynez River @Lompoc Narrows– Peak Discharge Statistics (3/21/2011 – 31,200 cfs)

- Recent Peak exceeded 9 times in last 104 years (~ 1 in 10 year event)

7.0 RAINFALL

County-wide 2010-2011 annual total rainfall was approximately 50% above normal.

Rainfall Location	ID	Year*	% of Norm.
Buellton (Fire Stn)	*233*	21.26	124%
Cachuma (USBR Facility)	*332*	32.79	163%
Carpinteria (Fire Stn)	*208*	24.89	127%
Cuyama (Fire Stn)	*436*	10.73	140%
Figueroa Mtn. (USFS Stn)	*421*	33.01	152%
Gibraltar Dam (City Facility)	*230*	38.99	146%
Goleta (Fire Stn-Los Carneros)	*440*	31.27	165%
Lompoc (City Hall)	*439*	26.75	177%
Los Alamos (Fire Stn)	*204*	21.68	142%
San Marcos Pass (USFS Stn)	*212*	48.61	140%
Santa Barbara (SB Cnty Bldg)	*234*	28.49	158%
Santa Maria (City Pub.Works)	*380*	24.48	178%
Santa Ynez (Fire Stn /Airport)	*218*	26.34	162%
Sisquoc (Fire Stn)	*256*	27.30	181%
County-Wide Year-End Rainfall Percentage			**154%**

Table 5 – County WY2011 Rainfall Table
*Each Water-Year runs from Sept. 1st through Aug. 31st

Figure 39 – County Wide WY2011 Rainfall Map

7.1 Rainfall Distribution

The WY2011 winter storm season can be summarized as receiving ~50% more than average rainfall, a dry January through mid February, and two significant storm events (Dec & March).

The more than average rainfall throughout the winter resulted in full (& spilling) surface reservoirs (except Twitchell), and moderate groundwater recharge. Creek and river bank overflow was not generally evident during the storms of December & March, but rainfall runoff & reservoir releases in March resulted in high downstream SY River discharge (see Section11)

At 154% of normal County-wide average rainfall (Table 5), the 2011 water year rainfall accumulation ranked 2rd highest of the most recent 10 years (Table 7 – Historical Rainfall).

Monthly rainfall distribution was not particularly uniform, as the County experienced an unusually dry January through mid February. Significant storms (Dec & March) occurred before and after this mid-winter dry period, both of which resulted in near record-setting rainfall events. (see Figures 45 & 46 – Historical Rainfall)

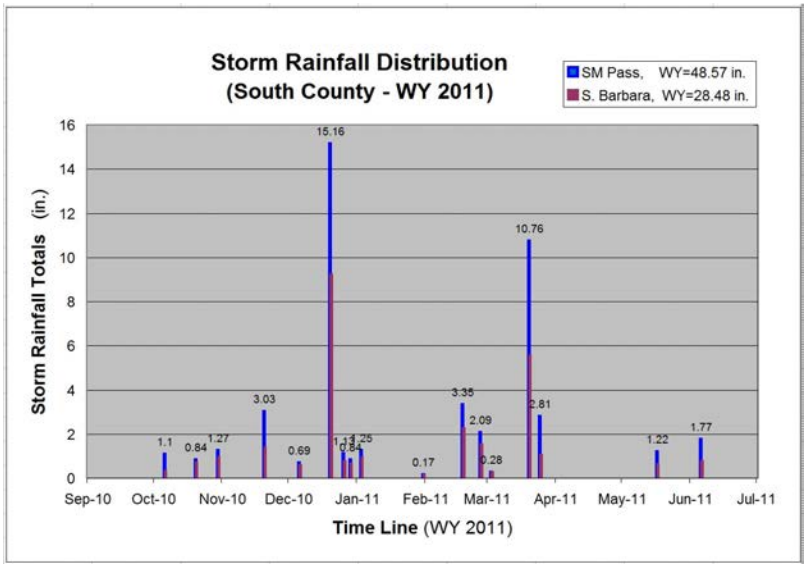


Figure 40 – South County Rainfall Distribution (by Storm Totals)

Rainfall distribution throughout the County varies substantially, with precipitation largely dictated by geographic location and regional topography.

The south-County mountain regions (San Marcos Pass) tend to receive 2 times the rainfall as the geographically close south-County coastal areas (city of Santa Barbara).

Similarly, the north-County (Santa Maria) tends to receive 3/4 the rainfall of the south-County coastal areas, but approximately 2 times the rainfall recorded in the arid Cuyama region located in the northeast area of the County.

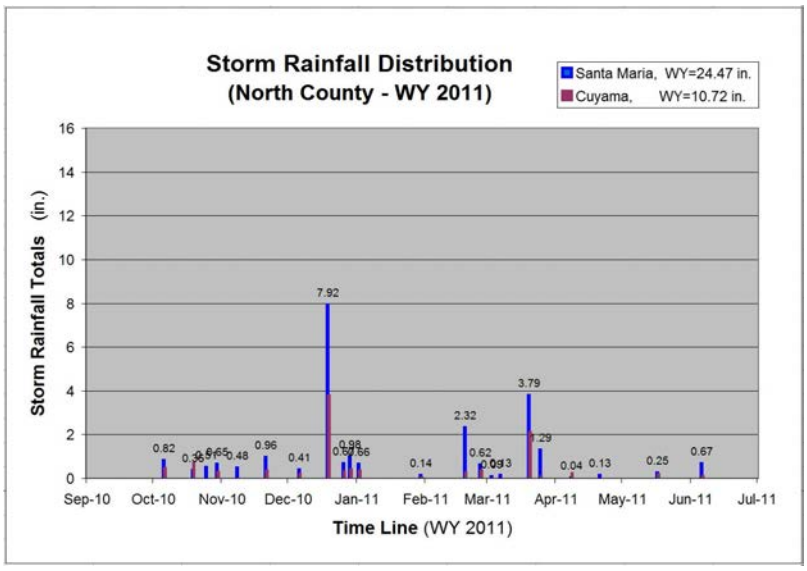


Figure 41 – North County Rainfall Distribution (by Storm Totals)

The north & south County rainfall distribution trends (multi-day storm totals) are shown in Figures 40 & 41, and are consistent with typical regional rainfall accumulation differences within Santa Barbara County.

7.2 Rainfall Intensity & Average Recurrence Intervals

Rainfall Intensity values (WY maximums) for short duration periods (5 min through 24 hours) are computed for principal rainfall locations within the County (Table 6).

Consistent with County geographic and orographic trends, the highest WY2011 rainfall intensities were typically experienced in the south-coast higher elevation regions, however heavy rains in December also produced statistically high rainfall intensities in the north County.

Maximum Rainfall Intensities and resulting Average Recurrence Intervals (ARI's) noted in this table are indicative of typical 5 to 50 year rainfall events (although select 100 year events were realized during December 2010 and March 2011 storms).

Rainfall Intensities and Average Recurrence Intervals (ARI)

Maximum Rainfall Intensities for Water Year 2010-11

RAINFALL STATION	ID	5min	10min	15min	30min	1hour	2hour	3hour	6hour	8hour	12hour	24hour	WY Total
Buellton	233	0.09	0.15	0.21	0.35	0.59	1.03	1.51	2.51	2.87	3.53	4.25	21.26
Cachuma Dam	332	0.15	0.25	0.35	0.66	1.21	2.20	3.12	5.48	6.57	8.28	10.74	32.79
Carpinteria	208	0.20	0.27	0.35	0.48	0.62	0.83	1.05	1.74	2.20	2.77	4.29	24.89
Cuyama	436	0.05	0.08	0.11	0.20	0.34	0.55	0.68	1.06	1.34	1.57	1.98	10.73
Figueroa Mountain	421	0.12	0.17	0.24	0.41	0.75	1.16	1.57	2.23	2.60	3.14	4.20	33.01
Gibraltar Dam	230	0.11	0.19	0.25	0.47	0.82	1.48	2.09	3.99	5.22	7.25	10.90	38.99
Goleta	440	0.13	0.24	0.36	0.56	0.79	1.18	1.62	2.69	3.38	4.18	6.17	31.27
Lompoc	439	0.20	0.24	0.31	0.46	0.67	1.05	1.37	2.37	2.96	3.97	4.58	26.75
Los Alamos	204	0.15	0.23	0.29	0.43	0.61	1.01	1.32	1.95	2.03	2.66	3.38	21.68
San Marcos Pass	212	0.31	0.54	0.69	1.10	1.63	2.00	2.54	4.47	5.47	6.56	9.61	48.61
Santa Barbara	234	0.22	0.33	0.40	0.60	0.82	1.05	1.39	2.32	2.74	3.34	5.20	28.49
Santa Maria	380	0.15	0.26	0.35	0.54	0.92	1.37	1.66	2.33	2.56	3.07	3.94	24.48
Santa Ynez	218	0.14	0.20	0.28	0.53	0.99	1.95	2.73	4.65	5.48	6.41	7.77	26.34
Sisquoc	256	0.19	0.31	0.41	0.76	1.14	1.50	1.76	2.31	2.68	3.22	5.22	27.30

Expected Average Recurrence Intervals (ARI in years) or Return Periods - for the above Depth Durations

	RP	5min	10min	15min	30min	1hour	2hour	3hour	6hour	8hour	12hour	24hour	WY
RAINFALL STATION	ID	ARI	ARI	ARI	ARI	ARI	ARI	ARI	ARI	ARI	ARI	ARI	ARI
Buellton	233	2	2	2	2	2	2	2	2	2	5	5	2
Cachuma Dam	332	2	2	2	2	5	10	10	25	50	50	100	5
Carpinteria	208	2	2	2	2	2	2	2	2	2	2	5	2
Cuyama	436	2	2	2	2	2	2	2	5	5	5	10	5
Figueroa Mountain	421	2	2	2	2	2	5	5	5	5	5	5	5
Gibraltar Dam	230	2	2	2	2	2	2	2	5	10	25	100	5
Goleta	440	2	2	2	2	2	2	2	5	5	5	10	5
Lompoc	439	2	2	2	2	2	2	2	5	5	10	10	10
Los Alamos	204	2	2	2	2	2	2	2	5	2	5	5	5
San Marcos Pass	212	2	5	5	5	5	2	2	2	2	5	10	5
Santa Barbara	234	2	2	2	2	2	2	2	2	2	2	10	5
Santa Maria	380	2	2	2	5	10	10	10	25	25	50	50	10
Santa Ynez	218	2	2	2	2	2	5	10	25	25	25	25	5
Sisquoc	256	5	5	5	25	25	10	10	10	10	10	50	10

Note: Rainfall Units in Inches
Additional Recurrence data is available on the web at: http://www.countyofsb.org/pwd/pwwater.aspx?id=3772

Table 6 – Rainfall Intensities and Average Recurrence Intervals

7.3 Antecedent Conditions (Soil Wetness)

The Antecedent index (AI) is an estimation of runoff potential that is based on previously occurring rainfall, time of year, and watershed characteristics. It is defined as the inches of rainfall over a basin during a single storm that is required to produce one inch of runoff over the basin. Therefore, an AI of 6.0 indicates that 6.0 inches of rain falling in 24 hours would result in an inch of runoff from the basin.

The importance of the AI is obvious considering that an eight-inch storm may result in little runoff or significant flooding based on the various factors accounted for by the program. The Flood Control District uses the AI as a general indication of flood potential, and as mandatory input to FCRIVER (see Sect 10.1) - the computer model that predicts peak flow and timing at points along the Santa Ynez River. FCRIVER also provides a tool to adjust Cachuma Reservoir operations in order to minimize flood damage below the dam.

The AI program used by the District divides the Santa Ynez River Watershed into three sub-watersheds. AI's are calculated for the upper watershed at Gibraltar Reservoir, the middle watershed at Figueroa Mountain, and the lower watershed at the City of Lompoc. Adjustments are made at each site to account for specific watershed conditions and gauge locations.

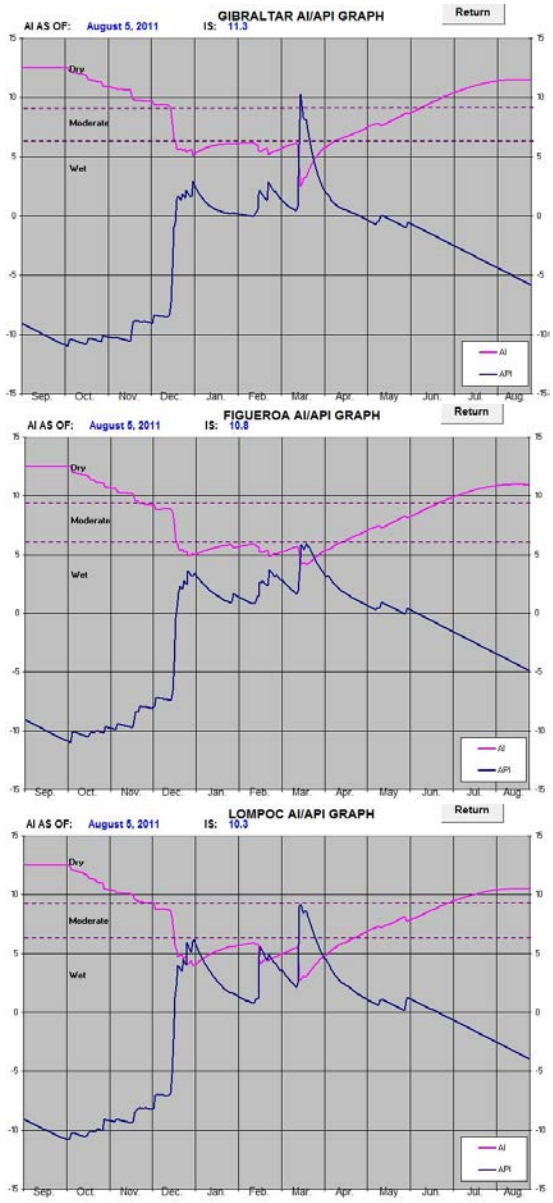
The AI graphs depicted (Figures 42 to 44) are representations of the runoff potential based on the calculation of soil moisture (at Gibraltar Dam, Figueroa Mountain, and Lompoc).

The graphs illustrate a steep decline in the index at the end of December (storm of 12/17-23), indicating moderate runoff would occur with much less rain than earlier in the storm season. The unusual dry period during January & early February is evident in the flat curve response. Another distinct decline in the AI occurred in mid March – the second large storm of the winter season.

Maximum soil saturation occurs at an AI of 2.5, which was almost achieved during WY2011 (March) when AI's approached approximately 3.0 – after which they steadily increased through to the end of the water-year.

<u>Antecedent Index (AI) Reference:</u>

6.0 and below	= Wet
6.1 to 9.0	= Moderate
9.1 and above	= Dry



Figures 42 to 44 – Gibraltar, Figueroa, Lompoc – AI (WY2011)

7.4 Historical Rainfall Comparisons

County-wide WY2011 rainfall totals (at 154% of normal) ranked second most over the past ten years, only surpassed by WY2005 – which was a significant flood year. See Table 7 (below).

County-wide End-of-year Normal % Rainfall (last 10 yrs)		
Water Year*	**Normal Percentage Rainfall**	**Rank**
2010-2011	154%	2
2009-2010	117 %	3
2008-2009	67 %	7
2007-2008	102 %	6
2006-2007	36 %	10
2005-2006	115 %	4
2004-2005	188 %	1
2003-2004	57 %	8
2002-2003	103 %	5
2001-2002	47 %	9

Table 7 – County Wide Normal Percentage Rainfall

*Each Water Year (WY) runs from September 1st through August 31st, and is designated by the calendar year in which it ends.

A noteworthy trend during the 2011 water-year was the much higher than normal (& record setting) December rainfall, and the much lower than normal January rainfall.
Figures 45 & 46 depict the WY2011 Dec & Jan rainfall compared with typical monthly rainfall.

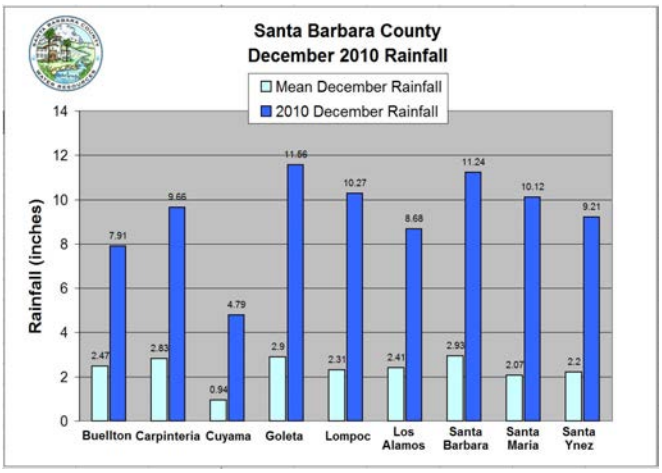


Figure 45 – December 2010 Rainfall

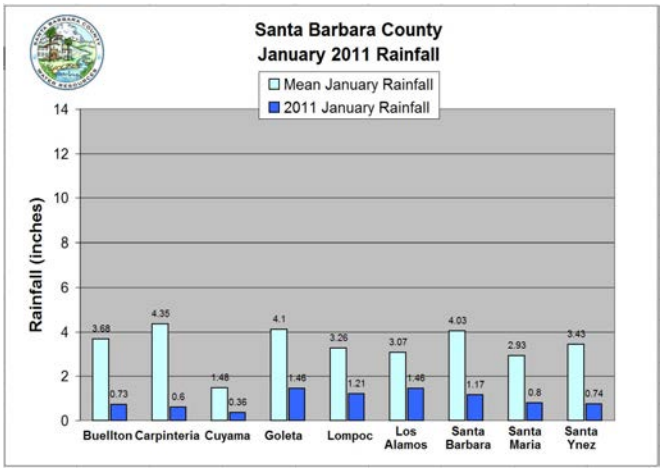
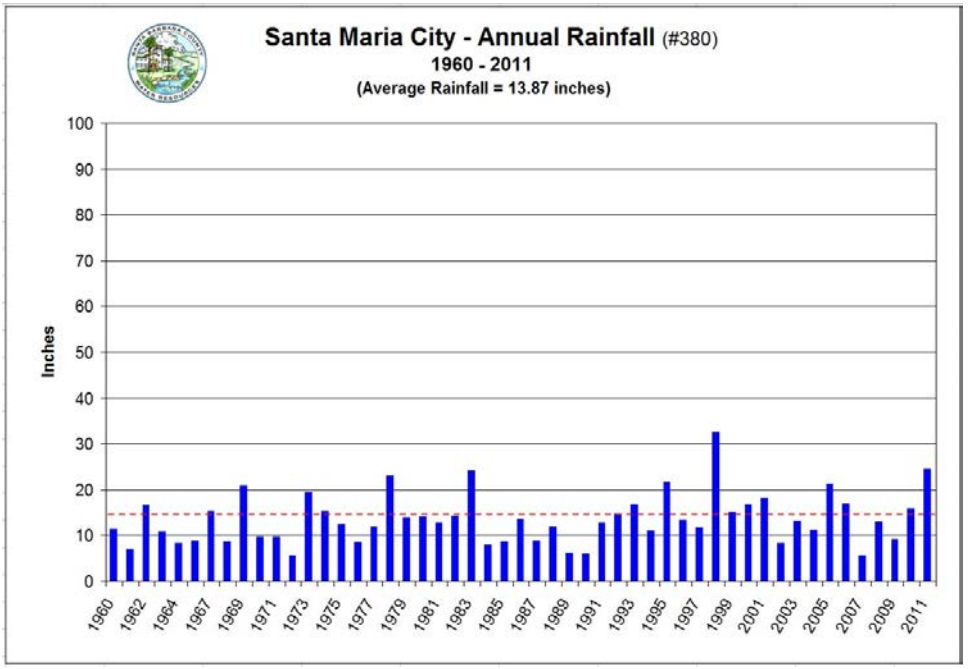
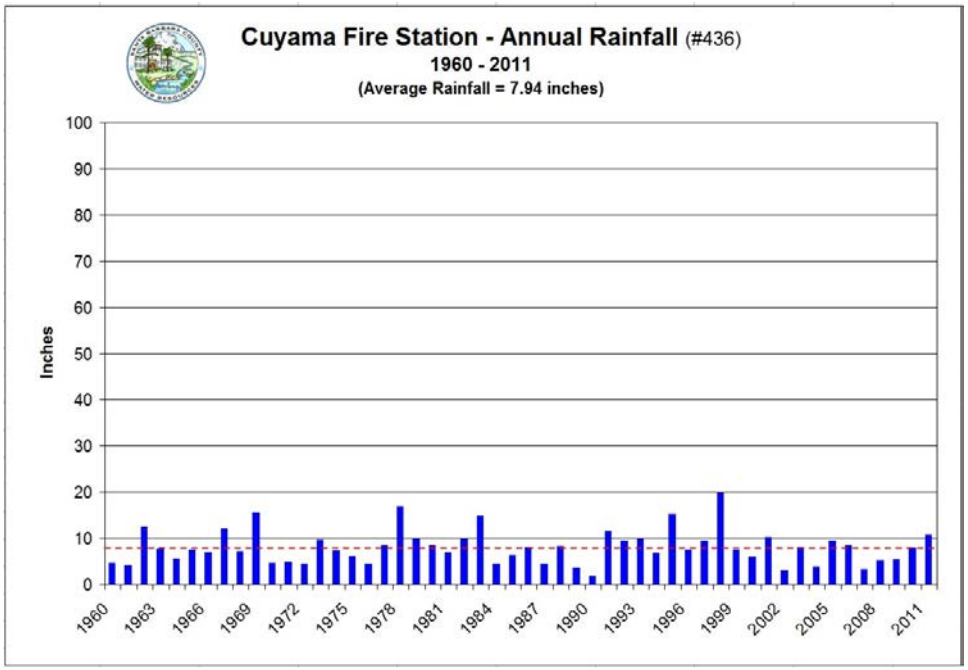


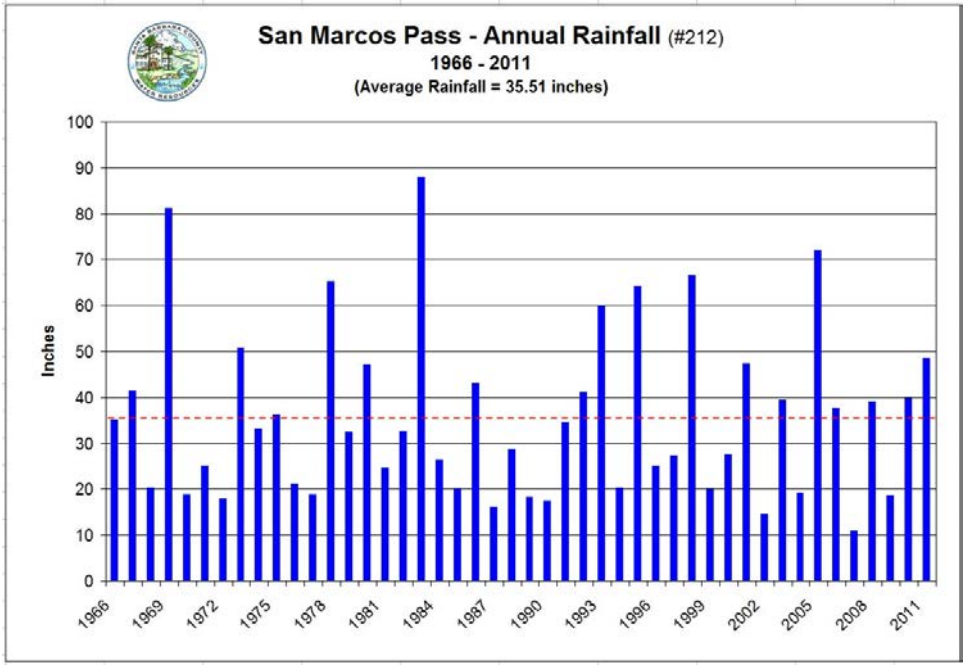
Figure 46 – January 2011 Rainfall

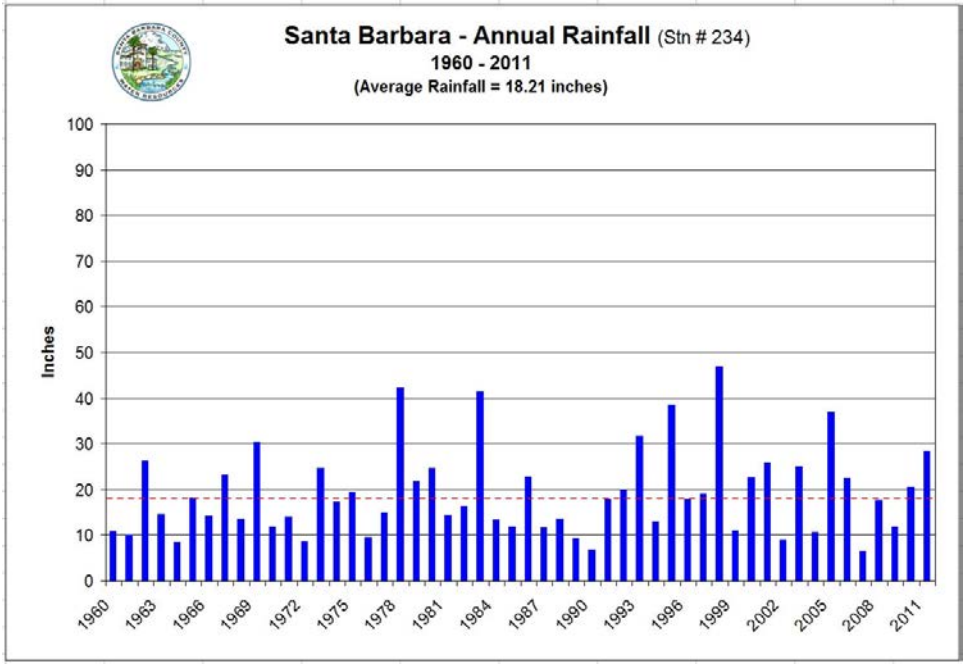
Historical 50-year annual rainfall graphs of four principal locations in Santa Barbara County are shown on the following page (Figures 47 through 50).

The multi-year trend illustrates the ~ 2:1 ratio of South County rainfall (Santa Barbara vs. San Marcos Pass), and similar ~ 2:1 ratio that exists in the North County (Santa Maria vs. Cuyama).









Figures 47 to 50 – Historical Annual Rainfall ~50 years

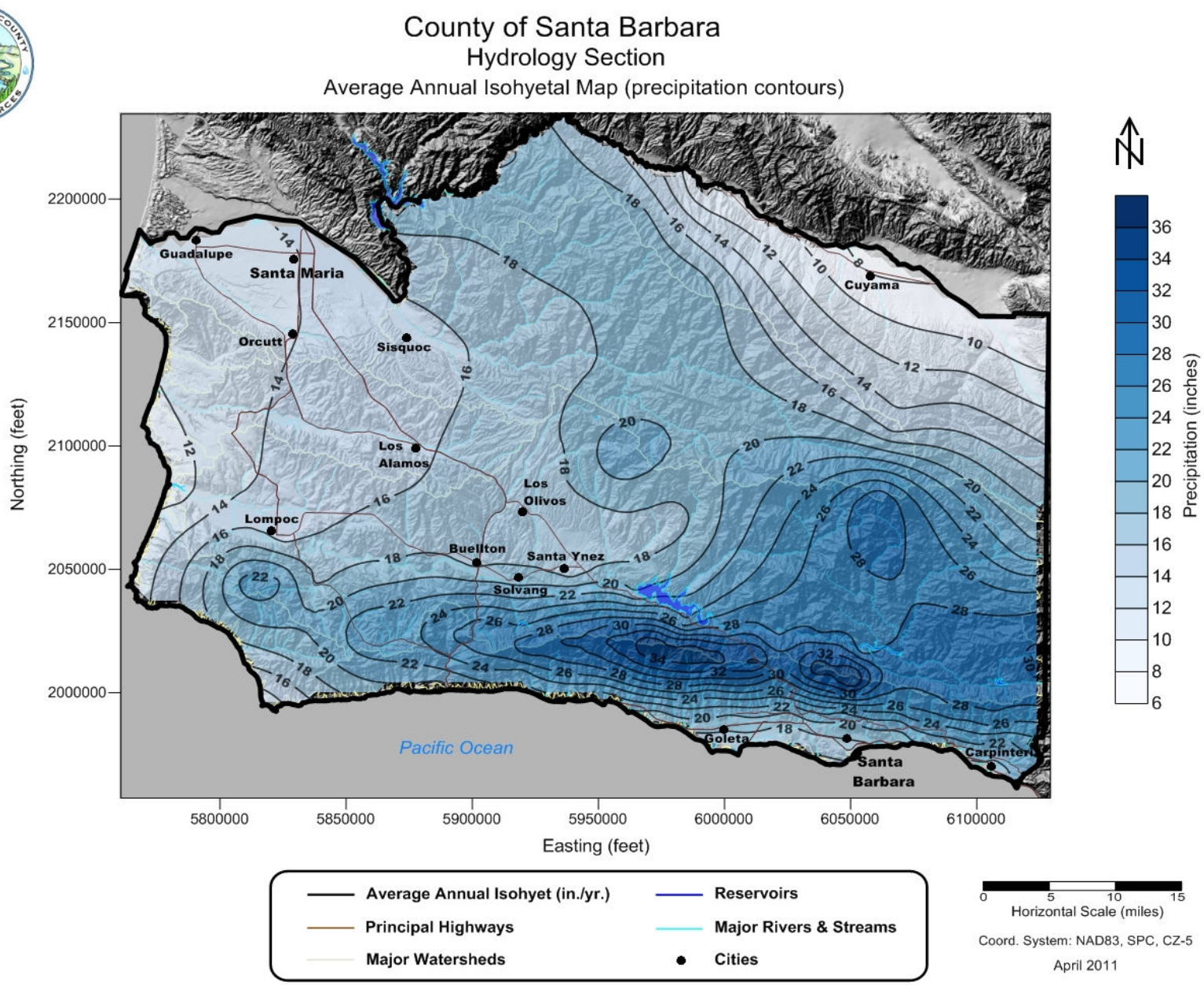


Figure 51 – County Average Annual Rainfall Contours (Isohyetal)

8.0 RIVERS & STREAMS

The Flood Control District (FCD) operates & maintains 16 River & Stream gauges at various locations within Santa Barbara County. Fourteen of these gauges are automated (Alert, USGS co-located), and report in real-time to the County FCD operations center. The other two gauges (Goleta & Carpinteria Slough) record to non-transmitting data loggers. (Location Map - Figure 52)

In addition, the US Geological Survey (USGS) maintains 8 additional river & stream gauge locations within the County, the data from which can be accessed online (with 1 to 3 hour delay).

County FCD gauges are located at sites important for flood & flow monitoring - including major river systems (Santa Ynez River, Sisquoc River, Cuyama River), streams & creeks near urban areas, reservoir out-flows, burn-area impacted regions, and for other flow related purposes.

Flow observation graphs at four principal stream & river gauges sites (correlated with rainfall) are illustrated in Section 8.1 - next 2 pages. (Sisquoc River@Garey, SY River@Lompoc, Mission Creek-SB, and Carpinteria Creek). The two significant WY2011 storms are documented.

March 2011 storm events resulted in segments of the lower Santa Ynez River reaching near maximum conveyance capacity.

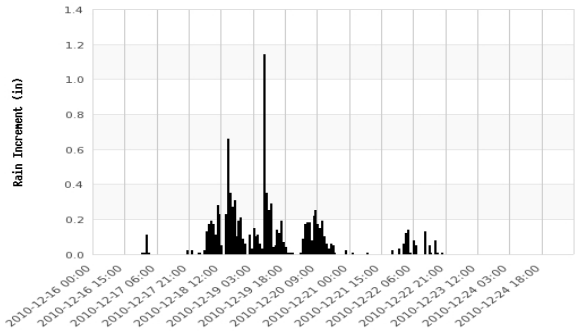
The graph correlations document how the stream flow (discharge & flow response) is affected by the watershed size, storm rainfall magnitude, rainfall intensity, and antecedent (soil wetness) conditions. Urban area run-off (ie: Mission Creek) is much less affected by antecedent factors. Reservoir spilling & releases also affects downstream river & gauge response.

Figure 52 – County FCD River & Stream Gauge Location Map

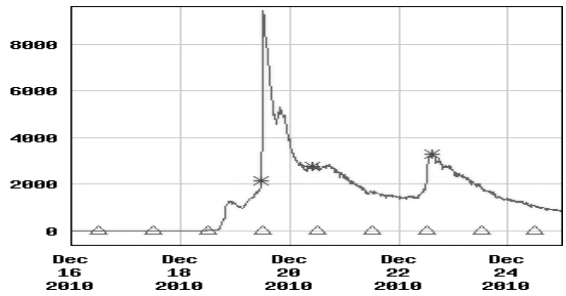
8.1 Stream Discharge Observations

Rainfall & Stream Discharge Correlation – Storm of December 17-23, 2010

Sisquoc River @ Garey

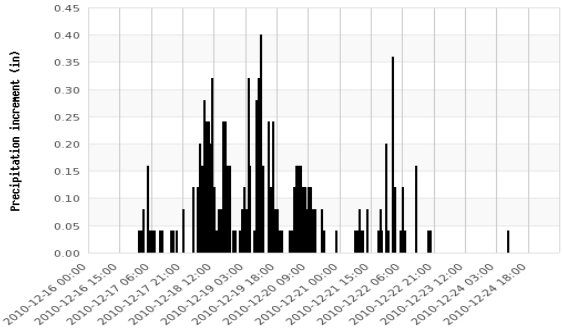


Storm = 10.1", Intensity Max = 1.15"/hr, Watershed: Mod

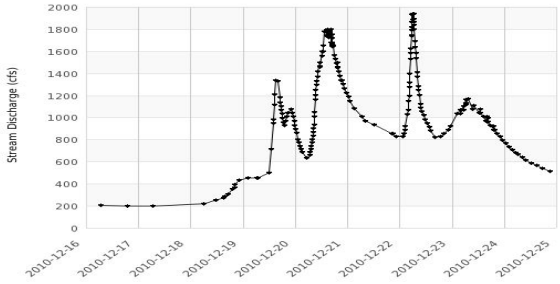


Peak Flow ~ 9500cfs / Flow Response ~12 hrs

SY River @ Lompoc Narrows

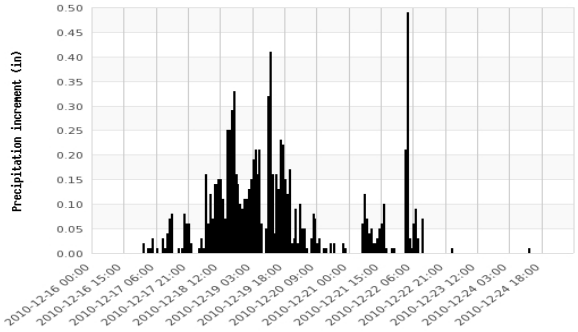


Storm = 9.7", Intensity Max = 0.40"/hr, Watershed: Mod

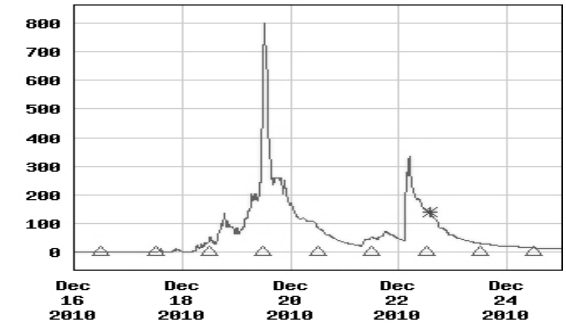


Peak Flow ~ 1950 cfs / Flow Response ~10 hrs

Mission Creek, Santa Barbara

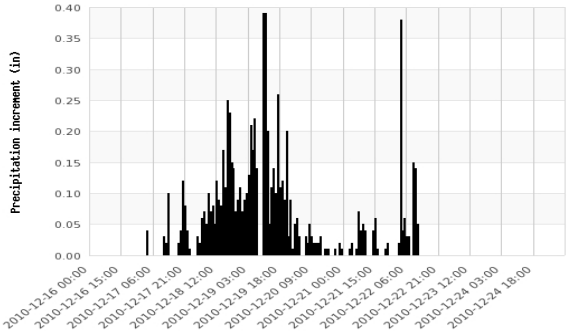


Storm = 9.2", Intensity Max = 0.69"/hr, Watershed: Urban

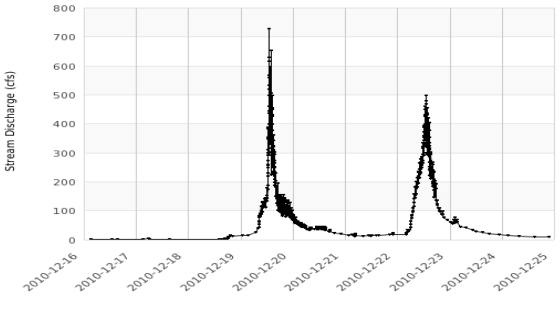


Peak Flow ~ 800 cfs / Flow Response ~1 hr

Carpinteria Creek



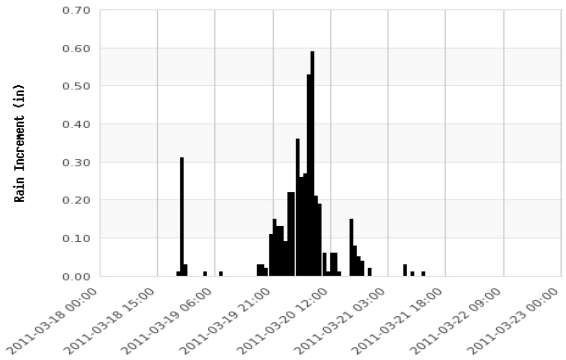
Storm = 7.8", Intensity Max = 0.40"/hr, Watershed: Mod



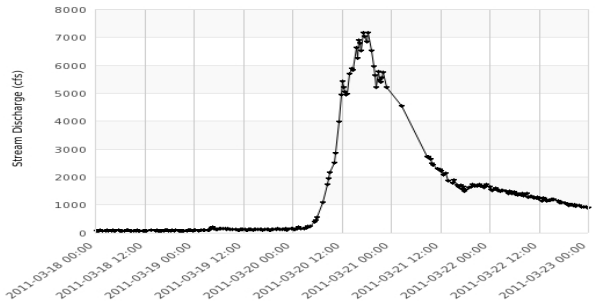
Peak Flow ~ 700 cfs / Flow Response ~8 hrs

Rainfall & Stream Discharge Correlation – Storm of March 19-21, 2011

Sisquoc River @ Garey

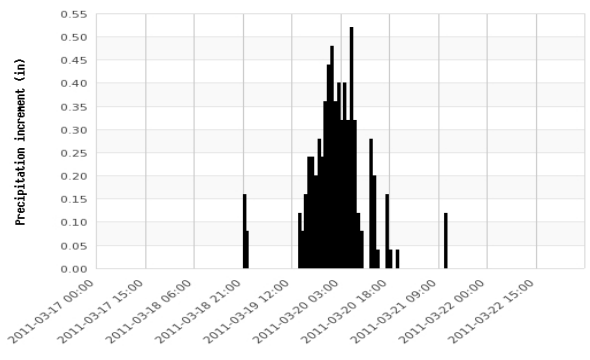


Storm = 4.5", Intensity Max = 0.92"/hr, Watershed: Wet-Mod

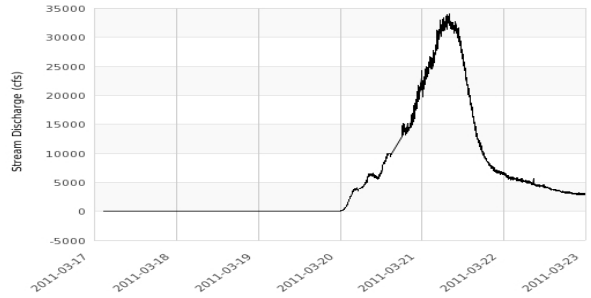


Peak Flow ~ 7300cfs / Flow Response ~8 hrs

SY River @ Lompoc Narrows

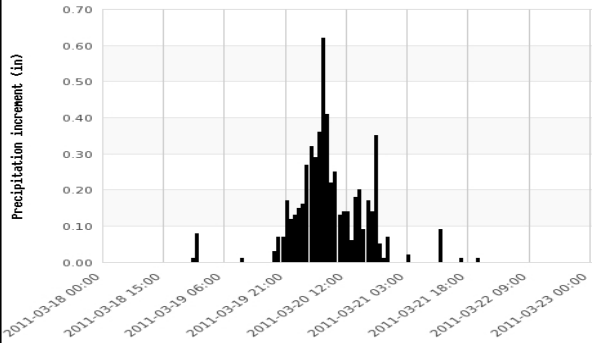


Storm = 6.7", Intensity Max = 0.71"/hr, Watershed: Wet-Mod

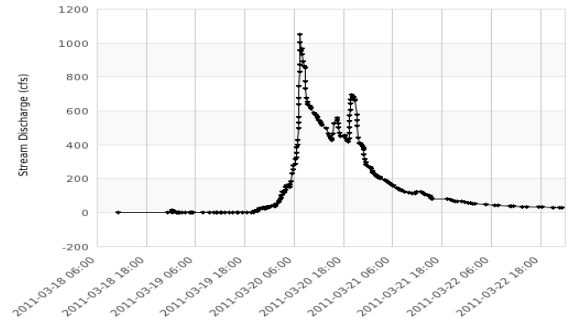


Peak Flow ~ 31,200 cfs / Flow Response ~8 hrs

Mission Creek, Santa Barbara

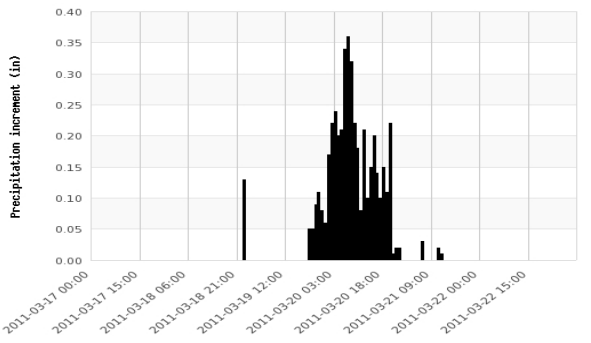


Storm = 5.6", Intensity Max = 0.70"/hr, Watershed: Urban

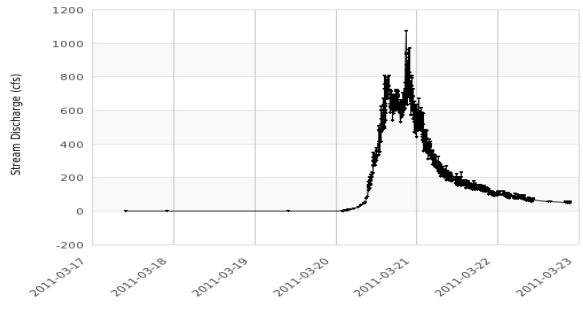


Peak Flow ~ 1050 cfs / Flow Response ~1 hr

Carpinteria Creek



Storm = 4.6", Intensity Max = 0.45"/hr, Watershed: Wet-Mod



Peak Flow ~ 950 cfs / Flow Response ~6 hrs

Figures 57-60 – Stream Flow & Rainfall Correlation (March 2011)

9.0 RESERVOIRS

There are four major reservoirs located within the County of Santa Barbara.
Two reservoirs (**Cachuma** and **Twitchell**) are owned by the federal government, administered by the Water Resources Division, and operated by local water purveyors. **Gibraltar** Reservoir is owned and operated by the City of Santa Barbara, and **Jameson** Reservoir is owned and operated by the Montecito Water District. Water is delivered to the South Coast using three tunnels through the Santa Ynez Mountains.

The County FCD operates & maintains automated water level & gate opening instrumentation at these reservoir locations, with information reported in real-time through the Hydrology website.

Figure 61 – Reservoir Location Map

Reservoir Year-End Summary

** Cachuma is full and subject to spilling at elevation 750 ft. However, the lake is surcharged to 753 ft for fish release water.

	Spillway Elev. (ft)	Current Elev. (ft)	Max. Storage (ac-ft)	Current Storage (ac-ft)	Current Capacity (%)	Storage Change Mo.(ac-ft)	Storage Change Year*(ac-ft)
Gibraltar Reservoir	1,400.00	1,392.60	5,303	3,744	70.6%	-554	476
Cachuma Reservoir	753.**	749.52	195,578	185,233	94.7%	-4,585	26,564
Jameson Reservoir	2,224.00	2,220.94	5,290	4,870	92.1%	-170	545
Twitchell Reservoir	651.50	589.38	197,756	45,789	23.2%	-14,093	34,277

Table 8 – Reservoir WY2011 Summary (through Aug 31, 2011)

9.1 Cachuma Reservoir (Bradbury Dam)

Background Information

Bradbury Dam was completed in 1953, and stores floodwaters of the Santa Ynez River which would otherwise travel to the ocean. Water is diverted from the reservoir through the Tecolote Tunnel to the County south-coast area. From the tunnel outlet the water is carried through the South Coast Conduit, with lateral systems distributing water to Goleta, Montecito, Summerland, Carpinteria, and municipal users in the city of Santa Barbara. In 2004 the reservoir retention level was increased four feet (from 750' to 754', + ~9000 AF), principally for fish release water.

The regions arid nature causes Cachuma to lose an estimated 16,000 ac-ft of water to evaporation annually. Silt washing into Lake Cachuma and backing up behind Bradbury Dam is a process that has depleted Cachuma of an estimated ten percent of its capacity.

Reservoir Operator	Year Built	Watershed Inflow Area	Initial Build Capacity AF	Current Max Capacity AF	Capacity Loss Since 1953
US Bureau of Reclamation	1953	421 sq mi	204,874	186,636 (750') 195,578 (753')	-9 % -5 %

Table 9 – Cachuma Reservoir Characteristics

Figure 62 – Cachuma Reservoir

Figure 63 – Bradbury Dam

WY 2011 Discussion (Cachuma)

Cachuma Reservoir started the WY2011 water year (Sept 1, 2010) with a water storage volume of ~159,000 acre feet (AF) 85% capacity, and ended the water year (Aug 31, 2011) with ~185,000 AF (95% capacity) – a net increase of ~26,000 AF.

As illustrated in Figure 65, Cachuma reservoir storage progressively declined from the start of the water year (Sept 2010) through to mid-late December 2010 (-13,000 AF) - at which time the first (of three) major storms of the winter season resulted in reservoir inflows that were sustained until Cachuma was completely filled (March 20, 2011 – 753.5 ft)

For the first time since 2005, controlled storm releases from Cachuma were initiated during the March 19-21, 2011 storm event, as reservoir inflows were approaching the point where maximum storage capacity (753 ft, 195,578 AF) would have been exceeded.

Figure 64 depicts the March 2011 storm rainfall, reservoir level, reservoir releases, and resulting downstream Santa Ynez River flow response.

Cachuma dam releases commenced on March 20, 2011 at 10am (elev. 752.1 ft), with 10,000 CFS initially released into the lower SY River - at a rate that approximated the anticipated/measured reservoir inflows.

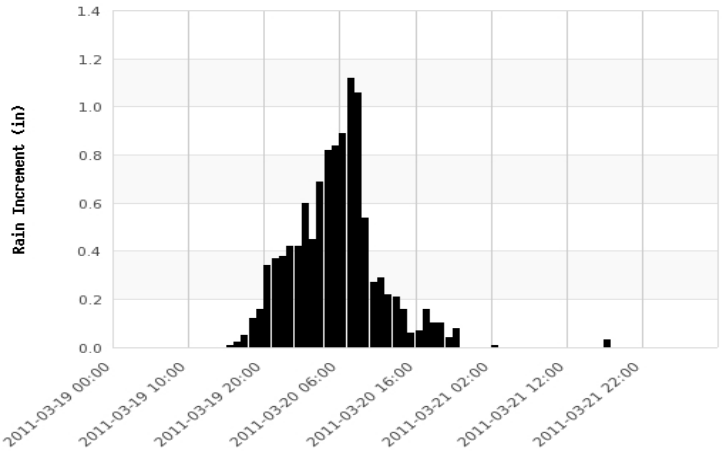
The progression of WY2011 Cachuma reservoir releases proceeded at the following rate:

- 10,000 CFS, March 20, 2011, 1000 hrs
- 15,000 CFS, March 20, 2011, 1300 hrs
- 20,000 CFS, March 20, 2011, 1800 hrs
- 18,800 CFS, March 21, 2011, 0100 hrs
- 17,500 CFS, March 21, 2011, 0200 hrs
- 16,200 CFS, March 21, 2011, 0300 hrs
- 15,000 CFS, March 21, 2011, 0400 hrs
- 13,000 CFS, March 21, 2011, 0500 hrs
- 10,000 CFS, March 21, 2011, 0600 hrs
- 9,000 CFS, March 21, 2011, 0700 hrs
- 7,500 CFS March 21, 2011, 0900 hrs
- 5,000 CFS March 21, 2011, 2300 hrs
- 2,500 CFS March 22, 2011, 2300 hrs
- 1,500 CFS March 23, 2011, 1900 hrs

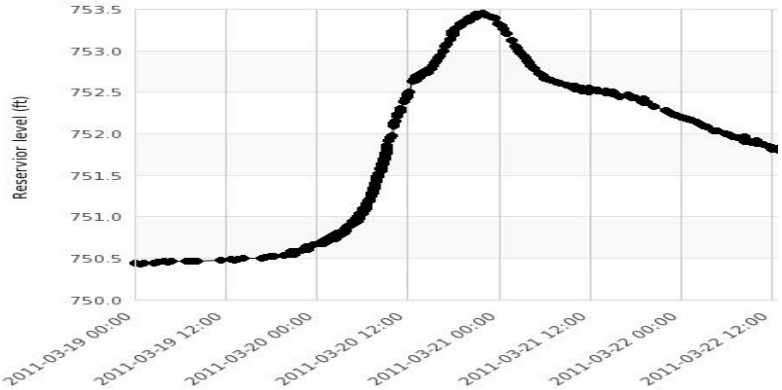
Decline of the maximum reservoir storage occurred approximately June 15th, 2011 (753 ft, 100%), and progressed through to the end of the water year - Aug 31, 2011 (749.5 ft, 95%)

Figure 66 illustrates the 25 year reservoir elevation & storage capacity trend (1986 to 2011)

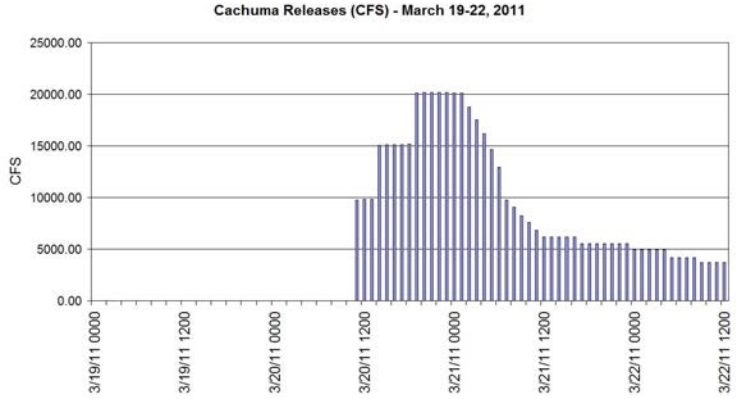
Cachuma Rainfall, Reservoir Level, Dam Releases, and SY River Flow Correlation
(Storm of March 19-22, 2011)



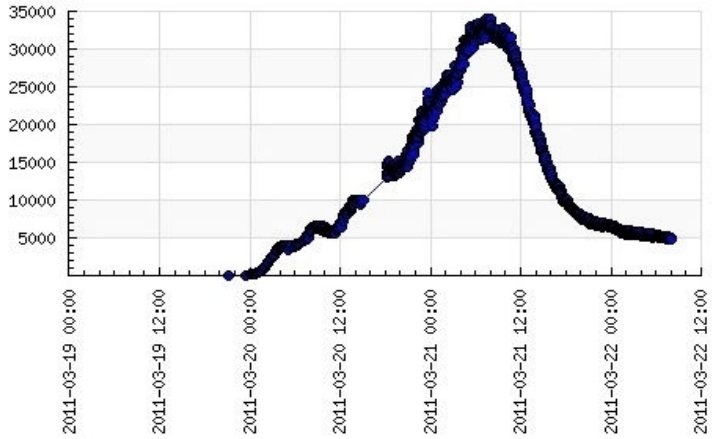
RAINFALL
(Cachuma)



CACHUMA LEVEL



CACHUMA RELEASES



SY RIVER DISCHARGE
(Rob Bridge – Lompoc)

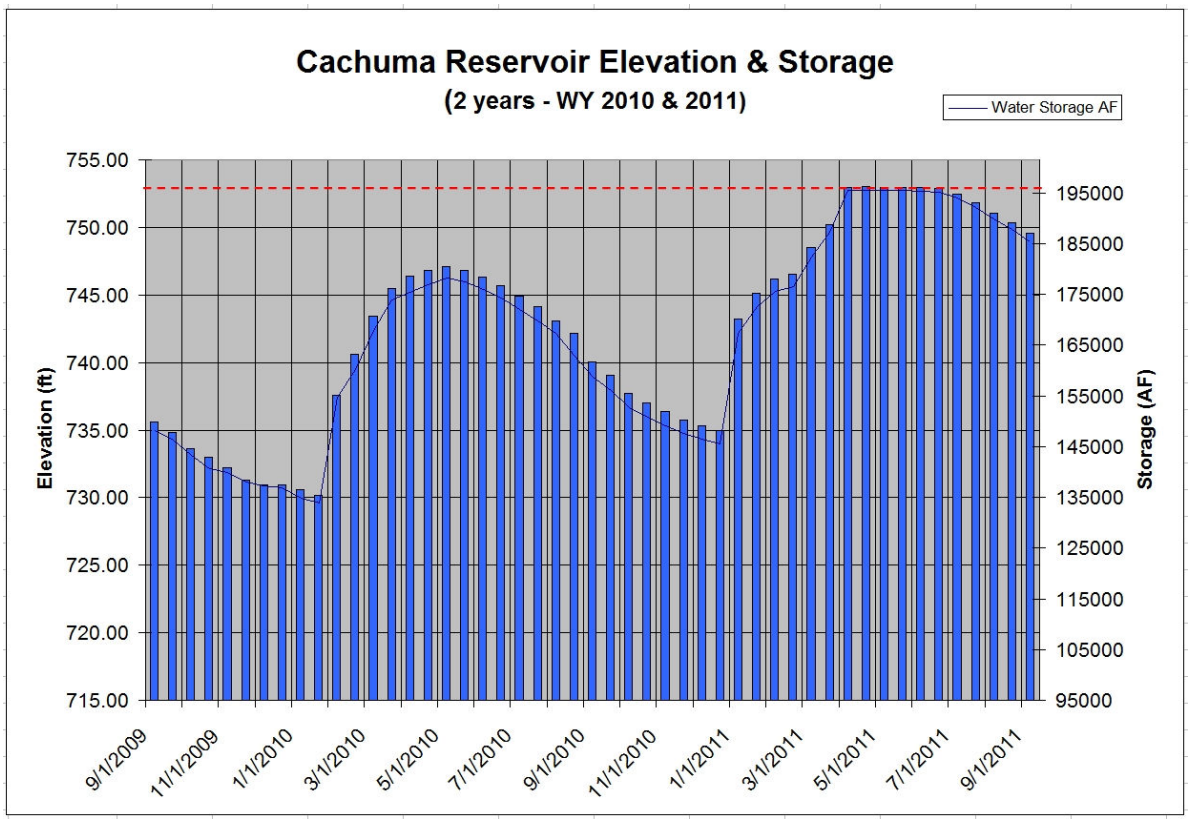


Figure 65 – Cachuma Reservoir WY 2010 & 2011 Elevation & Storage Levels

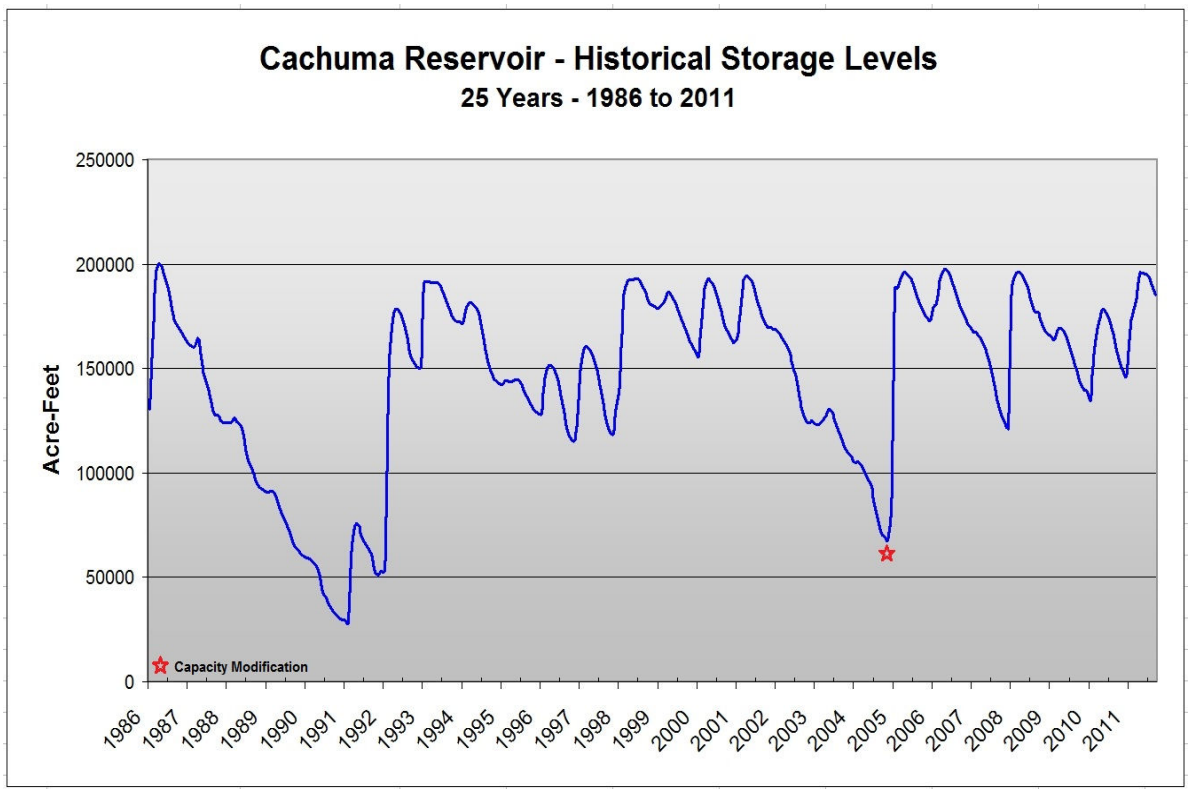


Figure 66 – Cachuma Historical Storage Levels – 25 years (1986 – 2011)

9.2 Gibraltar Reservoir

Background Information

The City of Santa Barbara completed construction of 3.7 mile Mission Tunnel in 1912 and Gibraltar Dam in 1920, and thus accomplished the first diversion of water from the Santa Ynez River Basin to the South Coast area (including the City of Santa Barbara).

By 1945, sedimentation had reduced storage in Gibraltar Reservoir from 14,500 AF to approximately 7,800 AF. In 1948, the dam was raised 23 feet to restore storage capacity to approximately the original volume. However, sedimentation has continued to decrease the storage capacity of the reservoir by an average of 150 AF per year.

Reservoir Operator	Year Built	Watershed Inflow Area	Initial Build Capacity AF	Current Max Capacity AF	Capacity Loss Since 1920
City of Santa Barbara	1920	202 sq mi	14,500	5,303	-63 %

Table 10 – Gibraltar Reservoir Characteristics

Figure 67 – Gibraltar Reservoir

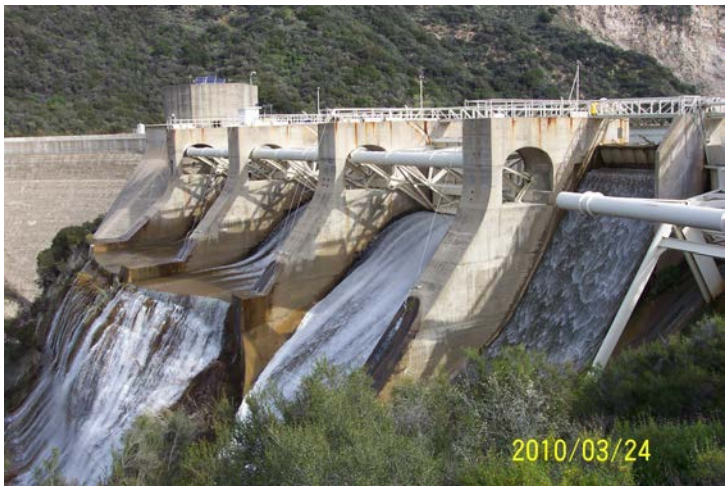


Figure 68 – Gibraltar Dam

WY 2011 Discussion (Gibraltar)

Gibraltar Reservoir started the WY2011 water year (Sept 1, 2010) with a water storage volume of ~3,300 acre feet (AF) 62% capacity, and ended the water year (Aug 31, 2011) with a very similar storage of ~3700 AF (70% capacity) – a net increase of ~400 AF.

As illustrated in Figure 69, Gibraltar reservoir storage progressively declined from the start of the water year (Sept 2010) through to December 17, 2010 (-800 AF) - at which time the first (of three) major storms of the winter season resulted in inflows that rapidly filled the reservoir to 100% capacity.

On Dec 20th, with the reservoir at maximum capacity (1400 ft elev, 5300 AF), the filled reservoir outflow passed over the dam spillway into the Santa Ynez River towards Lake Cachuma.

Decline of the maximum reservoir storage occurred approximately July 1st, 2011 (1400 ft, 100%), and progressed through to the end of the water year - Aug 31, 2011 (1390.1 ft, 62%)

Gibraltar can rapidly fill (and spill) because of the relatively large watershed collection region (~200 sq mi), and comparatively small (and diminishing) reservoir capacity.

Figure 70 depicts the 10 year reservoir elevation & storage capacity trend (2001 to 2011)

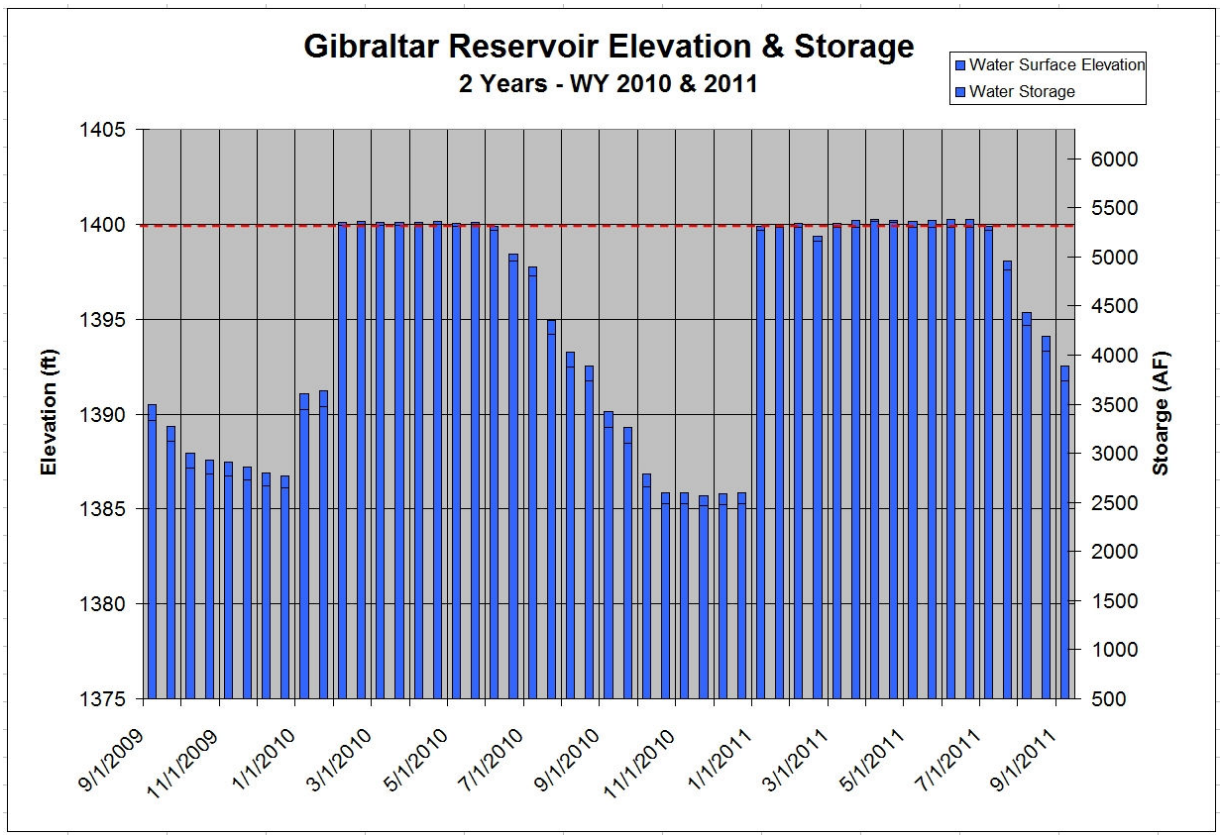


Figure 69 – Gibraltar Reservoir Elevation & Storage (2 yr)

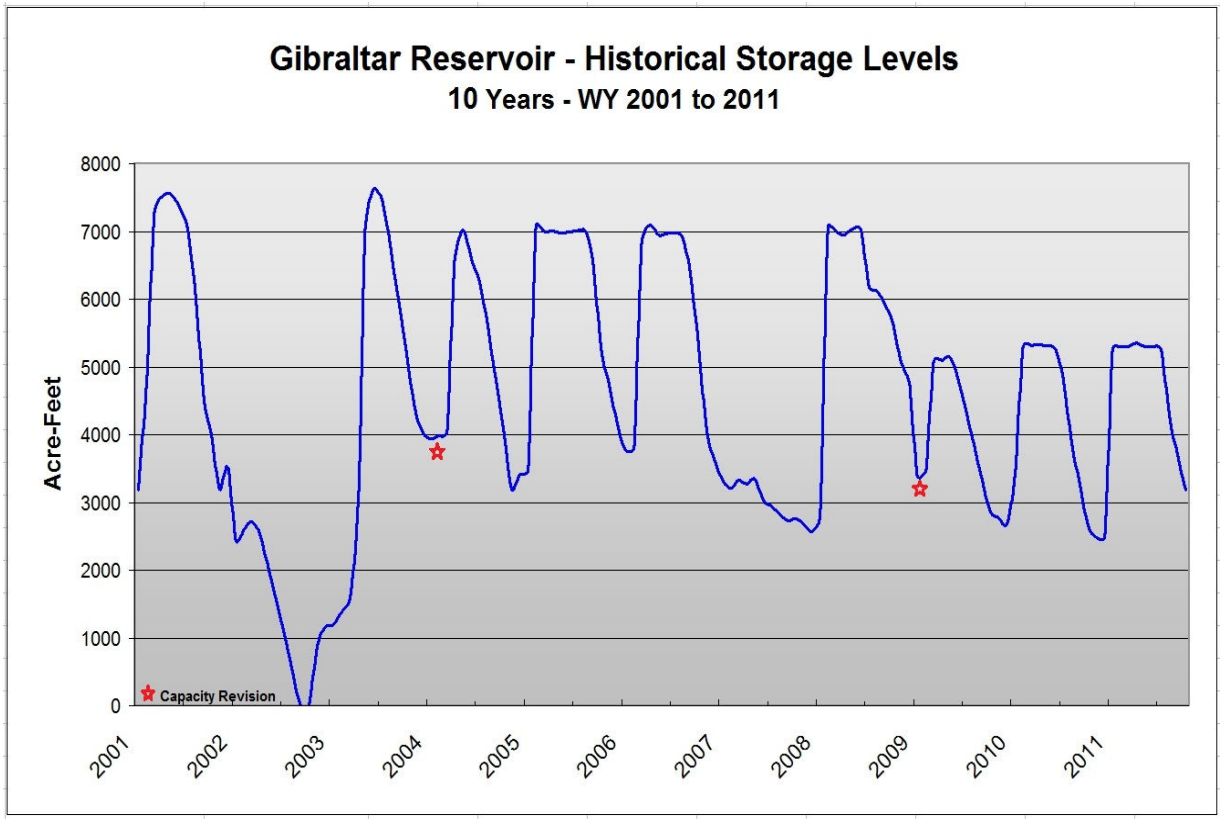


Figure 70 – Gibraltar Historical Storage Levels – 10 years (2001 – 2011)

9.3 Jameson Reservoir (Juncal Dam)

Background Information

The Montecito Water District completed construction of Juncal Dam and Jameson Reservoir in 1930. Water is diverted to the Montecito area through a 2.2 mile Doulton Tunnel, which was constructed (through the Santa Ynez mountains) between 1924 and 1928.

Sediment infill from the surrounding watershed has diminished the reservoir (over ~80 years) to approximately 73% of its original capacity.

Reservoir Operator	Year Built	Watershed Inflow Area	Initial Build Capacity AF	Current Max Capacity AF	Capacity Loss Since 1930
Montecito Water District	1930	14 sq mi	7,228	5,290	-27 %

Table 11 – Jameson Reservoir Characteristics

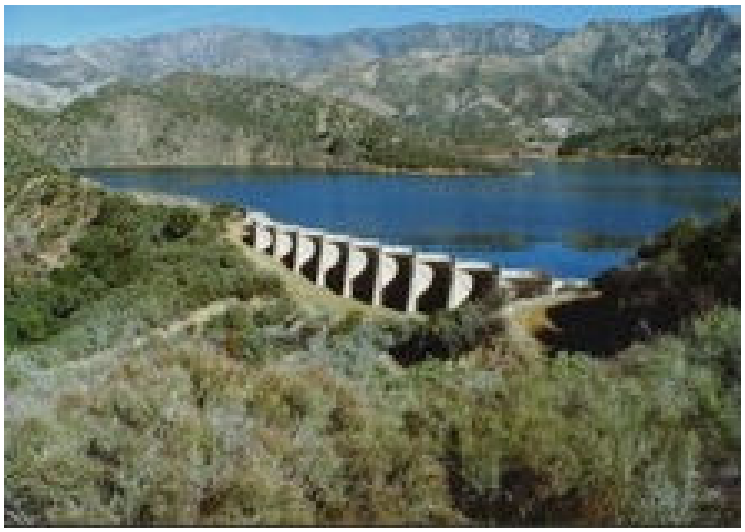


Figure 71 – Jameson Reservoir

Figure 72 – Juncal Dam & Spillway

WY 2011 Discussion (Jameson)

Jameson Reservoir started the WY2011 water year (Sept 1, 2010) with a water storage volume of ~4,350 acre feet (AF) 82% capacity, and ended the water year (Aug 31, 2011) with moderately larger storage of ~4900 AF (92% capacity) – a net increase of ~550 AF.

As illustrated in Figure 73, Jameson reservoir storage progressively declined from the start of the water year (Sept 2010) through to December 17, 2010 (-500 AF) - at which time the first (of three) major storms of the winter season producing reservoir inflows resulting in a rapid storage increase from 72% to 84% (+6 ft elev. increase).

The reservoir maintained a relatively stable storage level until the storm of March 19-21, 2011, at which time the maximum reservoir capacity was achieved.

On March 20th, with the reservoir at maximum capacity (2400 ft elev, 5300 AF), the filled reservoir outflow passed over the dam spillway into the Santa Ynez River towards Gibraltar Dam.

Decline of the maximum reservoir storage occurred approximately July 1st, 2011 (2224 ft, 100%), and progressed through to the end of the water year - Aug 31, 2011 (2220.9 ft, 92%)

In contrast to Gibraltar, Jameson Reservoir water level increases more gradually because of the relatively small watershed run-off region (~14 sq mi) – a result of its location near the head of the Santa Ynez River. Siltation does occur, but at a comparatively reduced rate.

Figure 74 depicts the 10 year reservoir elevation & storage capacity trend (2001 to 2011)

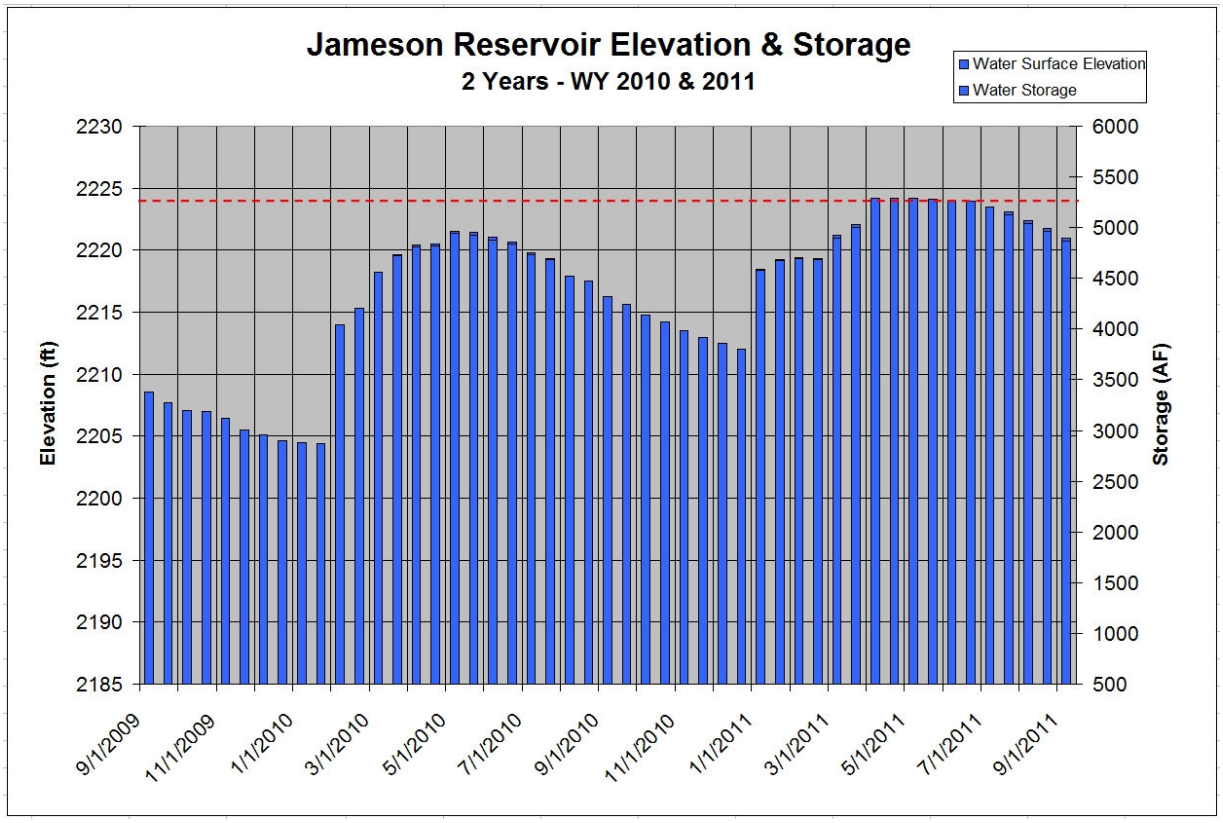


Figure 73 – Jameson Reservoir Elevation & Storage (2 yr)

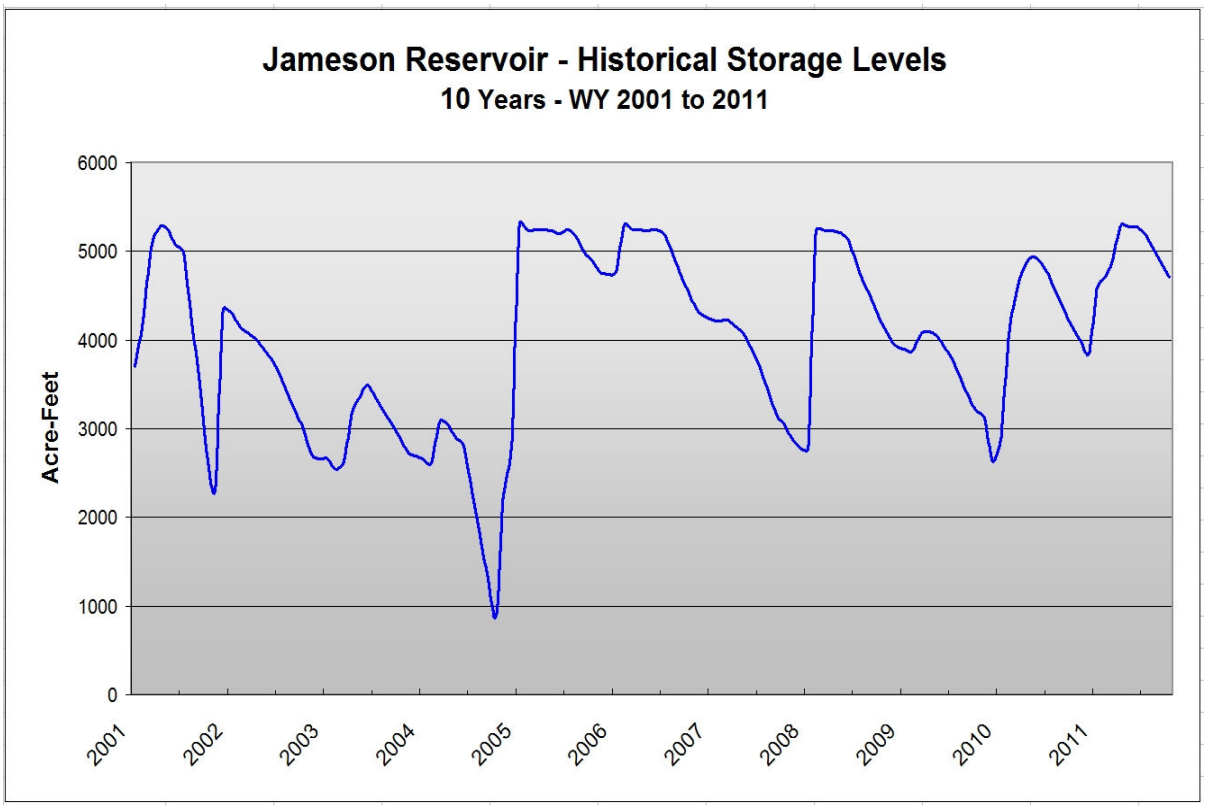


Figure 74 – Jameson Historical Storage Levels – 10 years (2001 – 2011)

9.4 Twitchell Reservoir

Background Information

Twitchell Reservoir is important to both the water supply and the flood protection of the Santa Maria Valley, and supplies approximately 20,000 AF of annual recharge to the Santa Maria Groundwater Basin.

Since its completion in 1959, the Twitchell earthen dam structure has been trapping sediments from the 1,140 square mile Cuyama River watershed. As of 1998, the accumulated sediment reached an estimated 44,000 AF.

Reservoir Operator	Year Built	Watershed Inflow Area	Initial Build Capacity AF	Current Max Capacity AF	Capacity Loss since 1959
Santa Maria Valley Water Cons. District	1959	1140 sq mi	242,339	197,756	-19 %

Table 12 – Twitchell Reservoir Characteristics

Figures 75 & 76 – Twitchell Reservoir & Dam

WY 2011 Discussion (Twitchell)

Twitchell Reservoir started the WY2011 water year (Sept 1, 2010) with a water storage volume of ~11,500 acre feet (AF) 6% capacity, and ended the water year (Aug 31, 2011) with moderately larger storage of ~45,000 AF (23% capacity) – a net increase of ~33,500 AF.

As illustrated in Figure 77, Twitchell reservoir storage progressively declined from the start of the water year (Sept 2010) through to December 17, 2010 (-1000 AF) - at which time the first (of three) major storms of the winter season producing reservoir inflows resulting in a rapid storage increase from 5% to 16% (+25 ft elev. increase).

The reservoir maintained a steady gradual storage level increase until the storm of March 19-21, 2011, at which time a more significant increase in reservoir storage was experienced.

On April 15th, the reservoir at achieved its water-year peak storage of ~93,000 AF (47% capacity).

Decline of the maximum reservoir storage (largely though controlled releases) occurred following the April 15th peak (616 ft, 47%), and progressed through to the end of the water year - Aug 31, 2011 (589 ft, 23%)

Unlike other major reservoirs within Santa Barbara County, ground water recharge is the principal purpose of Twitchell Reservoir water retention – in this case the Santa Maria Groundwater Basin (a major source of water for the region).

Figure 78 depicts the 10 year reservoir elevation & storage capacity trend (2001 to 2011)

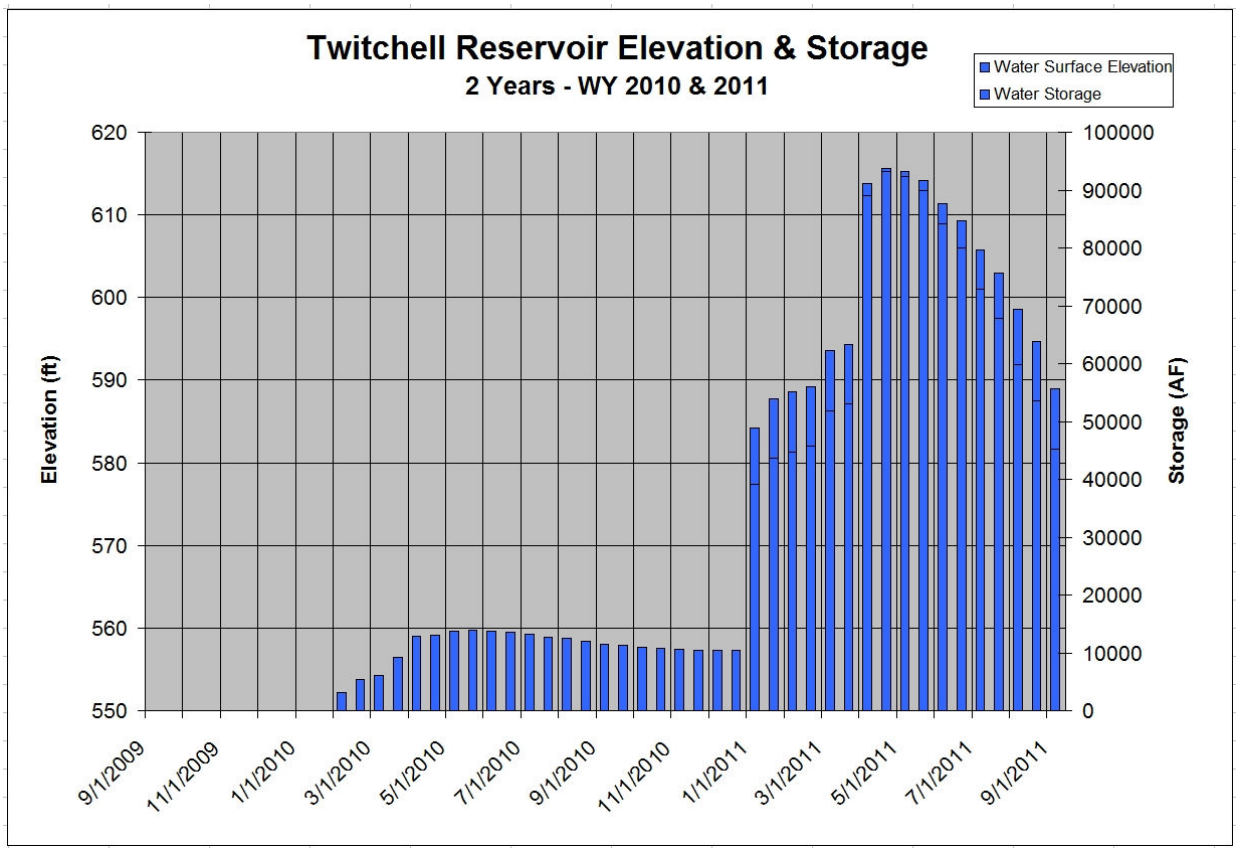


Figure 77 – Twitchell Reservoir Elevation & Storage (2 yr)

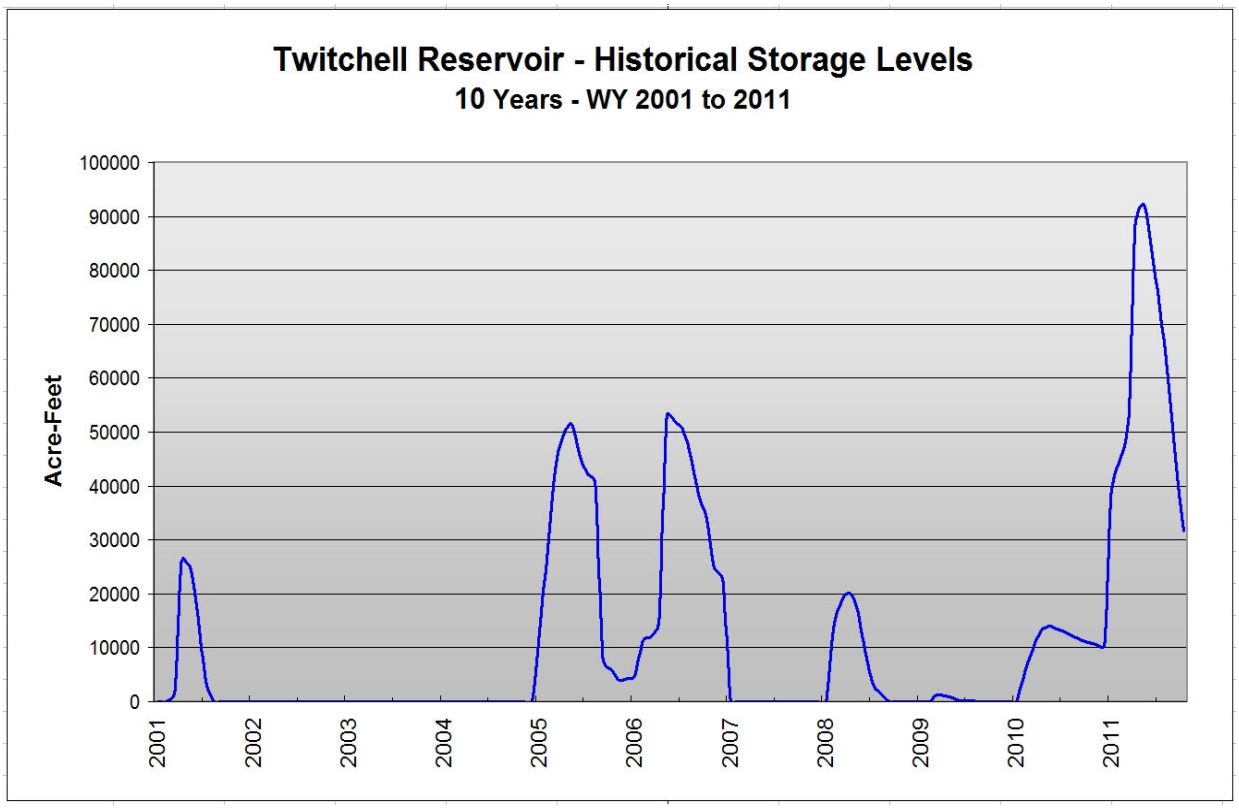


Figure 78 – Twitchell Historical Storage Levels – 10 years (2001 – 2011)

10.0 FLOOD / FLOW MODELING

The Santa Barbara County Flood Control District (SBCFCD) utilizes two different programs to model river-flow and flood potential within the County's major watersheds.

The Santa Ynez River Flood Flow Model (SYRFFM – aka FC River) program models the "Santa Ynez Watershed", while the HEC-HMS program models the Sisquoc, Santa Cruz, and Gibraltar watersheds

10.1 Santa Ynez River Flood Flow Model (SYRFFM – FC River)

The Santa Ynez River Flood Flow Model (SYRFFM) model was developed by the SBCFCD, and predicts flood-flows in the Santa Ynez River in Santa Barbara and Ventura Counties. The model encompasses approximately 1,253 square miles of drainage area from the Santa Ynez headwaters above Gibraltar Reservoir to Vandenburg Village, just upstream from the river's outlet to the Pacific Ocean.

The program input is both for forecast and actual precipitation, plus various parameters for estimating losses, runoff, and reservoir operation. The output is hourly flow in cubic-feet- per-second (cfs) at twenty locations along the Santa Ynez River, and hourly operational data for Gibraltar and Cachuma Reservoirs.

The program is a Visual Basic Application (VBA) language adaptation of the QuickBasic program titled FCRPRGH. SYRFFM, uses Microsoft Excel for data input and output.

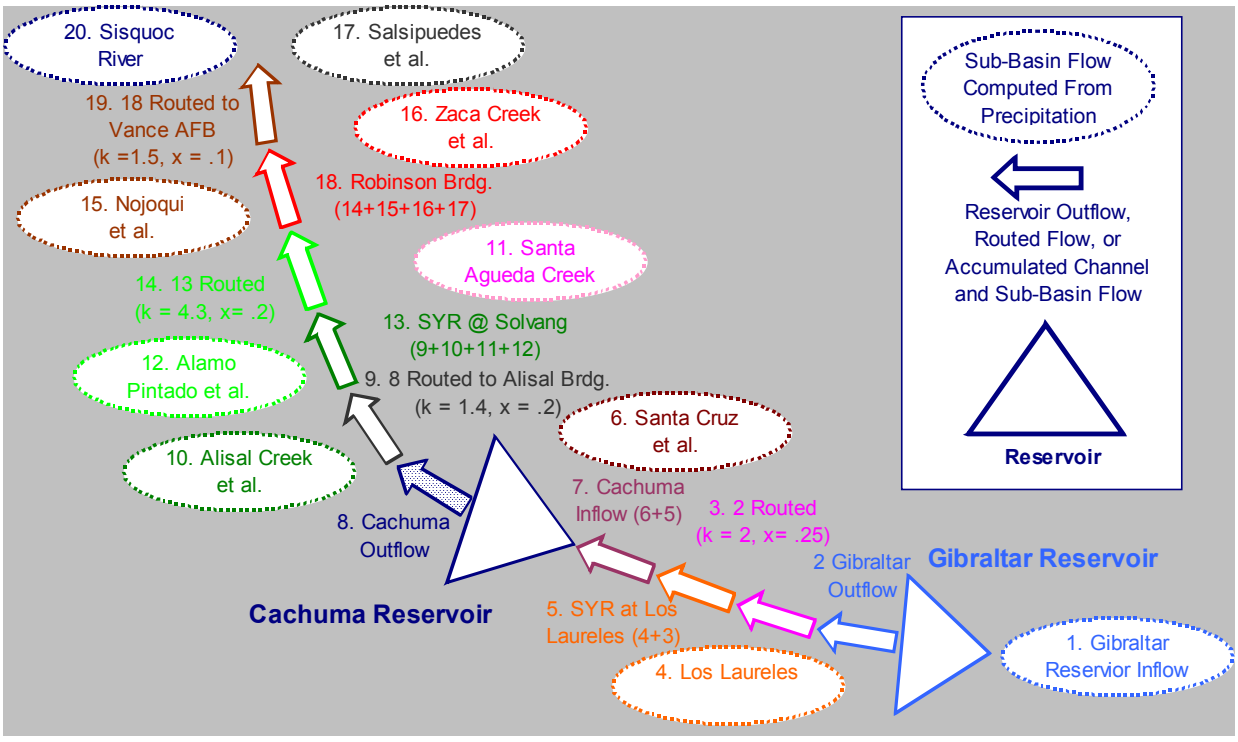


Figure 79 - SYRFF (FC River) Model components.

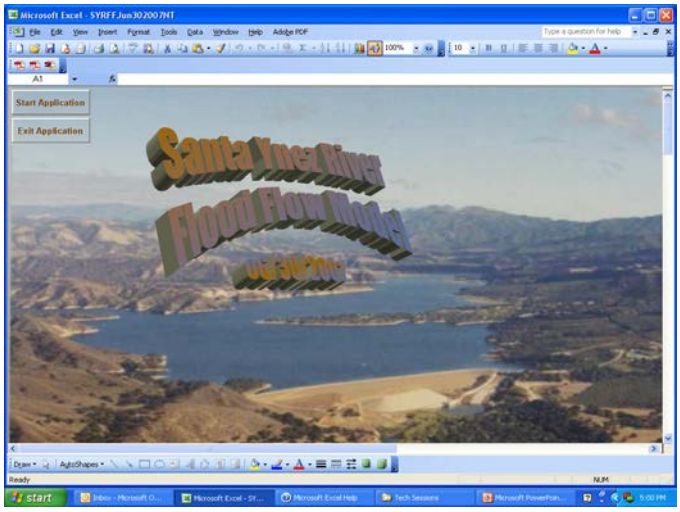


Figure 82 – SYRFF Program Window

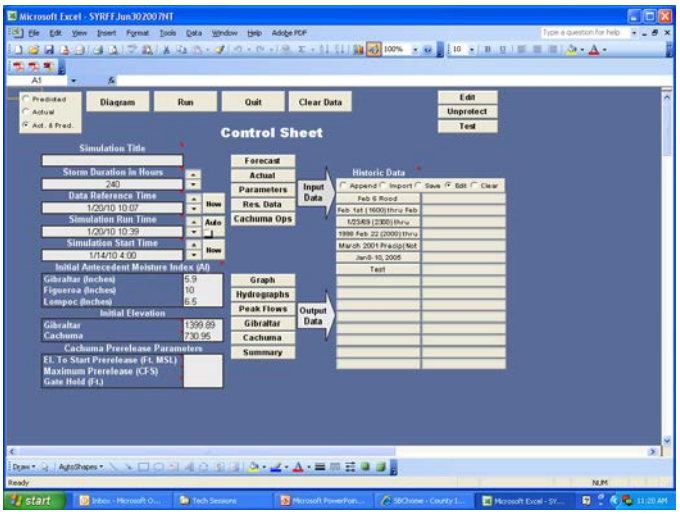
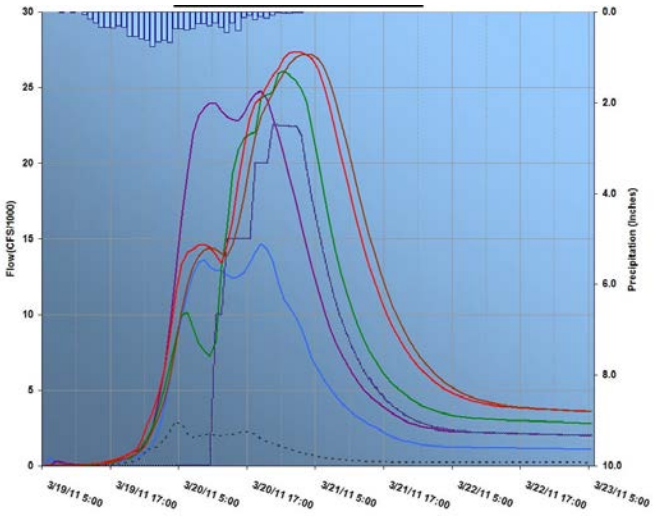


Figure 83 – SYRFF Program Parameters

The SYRFF Model was run on numerous occasions in WY 2011 during the months of December, February, and March. A sample summary of these modeling exercises (3/20/2011) is shown below.

The most extensive use of this modeling program occurred preceding & during the March 19-21 2011 storm activity, when it was apparent that Cachuma reservoir would fill – and subsequently result in downstream Santa Ynez River releases.

A closely coordinated activity with the USBR (among other groups) during this March event resulted in hourly SYRFF Models being generated by County FCD personnel – and disseminated by email to individuals involved with Cachuma Reservoir & SY River operations.



Peak Flows from Santa Ynez River and Selected Tributaries

Storm Description: SYRFF-101011-STJ
Data Reference Time: 10/11/11 10:40 El. To Start Prerelease (Ft. MSL) 0.0
Run Type: Actual and Predicte Maximum Prerelease (CFS) 0.0
Simulation Run Time: 3/20/11 10:00 Gate Hold (Ft) 4.0

Hydro-graph #	Location	Peak (CFS)	Time	Location	Peak (CFS)	Time
#1	Gibraltar Inflow	14,598	3/20/11 19:00	Santa Agueda	3,296	3/20/11 6:00
#2	Gibraltar Outflow	14,680	3/20/11 19:00	Alamo Pintado @ Gage	700	3/20/11 18:00
#7	Cachuma Inflow 5+6	24,789	3/20/11 19:00	Alamo Pintado @ Hwy 246	976	3/20/11 18:00
#8	Cachuma Outflow	22,504	3/20/11 22:00	Zaca Cr @ Hwy 246	936	3/20/11 18:00
#13	SYRv@Solvng +9to12	26,084	3/20/11 23:00	Alisal Cr @ River	1,716	3/20/11 5:00
#18	SYRv@RobnBr +14to17	27,374	3/21/11 1:00	Salsipuedes @ Gage	2,657	3/20/11 4:00
#19	18 Rd to So. VAFB	27,223	3/21/11 3:00	Miguelito Cr @ Gage	622	3/20/11 3:00

Cachuma Reservoir Detail Report

Storm Description: SYRFF-101011-STJ
Data Reference Time: 10/11/11 10:40 El. To Start Prerelease (Ft. MSL) 0.0
Run Type: Actual and Predict Maximum Prerelease (CFS) 0.0
Simulation Run Time: 3/20/11 10:00 Gate Hold (Ft) 4.0

														No Prerelease Data		
	Cachuma Rain (in)	7. Cachuma Inflow (cfs)	Cachuma Rain on Lake (cfs)	Cachuma Total Inflow (cfs)	8. Cachuma Outflow (cfs)	Cachuma Storage (ac.ft)	Cachuma Area (ac)	Cachuma Res El (ft)	Top of Gate (ft)	Cachuma Gate Arc Opening (ft)	Cachuma Vol In (taf)	Cachuma Vol Out (taf)	18. Robinson Bridg (cfs)	8. Outflow (No Prerel.) (cfs)	Storage (No Prerel.) (ac.ft)	18. Robinson Bridg (No Prerel.) (cfs)
3/19/11 05																
3/19/11 06	0.00	42	0	42	0	190,409	3,042	750.0	754.0	0.0	0.0	0.0	47	0	190,409	47
3/19/11 07	0.00	336	0	336	0	190,409	3,042	750.0	754.0	0.0	0.0	0.0	54	0	190,409	54
3/19/11 08	0.00	223	0	223	0	190,409	3,042	750.0	754.0	0.0	0.0	0.0	60	0	190,409	60
3/19/11 09	0.00	159	0	159	0	190,409	3,042	750.0	754.0	0.0	0.1	0.0	64	0	190,409	64
3/19/11 10	0.01	124	31	155	0	190,409	3,042	750.0	754.0	0.0	0.1	0.0	67	0	190,409	67
3/19/11 11	0.02	109	61	171	0	190,409	3,042	750.0	754.0	0.0	0.1	0.0	73	0	190,409	73
3/19/11 12	0.05	104	153	258	0	190,409	3,042	750.0	754.0	0.0	0.1	0.0	89	0	190,409	89
3/19/11 13	0.12	103	368	471	0	190,409	3,042	750.0	754.0	0.0	0.1	0.0	116	0	190,409	116
3/19/11 14	0.16	107	491	598	0	190,409	3,042	750.0	754.0	0.0	0.2	0.0	157	0	190,409	157
3/19/11 15	0.34	128	1,043	1,171	0	190,409	3,042	750.0	754.0	0.0	0.3	0.0	206	0	190,409	206
3/19/11 16	0.37	189	1,135	1,324	0	190,409	3,042	750.0	754.0	0.0	0.4	0.0	281	0	190,409	281
3/19/11 17	0.38	299	1,166	1,465	0	190,409	3,042	750.0	754.0	0.0	0.5	0.0	369	0	190,409	369
3/19/11 18	0.42	450	1,288	1,739	0	190,409	3,042	750.0	754.0	0.0	0.7	0.0	498	0	190,409	498
3/19/11 19	0.42	627	1,288	1,915	0	190,409	3,042	750.0	754.0	0.0	0.8	0.0	655	0	190,409	655
3/19/11 20	0.60	812	1,840	2,652	0	190,409	3,042	750.0	754.0	0.0	1.0	0.0	818	0	190,409	818
3/19/11 21	0.47	988	1,442	2,429	0	190,409	3,042	750.0	754.0	0.0	1.2	0.0	1,077	0	190,409	1,077
3/19/11 22	0.69	1,186	2,116	3,303	0	190,409	3,042	750.0	754.0	0.0	1.5	0.0	1,687	0	190,409	1,687
3/19/11 23	0.82	1,618	2,515	4,134	0	190,409	3,042	750.0	754.0	0.0	1.8	0.0	2,773	0	190,409	2,773
3/20/11 00	0.84	2,608	2,577	5,184	0	190,409	3,042	750.0	754.0	0.0	2.2	0.0	3,572	0	190,409	3,572
3/20/11 01	0.89	4,243	2,730	6,973	0	190,409	3,042	750.0	754.0	0.0	2.7	0.0	4,659	0	190,409	4,659
3/20/11 02	1.12	6,486	3,435	9,921	0	190,409	3,042	750.0	754.0	0.0	3.4	0.0	6,413	0	190,409	6,413
3/20/11 03	1.06	9,341	3,251	12,593	0	190,409	3,042	750.0	754.0	0.0	4.3	0.0	8,749	0	190,409	8,749
3/20/11 04	0.54	12,712	1,656	14,368	23	193,132	3,071	750.9	754.0	0.0	5.4	0.0	11,362	23	193,132	11,362
3/20/11 05	0.25	16,215	763	16,978	23	193,315	3,073	751.0	754.0	0.0	6.7	0.0	13,240	23	193,315	13,240
3/20/11 06	0.24	19,330	736	20,066	23	190,623	3,044	750.1	754.0	0.0	8.2	0.0	14,113	23	190,623	14,113
3/20/11 07	0.23	21,935	716	22,651	23	194,148	3,081	751.2	754.0	0.0	9.9	0.0	14,297	23	194,148	14,297
3/20/11 08	0.22	23,136	670	23,806	23	194,797	3,088	751.4	754.0	0.0	11.9	0.0	14,581	23	194,797	14,581
3/20/11 09	0.18	23,627	562	24,189	23	195,693	3,097	751.7	754.0	0.0	13.8	0.0	14,652	23	195,693	14,652
3/20/11 10	0.17	24,003	522	24,525	23	196,870	3,110	752.1	754.0	0.0	15.9	0.0	14,431	23	196,870	14,431
3/20/11 11	0.21	23,929	648	24,578	10,000	198,490	3,127	752.6	755.7	1.7	17.9	0.8	13,926	10,000	198,490	13,926
3/20/11 12	0.21	23,439	652	24,091	10,000	199,675	3,138	753.0	755.7	1.7	19.9	1.7	13,406	10,000	199,675	13,406

Figures 80 to 83 – SYRFF Program Output Tables & Graph

11.0 FLOODING & DAMAGE

Water-year 2011 (with ~150% of County-wide normal rainfall) brought two significant storm events to the County which resulted in moderate storm damage (Dec 17-23, 2010, and Mar 19-21, 2011). These major storm events are graphically depicted on the next page (Figures 86 and 87) as contour charts of storm period rainfall (Isohyetal). The storms are described in more detail in Section 6.0 – Storm Summary.

Fortunately, the recent 2 to 4 years of extensive burn-areas (located in close proximity to urban areas - Goleta, Santa Barbara, Montecito, Santa Maria), did not experience any significant adverse affects. The previous 2-3 years of moderate rainfall amounts, moderate rainfall intensity, and favorable spacing of rain events provided desirable burn-area recovery conditions.
(Burn Areas are discussed in more detail in Section 5.0)

The two major WY2011 storms were quite different in nature, in that the December storm (while having larger rainfall totals – max 17") occurred during a dryer seasonal period, and was over a longer period of time (7 days). Conversely, the 2-day March storm produced up to 11.5" of rainfall, had higher intensity rainfall, and occurred during wetter (antecedent) soil conditions.

Both storms produced 100 year 24-hr rainfall events. However, the December storm extremes were primarily located in the North County (esp. Santa Maria, Sisquoc), while the March storm extremes were primarily in the South County (esp. Gibraltar & Cachuma).

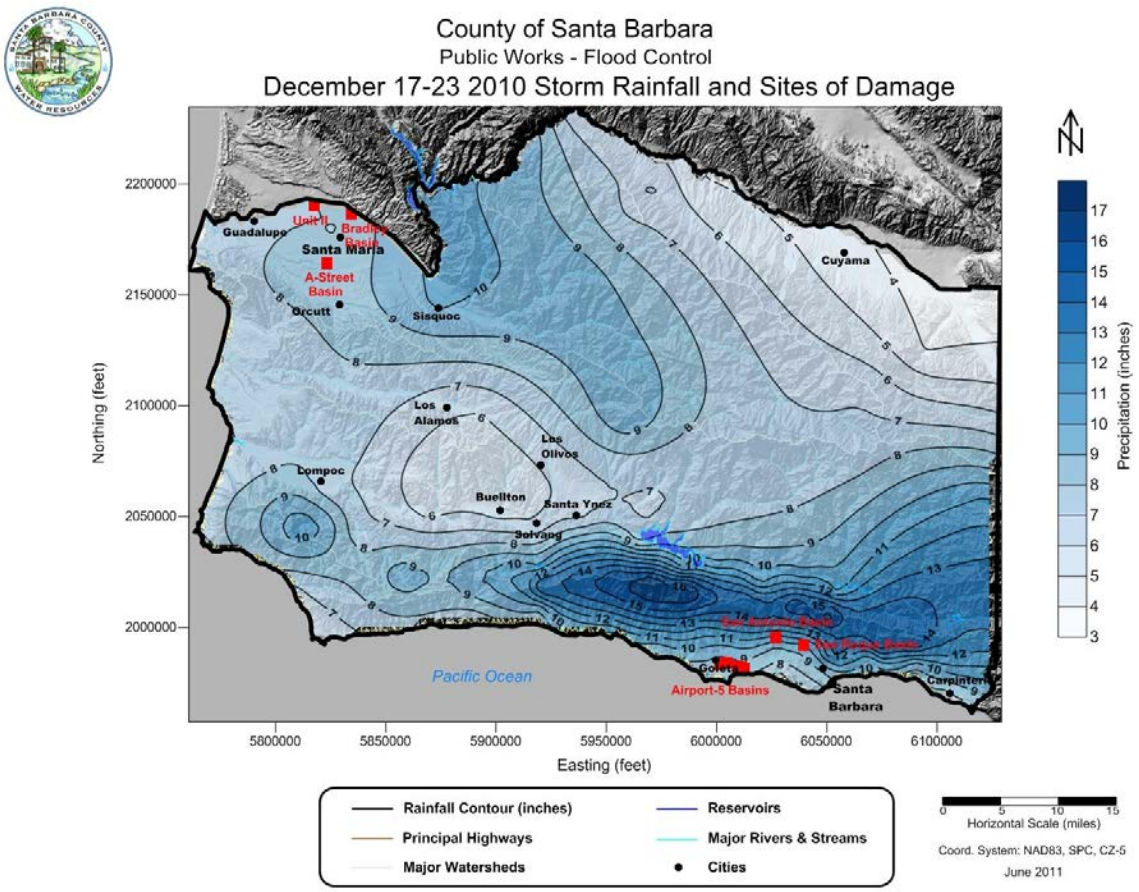
The December 2010 storm was a County "FEMA declared disaster" event (FEMA-1952-DR).

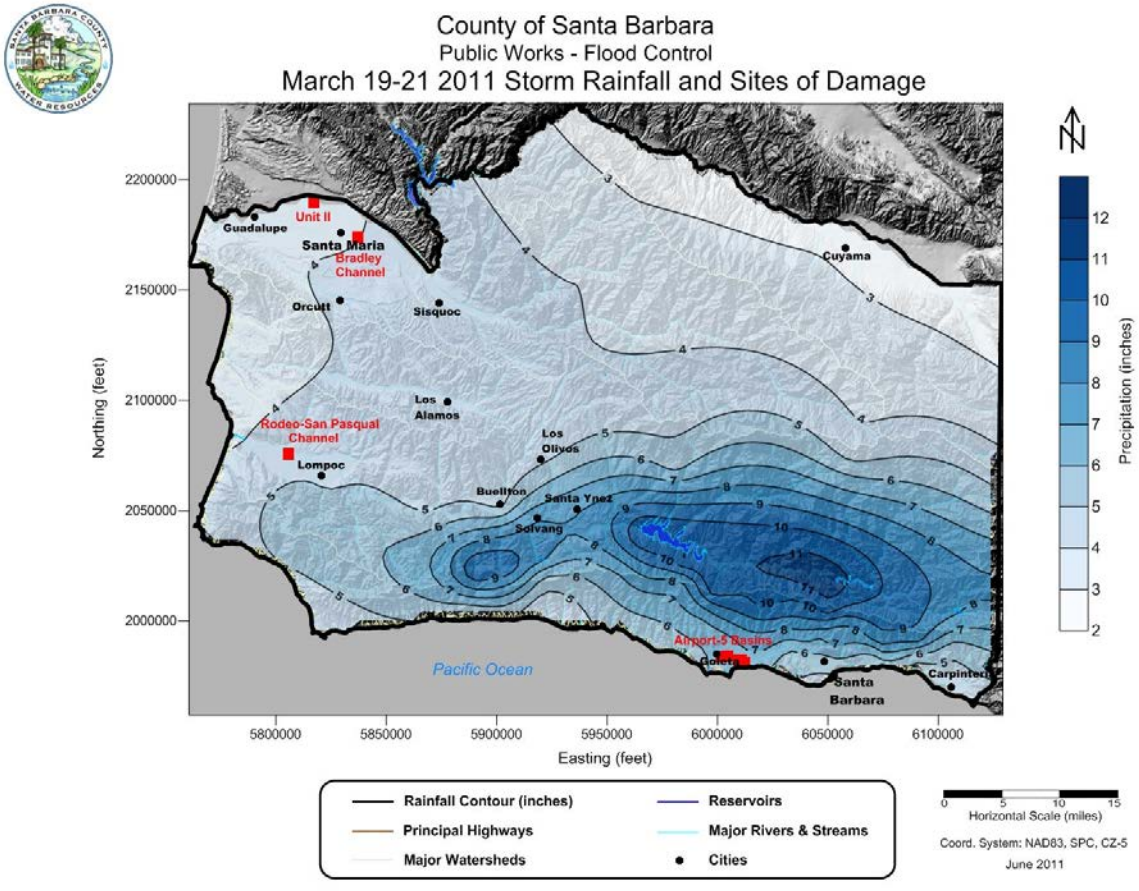
With all three primary SY River related County reservoirs full (as of March), the necessary water releases from Cachuma added to the storm rainfall runoff to create relatively high discharge rates in the lower Santa Ynez River. This March storm event resulted in moderate agricultural land flooding (~200 acres) downstream of Cachuma.

A number of County Flood Control Debris Basins were filled to capacity, and sustained some damage. These basins, located in both the North & South County, are also shown on the Storm Rainfall Contour Map (Isohyetal) – depicted in "red" as "Sites of Damage"

Figure 84 – Los Carneros Basin (Goleta) Mar 2011

Figure 85 – Bradley Basin (Santa Maria) Dec 2010


County of Santa Barbara
Public Works - Flood Control
December 17-23 2010 Storm Rainfall and Sites of Damage
Northing (feet)
Easting (feet)
Precipitation (inches)
Guadalupe
Unit II
Bradley Basin
Santa Maria
A-Street Basin
Orcutt
Sisquoc
Cuyama
Los Alamos
Los Olivos
Lompoc
Buellton
Santa Ynez
Solvang
Goleta
Airport-5 Basins
Santa Barbara
Carpinteria
Pacific Ocean
Rainfall Contour (inches)
Principal Highways
Major Watersheds
Reservoirs
Major Rivers & Streams
Cities
Horizontal Scale (miles)
Coord. System: NAD83, SPC, CZ-5
June 2011


County of Santa Barbara
Public Works - Flood Control
March 19-21 2011 Storm Rainfall and Sites of Damage
Northing (feet)
Easting (feet)
Precipitation (inches)
Guadalupe
Unit II
Santa Maria
Bradley Channel
Orcutt
Sisquoc
Cuyama
Los Alamos
Rodeo-San Pasqual Channel
Los Olivos
Lompoc
Buellton
Santa Ynez
Solvang
Airport-5 Basins
Goleta
Santa Barbara
Carpinteria
Pacific Ocean
Rainfall Contour (inches)
Principal Highways
Major Watersheds
Reservoirs
Major Rivers & Streams
Cities
Horizontal Scale (miles)
Coord. System: NAD83, SPC, CZ-5
June 2011

12.0 ADDITIONAL INFORMATION RESOURCES

Additional information on the topics discussed in this report can be found at the following internet sites. Note that these sites are active at the time of writing of this report but may not remain so indefinitely.

A) Santa Barbara County Public Works - Hydrology: http://www.countyofsb.org/pwd/pwwater.aspx?id=3582

B) Santa Barbara County Public Works: http://www.countyofsb.org/pwd/

C) United States Geological Survey: http://waterdata.usgs.gov/nwis/

D) National Weather Service: http://www.wrh.noaa.gov/lox/

APPENDICES

A. **Hydrologic Station & Sensor Listing**

B. **Hydrologic Station Installations**

C. **Monthly & Yearly Rainfall** (with Recurrence Intervals)

Appendix A:

HYDROLOGIC STATION & SENSOR LISTING

	HYDROLOGY STATION	Station ID	Alert ID	Function	Latitude (DMS)	Longitude (DMS)	Elevation (feet)	Easting (SPC-Z5)	Northing (SPC-Z5)
1	Al Mar Ranch	349		Rain	34-50-54	120-21-28	1048	5854328	2139407
2	Alisal Reservoir	391	A-555	Rain	34-32-55	120-07-49	600	5920256	2028830
3	Alisal Reservoir	391	A-555	Reservoir level	34-32-55	120-07-49	600	5920256	2028830
4	Alisos Canyon	477	A-527	Rain	34-44-14	120-13-34	800	5892926	2098079
5	Apache Canyon	523	A-523	Rain	34-46-27	119-19-55	4410	6161698	2106769
6	Bald Mountain	515	A-515	Rain	35-09-24	120-17-44	1500	5875554	2251165
7	Bates Ridge	276	A-76	Rain	34-55-11	119-55-02	5120	5986973	2162573
8	Betteravia	387		Rain	34-54-57	120-31-01	168	5807202	2165124
9	Branch Mountain	519	A-519	Rain	35-11-06	120-05-00	3770	5939189	2260093
10	Buellton Fire Station	233	A-508	Rain	34-36-48	120-11-48	360	5900785	2052808
11	Burton Mesa FS (Lompoc)	205		Rain	34-41-51	120-27-00	240	5825328	2085192
12	Cachuma Res.- Gates	591	A-591	Gates 1-4	34-34-57	119-58-47	800	5965824	2040233
13	Cachuma Res.- Level	589	A-589	Reservoir Level	34-34-57	119-58-47	800	5965824	2040233
14	Cachuma Res.- Rain	332	A-595	Rain	34-34-52	119-58-52	800	5965396	2039736
15	Carpinteria Creek	550	A-550	Stream Flow	34-24-02	119-29-14	200	6113061	1971471
16	Carpinteria Fire Station	208	A-553	Rain	34-23-53	119-31-05	32	6103747	1970700
17	Carpinteria Slough	4000		Stream Flow	34-23-50	119-31-51	25	6099888	1970455
18	Casmalia	473	A-2560	Rain	34-49-12	120-31-59	770	5801495	2130378
19	Casmalia	473	A-2560	Wind	34-49-12	120-31-59	770	5801495	2130378
20	Casmalia	473	A-2560	Temp/Relative Hum.	34-49-12	120-31-59	770	5801495	2130378
21	Cater Treatment Plant	229		Rain	34-27-15	119-43-49	500	6040088	1992151
22	Catlin Ranch	383		Rain	34-25-18	119-29-59	95	6109405	1979209
23	Celite Plant	259	A-586	Rain	34-35-20	120-27-14	570	5823195	2045705
24	Cold Springs Basin	210		Rain	34-27-04	119-37-12	519	6073310	1990486
25	Cuyama Caltrans	402		Rain	34-57-36	119-42-36	2003	6049332	2176109
26	Cuyama Fire Station	436	A-521	Rain	34-56-44	119-40-57	2275	6057482	2170714
27	Cuyama Ranch	221		Rain	34-58-57	119-40-05	2170	6062033	2184086
28	Cuyama River@Buckhorn	524	A-524	Stream Flow	35-01-19	120-13-41	750	5894639	2201689
29	Don Victor	275	A-75	Rain	34-38-15	119-27-44	4600	6121856	2057581
30	Dos Pueblos Ranch	226		Rain	34-26-48	119-57-06	160	5973307	1990645
31	Doulton Tunnel	231		Rain	34-27-25	119-33-50	1775	6090256	1992340
32	Edison Trail	252	A-549	Rain	34-26-34	119-30-28	1650	6107091	1986927
33	El Deseo Ranch	255	A-557	Rain	34-29-30	119-41-45	3300	6050700	2005620
34	Figueroa Mountain	421	A-73	Rain	34-44-04	120-00-20	3200	5959153	2095674
35	Figueroa Mountain Repeater	5001	A-5001	Repeater	34-44-40	119-59-09	4530	5965149	2099195
36	Foxen Canyon Landfill	196		Rain	34-41-39	120-07-54	1000	5920961	2081798
37	Getty Basin - Inflow	501	A-501	Basin Level	34-55-38	120-27-52	190	5823038	2168877

38	Gaviota Coast	2582	A-2582	Wind	34-28-37	120-07-50	525	5919620	2002756
39	Gaviota Coast	2582	A-2582	Temp/Relative Hum.	34-28-37	120-07-50	525	5919620	2002756
40	Gaviota Coast	2582	A-2582	Barometric Pressure	34-28-37	120-07-50	525	5919620	2002756
41	Gaviota Coast	262	A-2581	Rain	34-29-20	120-07-52	425	5919544	2007105
42	Getty Basin - Rain, Encoder	503	A-503	Rain	34-55-54	120-27-49	194	5823327	2170488
43	Getty Basin - Rain, Encoder	503	A-503	Basin Level	34-55-54	120-27-49	194	5823327	2170488
44	Gibraltar Dam - Gates	561	A-561	Gates 1-4	34-31-35	119-41-09	1500	6053925	2018203
45	Gibraltar Dam - Level	559	A-559	Reservoir Level	34-31-35	119-41-09	1500	6053925	2018203
46	Gibraltar Dam - Rain	230	A-568	Rain	34-31-24	119-40-55	1500	6055078	2017072
47	Goddard	536	A-536	Rain	34-30-05	119-51-06	2825	6003817	2009986
48	Goleta (County Road Yard)	211		Rain	34-27-02	119-46-25	270	6027004	1991065
49	Goleta Fire (Los Carneros)	440	A-70	Rain	34-26-35	119-51-13	75	6002840	1988771
50	Goleta SCG	3093	A-3093	Rain	34-25-10	119-49-21	75	6012062	1980009
51	Goleta Slough	4001		Stream Flow	34-25-02	119-49-54	25	6009283	1979250
52	Goleta Water District	334		Rain	34-26-13	119-47-08	37	6023315	1986176
53	Guadalupe City	352	A-2551	Rain	34-57-45	120-34-17	85	5791320	2182515
54	Happy Canyon	290	A-2595	Rain	34-40-02	119-55-57	1690	5980627	2070784
55	Happy Canyon	290	A-2594	Wind	34-40-02	119-55-57	1690	5980627	2070784
56	Happy Canyon	290	A-2596	Temp/Relative Hum.	34-40-02	119-55-57	1690	5980627	2070784
57	Jalama Beach	317		Rain	34-30-00	120-30-00	15	5808517	2013708
58	Jameson Dam - Level	2579	A-2579	Reservoir Level	34-29-27	119-30-32	2060	6107019	2004418
59	Jameson Dam - Rain	232	A-2576	Rain	34-29-27	119-30-32	2060	6107019	2004418
60	KTYD Radio Towers	227	A-547	Rain	34-28-16	119-40-37	2375	6056266	1998044
61	La Cumbre Peak	2503	A-2503	Rain	34-29-59	119-43-10	3900	6043637	2008672
62	La Cumbre Peak	2503	A-2503	Wind	34-29-59	119-43-10	3900	6043637	2008672
63	La Cumbre Peak	2503	A-2503	Temp/Relative Hum.	34-29-59	119-43-10	3900	6043637	2008672
64	La Cumbre Peak	2503	A-2503	Barometric Pressure	34-29-59	119-43-10	3900	6043637	2008672
65	La Cumbre Repeater	5002	A-5002	Repeater	34-29-59	119-43-10	3900	6043637	2008672
66	Lompoc City Hall	439	A-576	Rain	34-38-16	120-27-07	100	5824214	2063478
67	Los Alamos Fire Station	204	A-509	Rain	34-44-43	120-16-47	580	5876890	2101371
68	Manzana School House	237		Rain	34-49-29	119-59-46	1200	5962642	2128466
69	Manzanita Mountain - Rain	249	A-2515	Rain	34-53-20	120-04-53	2790	5937538	2152333
70	Manzanita Mountain - Wthr	2516	A-2516	Wind	34-53-38	120-04-50	3193	5937825	2154147
71	Manzanita Mountain - Wthr	2516	A-2516	Temp/Relative Hum.	34-53-38	120-04-50	3193	5937825	2154147
72	Manzanita Mountain - Wthr	2516	A-2516	Barometric Pressure	34-53-38	120-04-50	3193	5937825	2154147
73	Maria Ygnacio Creek	2528	A-2528	Stream Flow	34-26-41	119-48-10	60	6018174	1989099
74	Maria Ygnacio Ridge	2566	A-2566	Rain	34-28-46	119-47-05	1056	6023841	2001636
75	Midland School (Figueroa)	419		Rain	34-43-57	120-05-20	1180	5934107	2095476
76	Miguelito Canyon	251		Rain	34-35-10	120-29-42	1080	5810800	2044999

77	Mission Creek	538	A-538	Stream Flow	34-25-33	119-43-26	105	6041837	1981809
78	Montecito Creek	100		Stream Flow	34-25-43	119-38-30	150	6066645	1982404
79	Montecito Water District	325	A-2547	Rain	34-26-21	119-37-59	230	6069304	1986203
80	Mt. Calvary	2513	A-2513	Rain	34-27-37	119-41-19	1250	6052684	1994161
81	Nojoqui Falls	236		Rain	34-32-02	120-10-40	720	5905840	2023780
82	Old Man Mountain	613	A-613	Rain	34-30-17	119-26-23	4300	6127931	2009167
83	Orcutt (County FC)	198	A-510	Rain	34-52-56	120-26-55	280	5827383	2152389
84	Patera Ranch	535	A-535	Rain	34-29-13	119-50-16	1350	6007905	2004653
85	Plowshare Repeater	5003	A-5003	Repeater	35-02-59	120-02-20	3920	5951468	2210595
86	Rancho San Julian	272	A-72	Rain	34-31-54	120-20-16	640	5857647	2024053
87	Rancho Sisquoc	415		Rain	34-51-00	120-13-00	600	5896668	2139050
88	Refugio Pass	2540	A-254	Rain	34-31-48	120-05-32	2610	5931572	2021817
89	Refugio Pass	2540	A-254	Wind	34-31-48	120-05-32	2610	5931572	2021817
90	Salsipuedes Gauging Stn	398		Rain	34-35-00	120-24-18	270	5837856	2043328
91	San Marcos Pass	212	A-78	Rain	34-30-43	119-49-25	2250	6012338	2013672
92	Santa Barbara (Cnty Bldg)	234	A-545	Rain	34-25-31	119-42-12	100	6048031	1981501
93	Santa Maria (County Bldg)	504	A-504	Rain	34-55-16	120-25-42	250	5833805	2166390
94	Santa Maria City (PW)	380	A-2550	Rain	34-57-07	120-26-44	203	5828917	2177734
95	Santa Ynez Fire Station	218	A-511	Rain	34-36-26	120-04-09	600	5939092	2049771
96	SB Botanic Gardens	321		Rain	34-27-14	119-42-25	800	6047119	1991930
97	SB Caltrans	335	A-2548	Rain	34-26-19	119-45-20	160	6032370	1986623
98	SB Canyon	347		Rain	34-49-15	119-33-22	2975	6094651	2124718
99	SB Potrero	581	A-581	Wind	34-46-21	119-38-06	5300	6070690	2107505
100	SB Potrero	581	A-581	Temp/Relative Hum.	34-46-21	119-38-06	5300	6070690	2107505
101	SB Potrero	581	A-581	Barometric Pressure	34-46-21	119-38-06	5300	6070690	2107505
102	SB Potrero	238	A-580	Rain	34-46-29	119-38-49	5025	6067117	2108373
103	Sea Cliff	694	A-694	Rain	34-22-21	119-26-01	20	6129085	1961027
104	Shell Peak	270	A-517	Rain	35-04-37	120-11-31	2080	5905884	2221464
105	Sisquoc Fire Station	256	A-512	Rain	34-52-00	120-17-38	420	5873643	2145634
106	Sisquoc Rvr @ Garey Flw	530	A-530	Stream Flow	34-53-39	120-18-20	354	5870374	2155720
107	Sisquoc Rvr @ Tepusquet	2512	A-2512	Stream Flow	34-51-41	120-15-25	460	5884679	2143463
108	Solvang Water District	393	A-2549	Rain	34-35-36	120-08-28	485	5917341	2045171
109	Stanwood Fire Station	228		Rain	34-26-42	119-41-18	630	6052675	1988601
110	Sudden Peak	2545	A-2545	Rain	34-34-01	120-29-55	2120	5809540	2038053
111	Sudden Peak	2545	A-2545	Wind	34-34-01	120-29-55	2120	5809540	2038053
112	Sycamore Creek	516	A-516	Stream Flow	34-25-46	119-40-39	150	6055846	1982886
113	SYR @ Lompoc Narrows	2523	A-2523	Stream Flow	34-38-10	120-25-28	110	5832469	2062671
114	SYR @ Los Laureles	534	A-534	Stream Flow	34-32-40	119-52-00	800	5999589	2025735
115	SYR @ Solvang	2533	A-2533	Stream Flow	34-35-00	120-08-39	380	5916344	2041552

116	SYR below Gibraltar	542	A-542	Stream Flow	34-31-30	119-41-11	1400	6053749	2017701
117	Tecolote Canyon	280	A-537	Rain	34-31-15	119-54-32	2900	5986714	2017383
118	Trout Club	242		Rain	34-29-25	119-47-54	1175	6019810	2005651
119	Tunnel Trail	250		Rain	34-27-54	119-42-47	1025	6045346	1996004
120	Twitchell Dam - Level	513	A-513	Reservoir Level	34-59-05	120-19-19	740	5866222	2188782
121	Twitchell Dam - Rain	356	A-598	Rain	34-59-17	120-19-16	580	5866500	2189989
122	Twitchell Repeater	599	A-599	Repeater	34-58-59	120-19-15	770	5866541	2188168
123	UCSB	200		Rain	34-24-54	119-50-46	100	6004913	1978521
124	W.Green Cyn Inflow	577	A-577	Stream Flow	34-55-12	120-27-50	150	5823140	2166245
125	W.Green Cyn Outflow	578	A-578	Stream Flow	34-59-07	120-29-07	150	5817317	2190154
126	West Big Pine	285	A-570	Rain	34-41-26	119-39-52	6360	6061356	2077832
127	West Big Pine	285	A-570	Wind	34-41-26	119-39-52	6360	6061356	2077832
128	West Big Pine	285	A-570	Temp/Relative Hum.	34-41-26	119-39-52	6360	6061356	2077832
129	West Big Pine	285	A-570	Barometric Pressure	34-41-26	119-39-52	6360	6061356	2077832

Appendix B:

HYDROLOGIC STATION INSTALLATIONS

ALERT 0.01" (Goleta Fire Stn)

ALERT 0.01" (Guadalupe)

ALERT 0.04" w/ Dir. Ant. (Mt. Calvary)

ALERT 0.01" (Figueroa Mtn)

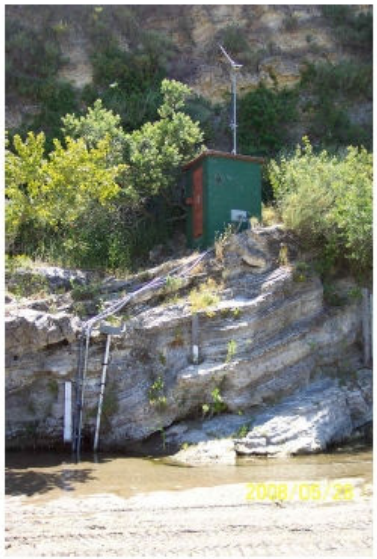
ALERT 0.01" Belfort Conversion (Orcutt / SM Road Yard)

ALERT 0.01" Temporary Station (Tecolote Cyn)

ALERT 0.01" Rooftop Install (Buellton Fire)

ALERT 0.01" (Gibraltar Dam)

County Automated Rain Gauges – Sample ALERT Installations



ALERT PT (SYR Narrows @Lompoc)

ALERT PT (SYR @ Solvang)

ALERT PT (Maria Ygnacio Creek)

ALERT PT (Carpinteria Creek)

ALERT Bubbler (Cuyama River @ Buckhorn)

ALERT Shaft Encoder (Mission Creek, SB)

ALERT Radar (Sisquoc River @ Garey)

County Automated Stream / River Gauges – Sample ALERT Installations

La Cumbre Peak Weather & Repeater Station

Baron Ranch Weather Station

County Automated Weather Stations (ALERT)

Cachuma Reservoir

Bradbury Dam & Spillway

Bradbury Dam Gates

Reservoir Level & Gate Opening ALERT Instrumentation

Instrumentation Building

Cachuma Reservoir – County Automated ALERT Installation

Gibraltar Reservoir & Dam

Gibraltar Dam

Water Level & Gate Opening ALERT Instrumentation (RUG3)

Dam Gate Inclinometers

Reservoir Level & Gate Opening
Data Interface to SB City (RUG9/SCADA)

Gibraltar Reservoir – County Automated ALERT Installation

Jameson Reservoir

Jameson Dam & Spillway

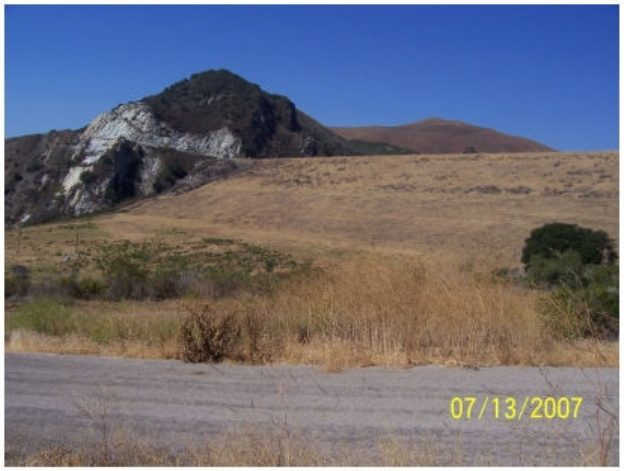
Reservoir Level & Rainfall ALERT Instrumentation

Jameson Reservoir & Dam

Jameson Reservoir – County Automated ALERT Installation

Twitchell Dam & Reservoir

Twitchell Repeater & Reservoir / Dam



Twitchell Earth-Filled Dam

Reservoir Level Gauge Enclosure

Reservoir Level ALERT Instrumentation (Bubbler)

Twitchell Reservoir & ALERT Installation

Twitchell Reservoir - County Automated ALERT Installation

Appendix C:

MONTHLY & YEARLY RAINFALL

(with Average Recurrence Intervals)

(Primary Rainfall Stations x14)

1. **Buellton** (#233)
2. **Cachuma Dam** (#332)
3. **Carpinteria** (#208)
4. **Cuyama** (#436)
5. **Figueroa Mtn** (#421)
6. **Gibraltar Dam** (#230)
7. **Goleta** (#440)
8. **Lompoc** (#439)
9. **Los Alamos** (#204)
10. **San Marcos Pass** (#212)
11. **Santa Barbara** (#234)
12. **Santa Maria** (#380)
13. **Santa Ynez** (#218)
14. **Sisquoc** (#256)

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 233 **Station Type: Data Logger w/TB** **Latitude: 343647** **Longitude: 1201148**

Station Name: Buellton Fire Station #31 **Elevation (ft): 360** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1954-55	0.00	0.00	1.19	3.06	4.69	1.15	0.61	1.99	1.47	0.03	0.00	0.00	14.19
1955-56	0.00	0.00	1.97	7.09	3.97	0.67	0.00	1.87	1.07	0.00	0.00	0.00	16.64
1956-57	0.00	0.30	0.00	0.20	4.42	3.05	0.59	1.31	1.27	0.08	0.00	0.00	11.22
1957-58	0.00	1.10	0.44	3.75	2.72	7.06	6.10	4.70	0.66	0.00	0.00	0.00	26.53
1958-59	1.16	0.02	0.29	0.16	2.72	5.96	0.00	1.17	0.00	0.00	0.00	0.00	11.48
1959-60	0.03	0.00	0.00	0.92	4.03	3.43	0.48	1.77	0.00	0.00	0.00	0.00	10.66
1960-61	0.00	0.22	3.75	0.94	1.41	0.12	0.98	0.20	0.05	0.00	0.00	0.00	7.67
1961-62	0.00	0.00	3.21	1.86	2.72	12.73	1.43	0.00	0.00	0.00	0.00	0.00	21.95
1962-63	0.00	0.42	0.02	0.30	0.71	5.22	3.43	2.44	0.29	0.46	0.00	0.35	13.64
1963-64	1.09	0.87	2.13	0.08	1.82	0.03	1.92	1.20	0.25	0.08	0.00	0.00	9.47
1964-65	0.02	1.88	2.65	2.50	1.15	0.49	1.99	3.96	0.00	0.02	0.00	0.00	14.66
1965-66	0.00	0.00	9.42	3.80	2.52	0.66	0.25	0.00	0.00	0.00	0.00	0.00	16.65
1966-67	0.17	0.00	2.88	3.55	4.60	0.41	3.05	4.04	0.21	0.00	0.00	0.00	18.91
1967-68	0.46	0.00	3.03	0.55	0.86	1.04	2.75	1.27	0.04	0.00	0.00	0.00	10.00
1968-69	0.00	1.78	0.86	2.07	14.13	8.97	0.72	1.90	0.10	0.00	0.00	0.00	30.53
1969-70	0.07	0.22	1.03	0.38	2.83	2.70	1.84	0.08	0.00	0.00	0.00	0.00	9.15
1970-71	0.00	0.07	3.40	4.11	0.50	0.57	0.34	0.83	0.93	0.00	0.00	0.00	10.75
1971-72	0.00	0.08	0.39	6.87	0.11	0.26	0.00	0.19	0.00	0.00	0.00	0.00	7.90
1972-73	0.00	1.19	5.00	0.52	5.78	8.25	2.57	0.00	0.00	0.00	0.00	0.00	23.31
1973-74	0.00	0.14	2.30	2.15	7.27	0.18	4.05	0.81	0.00	0.00	0.00	0.00	16.90
1974-75	0.00	1.13	0.22	7.32	0.11	4.74	6.37	0.11	0.00	0.00	0.00	0.00	20.00
1975-76	0.00	0.25	0.47	0.11	0.00	7.12	0.93	1.31	0.00	0.00	0.00	0.00	10.19
1976-77	4.32	0.58	0.55	1.61	3.40	0.13	1.87	0.00	2.74	0.00	0.00	0.00	15.20
1977-78	0.00	0.00	0.14	2.85	7.41	11.16	7.92	3.24	0.00	0.00	0.00	0.00	32.72
1978-79	1.95	0.00	2.33	1.06	6.52	2.85	5.88	0.00	0.00	0.00	0.00	0.00	20.59
1979-80	0.38	0.53	0.65	1.60	3.75	9.66	4.01	0.93	0.15	0.00	0.12	0.00	21.78
1980-81	0.00	0.00	0.00	1.12	3.21	2.61	6.29	0.40	0.00	0.00	0.00	0.00	13.63
1981-82	0.00	0.36	0.95	0.65	3.04	0.64	4.80	3.57	0.00	0.00	0.00	0.00	14.01
1982-83	0.36	1.49	4.90	2.65	9.35	5.95	7.77	6.17	0.04	0.00	0.00	0.35	39.03
1983-84	0.14	1.82	3.32	3.77	0.01	0.22	0.51	0.35	0.00	0.00	0.04	0.00	10.18
1984-85	0.00	1.14	2.92	4.48	0.67	1.34	1.67	0.00	0.00	0.00	0.00	0.00	12.22
1985-86	0.00	0.41	4.40	0.74	0.99	6.03	5.53	0.34	0.00	0.00	0.00	0.00	18.44
1986-87	0.83	0.00	1.15	0.97	2.08	2.18	4.64	0.15	0.00	0.00	0.00	0.00	12.00
1987-88	0.00	2.45	0.99	4.39	2.46	3.58	0.44	2.66	0.12	0.20	0.00	0.00	17.29
1988-89	0.00	0.00	0.64	3.08	0.17	0.63	0.39	0.08	0.35	0.00	0.00	0.00	5.34
1989-90	0.53	0.35	0.35	0.00	2.78	1.89	0.33	0.16	0.67	0.00	0.00	0.00	7.06
1990-91	0.13	0.00	0.29	0.82	1.20	2.36	12.95	0.22	0.00	0.00	0.00	0.02	17.99
1991-92	0.00	0.44	0.22	7.95	3.11	10.48	4.61	0.00	0.00	0.00	0.30	0.00	27.11
1992-93	0.00	0.82	0.00	4.61	7.82	8.94	5.05	0.00	0.00	0.12	0.00	0.00	27.36
1993-94	0.00	0.15	0.74	1.97	1.32	4.36	2.42	0.95	0.70	0.00	0.00	0.00	12.61
1994-95	0.00	0.60	2.00	0.95	16.71	1.85	9.73	0.34	1.23	0.85	0.00	0.00	34.26
1995-96	0.00	0.00	0.22	1.16	2.63	7.05	1.70	0.31	0.20	0.00	0.00	0.00	13.27
1996-97	0.00	2.25	1.93	4.23	4.15	0.00	0.00	0.00	0.00	0.00	0.05	0.00	12.61
1997-98	0.88	0.00	3.74	4.51	4.85	19.78	2.45	3.12	2.23	0.00	0.00	0.00	41.56
1998-99	0.20	0.10	1.72	1.06	1.87	1.26	6.76	1.55	0.00	0.00	0.15	0.00	14.67
1999-00	0.00	0.00	1.75	0.00	1.44	9.10	2.28	3.83	0.00	0.00	0.00	0.00	18.40
2000-01	0.00	3.15	0.00	0.06	6.92	5.27	11.82	1.12	0.00	0.00	0.04	0.00	28.38
2001-02	0.00	0.65	3.72	2.16	0.93	0.21	0.57	0.10	0.11	0.00	0.00	0.00	8.45
2002-03	0.05	0.00	3.35	6.29	0.08	2.22	2.70	1.63	1.24	0.00	0.00	0.00	17.56
2003-04	0.02	0.00	1.28	1.91	0.49	5.23	0.44	0.05	0.01	0.00	0.01	0.00	9.44
2004-05	0.01	6.65	0.64	10.60	8.20	8.40	3.81	0.66	0.58	0.02	0.00	0.00	39.57
2005-06	0.08	0.42	1.62	0.71	5.29	2.51	3.58	4.10	0.95	0.01	0.00	0.00	19.27
2006-07	0.00	0.21	0.26	1.55	1.68	1.74	0.05	0.81	0.00	0.00	0.00	0.00	6.30
2007-08	0.70	0.69	0.00	1.68	14.56	2.31	0.00	0.03	0.04	0.00	0.00	0.00	20.01
2008-09	0.00	0.09	2.10	1.65	0.52	5.22	0.87	0.08	0.02	0.21	0.00	0.00	10.76
2009-10	0.01	1.32	0.00	2.94	7.36	4.27	0.36	2.05	0.01	0.00	0.20	0.00	18.52
2010-11	0.00	1.95	1.20	7.91	0.73	3.07	5.41	0.32	0.31	0.36	0.00	0.00	21.26

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 233 **Station Type: Data Logger w/TB** **Latitude: 343647 Longitude: 1201148**

Station Name: Buellton Fire Station #31 **Elevation (ft): 360** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	13.59	38.29	94.72	145.98	206.77	229.31	170.01	70.47	18.04	2.44	0.91	0.72	991.25
N	57	57	57	57	57	57	57	57	57	57	57	57	57
Mean	0.24	0.67	1.66	2.56	3.63	4.02	2.98	1.24	0.32	0.04	0.02	0.01	17.39
Max	4.32	6.65	9.42	10.60	16.71	19.78	12.95	6.17	2.74	0.85	0.30	0.35	41.56
StdDev	0.66	1.09	1.73	2.38	3.62	3.92	3.00	1.45	0.57	0.14	0.05	0.06	8.53
CV	2.76	1.62	1.04	0.93	1.00	0.98	1.01	1.17	1.81	3.20	3.30	5.10	0.49
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.43	1.27	2.22	2.81	3.31	2.52	0.87	0.10	0.00	0.00	0.00	16.01
5	0.40	1.22	2.88	4.20	5.85	7.01	4.93	2.14	0.59	0.08	0.03	0.02	23.13
10	0.90	1.81	3.96	5.44	7.97	9.36	6.46	3.05	1.02	0.18	0.07	0.06	27.64
25	1.68	2.55	5.31	6.95	10.68	12.23	8.33	4.23	1.63	0.32	0.15	0.12	33.15
50	2.32	3.12	6.28	8.03	12.70	14.34	9.70	5.09	2.11	0.45	0.22	0.18	37.21
100	2.99	3.68	7.26	9.06	14.70	16.33	11.00	5.96	2.59	0.57	0.29	0.25	41.03
200	3.70	4.24	8.22	10.07	16.65	18.28	12.27	6.82	3.08	0.70	0.36	0.32	44.78
500	5.11	5.18	9.72	11.53	19.89	21.15	14.14	8.25	3.94	0.97	0.52	0.46	50.29
1000	5.38	5.52	10.39	12.31	21.16	22.62	15.10	8.80	4.25	1.02	0.54	0.48	53.12
10000	7.89	7.35	13.42	15.38	27.53	28.68	19.04	11.58	5.95	1.48	0.81	0.73	64.75

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 332 **Station Type: Alert, Data Logger w/TB & Standard** **Latitude: 343452 Longitude: 1195847**

Station Name: Cachuma Dam **Elevation (ft): 800** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1952-53	0.00	0.00	4.32	6.83	1.12	0.00	0.30	1.23	0.00	0.00	0.00	0.00	13.80
1953-54	0.00	0.00	2.73	0.25	4.89	3.38	5.48	0.18	0.00	0.00	0.00	0.00	16.91
1954-55	0.00	0.00	1.22	2.76	5.22	2.04	0.80	3.27	1.60	0.01	0.00	0.04	16.96
1955-56	0.00	0.00	2.03	9.75	3.48	0.75	0.00	3.44	2.03	0.00	0.00	0.00	21.48
1956-57	0.00	0.27	0.00	0.48	6.05	3.23	1.27	1.94	0.85	0.14	0.00	0.00	14.23
1957-58	0.00	0.70	0.27	5.68	2.01	10.17	7.29	7.89	0.42	0.00	0.00	0.02	34.45
1958-59	0.80	0.00	0.21	0.07	5.34	8.28	0.00	0.58	0.03	0.00	0.00	0.00	15.31
1959-60	0.07	0.00	0.00	1.68	4.28	2.48	0.51	2.31	0.00	0.00	0.00	0.00	11.33
1960-61	0.00	0.00	5.52	0.88	2.85	0.17	0.81	0.44	0.03	0.18	0.00	0.00	10.88
1961-62	0.00	0.00	3.92	2.89	1.56	14.19	1.46	0.02	0.12	0.04	0.00	0.00	24.20
1962-63	0.00	0.32	0.00	0.25	0.73	5.69	3.88	2.31	0.24	0.41	0.00	0.53	14.36
1963-64	1.55	0.78	3.29	0.00	2.28	0.04	1.78	2.10	0.12	0.18	0.00	0.00	12.12
1964-65	0.00	1.28	3.12	2.54	1.00	0.42	1.95	5.02	0.00	0.00	0.00	0.00	15.33
1965-66	0.01	0.00	10.25	4.68	2.48	0.69	0.30	0.06	0.00	0.00	0.01	0.00	18.48
1966-67	0.10	0.12	3.76	3.02	5.66	0.38	4.23	5.53	0.13	0.13	0.00	0.00	23.06
1967-68	0.28	0.00	3.32	1.08	0.82	1.06	2.54	1.17	0.00	0.00	0.00	0.00	10.27
1968-69	0.00	1.36	0.84	1.49	18.33	13.54	1.28	2.40	0.01	0.00	0.05	0.00	39.30
1969-70	0.14	0.02	1.14	0.32	2.57	2.80	4.72	0.10	0.00	0.00	0.00	0.00	11.81
1970-71	0.00	0.01	5.84	5.75	0.59	0.92	0.37	0.75	0.81	0.00	0.00	0.00	15.04
1971-72	0.02	1.03	0.42	8.51	0.08	0.15	0.00	0.16	0.00	0.00	0.08	0.00	10.45
1972-73	0.00	0.49	5.32	1.11	6.79	12.20	3.28	0.01	0.00	0.00	0.00	0.00	29.20
1973-74	0.00	0.36	1.97	2.56	7.50	0.06	3.53	0.86	0.00	0.00	0.00	0.00	16.84
1974-75	0.00	0.94	0.12	9.02	0.20	4.99	8.00	1.22	0.00	0.00	0.00	0.01	24.50
1975-76	0.00	0.43	0.52	0.17	0.00	7.23	1.29	1.47	0.00	0.06	0.01	0.06	11.24
1976-77	2.98	1.44	0.61	0.82	4.68	0.13	2.50	0.00	2.85	0.00	0.00	0.02	16.03
1977-78	0.00	0.00	0.24	4.48	8.00	10.72	14.14	3.10	0.00	0.00	0.00	0.00	40.68
1978-79	1.85	0.00	2.18	1.13	7.13	4.00	6.04	0.05	0.00	0.00	0.00	0.02	22.40
1979-80	0.45	0.68	0.89	2.56	4.26	11.12	3.49	1.08	0.17	0.00	0.00	0.00	24.70
1980-81	0.00	0.00	0.00	0.93	4.21	2.61	7.66	1.02	0.00	0.00	0.00	0.00	16.43
1981-82	0.00	0.46	1.26	0.65	3.91	0.55	5.61	4.34	0.01	0.01	0.00	0.00	16.80
1982-83	0.59	0.94	5.36	2.80	9.88	5.22	12.92	5.75	0.86	0.01	0.00	0.72	45.05
1983-84	0.26	2.69	4.43	3.95	0.17	0.38	0.34	0.29	0.00	0.00	0.02	0.05	12.58
1984-85	0.22	0.53	2.73	4.72	1.08	1.41	1.55	0.21	0.00	0.00	0.00	0.00	12.45
1985-86	0.05	0.76	5.23	0.85	2.39	7.37	5.76	0.26	0.00	0.00	0.00	0.00	22.67
1986-87	0.71	0.05	0.69	0.67	1.49	1.89	4.16	0.08	0.00	0.01	0.01	0.00	9.76
1987-88	0.00	2.21	1.46	5.28	3.06	4.62	1.71	3.39	0.07	0.11	0.01	0.00	21.92
1988-89	0.00	0.00	0.88	4.28	0.33	2.46	0.63	0.07	0.46	0.00	0.00	0.00	9.11
1989-90	0.57	0.30	0.45	0.00	3.34	1.90	0.28	0.76	0.78	0.03	0.00	0.00	8.41
1990-91	0.10	0.00	0.35	0.47	1.10	4.43	15.41	0.13	0.00	0.00	0.00	0.00	21.99
1991-92	0.00	0.48	0.07	6.20	2.82	12.74	4.74	0.00	0.00	0.00	0.00	0.00	27.05
1992-93	0.00	0.70	0.00	5.23	10.05	10.30	5.65	0.00	0.00	0.35	0.00	0.00	32.28
1993-94	0.00	0.26	1.06	2.21	1.65	7.52	2.90	0.82	0.90	0.00	0.00	0.00	17.32
1994-95	0.04	1.03	1.18	1.01	24.21	1.95	9.71	0.46	1.78	0.48	0.00	0.00	41.85
1995-96	0.00	0.00	0.30	1.35	2.16	6.92	1.92	0.57	0.19	0.00	0.00	0.00	13.41
1996-97	0.00	4.15	2.42	4.29	4.39	0.18	0.02	0.00	0.00	0.00	0.05	0.00	15.50
1997-98	0.18	0.00	4.00	10.11	6.09	23.30	3.40	2.90	3.36	0.03	0.00	0.00	53.37
1998-99	0.46	0.12	1.38	1.31	3.19	1.54	5.71	3.23	0.02	0.07	0.05	0.02	17.10
1999-00	0.00	0.00	1.62	0.00	1.94	10.37	2.76	2.55	0.00	0.04	0.00	0.00	19.28
2000-01	0.00	2.64	0.00	0.04	8.40	5.71	13.44	1.35	0.06	0.00	0.00	0.00	31.64
2001-02	0.00	0.62	3.27	2.66	0.87	0.24	0.79	0.13	0.12	0.00	0.00	0.00	8.70
2002-03	0.08	0.00	2.50	6.73	0.06	3.56	2.40	2.15	2.33	0.02	0.01	0.00	19.84
2003-04	0.00	0.00	1.20	2.03	0.32	6.52	0.48	0.00	0.00	0.00	0.00	0.00	10.55
2004-05	0.00	6.38	0.33	13.25	10.30	9.09	3.01	0.71	0.40	0.00	0.00	0.00	43.47
2005-06	0.03	0.42	1.53	0.70	7.75	3.06	4.31	4.89	1.54	0.00	0.00	0.00	24.23
2006-07	0.00	0.16	0.20	1.59	1.30	3.02	0.15	0.91	0.00	0.00	0.00	0.00	7.33
2007-08	0.13	0.32	0.08	2.55	17.82	2.36	0.47	0.06	0.07	0.00	0.00	0.00	23.86
2008-09	0.00	0.11	3.65	2.58	0.64	6.04	0.93	0.20	0.00	0.17	0.00	0.02	14.34
2009-10	0.06	2.36	0.00	3.17	10.13	4.63	0.20	3.05	0.05	0.00	0.00	0.00	23.65
2010-11	0.00	2.23	1.47	9.87	1.97	3.73	12.51	0.21	0.44	0.36	0.00	0.00	32.79

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 332 **Station Type: Alert, Data Logger w/TB & Standard** **Latitude: 343452 Longitude: 1195847**

Station Name: Cachuma Dam **Elevation (ft): 800** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	11.73	40.15	113.15	182.24	256.92	276.45	212.77	89.18	22.85	2.84	0.30	1.51	1210.09
N	59	59	59	59	59	59	59	59	59	59	59	59	59
Mean	0.20	0.68	1.92	3.09	4.35	4.69	3.61	1.51	0.39	0.05	0.01	0.03	20.51
Max	2.98	6.38	10.25	13.25	24.21	23.30	15.41	7.89	3.36	0.48	0.08	0.72	53.37
StdDev	0.50	1.12	2.02	3.03	4.67	4.62	3.84	1.76	0.74	0.11	0.01	0.11	10.28
CV	2.53	1.65	1.05	0.98	1.07	0.99	1.07	1.16	1.92	2.21	2.95	4.47	0.50
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.44	1.46	2.67	3.37	3.85	3.04	1.06	0.13	0.00	0.00	0.00	18.89
5	0.34	1.24	3.32	5.06	7.02	8.16	5.96	2.62	0.73	0.09	0.01	0.04	27.28
10	0.75	1.83	4.56	6.57	9.57	10.90	7.81	3.73	1.25	0.20	0.02	0.11	32.60
25	1.40	2.59	6.13	8.38	12.82	14.24	10.07	5.17	2.00	0.36	0.05	0.25	39.10
50	1.94	3.16	7.25	9.68	15.25	16.70	11.73	6.23	2.58	0.50	0.07	0.37	43.88
100	2.50	3.73	8.38	10.92	17.64	19.02	13.30	7.28	3.17	0.64	0.09	0.50	48.40
200	3.08	4.30	9.48	12.14	19.99	21.29	14.84	8.34	3.78	0.79	0.12	0.64	52.82
500	4.26	5.24	11.22	13.91	23.87	24.63	17.10	10.09	4.82	1.09	0.16	0.93	59.31
1000	4.48	5.59	11.99	14.84	25.40	26.35	18.26	10.76	5.20	1.14	0.17	0.97	62.65
10000	6.58	7.45	15.49	18.55	33.04	33.40	23.03	14.16	7.28	1.67	0.26	1.48	76.37

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 208 **Station Type:** Alert, Data Logger w/TB **Latitude:** 342353 **Longitude:** 1193106

Station Name: Carpinteria Fire Station **Elevation (ft):** 32 **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1948-49	0.00	0.00	0.00	2.64	1.60	1.14	1.95	0.00	1.44	0.10	0.00	0.00	8.87
1949-50	0.00	0.00	2.71	3.51	2.51	3.06	1.33	0.43	0.00	0.15	0.10	0.00	13.80
1950-51	0.70	0.68	1.46	0.32	2.13	1.44	0.63	1.63	0.00	0.00	0.00	0.10	9.09
1951-52	0.00	0.90	2.05	5.48	12.08	0.05	7.18	2.27	0.00	0.00	0.00	0.00	30.01
1952-53	0.00	0.00	4.00	5.20	1.70	0.00	1.27	1.71	0.00	0.00	0.00	0.00	13.88
1953-54	0.00	0.00	2.60	0.15	6.25	2.70	4.35	0.38	0.00	0.00	0.00	0.00	16.43
1954-55	0.00	0.00	1.75	1.75	4.95	2.25	0.35	3.05	0.60	0.00	0.00	0.00	14.70
1955-56	0.00	0.00	1.65	5.93	7.80	0.82	0.00	2.83	1.12	0.00	0.00	0.00	20.15
1956-57	0.00	0.08	0.00	0.30	4.60	3.46	0.49	1.76	1.03	0.00	0.00	0.00	11.72
1957-58	0.00	1.70	0.80	5.00	3.08	8.77	6.51	5.68	0.32	0.00	0.00	0.00	31.86
1958-59	1.19	0.00	0.00	0.08	2.20	4.67	0.00	1.33	0.00	0.00	0.00	0.00	9.47
1959-60	0.00	0.00	0.00	0.92	3.60	3.72	1.26	2.17	0.00	0.00	0.00	0.00	11.67
1960-61	0.00	0.06	7.11	0.00	1.30	0.05	0.70	0.00	0.00	0.00	0.00	0.00	9.22
1961-62	0.20	0.00	2.93	1.12	2.62	19.09	1.43	0.00	0.00	0.00	0.00	0.00	27.39
1962-63	0.00	0.55	0.00	0.00	1.00	6.65	4.15	2.88	0.30	1.14	0.00	0.00	16.67
1963-64	2.10	1.15	3.69	0.00	1.70	0.00	2.00	2.57	0.10	0.00	0.00	0.00	13.31
1964-65	0.00	0.87	2.42	5.13	1.15	0.67	2.45	8.37	0.16	0.06	0.00	0.00	21.28
1965-66	0.21	0.00	11.02	4.17	1.98	1.14	0.11	0.00	0.23	0.00	0.00	0.00	18.86
1966-67	0.00	0.00	3.70	7.51	6.74	0.48	3.08	4.81	0.00	0.00	0.00	0.00	26.32
1967-68	0.40	0.00	5.39	1.20	2.01	1.69	4.40	1.04	0.00	0.00	0.00	0.14	16.27
1968-69	0.00	1.36	0.75	2.27	18.31	10.62	0.54	2.03	0.18	0.09	0.00	0.00	36.15
1969-70	0.00	0.00	2.55	0.24	3.40	2.57	6.51	0.00	0.00	0.00	0.00	0.00	15.27
1970-71	0.00	0.06	5.31	5.71	1.32	2.36	0.97	0.62	2.34	0.00	0.00	0.00	18.69
1971-72	0.00	0.15	0.62	7.81	0.70	0.00	0.00	0.19	0.00	0.12	0.00	0.00	9.59
1972-73	0.00	0.25	5.24	0.99	6.94	11.75	3.42	0.06	0.23	0.05	0.00	0.14	29.07
1973-74	0.00	0.64	3.14	1.34	9.79	0.16	4.74	0.28	0.00	0.00	0.00	0.00	20.09
1974-75	0.00	1.00	0.15	8.67	0.00	4.62	4.70	1.29	0.00	0.00	0.00	0.00	20.43
1975-76	0.16	0.20	0.11	0.31	0.00	7.40	2.59	1.01	0.03	0.26	0.00	0.00	12.07
1976-77	6.35	0.00	0.51	0.82	4.33	0.26	1.90	0.00	4.39	0.12	0.00	0.68	19.36
1977-78	0.00	0.00	0.30	7.40	9.91	10.81	12.79	2.74	0.00	0.10	0.00	0.09	44.14
1978-79	1.55	0.10	2.03	2.41	3.63	5.68	8.56	0.00	0.09	0.00	0.00	0.18	24.23
1979-80	0.80	0.73	0.73	1.38	7.62	13.14	4.13	0.85	0.21	0.00	0.05	0.00	29.64
1980-81	0.03	0.00	0.00	1.21	3.19	2.24	6.38	0.91	0.00	0.00	0.00	0.00	13.96
1981-82	0.56	0.00	2.08	1.00	3.47	0.62	6.23	3.03	0.15	0.12	0.00	0.00	17.26
1982-83	1.47	0.65	6.22	3.49	9.98	7.05	8.44	4.19	0.35	0.20	0.00	1.84	43.88
1983-84	1.09	4.41	3.94	3.71	0.04	0.00	0.39	0.27	0.29	0.00	0.00	0.65	14.79
1984-85	0.62	0.51	2.86	5.67	1.68	2.09	1.69	0.14	0.00	0.00	0.00	0.00	15.26
1985-86	0.08	0.73	5.03	0.98	2.35	8.61	6.20	1.80	0.00	0.00	0.00	0.00	25.78
1986-87	1.61	0.00	1.41	0.41	2.33	2.54	3.54	0.15	0.00	0.00	0.00	0.00	11.99
1987-88	0.00	1.52	1.92	3.92	2.90	2.72	0.60	3.76	0.00	0.00	0.00	0.00	17.34
1988-89	0.10	0.00	1.18	3.28	0.50	3.58	0.60	0.78	0.25	0.00	0.00	0.00	10.27
1989-90	0.08	1.07	0.47	0.00	3.13	3.04	0.16	0.10	0.88	0.00	0.00	0.00	8.93
1990-91	0.06	0.00	0.32	0.06	1.79	2.55	14.92	0.04	0.00	0.30	0.02	0.05	20.11
1991-92	0.00	0.62	0.21	5.63	3.10	10.46	4.46	0.00	0.34	0.10	0.47	0.00	25.39
1992-93	0.00	1.94	0.00	6.18	13.88	8.32	6.08	0.00	0.10	0.87	0.08	0.00	37.45
1993-94	0.00	0.10	1.54	1.65	1.09	6.51	2.32	0.73	0.40	0.00	0.00	0.00	14.34
1994-95	0.47	0.45	1.78	1.27	21.42	1.92	12.22	0.39	0.98	0.69	0.00	0.00	41.59
1995-96	0.00	0.00	0.24	3.49	2.27	9.54	2.31	1.28	0.42	0.00	0.00	0.00	19.55
1996-97	0.00	3.03	0.00	7.01	7.83	0.10	0.00	0.00	0.00	0.10	0.00	0.00	18.07
1997-98	0.00	0.09	3.22	8.64	4.97	23.55	4.16	2.38	4.31	0.16	0.00	0.00	51.48
1998-99	0.12	0.00	0.75	0.95	2.26	0.86	3.16	1.87	0.00	0.02	0.00	0.00	9.99
1999-00	0.02	0.00	0.72	0.00	1.43	8.66	2.74	3.90	0.00	0.00	0.00	0.00	17.47
2000-01	0.00	2.18	0.00	0.08	6.30	5.24	4.73	1.67	0.18	0.02	0.03	0.00	20.43
2001-02	0.04	0.49	3.75	1.78	0.59	0.31	0.37	0.11	0.14	0.01	0.05	0.02	7.66
2002-03	0.20	0.01	5.88	4.59	0.09	2.91	4.46	1.90	1.72	0.19	0.02	0.00	21.97
2003-04	0.04	0.09	1.31	1.89	0.42	5.18	0.57	0.01	0.02	0.01	0.03	0.00	9.57
2004-05	0.00	4.46	0.10	8.62	11.20	7.41	3.96	0.74	1.01	0.02	0.00	0.04	37.56
2005-06	0.20	1.08	0.82	0.72	2.82	2.88	3.26	5.88	0.90	0.00	0.00	0.02	18.58
2006-07	0.01	0.09	0.26	0.72	3.24	1.86	0.18	0.70	0.00	0.02	0.01	0.02	7.11
2007-08	0.28	0.28	0.02	3.06	12.00	1.75	0.00	0.08	0.04	0.00	0.00	0.00	17.51

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 208 **Station Type: Alert, Data Logger w/TB** **Latitude: 342353 Longitude: 1193106**

Station Name: Carpinteria Fire Station **Elevation (ft): 32** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
2008-09	0.03	0.06	2.71	2.55	0.63	6.18	0.78	0.15	0.03	0.07	0.00	0.00	13.19
2009-10	0.06	3.61	0.01	2.86	6.14	3.86	0.56	2.45	0.15	0.03	0.02	0.00	19.75
2010-11	0.01	2.45	1.00	9.66	0.59	4.06	6.20	0.05	0.48	0.36	0.00	0.03	24.89
Total	20.84	40.40	124.47	184.84	270.58	277.82	206.16	91.44	25.91	5.48	0.88	4.00	1252.82
N	63	63	63	63	63	63	63	63	63	63	63	63	63
Mean	0.33	0.64	1.98	2.93	4.29	4.41	3.27	1.45	0.41	0.09	0.01	0.06	19.89
Max	6.35	4.46	11.02	9.66	21.42	23.55	14.92	8.37	4.39	1.14	0.47	1.84	51.48
StdDev	0.89	1.03	2.16	2.70	4.37	4.58	3.23	1.70	0.85	0.20	0.06	0.26	9.84
CV	2.70	1.61	1.09	0.92	1.02	1.04	0.99	1.17	2.06	2.32	4.35	4.02	0.49
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.41	1.51	2.54	3.33	3.62	2.76	1.02	0.13	0.00	0.00	0.00	18.31
5	0.56	1.17	3.42	4.81	6.92	7.68	5.41	2.51	0.77	0.16	0.02	0.09	26.45
10	1.25	1.72	4.70	6.24	9.44	10.26	7.09	3.58	1.33	0.36	0.06	0.28	31.61
25	2.33	2.44	6.31	7.96	12.64	13.40	9.14	4.96	2.12	0.66	0.13	0.62	37.91
50	3.22	2.98	7.47	9.19	15.04	15.72	10.65	5.98	2.74	0.91	0.19	0.92	42.55
100	4.15	3.51	8.63	10.38	17.40	17.90	12.07	6.99	3.37	1.17	0.25	1.25	46.92
200	5.13	4.05	9.77	11.54	19.72	20.04	13.46	8.01	4.01	1.43	0.32	1.58	51.21
500	7.09	4.94	11.56	13.21	23.54	23.18	15.51	9.68	5.12	1.96	0.45	2.30	57.51
1000	7.46	5.27	12.35	14.10	25.05	24.80	16.57	10.33	5.52	2.07	0.47	2.42	60.75
10000	10.94	7.02	15.96	17.62	32.59	31.43	20.90	13.60	7.73	3.02	0.71	3.67	74.05

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 436 **Station Type:** Data Logger w/TB **Latitude:** 345644 **Longitude:** 1194057

Station Name: Cuyama Fire Station #41 **Elevation (ft):** 2275 **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1954-55	0.00	0.00	0.46	1.12	2.54	0.42	0.13	0.65	0.44	0.00	0.00	0.00	5.76
1955-56	0.00	0.00	0.77	1.77	1.91	0.34	0.02	0.50	0.41	0.00	0.00	0.00	5.72
1956-57	0.00	1.29	0.00	0.13	1.98	1.03	0.72	0.51	0.43	0.40	0.00	0.00	6.49
1957-58	0.00	0.87	0.31	1.20	0.73	2.76	2.86	3.63	0.64	0.00	0.00	0.62	13.62
1958-59	1.43	0.00	0.25	0.03	1.03	2.32	0.00	0.64	0.00	0.00	0.02	0.00	5.72
1959-60	0.28	0.00	0.00	0.13	1.32	1.65	0.72	0.58	0.00	0.00	0.00	0.00	4.68
1960-61	0.00	0.17	2.45	0.17	0.24	0.42	0.46	0.08	0.07	0.00	0.05	0.03	4.14
1961-62	0.00	0.00	1.26	0.82	1.10	7.67	1.58	0.00	0.07	0.00	0.00	0.00	12.50
1962-63	0.00	0.20	0.00	0.00	0.18	2.16	1.37	1.11	0.46	2.27	0.00	0.00	7.75
1963-64	0.70	1.06	0.85	0.06	1.09	0.12	0.72	0.39	0.47	0.00	0.00	0.00	5.46
1964-65	0.25	0.75	0.88	1.24	0.52	0.30	0.64	2.95	0.00	0.00	0.00	0.06	7.59
1965-66	0.20	0.00	2.21	2.19	0.89	1.22	0.21	0.00	0.00	0.00	0.00	0.00	6.92
1966-67	0.34	0.00	1.61	3.70	1.31	0.21	0.72	3.78	0.09	0.06	0.07	0.03	11.92
1967-68	1.08	0.00	2.32	0.70	0.39	0.75	1.43	0.45	0.02	0.00	0.00	0.02	7.16
1968-69	0.00	1.54	0.48	0.85	5.19	5.67	0.44	1.39	0.00	0.00	0.00	0.00	15.56
1969-70	0.02	0.00	0.45	0.13	0.97	0.91	1.40	0.10	0.55	0.00	0.05	0.00	4.58
1970-71	0.00	0.00	1.87	1.22	0.45	0.32	0.00	0.34	0.56	0.00	0.00	0.00	4.76
1971-72	0.00	0.00	0.00	2.45	0.00	0.10	0.00	0.00	0.00	0.31	0.00	1.70	4.56
1972-73	0.00	1.27	1.73	0.50	2.51	1.60	2.00	0.00	0.00	0.00	0.00	0.00	9.61
1973-74	0.00	0.23	1.17	0.47	2.46	0.00	1.99	0.64	0.17	0.00	0.20	0.00	7.33
1974-75	0.00	1.44	0.11	1.27	0.05	1.87	0.82	0.26	0.00	0.00	0.00	0.19	6.01
1975-76	0.03	0.18	0.23	0.06	0.00	2.58	0.40	0.70	0.13	0.05	0.00	0.09	4.45
1976-77	3.10	0.14	0.36	0.13	1.81	0.03	0.80	0.00	1.41	0.00	0.00	0.70	8.48
1977-78	0.00	0.00	0.05	2.66	2.26	6.29	4.42	1.21	0.00	0.00	0.00	0.00	16.89
1978-79	1.94	0.00	0.12	0.72	2.06	2.20	2.75	0.00	0.00	0.00	0.00	0.00	9.79
1979-80	0.30	0.19	0.27	0.62	1.59	3.03	1.28	0.97	0.05	0.00	0.05	0.00	8.35
1980-81	0.00	0.62	0.00	0.45	1.60	0.99	3.13	0.19	0.06	0.00	0.00	0.00	7.04
1981-82	0.00	0.66	0.33	0.04	2.01	0.80	3.92	2.15	0.00	0.00	0.00	0.00	9.91
1982-83	0.68	0.75	2.17	0.77	2.90	2.57	3.00	0.73	0.43	0.00	0.00	0.78	14.78
1983-84	0.18	0.59	1.55	1.38	0.13	0.02	0.32	0.36	0.00	0.00	0.00	0.00	4.53
1984-85	0.47	0.00	1.41	2.46	0.83	0.46	0.56	0.03	0.00	0.00	0.00	0.00	6.22
1985-86	0.60	0.17	1.39	0.62	0.93	2.04	1.99	0.37	0.00	0.00	0.00	0.00	8.11
1986-87	0.23	0.10	0.56	0.46	1.35	0.36	0.51	0.00	0.00	0.85	0.00	0.00	4.42
1987-88	0.00	1.32	2.32	1.04	1.35	0.28	0.45	1.51	0.00	0.00	0.00	0.00	8.27
1988-89	0.00	0.00	0.16	1.93	0.23	0.59	0.27	0.08	0.38	0.00	0.00	0.00	3.64
1989-90	0.26	0.00	0.04	0.00	0.54	0.62	0.12	0.00	0.18	0.00	0.00	0.00	1.76
1990-91	2.46	0.00	0.53	0.10	0.71	0.47	7.12	0.10	0.00	0.00	0.00	0.00	11.49
1991-92	0.00	0.14	0.00	1.54	1.59	2.69	1.74	0.00	0.00	0.00	1.73	0.00	9.43
1992-93	0.00	0.45	0.00	1.27	3.47	2.52	2.11	0.00	0.00	0.03	0.00	0.00	9.85
1993-94	0.00	0.30	0.49	0.76	0.76	2.17	1.09	0.28	1.03	0.00	0.00	0.00	6.88
1994-95	0.42	0.05	1.01	1.22	6.33	0.83	4.45	0.26	0.51	0.20	0.00	0.00	15.28
1995-96	0.00	0.00	0.16	0.63	0.97	4.95	0.59	0.13	0.00	0.00	0.00	0.00	7.43
1996-97	0.02	0.86	1.63	1.23	2.71	0.87	1.40	0.10	0.55	0.00	0.05	0.00	9.42
1997-98	0.27	0.00	1.58	2.62	1.51	8.38	2.49	0.98	1.95	0.00	0.00	0.00	19.78
1998-99	0.74	0.43	0.75	0.92	1.95	0.47	1.76	0.55	0.00	0.00	0.00	0.00	7.57
1999-00	0.33	0.00	0.32	0.06	0.66	2.31	0.91	1.25	0.00	0.00	0.00	0.00	5.84
2000-01	0.00	0.30	0.00	0.07	2.76	3.17	3.00	0.81	0.00	0.00	0.00	0.00	10.11
2001-02	0.00	0.24	1.01	0.86	0.26	0.00	0.20	0.43	0.10	0.00	0.00	0.00	3.10
2002-03	0.12	0.00	0.71	2.03	0.00	2.10	1.49	0.52	0.55	0.00	0.00	0.55	8.07
2003-04	0.00	0.00	0.27	0.80	0.37	2.11	0.15	0.00	0.00	0.00	0.00	0.00	3.70
2004-05	0.00	1.31	0.00	1.34	2.47	1.91	1.61	0.16	0.68	0.00	0.00	0.00	9.48
2005-06	0.00	1.10	0.00	0.75	2.27	0.60	1.33	2.06	0.12	0.00	0.15	0.00	8.38
2006-07	0.00	0.42	0.16	0.42	0.50	1.56	0.03	0.10	0.00	0.00	0.00	0.00	3.19
2007-08	0.08	0.21	0.41	0.48	3.61	0.35	0.00	0.07	0.04	0.00	0.00	0.00	5.25
2008-09	0.00	0.03	1.17	0.86	0.27	2.03	0.43	0.47	0.06	0.01	0.00	0.07	5.40
2009-10	0.03	0.09	0.09	1.34	2.99	1.90	0.33	1.04	0.06	0.00	0.01	0.00	7.88
2010-11	0.00	1.55	0.42	4.81	0.36	0.65	2.26	0.27	0.26	0.10	0.04	0.01	10.73

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 436 **Station Type: Data Logger w/TB** **Latitude: 345644 Longitude: 1194057**

Station Name: Cuyama Fire Station #41 **Elevation (ft): 2275** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	16.56	21.02	40.85	57.60	82.97	96.74	76.64	35.88	12.93	4.28	2.42	4.85	452.74
N	57	57	57	57	57	57	57	57	57	57	57	57	57
Mean	0.29	0.37	0.72	1.01	1.46	1.70	1.34	0.63	0.23	0.08	0.04	0.09	7.94
Max	3.10	1.55	2.45	4.81	6.33	8.38	7.12	3.78	1.95	2.27	1.73	1.70	19.78
StdDev	0.60	0.48	0.72	0.95	1.26	1.80	1.37	0.84	0.37	0.32	0.23	0.28	3.65
CV	2.08	1.30	1.01	0.94	0.86	1.06	1.02	1.33	1.63	4.27	5.38	3.23	0.46
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.24	0.55	0.87	1.13	1.39	1.13	0.44	0.07	0.00	0.00	0.00	7.31
5	0.49	0.67	1.24	1.66	2.35	2.96	2.22	1.09	0.43	0.14	0.07	0.12	10.56
10	1.10	0.99	1.71	2.15	3.20	3.95	2.91	1.55	0.73	0.31	0.19	0.38	12.63
25	2.04	1.40	2.29	2.74	4.29	5.16	3.75	2.15	1.17	0.57	0.40	0.84	15.14
50	2.83	1.71	2.71	3.17	5.10	6.05	4.37	2.59	1.51	0.78	0.57	1.24	16.99
100	3.65	2.02	3.13	3.57	5.90	6.89	4.96	3.03	1.86	1.01	0.76	1.67	18.74
200	4.50	2.33	3.54	3.97	6.68	7.71	5.53	3.47	2.21	1.23	0.96	2.12	20.45
500	6.22	2.84	4.19	4.55	7.98	8.92	6.37	4.20	2.82	1.69	1.37	3.09	22.97
1000	6.55	3.03	4.48	4.86	8.49	9.54	6.81	4.48	3.05	1.79	1.44	3.24	24.26
10000	9.61	4.04	5.79	6.07	11.05	12.10	8.59	5.90	4.27	2.60	2.16	4.92	29.58

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 421 **Station Type: Alert, Data Logger w/TB** **Latitude: 344405 Longitude: 1200025**

Station Name: Figueroa Mountain **Elevation (ft): 3200** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1960-61	0.00	0.14	6.78	1.39	2.34	0.46	1.30	0.60	0.63	0.00	0.00	0.00	13.64
1961-62	0.08	0.00	3.24	2.71	2.84	13.77	1.76	0.00	0.17	0.07	0.00	0.00	24.64
1962-63	0.00	0.53	0.06	0.09	1.52	6.61	2.95	3.11	0.21	0.29	0.00	0.08	15.45
1963-64	1.69	1.47	3.26	0.13	2.64	0.10	3.54	2.81	0.22	0.34	0.08	0.00	16.28
1964-65	0.00	2.25	4.62	3.50	0.75	0.22	1.90	6.59	0.00	0.00	0.02	0.00	19.85
1965-66	0.79	0.00	9.72	5.07	1.60	1.20	0.20	0.00	0.40	0.00	0.00	0.00	18.98
1966-67	0.20	0.10	4.68	7.95	5.05	0.47	6.14	8.85	0.20	0.30	0.00	0.00	33.94
1967-68	0.34	0.00	4.57	1.49	1.54	1.38	4.17	1.37	0.00	0.00	0.00	0.00	14.86
1968-69	0.00	2.25	1.33	3.29	18.90	11.50	2.20	1.10	0.00	0.00	0.10	0.00	40.67
1969-70	0.16	0.45	1.18	0.78	4.60	2.22	5.51	0.20	0.00	0.10	0.00	0.00	15.20
1970-71	0.00	0.16	6.15	6.21	1.04	0.63	1.10	1.53	1.79	0.00	0.00	0.00	18.61
1971-72	0.05	0.37	0.68	6.80	0.28	0.69	0.00	0.38	0.06	0.03	0.07	0.00	9.41
1972-73	0.00	0.72	5.74	1.76	5.41	9.61	4.22	0.00	0.00	0.00	0.00	0.02	27.48
1973-74	0.22	0.74	3.91	3.02	7.19	0.11	4.32	2.29	0.22	0.00	0.00	0.00	22.02
1974-75	0.00	1.91	0.60	5.35	0.15	4.94	6.40	1.46	0.00	0.00	0.00	0.00	20.81
1975-76	0.00	1.10	0.47	0.20	0.00	6.63	2.76	2.32	0.00	0.15	0.00	0.79	14.42
1976-77	5.06	0.73	0.70	0.99	3.39	0.15	2.41	0.03	3.61	0.00	0.00	0.02	17.09
1977-78	0.03	0.03	0.30	5.45	7.20	12.00	11.34	3.56	0.03	0.00	0.00	0.00	39.94
1978-79	2.78	0.00	3.60	1.90	5.50	5.40	5.70	0.07	0.00	0.00	0.00	0.00	24.95
1979-80	0.40	0.70	1.60	1.70	9.20	12.00	3.80	1.70	0.50	0.00	0.00	0.00	31.60
1980-81	0.00	0.00	0.00	1.20	5.60	3.50	8.50	1.80	0.00	0.00	0.00	0.00	20.60
1981-82	0.00	0.95	2.09	1.72	4.01	1.10	7.90	4.48	0.00	0.24	0.00	0.00	22.49
1982-83	1.16	1.83	7.17	4.31	10.00	7.60	13.65	5.33	0.58	0.00	0.00	0.47	52.10
1983-84	1.40	2.12	5.40	5.04	0.20	0.20	0.94	0.48	0.00	0.00	0.00	0.00	15.78
1984-85	0.40	1.20	3.90	4.60	0.69	2.25	3.21	0.50	0.00	0.00	0.00	0.00	16.75
1985-86	0.00	0.70	4.61	0.68	1.40	6.90	5.68	0.30	0.00	0.00	0.00	0.00	20.27
1986-87	1.65	0.00	1.06	1.00	2.40	3.20	4.70	0.30	0.00	0.00	0.00	0.00	14.31
1987-88	0.00	2.00	1.65	2.75	3.25	2.95	0.71	3.83	0.16	0.30	0.00	0.00	17.60
1988-89	0.00	0.00	1.47	5.26	0.40	1.97	1.30	0.59	0.00	0.00	0.00	0.00	10.99
1989-90	0.63	0.24	0.59	0.00	3.58	2.05	0.24	0.16	1.08	0.00	0.00	0.00	8.57
1990-91	0.20	0.10	0.40	0.50	2.00	4.00	12.20	0.20	0.00	0.20	0.00	0.00	19.80
1991-92	0.00	1.00	0.40	5.80	3.70	11.60	5.20	0.00	0.20	0.00	0.70	0.00	28.60
1992-93	0.00	2.40	0.00	7.70	10.60	9.30	6.90	0.10	0.00	0.70	0.00	0.00	37.70
1993-94	0.00	0.16	1.72	2.10	1.90	5.70	2.90	1.30	2.40	0.00	0.00	0.00	18.18
1994-95	0.00	0.70	2.00	1.60	20.00	3.20	12.20	0.60	1.80	0.80	0.00	0.00	42.90
1995-96	0.00	0.00	0.20	1.80	3.90	11.90	3.10	1.70	0.80	0.10	0.00	0.00	23.50
1996-97	0.00	2.40	3.51	6.31	6.76	0.48	0.00	0.00	0.00	0.00	0.04	0.00	19.50
1997-98	0.00	0.00	5.00	5.16	5.95	17.30	5.55	3.20	3.70	0.00	0.00	0.00	45.86
1998-99	0.95	0.16	1.38	1.39	3.27	2.29	5.32	2.33	0.00	0.08	0.47	0.12	17.76
1999-00	0.00	0.00	1.66	0.00	2.09	8.95	1.57	3.31	0.00	0.04	0.00	0.00	17.62
2000-01	0.00	3.38	0.00	0.08	6.30	4.18	5.12	2.49	0.00	0.00	0.00	0.00	21.55
2001-02	0.00	1.11	3.39	1.89	0.83	0.28	1.57	0.16	0.32	0.00	0.00	0.00	9.55
2002-03	0.00	0.00	5.32	5.80	0.08	3.06	1.89	1.82	2.04	0.00	0.00	0.00	20.01
2003-04	0.00	0.00	2.41	1.98	0.75	4.97	0.55	0.00	0.00	0.00	0.00	0.00	10.66
2004-05	0.00	6.38	0.79	6.78	10.05	6.22	3.20	0.67	2.13	0.00	0.00	0.00	36.22
2005-06	0.00	0.47	1.81	1.06	4.25	2.05	5.18	7.22	1.18	0.00	0.00	0.00	23.22
2006-07	0.00	0.98	0.28	0.83	1.10	3.94	0.91	0.63	0.00	0.00	0.00	0.04	8.70
2007-08	0.59	0.75	0.12	3.70	11.42	3.43	0.16	0.08	0.20	0.00	0.00	0.00	20.43
2008-09	0.00	0.12	2.41	1.87	0.89	4.06	1.34	0.18	0.06	0.07	0.00	0.06	11.06
2009-10	0.06	1.88	0.00	3.96	6.80	5.18	0.63	3.77	0.25	0.00	0.00	0.00	22.53
2010-11	0.00	2.31	2.61	13.18	1.55	4.35	6.96	0.46	1.01	0.58	0.00	0.00	33.01

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 421 **Station Type: Alert, Data Logger w/TB** **Latitude: 344405 Longitude: 1200025**

Station Name: Figueroa Mountain **Elevation (ft): 3200** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	18.84	46.99	126.53	159.83	216.86	238.24	200.99	85.96	25.95	4.39	1.48	1.60	1127.66
N	51	51	51	51	51	51	51	51	51	51	51	51	51
Mean	0.37	0.92	2.48	3.13	4.25	4.67	3.94	1.69	0.51	0.09	0.03	0.03	22.11
Max	5.06	6.38	9.72	13.18	20.00	17.30	13.65	8.85	3.70	0.80	0.70	0.79	52.10
StdDev	0.86	1.16	2.25	2.66	4.28	4.16	3.31	2.00	0.89	0.18	0.12	0.13	9.99
CV	2.34	1.26	0.91	0.85	1.01	0.89	0.84	1.19	1.75	2.07	4.01	4.05	0.45
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.59	1.89	2.71	3.30	3.84	3.32	1.18	0.16	0.00	0.00	0.00	20.36
5	0.63	1.68	4.30	5.13	6.85	8.14	6.51	2.92	0.96	0.16	0.05	0.04	29.41
10	1.40	2.48	5.91	6.66	9.34	10.87	8.54	4.16	1.64	0.36	0.13	0.14	35.15
25	2.60	3.50	7.92	8.50	12.52	14.20	11.00	5.76	2.62	0.65	0.27	0.31	42.15
50	3.60	4.28	9.38	9.82	14.89	16.65	12.82	6.94	3.39	0.90	0.39	0.46	47.31
100	4.64	5.05	10.84	11.08	17.23	18.96	14.54	8.12	4.17	1.15	0.52	0.62	52.17
200	5.73	5.82	12.27	12.32	19.52	21.23	16.22	9.30	4.96	1.41	0.66	0.78	56.94
500	7.91	7.10	14.52	14.11	23.31	24.56	18.68	11.25	6.33	1.94	0.94	1.14	63.95
1000	8.33	7.57	15.51	15.06	24.80	26.27	19.95	11.99	6.83	2.05	0.99	1.19	67.54
10000	12.22	10.09	20.04	18.82	32.27	33.30	25.16	15.79	9.57	2.98	1.48	1.81	82.33

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 230 **Station Type: Data Logger w/TB & Standard** **Latitude: 343124 Longitude: 1194055**

Station Name: Gibraltar Dam **Elevation (ft): 1500** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1919-20	0.90	0.30	0.00	4.50	0.46	7.74	6.56	1.20	0.00	0.05	0.00	0.00	21.71
1920-21	0.00	0.70	1.92	1.59	8.88	2.65	2.66	0.35	3.57	0.00	0.00	0.00	22.32
1921-22	0.29	0.50	0.07	17.21	7.66	8.98	6.02	0.45	0.57	0.00	0.00	0.00	41.75
1922-23	0.00	0.44	3.43	10.25	3.37	1.68	0.09	2.98	0.00	0.12	0.00	0.00	22.36
1923-24	0.00	1.10	0.10	0.27	1.00	0.10	6.95	0.88	0.00	0.00	0.00	0.00	10.40
1924-25	0.00	0.73	0.96	1.78	0.40	1.67	5.82	3.50	2.42	0.13	0.00	0.00	17.41
1925-26	0.00	1.17	1.13	2.18	3.67	6.79	0.10	12.10	0.00	0.00	0.00	0.00	27.14
1926-27	0.00	0.02	7.90	0.95	2.02	13.47	2.79	1.11	0.00	0.00	0.00	0.00	28.26
1927-28	0.00	4.13	1.15	4.33	0.10	5.83	3.81	0.28	0.44	0.00	0.00	0.00	20.07
1928-29	0.00	0.00	3.93	6.26	2.14	2.28	2.81	2.00	0.00	0.20	0.00	0.00	19.62
1929-30	0.03	0.00	0.00	0.00	7.24	0.91	8.27	0.31	1.19	0.10	0.00	0.00	18.05
1930-31	0.00	0.00	2.49	0.00	5.03	3.44	0.00	2.82	2.91	0.00	0.00	0.65	17.34
1931-32	0.00	0.00	5.42	11.28	4.94	10.80	0.11	0.30	0.43	0.00	0.00	0.00	33.28
1932-33	0.00	0.16	0.00	0.81	14.39	0.00	0.26	0.09	0.00	0.72	0.00	0.00	16.43
1933-34	0.00	0.48	0.00	8.96	4.67	4.09	0.00	0.00	0.00	1.52	0.00	0.00	19.72
1934-35	0.00	2.71	2.85	5.26	7.83	1.18	5.09	4.54	0.07	0.00	0.00	0.17	29.70
1935-36	0.00	0.44	0.77	1.98	0.35	14.02	2.79	1.03	0.00	0.00	0.00	0.25	21.63
1936-37	0.00	0.62	0.00	13.67	5.00	7.58	9.17	0.10	0.00	0.00	0.00	0.00	36.14
1937-38	0.00	0.17	0.04	5.20	2.32	15.62	15.99	1.59	0.00	0.00	0.00	0.00	40.93
1938-39	0.37	0.22	0.12	7.10	4.73	1.93	5.65	0.06	0.27	0.00	0.00	0.00	20.45
1939-40	0.68	0.11	0.17	2.36	7.03	5.52	1.51	1.43	0.00	0.00	0.00	0.00	18.81
1940-41	0.00	0.88	0.44	11.16	9.31	18.62	17.97	8.26	0.07	0.00	0.00	0.00	66.71
1941-42	0.00	1.11	0.75	7.96	1.55	1.01	2.27	4.22	0.03	0.00	0.00	0.05	18.95
1942-43	0.00	0.92	0.30	1.56	21.90	6.72	5.03	1.06	0.00	0.00	0.00	0.00	37.49
1943-44	0.00	0.57	0.19	6.76	2.83	15.03	2.20	1.83	0.00	0.00	0.00	0.00	29.41
1944-45	0.00	0.00	5.57	1.54	0.70	7.61	5.59	0.06	0.00	0.00	0.00	0.00	21.07
1945-46	0.00	1.97	0.64	9.86	0.41	2.80	9.58	0.02	0.00	0.00	0.00	0.00	25.28
1946-47	0.00	0.18	8.15	4.36	0.42	0.82	1.96	0.14	0.07	0.00	0.00	0.00	16.10
1947-48	0.00	0.04	0.02	0.48	0.00	2.73	5.23	2.87	0.63	0.39	0.00	0.00	12.39
1948-49	0.00	0.09	0.00	4.88	2.22	1.22	4.88	0.19	1.61	0.01	0.00	0.00	15.10
1949-50	0.00	0.02	2.53	4.62	4.16	2.38	1.42	1.40	0.00	0.00	0.02	0.00	16.55
1950-51	0.29	1.48	2.28	0.64	2.27	1.33	1.56	1.50	0.01	0.00	0.00	0.00	11.36
1951-52	0.00	1.04	2.83	5.80	25.21	0.78	11.75	1.99	0.00	0.00	0.03	0.00	49.43
1952-53	0.00	0.08	4.85	8.06	1.32	0.00	0.19	1.28	0.37	0.23	0.00	0.00	16.38
1953-54	0.00	0.00	2.83	0.25	7.70	3.29	6.26	0.21	0.00	0.00	0.00	0.00	20.54
1954-55	0.00	0.00	3.27	3.17	6.39	2.69	0.75	4.64	0.54	0.00	0.00	0.07	21.52
1955-56	0.00	0.00	1.63	8.66	5.48	0.99	0.00	5.06	2.00	0.00	0.00	0.00	23.82
1956-57	0.00	0.08	0.00	0.38	8.60	4.39	0.67	3.34	1.31	0.04	0.04	0.00	18.85
1957-58	0.00	2.01	0.84	9.94	3.57	13.35	9.70	11.95	0.70	0.00	0.00	0.02	52.08
1958-59	0.61	0.00	0.13	0.05	5.75	10.48	0.00	0.57	0.02	0.00	0.00	0.00	17.61
1959-60	0.16	0.00	0.00	1.96	5.58	3.64	0.43	3.36	0.00	0.00	0.00	0.00	15.13
1960-61	0.00	0.09	7.37	0.63	2.67	0.02	0.85	0.47	0.00	0.00	0.00	0.00	12.10
1961-62	0.00	0.03	5.51	3.01	2.71	23.05	1.83	0.00	0.00	0.00	0.00	0.00	36.14
1962-63	0.00	0.30	0.00	0.30	1.96	6.90	5.25	3.12	0.28	0.44	0.00	0.00	18.55
1963-64	1.49	0.89	3.63	0.00	4.40	0.04	3.50	2.16	0.14	0.02	0.00	0.00	16.27
1964-65	0.00	1.15	4.18	5.21	0.93	0.37	2.87	7.94	0.11	0.00	0.00	0.00	22.76
1965-66	0.00	0.00	17.00	9.36	2.24	0.86	0.24	0.00	0.00	0.00	0.00	0.00	29.70
1966-67	0.00	0.04	7.48	9.38	8.22	0.00	6.86	7.15	0.06	0.00	0.00	0.00	39.19
1967-68	0.12	0.00	5.11	1.51	1.84	1.30	3.50	1.67	0.00	0.00	0.00	0.00	15.05
1968-69	0.00	1.19	1.07	2.22	31.18	18.23	1.67	2.81	0.00	0.00	0.00	0.00	58.37
1969-70	0.00	0.00	2.59	0.31	4.34	3.57	6.58	0.00	0.00	0.00	0.00	0.00	17.39
1970-71	0.00	0.08	9.38	8.87	1.10	1.64	0.00	0.94	0.47	0.00	0.00	0.00	22.48
1971-72	0.00	0.47	1.09	13.20	0.19	0.32	0.00	0.24	0.11	0.00	0.00	0.00	15.62
1972-73	0.00	0.55	9.10	1.06	8.38	14.89	4.27	0.00	0.00	0.00	0.00	0.00	38.25
1973-74	0.00	0.70	3.19	2.83	12.26	0.05	5.35	0.85	0.02	0.00	0.00	0.00	25.25
1974-75	0.00	0.89	0.06	9.53	0.35	5.62	8.96	2.13	0.08	0.00	0.00	0.01	27.63
1975-76	0.00	0.40	0.44	0.22	0.00	10.93	2.02	1.08	0.00	0.00	0.00	0.05	15.14
1976-77	4.28	0.25	0.44	0.83	5.42	0.26	2.89	0.00	5.19	0.00	0.00	0.38	19.94
1977-78	0.00	0.00	0.14	9.23	11.91	14.42	18.28	4.27	0.00	0.00	0.00	0.00	58.25
1978-79	1.63	0.00	2.76	2.51	8.49	6.08	7.26	0.00	0.00	0.00	0.00	0.00	28.73

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 230 **Station Type: Data Logger w/TB & Standard** **Latitude: 343124 Longitude: 1194055**

Station Name: Gibraltar Dam **Elevation (ft): 1500** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1979-80	1.01	0.58	0.96	2.02	8.13	17.69	4.39	1.10	0.24	0.00	0.00	0.00	36.12
1980-81	0.00	0.00	0.00	1.74	6.17	2.99	9.98	1.05	0.00	0.00	0.00	0.00	21.93
1981-82	0.00	0.38	2.57	0.47	6.14	0.65	7.55	5.02	0.05	0.00	0.00	0.00	22.83
1982-83	1.70	1.30	7.87	5.62	15.07	8.47	15.11	8.86	0.00	0.20	0.00	0.79	64.99
1983-84	0.59	5.46	4.18	6.75	0.25	0.18	0.95	0.24	0.00	0.00	0.00	0.07	18.67
1984-85	0.23	0.49	4.09	7.05	1.17	1.16	2.65	0.14	0.00	0.00	0.00	0.00	16.98
1985-86	0.05	0.36	6.32	1.02	3.63	11.33	6.70	1.04	0.00	0.00	0.00	0.00	30.45
1986-87	0.84	0.00	0.91	0.42	2.61	2.02	5.16	0.07	0.00	0.20	0.00	0.00	12.23
1987-88	0.00	1.71	1.41	4.97	5.19	4.12	1.97	5.30	0.13	0.05	0.00	0.00	24.85
1988-89	0.00	0.00	1.04	5.88	0.36	5.38	1.39	0.00	0.60	0.00	0.00	0.00	14.65
1989-90	0.24	0.68	0.51	0.00	6.03	3.34	0.04	0.24	0.75	0.00	0.00	0.00	11.83
1990-91	0.00	0.00	0.26	0.18	1.71	4.88	22.76	0.00	0.00	0.21	0.00	0.00	30.00
1991-92	0.00	0.33	0.13	6.54	4.72	19.42	6.89	0.04	0.16	0.00	0.00	0.00	38.23
1992-93	0.00	1.78	0.00	8.17	14.30	16.43	8.12	0.00	0.34	0.47	0.00	0.00	49.61
1993-94	0.00	0.19	1.51	2.92	1.74	10.46	2.83	0.65	0.48	0.00	0.00	0.00	20.78
1994-95	0.09	2.19	1.29	1.54	34.46	3.39	13.97	0.33	1.64	0.02	0.00	0.00	58.92
1995-96	0.00	0.00	0.18	2.85	2.93	10.30	2.21	1.00	0.39	0.00	0.00	0.00	19.86
1996-97	0.00	7.05	1.89	7.81	7.45	0.13	0.00	0.00	0.00	0.00	0.04	0.00	24.37
1997-98	0.09	0.00	5.48	10.17	6.81	34.90	4.59	4.43	6.62	0.03	0.00	0.00	73.12
1998-99	0.55	0.13	1.22	0.65	4.25	2.26	4.97	3.13	0.00	0.05	0.24	0.00	17.45
1999-00	0.02	0.00	1.82	0.00	2.35	18.05	4.49	6.27	0.00	0.19	0.00	0.01	33.20
2000-01	0.00	4.04	0.00	0.15	11.24	8.85	13.67	2.97	0.01	0.00	0.00	0.00	40.93
2001-02	0.00	0.65	4.48	2.90	1.03	0.33	0.84	0.08	0.09	0.00	0.00	0.00	10.40
2002-03	0.06	0.00	4.61	6.45	0.12	5.26	4.43	3.87	2.82	0.00	0.06	0.00	27.68
2003-04	0.00	0.00	2.29	3.10	0.39	8.56	0.40	0.00	0.00	0.00	0.00	0.00	14.74
2004-05	0.00	8.39	0.46	17.37	21.45	15.66	3.35	1.04	1.34	0.05	0.00	0.00	69.11
2005-06	0.14	0.59	1.38	0.66	9.61	5.33	5.35	8.12	1.27	0.00	0.00	0.00	32.45
2006-07	0.00	0.37	0.23	1.63	2.62	3.40	0.16	0.81	0.00	0.00	0.00	0.02	9.24
2007-08	0.79	0.37	0.10	4.32	23.40	3.04	0.00	0.15	0.27	0.00	0.00	0.00	32.44
2008-09	0.00	0.04	2.04	3.78	0.81	7.22	0.95	0.33	0.02	0.08	0.00	0.00	15.27
2009-10	0.00	5.55	0.00	4.83	11.08	6.40	0.65	4.84	0.07	0.00	0.02	0.00	33.44
2010-11	0.00	1.86	2.04	13.02	1.90	4.81	13.70	0.14	1.03	0.49	0.00	0.00	38.99
Total	17.25	75.99	211.51	413.22	536.31	571.12	426.29	187.16	44.01	6.01	0.45	2.54	2491.86
N	92	92	92	92	92	92	92	92	92	92	92	92	92
Mean	0.19	0.83	2.30	4.49	5.83	6.21	4.63	2.03	0.48	0.07	0.00	0.03	27.09
Max	4.28	8.39	17.00	17.37	34.46	34.90	22.76	12.10	6.62	1.52	0.24	0.79	73.12
StdDev	0.55	1.48	2.86	4.14	6.60	6.40	4.70	2.63	1.07	0.20	0.03	0.12	14.22
CV	2.94	1.80	1.24	0.92	1.13	1.03	1.01	1.29	2.24	3.01	5.39	4.18	0.53
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.53	1.75	3.89	4.52	5.10	3.91	1.42	0.15	0.00	0.00	0.00	24.94
5	0.32	1.50	3.98	7.36	9.40	10.82	7.66	3.52	0.90	0.12	0.01	0.04	36.02
10	0.71	2.22	5.47	9.55	12.81	14.44	10.04	5.02	1.55	0.27	0.02	0.12	43.06
25	1.32	3.14	7.34	12.19	17.16	18.87	12.94	6.96	2.47	0.49	0.05	0.27	51.64
50	1.83	3.84	8.69	14.07	20.41	22.13	15.07	8.38	3.18	0.68	0.07	0.40	57.95
100	2.35	4.53	10.04	15.89	23.62	25.20	17.09	9.80	3.92	0.88	0.09	0.54	63.91
200	2.91	5.21	11.37	17.66	26.76	28.21	19.07	11.22	4.66	1.07	0.11	0.69	69.75
500	4.02	6.37	13.45	20.22	31.96	32.63	21.97	13.57	5.95	1.47	0.16	1.00	78.33
1000	4.23	6.79	14.38	21.58	34.00	34.91	23.46	14.48	6.42	1.55	0.17	1.05	82.74
10000	6.20	9.04	18.57	26.98	44.23	44.25	29.59	19.06	9.00	2.26	0.25	1.60	100.86

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 440 **Station Type:** Data Logger w/TB **Latitude:** 342635 **Longitude:** 1195113

Station Name: Goleta Fire Station #14 **Elevation (ft):** 75 **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1941-42	0.00	1.07	0.45	5.79	1.02	1.18	1.92	3.30	0.00	0.00	0.00	0.14	14.87
1942-43	0.00	0.92	0.77	1.56	10.80	3.12	2.90	1.01	0.00	0.00	0.00	0.00	21.08
1943-44	0.00	0.65	0.00	5.84	1.45	6.67	2.36	1.59	0.00	0.00	0.00	0.00	18.56
1944-45	0.00	0.00	3.77	1.17	0.00	6.24	4.60	0.00	0.00	0.00	0.00	0.00	15.78
1945-46	0.00	0.69	0.79	7.24	0.33	1.07	3.74	0.00	0.00	0.00	0.00	0.00	13.86
1946-47	0.00	0.82	7.01	3.29	0.63	0.55	1.03	0.09	0.40	0.00	0.00	0.00	13.82
1947-48	0.00	0.32	0.00	0.73	0.00	1.34	3.78	1.74	0.44	0.10	0.00	0.00	8.45
1948-49	0.00	0.04	0.00	3.24	1.49	1.54	3.03	0.09	1.56	0.00	0.00	0.00	10.99
1949-50	0.00	0.04	1.80	4.40	2.92	2.73	1.59	0.53	0.00	0.00	0.94	0.00	14.95
1950-51	0.21	1.04	2.05	0.51	2.63	1.12	1.16	2.18	0.00	0.00	0.00	0.00	10.90
1951-52	0.00	0.36	1.34	5.87	10.79	0.79	7.70	1.72	0.00	0.00	0.00	0.00	28.57
1952-53	0.00	0.00	4.56	5.41	1.96	0.00	0.66	1.50	0.06	0.00	0.00	0.00	14.15
1953-54	0.00	0.00	2.52	0.11	5.07	2.60	4.22	0.47	0.13	0.00	0.00	0.00	15.12
1954-55	0.00	0.00	1.85	3.71	4.73	2.65	0.70	3.46	0.19	0.00	0.00	0.00	17.29
1955-56	0.00	0.00	1.50	7.53	7.20	1.10	0.00	2.23	1.31	0.00	0.00	0.00	20.87
1956-57	0.00	0.07	0.00	0.12	5.59	3.62	0.43	2.25	1.33	0.00	0.00	0.00	13.41
1957-58	0.00	0.97	0.58	4.30	3.43	8.46	6.38	4.99	0.41	0.00	0.00	0.00	29.52
1958-59	0.56	0.00	0.06	0.09	2.45	4.93	0.00	1.10	0.00	0.00	0.00	0.00	9.19
1959-60	0.04	0.00	0.00	1.52	4.31	3.61	0.54	2.84	0.00	0.00	0.00	0.00	12.86
1960-61	0.00	0.05	5.77	0.43	1.31	0.00	0.93	0.67	0.00	0.00	0.00	0.00	9.16
1961-62	0.00	0.00	2.82	1.25	2.23	14.11	0.97	0.00	0.04	0.00	0.00	0.00	21.42
1962-63	0.00	0.53	0.00	0.10	1.50	6.37	4.35	2.65	0.32	0.43	0.00	0.14	16.39
1963-64	1.11	1.05	3.67	0.00	1.70	0.00	3.18	0.12	0.00	0.19	0.00	0.00	11.02
1964-65	0.00	1.08	2.41	4.99	0.88	0.72	3.17	6.53	0.00	0.00	0.00	0.00	19.78
1965-66	0.00	0.00	9.00	4.29	2.22	0.83	0.10	0.00	0.06	0.06	0.00	0.00	16.56
1966-67	0.03	0.06	4.02	6.08	6.65	0.62	2.11	4.56	0.00	0.00	0.00	0.00	24.13
1967-68	0.10	0.00	4.35	1.25	1.01	1.87	4.41	1.09	0.00	0.00	0.00	0.00	14.08
1968-69	0.00	1.47	0.82	1.94	16.43	9.58	0.34	2.29	0.00	0.00	0.00	0.00	32.87
1969-70	0.05	0.00	1.69	0.27	4.14	2.18	4.52	0.00	0.00	0.00	0.00	0.00	12.85
1970-71	0.00	0.10	4.96	4.66	1.19	1.16	0.95	0.82	1.34	0.00	0.00	0.00	15.18
1971-72	0.00	0.00	0.47	7.87	0.22	0.56	0.00	0.23	0.00	0.00	0.00	0.00	9.35
1972-73	0.00	0.46	7.52	0.92	7.71	9.62	2.93	0.00	0.00	0.00	0.00	0.00	29.16
1973-74	0.00	0.66	1.81	1.66	8.77	0.24	5.19	0.39	0.00	0.00	0.00	0.00	18.72
1974-75	0.00	0.73	0.10	9.16	0.31	5.53	5.81	1.10	0.00	0.00	0.00	0.00	22.74
1975-76	0.00	0.46	0.18	0.08	0.00	5.99	1.47	1.38	0.00	0.27	0.00	0.00	9.83
1976-77	4.51	3.02	0.84	0.90	3.96	0.25	1.86	0.00	3.11	0.00	0.00	0.30	18.75
1977-78	0.00	0.00	0.18	5.22	9.99	10.12	12.91	2.50	0.00	0.00	0.00	0.00	40.92
1978-79	1.25	0.00	1.68	1.50	4.63	5.64	6.19	0.00	0.00	0.00	0.00	0.00	20.89
1979-80	0.80	0.64	0.70	2.20	6.55	10.39	2.61	0.47	0.35	0.00	0.64	0.00	25.35
1980-81	0.00	0.00	0.00	2.20	4.04	2.55	8.35	0.61	0.00	0.00	0.00	0.00	17.75
1981-82	0.00	1.00	2.69	0.82	3.69	0.50	5.69	3.01	0.00	0.00	0.00	0.00	17.40
1982-83	1.55	0.77	7.67	3.25	11.63	9.02	5.74	5.59	0.27	0.00	0.00	2.44	47.93
1983-84	0.48	4.30	3.53	6.02	0.00	0.00	0.92	0.16	0.00	0.00	0.00	0.00	15.41
1984-85	0.32	0.56	2.86	5.13	0.80	2.98	2.06	0.00	0.00	0.00	0.00	0.00	14.71
1985-86	0.04	0.52	3.85	0.90	2.12	8.57	5.80	0.46	0.00	0.00	0.00	0.00	22.26
1986-87	2.20	0.00	0.70	0.75	0.80	2.64	4.70	0.15	0.00	0.00	0.00	0.00	11.94
1987-88	0.00	2.41	0.98	3.19	2.79	0.92	0.82	3.31	0.00	0.00	0.00	0.00	14.42
1988-89	0.00	0.00	1.28	3.68	0.54	2.56	0.60	0.25	0.20	0.00	0.00	0.00	9.11
1989-90	0.05	0.47	0.44	0.00	2.53	1.89	0.01	0.24	0.72	0.00	0.00	0.00	6.35
1990-91	0.17	0.00	0.14	0.00	1.81	2.40	12.65	0.03	0.00	0.35	0.06	0.61	18.22
1991-92	0.04	0.32	0.13	3.97	2.49	8.73	3.56	0.01	0.00	0.03	0.46	0.00	19.74
1992-93	0.00	0.92	0.00	4.23	10.11	6.88	5.71	0.00	0.15	0.50	0.00	0.00	28.50
1993-94	0.00	0.18	1.27	1.62	1.23	6.69	1.79	0.65	0.44	0.00	0.00	0.00	13.87
1994-95	0.03	0.45	1.58	1.06	20.99	1.36	10.92	0.24	1.13	0.58	0.00	0.00	38.34
1995-96	0.00	0.00	0.16	3.15	2.22	7.90	2.22	0.94	0.76	0.00	0.00	0.00	17.35
1996-97	0.00	2.20	3.34	6.30	6.07	0.06	0.00	0.00	0.00	0.00	0.01	0.09	18.07
1997-98	0.48	0.00	3.64	6.59	5.67	21.53	2.46	2.87	3.77	0.02	0.00	0.00	47.03
1998-99	0.35	0.00	1.02	0.83	1.88	0.95	4.42	2.31	0.00	0.09	0.00	0.00	11.85
1999-00	0.04	0.00	1.49	0.00	2.19	11.34	3.83	3.96	0.00	0.00	0.00	0.00	22.85
2000-01	0.04	1.57	0.00	0.09	8.45	6.10	7.71	0.43	0.00	0.00	0.00	0.00	24.39

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 440 **Station Type: Data Logger w/TB** **Latitude: 342635 Longitude: 1195113**

Station Name: Goleta Fire Station #14 **Elevation (ft): 75** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
2001-02	0.00	0.61	3.88	2.19	1.31	0.38	0.55	0.08	0.05	0.00	0.00	0.00	9.05
2002-03	0.18	0.00	6.08	6.05	0.12	2.72	5.25	1.40	1.95	0.03	0.00	0.00	23.78
2003-04	0.00	0.00	1.66	2.80	0.50	5.52	0.50	0.00	0.00	0.00	0.00	0.00	10.98
2004-05	0.00	3.29	0.15	7.97	13.34	7.37	4.39	0.80	0.91	0.00	0.00	0.00	38.22
2005-06	0.12	0.84	2.01	0.86	5.56	2.98	4.24	5.86	1.44	0.00	0.00	0.01	23.92
2006-07	0.00	0.14	0.47	1.01	2.80	1.97	0.00	1.01	0.00	0.00	0.00	0.00	7.40
2007-08	0.24	0.28	0.00	2.62	11.78	2.25	0.00	0.12	0.08	0.00	0.00	0.00	17.37
2008-09	0.00	0.10	1.84	2.63	0.74	4.39	0.96	0.42	0.00	0.49	0.00	0.00	11.57
2009-10	0.00	3.91	0.00	3.67	6.50	4.24	0.47	2.65	0.17	0.02	0.01	0.00	21.64
2010-11	0.00	2.54	1.24	11.53	1.46	3.98	8.36	0.00	0.59	1.57	0.00	0.00	31.27
Total	14.99	44.68	136.14	212.31	284.36	280.47	225.42	93.45	23.68	4.73	2.12	3.73	1326.08
N	70	70	70	70	70	70	70	70	70	70	70	70	70
Mean	0.21	0.64	1.94	3.03	4.06	4.01	3.22	1.34	0.34	0.07	0.03	0.05	18.94
Max	4.51	4.30	9.00	11.53	20.99	21.53	12.91	6.53	3.77	1.57	0.94	2.44	47.93
StdDev	0.64	0.94	2.11	2.62	4.20	3.94	2.96	1.58	0.70	0.22	0.14	0.30	8.92
CV	3.01	1.47	1.09	0.86	1.03	0.98	0.92	1.19	2.07	3.27	4.74	5.61	0.47
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.41	1.48	2.63	3.15	3.29	2.72	0.93	0.11	0.00	0.00	0.00	17.44
5	0.36	1.16	3.37	4.97	6.55	6.98	5.32	2.31	0.64	0.13	0.05	0.07	25.20
10	0.81	1.72	4.63	6.45	8.92	9.32	6.97	3.29	1.09	0.28	0.14	0.24	30.11
25	1.51	2.43	6.21	8.23	11.96	12.18	8.99	4.57	1.74	0.51	0.28	0.52	36.11
50	2.09	2.97	7.35	9.50	14.23	14.28	10.48	5.50	2.25	0.70	0.41	0.77	40.53
100	2.69	3.50	8.50	10.73	16.46	16.26	11.88	6.43	2.77	0.91	0.54	1.05	44.70
200	3.32	4.03	9.62	11.92	18.65	18.21	13.25	7.37	3.30	1.11	0.69	1.33	48.78
500	4.59	4.92	11.38	13.66	22.27	21.06	15.27	8.91	4.21	1.52	0.98	1.93	54.79
1000	4.83	5.25	12.16	14.57	23.70	22.53	16.30	9.50	4.54	1.61	1.03	2.03	57.87
10000	7.08	6.99	15.71	18.22	30.82	28.56	20.56	12.51	6.36	2.34	1.54	3.08	70.54

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 439 **Station Type: Alert, Data Logger w/TB** **Latitude: 343816** **Longitude: 1202707**

Station Name: Lompoc City Hall **Elevation (ft): 100** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1970-71	0.00	0.00	2.86	3.31	0.72	0.35	0.20	0.00	0.00	0.00	0.00	0.00	7.44
1971-72	0.00	0.32	0.23	5.11	0.13	0.29	0.00	0.25	0.00	0.00	0.00	0.00	6.33
1972-73	0.00	0.45	4.70	1.57	5.95	6.16	3.13	0.00	0.00	0.00	0.00	0.00	21.96
1973-74	0.08	0.44	1.77	2.14	5.24	0.15	3.80	0.94	0.00	0.00	0.00	0.00	14.56
1974-75	0.00	0.84	0.15	6.55	0.25	3.44	6.06	0.85	0.00	0.00	0.00	0.00	18.14
1975-76	0.00	0.59	0.35	0.19	0.00	4.94	1.37	1.49	0.03	0.17	0.00	0.71	9.84
1976-77	2.93	0.38	0.63	0.28	2.25	0.07	1.55	0.00	1.92	0.00	0.00	0.00	10.01
1977-78	0.00	0.00	0.12	3.16	6.81	7.62	7.46	3.02	0.00	0.00	0.00	0.00	28.19
1978-79	1.60	0.00	1.36	0.95	4.50	3.66	4.04	0.00	0.05	0.00	0.00	0.00	16.16
1979-80	0.30	0.66	0.84	2.63	3.84	6.87	1.86	0.58	0.14	0.00	0.12	0.00	17.84
1980-81	0.00	0.00	0.00	1.01	3.77	0.97	3.88	0.50	0.00	0.00	0.00	0.00	10.13
1981-82	0.00	0.56	0.64	0.77	2.56	0.56	4.03	2.40	0.00	0.00	0.00	0.00	11.52
1982-83	0.41	1.42	3.37	1.84	8.85	6.45	7.61	3.80	0.35	0.00	0.00	0.32	34.42
1983-84	0.03	0.61	2.14	3.51	0.00	0.44	0.42	0.74	0.00	0.00	0.00	0.00	7.89
1984-85	0.12	0.30	2.90	4.25	1.08	0.97	0.28	0.05	0.00	0.00	0.00	0.00	9.95
1985-86	0.00	0.46	2.73	2.26	1.37	6.57	4.63	0.28	0.00	0.00	0.00	0.00	18.30
1986-87	1.00	0.00	2.00	1.00	2.14	1.93	3.83	0.26	0.00	0.00	0.00	0.00	12.16
1987-88	0.00	0.99	1.30	5.61	1.78	1.90	0.50	3.10	0.25	0.00	0.00	0.00	15.43
1988-89	0.00	0.00	0.88	3.21	0.53	0.74	0.34	0.20	0.24	0.00	0.00	0.00	6.14
1989-90	0.46	0.25	0.30	0.00	2.83	1.64	0.46	0.37	0.64	0.00	0.00	0.00	6.95
1990-91	0.09	0.00	0.21	0.64	1.38	1.61	10.72	0.43	0.00	0.00	0.00	0.00	15.08
1991-92	0.00	0.30	0.20	3.46	2.77	7.15	1.92	0.00	0.00	0.00	0.03	0.00	15.83
1992-93	0.00	0.41	0.00	3.63	5.22	4.97	3.30	0.00	0.12	0.00	0.00	0.00	17.65
1993-94	0.00	0.32	0.82	1.62	1.68	4.99	1.66	0.90	0.77	0.00	0.00	0.00	12.76
1994-95	0.02	0.63	2.28	0.89	16.76	1.71	9.65	0.39	0.76	0.73	0.00	0.00	33.82
1995-96	0.00	0.00	0.31	1.72	0.90	7.23	0.96	0.67	0.36	0.00	0.00	0.00	12.15
1996-97	0.00	1.55	1.96	4.11	4.07	0.00	0.00	0.00	0.00	0.00	0.10	0.00	11.79
1997-98	0.22	0.00	4.45	4.69	5.14	11.15	2.74	3.71	1.95	0.00	0.00	0.00	34.05
1998-99	0.50	0.14	2.22	1.23	2.09	0.90	7.27	1.34	0.00	0.00	0.00	0.00	15.69
1999-00	0.00	0.00	1.07	0.00	1.42	7.67	1.87	3.10	0.00	0.00	0.00	0.00	15.13
2000-01	0.00	1.76	0.00	0.30	4.36	4.86	5.59	0.88	0.00	0.00	0.00	0.00	17.75
2001-02	0.00	0.48	2.94	2.11	0.73	0.26	0.86	0.08	0.07	0.00	0.00	0.00	7.53
2002-03	0.00	0.00	1.84	3.94	0.00	2.39	1.40	1.15	0.94	0.00	0.00	0.00	11.66
2003-04	0.00	0.00	1.34	1.46	0.66	4.76	0.36	0.00	0.00	0.00	0.00	0.00	8.58
2004-05	0.00	3.74	0.63	5.64	5.09	5.82	3.04	0.46	0.40	0.00	0.00	0.00	24.82
2005-06	0.12	0.56	0.94	0.90	4.30	1.16	4.06	3.60	1.22	0.00	0.00	0.00	16.86
2006-07	0.03	0.24	0.31	1.44	1.04	1.62	0.16	0.47	0.00	0.00	0.00	0.00	5.31
2007-08	0.04	0.54	0.04	1.26	10.00	1.62	0.00	0.08	0.00	0.00	0.01	0.02	13.61
2008-09	0.02	0.16	2.57	1.55	0.20	4.97	0.55	0.11	0.11	0.17	0.00	0.00	10.41
2009-10	0.00	2.18	0.01	2.53	7.79	3.46	0.52	2.81	0.07	0.01	0.04	0.02	19.44
2010-11	0.04	1.77	1.20	10.27	1.21	4.09	6.35	0.34	0.60	0.82	0.02	0.04	26.75

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 439 **Station Type: Alert, Data Logger w/TB** **Latitude: 343816** **Longitude: 1202707**

Station Name: Lompoc City Hall **Elevation (ft): 100** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	8.01	23.05	54.61	102.74	131.41	138.11	118.43	39.35	10.99	1.90	0.32	1.11	630.03
N	41	41	41	41	41	41	41	41	41	41	41	41	41
Mean	0.20	0.56	1.33	2.51	3.21	3.37	2.89	0.96	0.27	0.05	0.01	0.03	15.37
Max	2.93	3.74	4.70	10.27	16.76	11.15	10.72	3.80	1.95	0.82	0.12	0.71	34.42
StdDev	0.53	0.74	1.23	2.07	3.30	2.77	2.77	1.18	0.48	0.17	0.02	0.12	7.51
CV	2.70	1.31	0.92	0.83	1.03	0.82	0.96	1.23	1.79	3.65	3.16	4.39	0.49
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.36	1.02	2.17	2.48	2.77	2.44	0.67	0.09	0.00	0.00	0.00	14.15
5	0.33	1.02	2.31	4.11	5.17	5.87	4.77	1.66	0.50	0.09	0.01	0.04	20.44
10	0.74	1.51	3.17	5.33	7.04	7.84	6.26	2.37	0.87	0.19	0.04	0.12	24.43
25	1.37	2.14	4.25	6.80	9.44	10.24	8.07	3.28	1.38	0.35	0.07	0.27	29.29
50	1.90	2.61	5.04	7.85	11.22	12.01	9.40	3.95	1.78	0.48	0.11	0.39	32.88
100	2.45	3.08	5.82	8.86	12.98	13.67	10.65	4.62	2.20	0.62	0.14	0.53	36.26
200	3.03	3.55	6.59	9.85	14.71	15.31	11.89	5.30	2.61	0.76	0.18	0.68	39.57
500	4.19	4.33	7.79	11.28	17.57	17.71	13.69	6.40	3.33	1.05	0.25	0.98	44.44
1000	4.40	4.62	8.33	12.04	18.70	18.94	14.62	6.83	3.60	1.10	0.27	1.03	46.94
10000	6.46	6.15	10.76	15.05	24.32	24.01	18.44	8.99	5.04	1.61	0.40	1.57	57.22

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 204 **Station Type: Alert, Data Logger w/TB** **Latitude: 344443 Longitude: 1201647**

Station Name: Los Alamos Fire Station #24 **Elevation (ft): 580** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1909-10	0.00	0.95	1.69	5.80	3.58	0.23	4.18	0.00	0.00	0.00	0.00	0.00	16.43
1910-11	0.84	0.12	0.58	0.46	9.53	3.64	12.41	1.47	0.00	0.00	0.00	0.00	29.05
1911-12	0.00	0.00	0.00	1.85	1.59	0.00	6.77	0.85	1.12	0.00	0.00	0.00	12.18
1912-13	0.00	0.00	0.30	0.16	2.88	3.22	0.75	0.50	0.15	0.35	0.00	1.20	9.51
1913-14	0.00	0.00	2.45	3.05	11.30	6.26	0.97	0.45	0.00	0.00	0.00	0.00	24.48
1914-15	0.00	0.00	0.00	5.12	5.34	8.16	0.61	2.14	1.65	0.00	0.00	0.00	23.02
1915-16	0.00	0.00	0.72	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.20
1917-18	0.00	0.00	0.00	0.04	0.41	11.88	7.18	0.00	0.00	0.00	0.00	0.20	19.71
1918-19	0.20	0.30	2.94	2.63	0.46	2.75	1.65	0.06	1.35	0.00	0.00	0.00	12.34
1919-20	0.58	0.18	0.17	2.67	0.39	2.97	3.75	0.71	0.00	0.00	0.00	0.00	11.42
1920-21	0.03	0.58	1.33	1.29	3.77	1.80	1.06	0.34	1.47	0.00	0.00	0.00	11.67
1921-22	0.84	0.32	0.00	5.77	4.35	3.60	2.58	0.26	0.39	0.00	0.00	0.00	18.11
1922-23	0.00	0.55	1.26	4.15	0.00	1.26	0.35	3.60	0.00	0.05	0.00	0.00	11.22
1923-24	0.15	0.05	0.18	0.36	0.59	0.19	3.15	0.71	0.00	0.00	0.00	0.00	5.38
1924-25	0.00	0.82	0.85	1.43	0.84	1.75	3.52	2.63	1.21	0.08	0.00	0.00	13.13
1925-26	0.00	0.82	0.25	1.65	1.87	3.12	0.32	4.09	0.03	0.00	0.00	0.00	12.15
1926-27	0.00	0.49	4.68	0.81	1.91	6.02	2.16	1.43	0.08	0.00	0.00	0.00	17.58
1927-28	0.00	3.41	0.27	4.50	0.12	2.99	2.54	0.23	0.92	0.00	0.00	0.00	14.98
1928-29	0.00	0.23	2.79	2.18	1.70	1.02	1.16	1.21	0.00	0.10	0.00	0.00	10.39
1929-30	0.00	0.00	0.00	0.11	4.22	1.45	3.31	0.59	0.89	0.00	0.00	0.00	10.57
1930-31	0.29	0.00	1.64	0.00	3.92	1.92	0.12	0.65	1.10	0.00	0.00	0.14	9.78
1931-32	0.00	0.00	2.72	7.30	3.10	3.51	0.18	0.76	0.12	0.00	0.00	0.00	17.69
1932-33	0.17	0.04	0.01	1.38	6.95	0.30	0.55	0.66	0.28	1.26	0.00	0.00	11.60
1933-34	0.00	0.27	0.02	3.03	1.63	3.04	0.00	0.00	0.34	0.53	0.00	0.00	8.86
1934-35	0.00	1.42	3.00	1.70	4.18	1.66	3.37	2.58	0.17	0.00	0.00	0.15	18.23
1935-36	0.00	0.56	1.21	1.66	0.55	7.20	1.36	0.61	0.08	0.05	0.00	0.19	13.47
1936-37	0.07	2.73	0.00	4.43	3.66	5.34	4.82	0.25	0.00	0.00	0.00	0.00	21.30
1937-38	0.00	0.06	0.00	2.18	2.56	7.67	5.79	1.43	0.02	0.00	0.00	0.00	19.71
1938-39	0.89	0.16	0.13	3.54	3.05	1.96	2.84	0.10	0.05	0.00	0.00	0.00	12.72
1939-40	1.95	0.56	1.05	1.45	4.77	2.75	1.06	1.93	0.00	0.00	0.00	0.00	15.52
1940-41	0.00	0.46	0.10	6.04	6.44	8.15	10.13	3.83	0.06	0.00	0.05	0.03	35.29
1941-42	0.00	1.05	0.32	7.91	1.86	0.70	1.95	3.63	0.23	0.00	0.00	0.07	17.72
1942-43	0.00	0.80	0.72	1.93	6.83	2.18	2.84	1.00	0.00	0.00	0.00	0.00	16.30
1943-44	0.00	0.93	0.17	4.22	1.93	7.36	1.04	1.65	0.06	0.00	0.00	0.00	17.36
1944-45	0.00	0.00	3.17	1.55	0.10	3.95	3.26	0.09	0.02	0.02	0.00	0.09	12.25
1945-46	0.00	0.52	0.90	3.88	0.64	1.40	4.77	1.19	0.11	0.00	0.00	0.00	13.41
1946-47	0.00	0.30	4.84	1.33	0.53	0.70	0.91	0.12	0.11	0.03	0.00	0.05	8.92
1947-48	0.00	0.34	0.01	0.56	0.01	1.36	3.26	1.72	0.76	0.06	0.00	0.00	8.08
1948-49	0.00	0.15	0.00	3.58	1.28	1.61	4.12	0.24	0.75	0.00	0.00	0.00	11.73
1949-50	0.00	0.02	1.63	3.63	2.52	1.46	1.51	0.62	0.15	0.00	0.90	0.00	12.44
1950-51	0.00	0.86	1.83	0.68	2.09	1.61	1.42	1.69	0.02	0.00	0.00	0.00	10.20
1951-52	0.00	0.80	1.21	4.31	6.59	0.36	7.78	0.57	0.02	0.03	0.02	0.00	21.69
1952-53	0.00	0.00	3.40	5.39	1.26	0.00	1.08	1.27	0.00	0.00	0.00	0.00	12.40
1953-54	0.00	0.00	2.51	0.25	4.64	1.47	4.31	0.26	0.02	0.00	0.00	0.00	13.46
1954-55	0.00	0.00	1.29	2.68	4.42	1.42	0.33	1.86	1.21	0.02	0.00	0.01	13.24
1955-56	0.00	0.00	1.96	6.47	4.70	0.59	0.00	1.88	1.19	0.00	0.00	0.00	16.79
1956-57	0.00	0.64	0.00	0.36	3.17	2.20	1.24	1.30	1.28	0.08	0.00	0.00	10.27
1957-58	0.00	0.82	0.43	3.51	3.03	7.19	5.85	6.39	0.33	0.00	0.00	0.00	27.55
1958-59	1.62	0.00	0.17	0.21	2.50	4.98	0.00	0.68	0.00	0.00	0.00	0.00	10.16
1959-60	0.05	0.00	0.00	0.89	4.50	3.97	0.79	2.65	0.00	0.00	0.00	0.00	12.85
1960-61	0.00	0.64	3.23	1.02	0.90	0.12	0.88	0.25	0.16	0.00	0.00	0.00	7.20
1961-62	0.00	0.00	3.35	2.36	2.94	12.51	1.97	0.04	0.10	0.00	0.00	0.00	23.27
1962-63	0.00	0.46	0.01	0.44	0.48	4.76	3.63	2.61	0.30	0.17	0.00	0.31	13.17
1963-64	1.01	1.14	2.03	0.16	1.81	0.12	1.99	1.49	0.44	0.07	0.02	0.00	10.28
1964-65	0.00	1.47	2.41	2.11	0.72	0.51	2.37	4.20	0.00	0.00	0.00	0.00	13.79
1965-66	0.00	0.01	5.79	3.43	2.03	0.87	0.28	0.09	0.03	0.02	0.00	0.00	12.55
1966-67	0.09	0.00	2.02	0.00	4.67	0.31	2.30	4.98	0.00	0.00	0.00	0.00	14.37
1967-68	0.28	0.00	2.06	1.03	1.45	0.88	2.83	0.97	0.16	0.00	0.00	0.00	9.66
1968-69	0.00	1.93	1.18	1.80	9.39	9.47	1.33	1.90	0.10	0.00	0.00	0.00	27.10
1969-70	0.11	0.13	1.54	0.53	3.06	1.35	3.25	0.19	0.00	0.00	0.00	0.00	10.16

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 204 **Station Type: Alert, Data Logger w/TB** **Latitude: 344443 Longitude: 1201647**

Station Name: Los Alamos Fire Station #24 **Elevation (ft): 580** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1970-71	0.00	0.03	2.93	4.44	0.80	0.62	0.66	0.74	0.95	0.00	0.00	0.00	11.17
1971-72	0.04	0.27	0.36	6.02	0.09	0.28	0.00	0.19	0.10	0.00	0.05	0.00	7.40
1972-73	0.00	0.55	3.84	1.22	4.99	7.21	3.48	0.05	0.19	0.00	0.00	0.00	21.53
1973-74	0.05	0.32	2.42	2.23	5.92	0.13	4.00	0.96	0.00	0.00	0.00	0.00	16.03
1974-75	0.00	1.01	0.26	5.12	0.21	4.23	5.29	0.86	0.00	0.00	0.00	0.00	16.98
1975-76	0.00	0.84	0.00	0.17	0.01	6.68	1.67	1.31	0.03	0.13	0.02	0.44	11.30
1976-77	4.82	0.38	0.39	0.77	2.60	0.13	2.02	0.01	2.84	0.00	0.00	0.00	13.96
1977-78	0.00	0.00	0.14	3.10	5.62	8.22	7.66	2.88	0.00	0.00	0.00	0.00	27.62
1978-79	2.17	0.00	2.08	1.96	4.59	3.80	5.22	0.00	0.04	0.00	0.00	0.00	19.86
1979-80	0.20	0.92	0.69	1.80	4.25	6.91	2.42	1.55	0.28	0.00	0.01	0.00	19.03
1980-81	0.00	0.00	0.00	0.86	2.87	2.75	6.34	0.48	0.00	0.00	0.00	0.00	13.30
1981-82	0.00	0.57	0.92	0.86	2.90	0.79	5.50	2.90	0.00	0.00	0.00	0.00	14.44
1982-83	0.31	1.48	4.64	2.46	8.16	5.23	8.67	4.18	0.26	0.00	0.00	0.31	35.70
1983-84	0.05	1.22	3.20	3.61	0.01	0.41	0.57	0.59	0.00	0.00	0.00	0.00	9.66
1984-85	0.00	0.70	3.14	3.63	0.58	0.97	1.40	0.00	0.00	0.00	0.00	0.02	10.44
1985-86	0.00	0.41	3.49	0.44	1.19	4.70	5.37	0.27	0.00	0.00	0.00	0.00	15.87
1986-87	0.78	0.00	1.25	1.25	1.55	1.84	4.24	0.30	0.00	0.50	0.00	0.00	11.71
1987-88	0.00	1.32	1.38	3.68	1.94	2.42	1.03	2.99	0.11	0.19	0.00	0.00	15.06
1988-89	0.00	0.00	1.06	4.27	0.39	1.16	0.70	0.22	0.44	0.00	0.00	0.00	8.24
1989-90	0.62	0.48	0.27	0.00	3.41	2.06	0.43	0.41	0.39	0.00	0.00	0.00	8.07
1990-91	0.23	0.00	0.29	0.54	1.20	1.69	12.33	0.20	0.00	0.00	0.00	0.00	16.48
1991-92	0.00	0.38	0.19	3.93	2.57	6.95	2.90	0.00	0.00	0.00	0.08	0.00	17.00
1992-93	0.00	1.07	0.00	4.12	7.15	7.14	4.74	0.10	0.28	0.11	0.00	0.00	24.71
1993-94	0.00	0.26	1.02	1.57	1.76	4.43	2.43	0.79	1.11	0.00	0.00	0.00	13.37
1994-95	0.09	0.64	1.73	1.19	14.92	1.85	6.74	0.45	0.79	0.79	0.00	0.00	29.19
1995-96	0.00	0.00	0.25	1.17	1.68	8.97	2.33	0.85	0.22	0.03	0.00	0.00	15.50
1996-97	0.00	2.25	1.84	4.62	4.24	0.08	0.00	0.00	0.00	0.00	0.13	0.00	13.16
1997-98	0.54	0.00	3.66	4.08	4.19	14.94	3.05	3.34	2.38	0.05	0.00	0.00	36.23
1998-99	0.50	0.14	1.99	1.12	2.62	1.21	6.31	2.13	0.00	0.00	0.00	0.13	16.15
1999-00	0.00	0.00	1.66	0.03	1.53	8.78	1.88	3.45	0.00	0.18	0.00	0.00	17.51
2000-01	0.00	2.30	0.00	0.03	5.13	5.22	3.99	1.66	0.00	0.00	0.00	0.00	18.33
2001-02	0.00	0.54	3.03	1.90	0.94	0.26	0.66	0.19	0.15	0.00	0.00	0.01	7.68
2002-03	0.01	0.00	2.61	5.00	0.04	2.46	1.70	1.67	1.31	0.03	0.00	0.00	14.83
2003-04	0.01	0.00	1.32	1.90	0.69	4.95	0.49	0.00	0.00	0.00	0.00	0.00	9.36
2004-05	0.00	4.52	0.97	5.94	6.10	5.25	3.83	0.81	0.83	0.01	0.00	0.00	28.26
2005-06	0.10	0.70	1.70	1.09	4.51	1.07	4.21	4.08	0.85	0.00	0.00	0.00	18.31
2006-07	0.00	0.69	0.21	1.23	1.21	2.20	0.14	0.54	0.04	0.00	0.00	0.03	6.29
2007-08	0.70	0.52	0.02	2.60	11.40	1.72	0.02	0.05	0.00	0.00	0.00	0.00	17.03
2008-09	0.00	0.02	2.16	2.02	0.23	5.16	0.64	0.13	0.05	0.10	0.00	0.00	10.51
2009-10	0.01	1.41	0.00	2.85	6.69	3.60	0.41	2.58	0.06	0.00	0.00	0.00	17.61
2010-11	0.00	1.50	0.98	8.68	1.46	3.74	4.72	0.14	0.20	0.26	0.00	0.00	21.68

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 204 **Station Type: Alert, Data Logger w/TB** **Latitude: 344443 Longitude: 1201647**

Station Name: Los Alamos Fire Station #24 **Elevation (ft): 580** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	20.40	55.53	136.61	249.94	308.05	333.43	286.12	123.65	32.93	5.30	1.28	3.38	1556.62
N	101	101	101	101	101	101	101	101	101	101	101	101	101
Mean	0.20	0.55	1.35	2.47	3.05	3.30	2.83	1.22	0.33	0.05	0.01	0.03	15.41
Max	4.82	4.52	5.79	8.68	14.92	14.94	12.41	6.39	2.84	1.26	0.90	1.20	36.23
StdDev	0.60	0.75	1.34	1.97	2.78	3.06	2.60	1.32	0.53	0.17	0.09	0.14	6.45
CV	2.97	1.36	0.99	0.80	0.91	0.93	0.92	1.08	1.63	3.19	7.12	4.06	0.42
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.35	1.03	2.14	2.36	2.71	2.39	0.86	0.11	0.00	0.00	0.00	14.19
5	0.34	1.00	2.34	4.05	4.92	5.75	4.68	2.12	0.61	0.10	0.02	0.05	20.50
10	0.76	1.48	3.22	5.26	6.70	7.68	6.14	3.02	1.05	0.22	0.06	0.15	24.50
25	1.42	2.09	4.32	6.72	8.98	10.03	7.91	4.19	1.68	0.40	0.12	0.33	29.38
50	1.97	2.56	5.11	7.75	10.68	11.77	9.22	5.04	2.17	0.55	0.17	0.49	32.98
100	2.54	3.01	5.91	8.75	12.36	13.40	10.45	5.90	2.67	0.70	0.23	0.66	36.37
200	3.13	3.47	6.69	9.73	14.00	15.00	11.66	6.76	3.18	0.86	0.29	0.83	39.69
500	4.33	4.24	7.91	11.14	16.72	17.35	13.43	8.17	4.06	1.18	0.41	1.21	44.57
1000	4.55	4.52	8.46	11.89	17.79	18.56	14.34	8.71	4.38	1.25	0.43	1.27	47.08
10000	6.68	6.02	10.92	14.86	23.14	23.53	18.09	11.47	6.13	1.82	0.65	1.94	57.39

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 212 **Station Type: Alert, Data Logger w/TB** **Latitude: 343043 Longitude: 1194925**

Station Name: San Marcos Pass **Elevation (ft): 2250** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1965-66	0.27	0.00	21.13	9.45	2.57	1.19	0.15	0.00	0.32	0.00	0.00	0.00	35.08
1966-67	0.00	0.00	6.00	13.09	9.22	0.80	5.46	6.79	0.00	0.00	0.00	0.00	41.36
1967-68	0.17	0.00	5.36	3.12	1.91	2.51	5.07	2.19	0.00	0.00	0.00	0.00	20.33
1968-69	0.00	2.10	1.34	4.12	46.80	20.75	0.87	5.23	0.00	0.00	0.00	0.00	81.21
1969-70	0.00	0.00	0.00	0.44	5.39	8.10	4.92	0.00	0.00	0.00	0.00	0.00	18.85
1970-71	0.00	0.12	11.35	6.41	1.71	1.32	1.26	1.04	1.95	0.00	0.00	0.00	25.16
1971-72	0.00	0.57	0.88	15.09	0.45	0.59	0.00	0.30	0.00	0.00	0.00	0.00	17.88
1972-73	0.00	0.00	10.28	1.46	11.34	21.89	5.70	0.00	0.00	0.00	0.00	0.00	50.67
1973-74	0.00	1.94	5.51	3.96	11.67	0.31	9.53	0.17	0.00	0.00	0.00	0.00	33.09
1974-75	0.00	1.57	0.14	10.74	0.52	9.00	10.85	3.39	0.00	0.00	0.00	0.00	36.21
1975-76	0.00	0.99	0.53	0.14	0.00	14.07	2.47	2.65	0.00	0.22	0.00	0.00	21.07
1976-77	7.23	1.22	0.85	0.79	6.24	0.12	1.41	0.00	0.96	0.00	0.00	0.00	18.82
1977-78	0.00	0.00	0.22	5.67	17.73	16.62	19.76	5.21	0.00	0.00	0.00	0.00	65.21
1978-79	1.80	0.00	2.39	2.79	10.02	7.00	8.52	0.00	0.00	0.00	0.00	0.00	32.52
1979-80	0.68	0.75	1.15	2.96	10.59	22.47	5.86	1.74	0.56	0.00	0.38	0.00	47.14
1980-81	0.00	0.00	0.00	2.99	7.77	2.80	11.03	0.00	0.00	0.00	0.00	0.00	24.59
1981-82	0.00	1.09	4.26	0.66	6.67	1.10	14.62	3.87	0.00	0.38	0.00	0.00	32.65
1982-83	2.92	1.52	16.51	8.00	19.88	15.67	12.19	11.13	0.13	0.00	0.00	0.00	87.95
1983-84	3.23	3.13	6.75	10.48	0.22	0.55	0.92	0.11	0.00	0.00	0.40	0.48	26.27
1984-85	0.00	0.24	4.68	8.30	0.81	3.23	2.37	0.45	0.00	0.00	0.00	0.00	20.08
1985-86	0.22	0.97	8.29	1.61	4.98	17.19	9.51	0.28	0.00	0.00	0.00	0.00	43.05
1986-87	0.00	0.00	1.09	0.75	2.94	3.53	7.76	0.00	0.00	0.00	0.00	0.00	16.07
1987-88	0.00	3.37	1.65	5.19	5.25	5.77	0.15	6.86	0.44	0.00	0.00	0.00	28.68
1988-89	0.00	0.00	1.78	6.66	0.77	6.07	2.51	0.14	0.42	0.00	0.00	0.00	18.35
1989-90	0.16	1.21	1.32	0.00	6.45	6.12	0.00	0.38	1.82	0.00	0.00	0.00	17.46
1990-91	0.00	0.00	0.42	0.59	2.18	8.01	21.56	0.00	0.00	1.40	0.00	0.36	34.52
1991-92	0.00	0.00	0.12	8.15	3.41	19.11	9.17	0.00	0.05	0.00	1.00	0.00	41.01
1992-93	0.00	3.69	0.00	9.91	22.43	13.92	9.00	0.00	0.40	0.57	0.00	0.00	59.92
1993-94	0.00	0.20	2.05	2.35	1.59	9.58	2.89	0.93	0.69	0.00	0.00	0.00	20.28
1994-95	0.00	0.70	2.30	1.60	35.20	5.10	17.04	0.50	1.40	0.40	0.00	0.00	64.24
1995-96	0.00	0.00	0.24	3.56	2.08	13.07	3.03	1.59	1.52	0.07	0.01	0.00	25.17
1996-97	0.00	4.37	4.03	8.58	9.51	0.15	0.00	0.00	0.00	0.13	0.08	0.34	27.19
1997-98	0.22	0.04	5.19	7.12	8.73	28.43	4.27	4.20	7.88	0.44	0.00	0.00	66.52
1998-99	0.84	0.18	1.22	1.89	3.16	2.88	6.30	2.67	0.00	0.23	0.46	0.00	19.83
1999-00	0.05	0.00	1.66	0.00	2.18	15.05	3.47	4.84	0.10	0.28	0.00	0.00	27.63
2000-01	0.24	4.52	0.00	0.20	13.11	10.69	14.04	4.34	0.17	0.01	0.04	0.00	47.36
2001-02	0.00	0.70	6.78	3.73	1.23	0.59	1.25	0.00	0.22	0.00	0.00	0.00	14.50
2002-03	0.72	0.06	7.42	10.65	0.18	5.08	6.60	5.03	3.28	0.47	0.01	0.00	39.50
2003-04	0.01	0.01	2.58	4.10	0.76	10.98	0.69	0.01	0.00	0.05	0.00	0.00	19.19
2004-05	0.01	10.30	0.38	14.86	24.96	12.29	5.94	1.28	2.11	0.00	0.00	0.00	72.13
2005-06	0.06	0.93	2.52	1.01	9.21	4.95	6.85	9.93	2.09	0.00	0.00	0.12	37.67
2006-07	0.00	0.29	0.28	1.59	3.59	3.90	0.20	0.99	0.01	0.00	0.02	0.03	10.90
2007-08	0.48	0.56	0.04	8.40	24.32	3.96	0.01	0.32	1.04	0.00	0.01	0.00	39.14
2008-09	0.01	0.23	2.92	4.10	2.16	7.04	1.29	0.54	0.01	0.24	0.00	0.11	18.65
2009-10	0.02	10.35	0.00	6.67	9.49	7.10	0.77	5.21	0.25	0.01	0.03	0.00	39.90
2010-11	0.00	3.31	3.27	17.84	1.42	5.44	14.08	0.17	1.27	1.81	0.00	0.00	48.61

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 212 **Station Type: Alert, Data Logger w/TB** **Latitude: 343043 Longitude: 1194925**

Station Name: San Marcos Pass **Elevation (ft): 2250** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
Total	19.34	61.23	156.88	241.77	372.80	376.09	271.34	94.48	29.09	6.71	2.44	1.44	1633.61
N	46	46	46	46	46	46	46	46	46	46	46	46	46
Mean	0.42	1.33	3.41	5.26	8.10	8.18	5.90	2.05	0.63	0.15	0.05	0.03	35.51
Max	7.23	10.35	21.13	17.84	46.80	28.43	21.56	11.13	7.88	1.81	1.00	0.48	87.95
StdDev	1.22	2.28	4.37	4.49	9.62	7.00	5.53	2.74	1.32	0.35	0.17	0.10	18.38
CV	2.90	1.71	1.28	0.85	1.19	0.86	0.94	1.33	2.08	2.38	3.28	3.19	0.52
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.85	2.60	4.55	6.28	6.72	4.97	1.44	0.20	0.00	0.00	0.00	32.70
5	0.71	2.42	5.90	8.61	13.06	14.25	9.75	3.56	1.19	0.27	0.08	0.04	47.23
10	1.59	3.58	8.12	11.17	17.81	19.02	12.78	5.06	2.04	0.60	0.24	0.14	56.45
25	2.96	5.06	10.89	14.26	23.86	24.85	16.47	7.02	3.26	1.11	0.50	0.31	67.70
50	4.09	6.19	12.89	16.47	28.38	29.14	19.19	8.46	4.21	1.52	0.72	0.45	75.98
100	5.28	7.29	14.90	18.59	32.83	33.19	21.76	9.90	5.18	1.95	0.95	0.61	83.80
200	6.52	8.40	16.86	20.66	37.21	37.15	24.27	11.33	6.16	2.40	1.20	0.78	91.45
500	9.01	10.26	19.96	23.67	44.43	42.98	27.97	13.70	7.87	3.29	1.72	1.14	102.70
1000	9.48	10.94	21.33	25.26	47.27	45.98	29.86	14.62	8.49	3.47	1.80	1.19	108.49
10000	13.91	14.57	27.54	31.57	61.50	58.28	37.66	19.24	11.89	5.06	2.70	1.81	132.24

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 234 **Station Type: Alert, Data Logger w/TB & Standard** **Latitude: 342531** **Longitude: 1194212**

Station Name: Santa Barbara (Downtown-County Building) **Elevation (ft): 100** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1867-68	0.00	0.00	2.31	12.73	3.97	1.99	1.08	2.44	0.72	0.00	0.00	0.00	25.24
1868-69	0.00	0.00	1.25	4.26	1.94	2.12	4.23	0.46	0.20	0.00	0.00	0.00	14.46
1869-70	0.00	0.30	0.65	0.57	0.25	5.87	0.83	0.99	0.74	0.07	0.00	0.00	10.27
1870-71	0.00	1.04	0.27	1.41	0.86	2.92	0.02	2.02	0.37	0.00	0.00	0.00	8.91
1871-72	0.00	0.09	1.83	6.56	2.53	1.81	0.18	1.80	0.00	0.14	0.00	0.02	14.96
1872-73	0.05	0.00	0.00	4.34	0.58	5.98	0.05	0.00	0.00	0.00	0.00	0.00	11.00
1873-74	0.00	0.00	0.27	5.26	4.54	3.17	0.78	0.28	0.14	0.00	0.00	0.00	14.44
1874-75	0.00	1.91	1.30	0.00	14.84	0.18	0.38	0.10	0.00	0.00	0.20	0.00	18.91
1875-76	0.00	0.00	6.53	0.31	7.56	5.67	2.73	0.27	0.00	0.00	0.00	0.00	23.07
1876-77	0.00	0.32	0.00	0.00	2.72	0.00	0.82	0.18	0.45	0.00	0.00	0.00	4.49
1877-78	0.00	0.00	1.32	3.12	7.17	11.73	2.47	3.34	0.29	0.07	0.00	0.00	29.51
1878-79	0.00	0.35	0.00	5.16	5.24	0.71	0.34	1.60	0.21	0.00	0.00	0.00	13.61
1879-80	0.00	0.41	1.62	4.57	1.30	10.91	1.15	5.73	0.00	0.00	0.00	0.00	25.69
1881-82	0.44	1.47	0.33	0.95	1.13	2.38	5.74	1.63	0.00	0.20	0.00	0.00	14.27
1882-83	0.00	0.37	0.79	0.10	2.06	2.79	3.33	0.33	2.48	0.00	0.00	0.00	12.25
1883-84	0.00	1.22	0.00	2.87	6.38	9.50	9.77	2.60	0.39	1.50	0.00	0.00	34.23
1884-85	0.00	1.02	0.00	5.68	1.23	0.07	0.35	3.01	0.00	0.00	0.00	0.00	11.36
1888-89	0.00	0.00	0.00	5.05	0.29	1.29	7.31	0.49	0.76	0.13	0.00	0.00	15.32
1889-90	0.00	8.65	3.21	10.64	5.32	2.96	1.10	0.31	0.18	0.06	0.00	0.00	32.43
1890-91	1.50	0.00	0.48	3.53	0.45	7.92	1.56	1.57	0.30	0.00	0.00	0.00	17.31
1891-92	0.15	0.00	0.00	2.43	1.10	2.55	2.95	0.46	1.12	0.00	0.00	0.00	10.76
1892-93	0.00	0.26	4.27	6.66	3.92	3.10	7.80	0.38	0.09	0.00	0.00	0.00	26.48
1893-94	0.00	0.82	0.07	2.92	0.99	0.76	0.29	0.00	0.91	0.00	0.12	0.00	6.88
1894-95	1.36	0.68	0.07	4.67	6.25	0.67	1.99	0.46	0.02	0.05	0.00	0.00	16.22
1895-96	0.00	0.55	0.77	0.93	6.84	0.00	2.37	1.78	0.08	0.00	0.40	0.00	13.72
1896-97	0.00	0.92	3.51	2.92	4.35	3.65	2.73	0.02	0.00	0.00	0.00	0.00	18.10
1897-98	0.00	1.44	0.00	0.00	0.63	1.39	0.28	0.00	1.25	0.00	0.00	0.00	4.99
1898-99	3.17	0.14	0.00	0.36	4.48	0.00	2.78	0.64	0.00	0.00	0.00	0.00	11.57
1899-00	0.00	2.06	1.97	2.35	2.32	0.05	1.58	0.42	1.90	0.01	0.02	0.00	12.68
1900-01	0.04	0.15	3.99	0.02	4.86	3.65	0.16	2.07	0.34	0.10	0.06	0.09	15.53
1901-02	0.36	2.42	1.16	0.00	1.36	4.40	2.89	1.40	0.07	0.00	0.00	0.00	14.06
1902-03	0.00	1.48	4.01	2.24	2.06	1.63	6.12	2.91	0.27	0.02	0.00	0.00	20.74
1903-04	0.00	0.00	0.05	0.00	0.46	4.73	4.35	1.89	0.09	0.00	0.00	0.10	11.67
1904-05	7.15	0.51	0.00	1.53	3.73	8.22	6.40	0.51	1.44	0.05	0.18	0.00	29.72
1905-06	0.03	0.16	1.13	0.07	4.26	3.67	9.96	0.83	2.40	0.00	0.00	0.04	22.55
1906-07	0.00	0.00	0.35	6.46	12.46	2.34	5.64	0.27	0.00	0.16	0.00	0.03	27.71
1907-08	0.00	6.23	0.00	1.80	4.26	5.96	0.21	0.49	0.20	0.00	0.00	0.00	19.15
1908-09	1.16	0.20	1.84	2.48	15.67	7.96	6.91	0.00	0.03	0.08	0.00	0.01	36.34
1909-10	0.17	0.57	2.34	9.53	2.89	0.08	3.62	0.39	0.00	0.00	0.02	0.00	19.61
1910-11	2.56	0.29	0.33	0.75	14.21	4.92	7.76	1.02	0.03	0.05	0.00	0.00	31.92
1911-12	0.12	0.28	0.02	2.33	0.42	0.00	9.45	2.12	1.58	0.00	0.00	0.00	16.32
1912-13	0.00	0.28	0.21	0.00	3.14	6.28	0.64	1.04	0.19	0.50	0.09	0.07	12.44
1913-14	0.17	0.00	3.43	2.70	15.91	7.30	0.95	0.70	0.03	0.16	0.05	0.00	31.40
1914-15	0.00	0.12	0.04	4.38	4.94	8.03	1.15	0.97	1.57	0.00	0.00	0.00	21.20
1915-16	0.05	0.00	0.65	4.06	17.22	1.89	1.81	0.30	0.00	0.00	0.00	0.11	26.09
1916-17	1.90	2.82	0.10	6.12	3.05	7.61	0.28	0.28	0.09	0.00	0.00	0.03	22.28
1917-18	0.05	0.00	0.17	0.03	0.51	10.47	10.37	0.05	0.00	0.00	0.25	0.29	22.19
1918-19	2.13	0.02	3.64	0.83	1.20	1.95	2.62	0.17	1.07	0.00	0.00	0.00	13.63
1919-20	0.84	0.27	0.23	2.11	0.33	5.83	4.20	0.81	0.00	0.08	0.00	0.00	14.70
1920-21	0.00	0.40	0.56	1.51	5.32	1.58	1.77	0.38	2.69	0.10	0.00	0.00	14.31
1921-22	0.24	0.32	0.02	7.25	4.64	3.48	2.73	0.09	0.45	0.00	0.00	0.00	19.22
1922-23	0.00	0.37	1.98	8.71	1.93	0.91	0.00	3.29	0.00	0.03	0.00	0.03	17.25
1923-24	0.13	0.25	0.00	0.08	1.63	0.06	3.66	0.62	0.00	0.00	0.00	0.00	6.43
1924-25	0.00	0.85	1.20	1.20	0.60	1.45	2.79	1.89	2.23	0.05	0.05	0.00	12.31
1925-26	0.00	0.71	0.80	2.57	2.08	4.28	0.25	6.13	0.00	0.00	0.00	0.00	16.82
1926-27	0.00	0.36	6.84	0.62	1.94	9.86	2.28	0.78	0.00	0.00	0.00	0.05	22.73
1927-28	0.11	3.48	1.49	3.28	0.00	1.95	2.46	0.17	0.50	0.05	0.00	0.00	13.49
1928-29	0.00	0.10	2.46	4.41	1.53	2.28	2.39	1.17	0.00	0.20	0.00	0.00	14.54
1929-30	0.05	0.00	0.00	0.00	5.82	1.21	4.93	0.95	0.63	0.12	0.00	0.00	13.71
1930-31	0.01	0.04	2.64	0.00	4.25	4.07	0.00	1.43	2.11	0.00	0.00	0.23	14.78

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 234 **Station Type: Alert, Data Logger w/TB & Standard** **Latitude: 342531 Longitude: 1194212**

Station Name: Santa Barbara (Downtown-County Building) **Elevation (ft): 100** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1931-32	0.01	0.00	2.81	9.84	2.40	6.17	0.23	0.35	0.09	0.00	0.00	0.00	21.90
1932-33	0.11	0.10	0.00	0.67	6.42	0.00	0.30	0.20	0.11	0.75	0.00	0.00	8.66
1933-34	0.00	0.88	0.11	6.28	1.49	3.67	0.00	0.00	0.00	1.00	0.00	0.00	13.43
1934-35	0.04	1.89	3.48	3.63	4.10	1.58	3.16	3.32	0.00	0.00	0.07	0.27	21.54
1935-36	0.02	0.78	0.71	1.46	0.73	10.49	1.97	0.65	0.01	0.01	0.01	0.70	17.54
1936-37	0.00	1.86	0.00	6.93	3.15	7.99	4.88	0.03	0.11	0.00	0.00	0.00	24.95
1937-38	0.00	0.16	0.09	4.40	1.90	8.20	10.26	1.09	0.00	0.00	0.00	0.00	26.10
1938-39	0.19	0.14	0.08	4.94	2.84	1.27	3.62	0.17	0.10	0.00	0.00	0.00	13.35
1939-40	0.26	0.09	0.02	1.41	6.39	5.87	0.82	1.06	0.02	0.00	0.00	0.00	15.94
1940-41	0.00	0.75	0.43	8.92	9.68	8.21	11.71	5.50	0.01	0.00	0.03	0.01	45.25
1941-42	0.00	0.89	0.00	0.00	0.91	0.64	1.54	2.65	0.00	0.01	0.00	0.03	6.67
1942-43	0.03	0.74	0.59	1.26	11.67	2.33	2.32	0.88	0.01	0.00	0.00	0.00	19.83
1943-44	0.00	0.74	0.00	4.19	1.44	7.32	1.39	0.93	0.05	0.00	0.00	0.00	16.06
1944-45	0.01	0.00	3.21	1.12	0.85	4.31	3.98	0.03	0.03	0.05	0.00	0.00	13.59
1945-46	0.15	0.37	0.60	6.78	0.40	0.72	2.69	0.00	0.05	0.02	0.00	0.00	11.78
1946-47	0.00	0.89	6.00	3.17	0.60	0.76	1.80	0.10	0.08	0.00	0.00	0.01	13.41
1947-48	0.03	0.22	0.00	0.37	0.00	1.71	4.29	2.01	0.43	0.17	0.00	0.00	9.23
1948-49	0.00	0.08	0.00	2.64	1.40	1.35	2.78	0.24	2.43	0.03	0.00	0.00	10.95
1949-50	0.00	0.02	1.72	4.16	2.54	2.76	1.29	0.61	0.05	0.01	0.81	0.02	13.99
1950-51	0.41	1.21	1.88	0.50	2.53	1.21	1.20	1.45	0.01	0.01	0.00	0.06	10.47
1951-52	0.00	0.49	2.04	4.80	13.89	0.71	7.37	1.79	0.00	0.08	0.03	0.01	31.21
1952-53	0.04	0.10	3.60	5.26	1.78	0.03	0.71	1.42	0.17	0.29	0.00	0.00	13.40
1953-54	0.01	0.00	2.08	0.09	5.98	2.95	3.81	0.44	0.06	0.02	0.00	0.02	15.46
1954-55	0.00	0.03	2.03	3.60	4.39	2.29	0.70	3.45	0.40	0.01	0.00	0.01	16.91
1955-56	0.00	0.00	1.36	6.07	7.19	1.15	0.00	2.42	1.64	0.00	0.00	0.00	19.83
1956-57	0.00	0.11	0.00	0.14	5.39	3.74	0.54	2.31	1.57	0.06	0.00	0.00	13.86
1957-58	0.00	1.41	0.51	4.51	3.73	9.84	6.20	5.43	0.33	0.00	0.00	0.00	31.96
1958-59	0.27	0.00	0.11	0.04	2.73	5.08	0.00	0.89	0.02	0.00	0.00	0.00	9.14
1959-60	0.01	0.01	0.00	1.01	3.12	3.39	0.63	2.64	0.00	0.01	0.00	0.00	10.82
1960-61	0.00	0.09	6.57	0.41	1.81	0.02	0.80	0.20	0.09	0.00	0.00	0.01	10.00
1961-62	0.04	0.00	3.74	1.47	2.18	17.33	1.41	0.00	0.00	0.00	0.00	0.00	26.17
1962-63	0.00	0.42	0.00	0.01	0.95	6.04	3.68	2.21	0.02	1.17	0.00	0.00	14.50
1963-64	0.79	0.87	2.62	0.00	1.42	0.00	1.70	1.10	0.00	0.00	0.00	0.00	8.50
1964-65	0.00	0.85	2.36	4.76	0.77	0.45	2.06	6.94	0.00	0.00	0.00	0.00	18.19
1965-66	0.09	0.00	7.86	3.72	1.54	0.74	0.07	0.00	0.11	0.00	0.00	0.02	14.15
1966-67	0.00	0.07	3.55	6.19	6.79	0.50	2.28	3.87	0.00	0.00	0.00	0.00	23.25
1967-68	0.14	0.00	4.02	1.09	1.44	2.02	4.22	0.62	0.00	0.00	0.00	0.00	13.55
1968-69	0.00	1.06	0.63	1.79	15.55	8.35	1.00	1.92	0.06	0.08	0.02	0.00	30.46
1969-70	0.05	0.07	2.03	0.20	3.23	3.80	2.48	0.00	0.00	0.00	0.02	0.00	11.88
1970-71	0.00	0.05	4.54	4.67	1.21	0.88	0.82	0.73	1.10	0.00	0.00	0.00	14.00
1971-72	0.00	0.00	0.48	7.33	0.17	0.46	0.00	0.16	0.02	0.01	0.01	0.00	8.64
1972-73	0.00	0.04	5.69	0.73	6.24	9.07	2.89	0.00	0.00	0.00	0.00	0.03	24.69
1973-74	0.00	0.84	1.97	1.52	7.58	0.00	4.98	0.33	0.00	0.00	0.05	0.00	17.27
1974-75	0.00	1.00	0.09	7.37	0.57	5.57	3.93	0.87	0.00	0.00	0.00	0.01	19.41
1975-76	0.00	0.31	0.18	0.12	0.00	5.48	1.99	1.15	0.01	0.26	0.01	0.00	9.51
1976-77	4.01	0.20	0.85	0.87	3.89	0.19	1.58	0.00	3.30	0.00	0.00	0.00	14.89
1977-78	0.00	0.00	0.18	6.85	11.11	9.86	11.99	2.27	0.00	0.08	0.00	0.00	42.34
1978-79	1.21	0.00	3.19	1.52	3.85	5.01	6.94	0.00	0.00	0.00	0.00	0.00	21.72
1979-80	0.91	0.50	0.48	1.26	6.24	10.45	3.36	0.74	0.22	0.00	0.48	0.00	24.64
1980-81	0.00	0.00	0.00	1.91	3.24	2.53	6.19	0.43	0.00	0.00	0.00	0.00	14.30
1981-82	0.00	0.74	2.45	0.74	2.59	0.42	6.72	2.59	0.00	0.03	0.00	0.00	16.28
1982-83	2.07	0.63	5.18	3.07	11.55	7.19	5.66	4.17	0.34	0.00	0.00	1.55	41.41
1983-84	0.74	2.93	3.30	5.37	0.10	0.14	0.53	0.12	0.00	0.00	0.00	0.12	13.35
1984-85	0.58	0.32	1.88	4.11	0.76	2.58	1.73	0.00	0.00	0.00	0.00	0.00	11.96
1985-86	0.10	0.61	4.06	0.89	1.80	8.54	5.93	0.92	0.00	0.00	0.00	0.00	22.85
1986-87	1.60	0.00	1.24	0.22	1.84	2.42	4.14	0.12	0.00	0.04	0.00	0.00	11.62
1987-88	0.00	1.36	0.91	2.85	2.55	1.50	0.70	3.18	0.35	0.01	0.00	0.00	13.41
1988-89	0.00	0.00	0.96	3.89	0.34	2.64	0.81	0.31	0.40	0.00	0.00	0.00	9.35
1989-90	0.04	0.70	0.55	0.00	2.15	2.60	0.00	0.16	0.72	0.00	0.00	0.00	6.92
1990-91	0.13	0.00	0.13	0.06	1.75	2.61	12.33	0.02	0.00	0.46	0.01	0.23	17.73

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 234 **Station Type: Alert, Data Logger w/TB & Standard** **Latitude: 342531 Longitude: 1194212**

Station Name: Santa Barbara (Downtown-County Building) **Elevation (ft): 100** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1991-92	0.03	0.55	0.09	3.32	2.62	9.23	3.27	0.01	0.16	0.00	0.51	0.00	19.79
1992-93	0.00	1.56	0.00	5.20	10.90	8.39	4.96	0.00	0.06	0.64	0.00	0.00	31.71
1993-94	0.00	0.16	1.39	1.40	1.71	5.91	1.58	0.57	0.13	0.17	0.00	0.00	13.02
1994-95	0.03	0.66	1.87	0.89	21.94	1.44	10.08	0.30	0.84	0.47	0.00	0.00	38.52
1995-96	0.00	0.00	0.17	3.24	2.08	8.98	1.82	0.88	0.61	0.00	0.00	0.00	17.78
1996-97	0.00	2.64	2.93	6.82	6.67	0.00	0.00	0.00	0.00	0.00	0.02	0.02	19.10
1997-98	0.05	0.15	4.30	6.72	4.96	21.36	3.28	2.73	3.15	0.27	0.00	0.00	46.97
1998-99	0.17	0.03	0.81	0.85	2.05	0.96	3.70	2.28	0.00	0.14	0.00	0.00	10.99
1999-00	0.00	0.00	1.55	0.00	2.43	10.81	3.72	4.23	0.00	0.01	0.00	0.00	22.75
2000-01	0.00	4.66	0.00	0.10	7.53	5.84	6.01	1.61	0.06	0.00	0.00	0.00	25.81
2001-02	0.00	0.60	4.15	2.17	1.09	0.38	0.41	0.04	0.14	0.00	0.01	0.02	9.01
2002-03	0.19	0.01	6.53	6.23	0.10	3.28	5.16	1.28	1.96	0.19	0.05	0.00	24.98
2003-04	0.00	0.00	1.87	2.31	0.42	5.61	0.48	0.01	0.00	0.00	0.00	0.00	10.70
2004-05	0.00	4.60	0.37	7.75	12.09	6.69	3.89	0.86	0.69	0.00	0.00	0.00	36.94
2005-06	0.11	1.16	1.67	0.74	4.45	3.27	4.25	5.42	1.29	0.00	0.00	0.08	22.44
2006-07	0.00	0.19	0.27	0.87	2.28	1.93	0.10	0.77	0.00	0.00	0.00	0.00	6.41
2007-08	0.21	0.23	0.00	3.10	11.76	2.14	0.00	0.13	0.02	0.03	0.00	0.00	17.62
2008-09	0.00	0.05	1.96	2.28	0.98	5.03	0.87	0.21	0.00	0.45	0.00	0.00	11.83
2009-10	0.01	3.99	0.02	3.13	5.93	4.61	0.68	1.89	0.16	0.01	0.01	0.00	20.44
2010-11	0.00	2.15	1.67	11.24	1.17	3.77	7.01	0.04	0.67	0.77	0.00	0.00	28.49
Total	38.83	97.71	211.27	418.96	561.93	554.95	420.12	168.88	55.07	11.80	3.59	4.33	2547.44
N	140	140	140	140	140	140	140	140	140	140	140	140	140
Mean	0.28	0.70	1.51	2.99	4.01	3.96	3.00	1.21	0.39	0.08	0.03	0.03	18.20
Max	7.15	8.65	7.86	12.73	21.94	21.36	12.33	6.94	3.30	1.50	0.81	1.55	46.97
StdDev	0.84	1.21	1.76	2.77	4.14	3.65	2.88	1.42	0.70	0.22	0.10	0.15	8.44
CV	3.03	1.73	1.17	0.93	1.03	0.92	0.96	1.18	1.77	2.59	3.89	4.81	0.46
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.45	1.15	2.59	3.11	3.26	2.53	0.84	0.13	0.00	0.00	0.00	16.75
5	0.47	1.27	2.61	4.90	6.47	6.91	4.96	2.09	0.74	0.16	0.04	0.04	24.20
10	1.05	1.88	3.59	6.36	8.82	9.22	6.50	2.97	1.27	0.35	0.12	0.14	28.92
25	1.95	2.65	4.82	8.12	11.82	12.05	8.38	4.13	2.03	0.64	0.24	0.30	34.69
50	2.70	3.24	5.71	9.38	14.06	14.13	9.76	4.97	2.62	0.88	0.35	0.45	38.93
100	3.48	3.82	6.59	10.58	16.26	16.09	11.07	5.81	3.22	1.13	0.46	0.61	42.94
200	4.30	4.41	7.46	11.77	18.43	18.01	12.35	6.66	3.83	1.38	0.58	0.77	46.86
500	5.94	5.38	8.83	13.47	22.00	20.84	14.23	8.05	4.89	1.90	0.83	1.12	52.62
1000	6.25	5.74	9.44	14.38	23.41	22.29	15.19	8.58	5.28	2.00	0.87	1.18	55.59
10000	9.17	7.64	12.19	17.97	30.46	28.26	19.16	11.30	7.40	2.92	1.31	1.79	67.75

Santa Barbara County - Flood Control District

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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 380 **Station Type: Data Logger w/TB** **Latitude: 345707** **Longitude: 1202644**

Station Name: Santa Maria City **Elevation (ft): 203** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1906-07	0.01	0.00	0.63	4.35	7.78	1.02	3.95	0.23	0.00	0.04	0.00	0.00	18.01
1907-08	0.06	3.57	0.00	1.80	3.98	3.76	0.35	0.26	0.18	0.00	0.00	0.00	13.96
1908-09	1.03	0.52	0.97	0.61	10.16	4.98	4.39	0.00	0.00	0.00	0.00	0.00	22.66
1909-10	0.00	0.75	2.14	5.89	3.47	0.50	3.82	0.01	0.00	0.00	0.00	0.00	16.58
1910-11	0.65	0.72	0.15	0.45	6.62	3.80	6.68	1.82	0.00	0.00	0.00	0.00	20.89
1911-12	0.00	0.00	0.00	1.77	1.34	0.10	4.63	0.69	1.60	0.00	0.00	0.00	10.13
1917-18	0.00	0.09	0.00	0.31	0.53	9.39	5.87	0.00	0.00	0.00	0.00	0.00	16.19
1918-19	0.00	0.63	3.55	1.46	0.68	2.36	1.57	0.00	0.74	0.00	0.00	0.00	10.99
1919-20	0.41	0.00	0.15	1.88	0.24	1.78	4.02	1.12	0.00	0.00	0.00	0.00	9.60
1920-21	0.00	0.73	0.94	1.24	3.13	1.65	1.57	0.32	1.45	0.01	0.00	0.00	11.04
1921-22	0.44	0.05	0.13	5.32	4.90	2.97	2.50	0.22	0.35	0.00	0.00	0.00	16.88
1922-23	0.00	0.32	1.34	3.59	1.91	1.06	0.18	3.97	0.05	0.01	0.01	0.00	12.44
1923-24	0.22	0.30	0.00	0.62	0.64	0.46	3.01	1.00	0.01	0.00	0.00	0.03	6.29
1924-25	0.04	0.76	0.78	1.85	2.56	1.67	3.28	2.34	1.71	0.05	0.02	0.01	15.07
1925-26	0.01	0.16	0.12	1.81	1.72	2.99	0.41	2.68	0.11	0.01	0.02	0.01	10.05
1926-27	0.04	0.55	3.37	0.91	1.88	5.21	2.10	1.26	0.06	0.20	0.02	0.01	15.61
1927-28	0.02	3.08	0.81	3.80	0.22	2.57	3.99	0.19	0.71	0.00	0.00	0.01	15.40
1928-29	0.02	0.04	2.31	2.16	2.28	1.22	1.61	0.94	0.00	0.16	0.00	0.00	10.74
1929-30	0.01	0.02	0.00	0.15	3.42	1.18	2.70	0.94	0.68	0.08	0.00	0.00	9.18
1930-31	0.16	0.02	1.55	0.00	4.16	1.13	0.28	0.42	0.94	0.06	0.01	0.31	9.04
1931-32	0.09	0.04	2.46	6.56	4.25	2.14	0.31	0.31	0.26	0.04	0.02	0.02	16.50
1932-33	0.07	0.09	0.09	1.31	6.08	0.30	0.94	0.18	0.38	1.96	0.00	0.00	11.40
1933-34	0.02	0.32	0.03	2.91	1.11	1.52	0.20	0.00	0.26	1.30	0.01	0.01	7.69
1934-35	0.01	3.14	2.19	1.78	4.16	1.64	3.11	3.09	0.00	0.00	0.01	0.26	19.39
1935-36	0.17	0.50	2.02	1.71	1.31	5.32	1.23	1.06	0.13	0.03	0.02	0.01	13.51
1936-37	0.14	1.83	0.00	5.69	3.59	4.83	4.65	0.22	0.00	0.00	0.01	0.00	20.96
1937-38	0.00	0.16	0.26	2.88	4.72	7.39	4.09	2.01	0.04	0.02	0.00	0.02	21.59
1938-39	0.59	0.18	0.23	1.53	3.25	2.18	2.39	0.22	0.03	0.00	0.00	0.00	10.60
1939-40	1.50	0.46	1.03	1.30	5.05	2.67	1.98	1.74	0.00	0.00	0.00	0.00	15.73
1940-41	0.02	0.73	0.12	5.25	5.04	6.83	8.72	3.86	0.07	0.00	0.09	0.03	30.76
1941-42	0.01	1.04	0.32	7.50	1.35	1.30	2.04	2.82	0.08	0.00	0.00	0.02	16.48
1942-43	0.02	0.82	0.84	2.94	7.23	1.27	3.04	1.06	0.02	0.00	0.00	0.00	17.24
1954-55	0.00	0.00	0.97	2.08	3.95	1.35	0.40	1.98	0.60	0.01	0.00	0.00	11.34
1955-56	0.00	0.00	1.60	4.50	2.84	0.64	0.00	1.89	0.54	0.00	0.00	0.00	12.01
1956-57	0.00	0.61	0.00	0.74	2.17	1.95	0.79	1.00	0.98	0.22	0.00	0.00	8.46
1957-58	0.00	1.70	0.55	1.78	2.41	4.70	4.25	4.27	0.18	0.00	0.00	0.00	19.84
1958-59	1.43	0.00	0.30	0.13	1.75	4.57	0.00	0.23	0.00	0.00	0.00	0.00	8.41
1959-60	0.00	0.00	0.00	0.65	3.55	4.13	0.85	2.15	0.00	0.00	0.00	0.00	11.33
1960-61	0.00	1.75	2.50	0.80	0.80	0.10	0.68	0.23	0.21	0.00	0.02	0.00	7.09
1961-62	0.02	0.00	1.63	1.50	2.13	10.08	1.02	0.04	0.03	0.02	0.00	0.00	16.47
1962-63	0.00	0.36	0.00	0.21	0.54	3.75	3.15	2.29	0.53	0.01	0.00	0.00	10.84
1963-64	0.46	1.49	1.92	0.19	1.00	0.00	1.70	1.13	0.31	0.07	0.00	0.00	8.27
1965-66	0.00	0.00	4.34	2.37	0.95	0.80	0.26	0.03	0.00	0.14	0.00	0.00	8.89
1966-67	0.22	0.00	2.10	2.88	2.90	0.39	2.57	3.68	0.21	0.26	0.00	0.00	15.21
1967-68	0.36	0.00	2.78	1.35	0.63	0.91	2.03	0.51	0.04	0.00	0.00	0.00	8.61
1968-69	0.00	1.95	1.05	1.58	7.47	6.92	0.45	1.36	0.00	0.00	0.00	0.00	20.78
1969-70	0.06	0.33	0.98	0.53	2.65	0.42	4.64	0.04	0.00	0.00	0.00	0.00	9.65
1970-71	0.00	0.00	3.45	3.46	0.77	0.09	0.25	1.02	0.74	0.00	0.00	0.00	9.78
1971-72	0.04	0.38	0.64	3.37	0.19	0.45	0.00	0.26	0.16	0.00	0.00	0.00	5.49
1972-73	0.00	0.53	3.56	1.73	4.92	5.44	3.20	0.00	0.05	0.00	0.00	0.00	19.43
1973-74	0.16	0.64	2.50	2.36	3.90	0.15	4.78	0.88	0.00	0.00	0.00	0.00	15.37
1974-75	0.00	1.87	0.13	4.05	0.04	3.22	2.39	0.75	0.00	0.00	0.00	0.00	12.45
1975-76	0.00	0.72	0.15	0.06	0.00	4.47	0.61	1.25	0.00	0.02	0.02	1.20	8.50
1976-77	3.47	1.37	0.32	0.55	2.48	0.02	1.59	0.05	2.09	0.00	0.00	0.00	11.94
1977-78	0.04	0.00	0.13	3.94	4.94	6.55	5.37	1.98	0.00	0.00	0.00	0.00	22.95
1978-79	1.55	0.00	1.10	1.29	4.02	3.04	2.65	0.16	0.07	0.00	0.00	0.00	13.88
1979-80	0.18	0.45	0.21	0.98	4.19	5.08	2.14	0.46	0.28	0.00	0.00	0.00	13.97
1980-81	0.00	0.00	0.00	1.19	3.57	3.79	3.77	0.49	0.00	0.00	0.00	0.00	12.81
1981-82	0.00	0.90	1.26	0.85	2.90	1.27	5.04	1.76	0.00	0.23	0.00	0.07	14.28
1982-83	0.59	1.27	3.67	1.21	5.52	5.43	3.82	2.24	0.02	0.00	0.00	0.27	24.04

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 380 **Station Type: Data Logger w/TB** **Latitude: 345707 Longitude: 1202644**

Station Name: Santa Maria City **Elevation (ft): 203** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1983-84	1.41	0.35	2.10	2.63	0.02	0.37	0.48	0.57	0.00	0.00	0.00	0.00	7.93
1984-85	0.00	0.60	1.93	2.91	0.98	0.85	1.38	0.04	0.00	0.00	0.00	0.00	8.69
1985-86	0.04	0.39	2.72	0.78	1.12	2.96	4.62	0.80	0.00	0.00	0.00	0.00	13.43
1986-87	0.88	0.00	0.44	1.29	1.26	1.15	3.45	0.35	0.02	0.03	0.00	0.00	8.87
1987-88	0.00	2.32	0.61	2.60	1.71	2.36	0.02	2.21	0.05	0.03	0.00	0.00	11.91
1988-89	0.00	0.00	0.75	3.87	0.21	0.59	0.62	0.08	0.06	0.00	0.00	0.00	6.18
1989-90	0.57	0.16	0.49	0.01	2.27	1.55	0.18	0.23	0.48	0.00	0.00	0.00	5.94
1990-91	0.29	0.00	0.19	0.43	1.03	2.05	8.38	0.27	0.00	0.08	0.00	0.03	12.75
1991-92	0.00	0.30	0.26	3.60	1.77	5.98	2.22	0.00	0.00	0.00	0.67	0.00	14.80
1992-93	0.00	0.51	0.00	2.53	5.56	3.97	3.92	0.00	0.17	0.05	0.00	0.00	16.71
1993-94	0.00	0.22	0.75	1.01	2.08	3.42	1.94	0.90	0.59	0.00	0.00	0.00	10.91
1994-95	0.08	0.48	1.43	0.50	8.72	1.85	6.95	0.25	0.64	0.76	0.00	0.00	21.66
1995-96	0.00	0.00	0.37	1.66	1.86	7.55	0.97	0.63	0.33	0.00	0.00	0.00	13.37
1996-97	0.00	1.36	2.35	4.03	3.90	0.07	0.00	0.00	0.00	0.00	0.00	0.00	11.71
1997-98	0.30	0.00	3.67	2.60	4.26	13.08	3.35	3.55	1.80	0.00	0.00	0.00	32.61
1998-99	0.35	0.30	1.65	0.30	2.02	1.07	6.61	2.77	0.00	0.00	0.00	0.00	15.07
1999-00	0.00	0.00	1.20	0.00	1.60	9.16	1.33	3.35	0.00	0.00	0.00	0.00	16.64
2000-01	0.00	1.70	0.00	0.00	6.01	4.72	4.43	1.16	0.00	0.00	0.20	0.00	18.22
2001-02	0.00	0.40	3.37	1.62	1.35	0.34	0.85	0.28	0.00	0.00	0.00	0.00	8.21
2002-03	0.00	0.00	2.67	4.82	0.10	1.87	2.07	0.62	1.00	0.00	0.05	0.00	13.20
2003-04	0.00	0.00	3.07	1.58	1.25	4.85	0.38	0.00	0.00	0.00	0.00	0.00	11.13
2004-05	0.00	4.19	0.51	4.62	4.16	3.40	3.08	0.30	0.98	0.00	0.00	0.00	21.24
2005-06	0.00	0.50	0.99	1.55	5.13	0.75	3.15	3.91	1.00	0.00	0.00	0.00	16.98
2006-07	0.00	0.22	0.36	1.50	0.87	2.01	0.14	0.50	0.00	0.00	0.00	0.00	5.60
2007-08	0.00	0.60	0.00	1.97	7.70	2.42	0.00	0.25	0.00	0.00	0.00	0.00	12.94
2008-09	0.00	0.20	2.09	1.48	0.19	4.40	0.63	0.10	0.11	0.00	0.00	0.01	9.21
2009-10	0.01	1.87	0.02	2.39	5.63	2.91	0.51	2.25	0.22	0.00	0.01	0.00	15.82
2010-11	0.04	2.58	1.48	10.12	0.80	2.94	5.33	0.19	0.30	0.68	0.01	0.01	24.48
Total	18.31	57.19	101.84	190.06	255.50	255.54	215.00	92.67	24.65	6.58	1.22	2.34	1220.90
N	88	88	88	88	88	88	88	88	88	88	88	88	88
Mean	0.21	0.65	1.16	2.16	2.90	2.90	2.44	1.05	0.28	0.07	0.01	0.03	13.87
Max	3.47	4.19	4.34	10.12	10.16	13.08	8.72	4.27	2.09	1.96	0.67	1.20	32.61
StdDev	0.49	0.87	1.15	1.84	2.23	2.56	2.03	1.14	0.45	0.27	0.07	0.14	5.34
CV	2.37	1.34	1.00	0.85	0.77	0.88	0.83	1.08	1.62	3.60	5.36	5.11	0.39
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.42	0.88	1.87	2.25	2.39	2.06	0.74	0.09	0.00	0.00	0.00	12.78
5	0.35	1.18	2.00	3.54	4.68	5.06	4.04	1.82	0.53	0.14	0.02	0.04	18.45
10	0.79	1.75	2.75	4.59	6.38	6.76	5.29	2.60	0.91	0.31	0.06	0.12	22.05
25	1.46	2.47	3.70	5.86	8.55	8.83	6.82	3.60	1.44	0.57	0.13	0.26	26.45
50	2.03	3.02	4.38	6.77	10.17	10.35	7.95	4.34	1.86	0.78	0.19	0.39	29.68
100	2.61	3.56	5.06	7.64	11.76	11.79	9.01	5.07	2.29	1.00	0.25	0.52	32.74
200	3.22	4.10	5.72	8.49	13.33	13.20	10.05	5.81	2.73	1.23	0.31	0.66	35.73
500	4.46	5.01	6.77	9.73	15.92	15.27	11.58	7.03	3.48	1.69	0.45	0.97	40.12
1000	4.69	5.34	7.24	10.38	16.94	16.33	12.37	7.49	3.76	1.78	0.47	1.01	42.38
10000	6.88	7.11	9.35	12.97	22.03	20.70	15.60	9.87	5.27	2.59	0.71	1.54	51.66

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 218 **Station Type:** Alert, Data Logger w/TB **Latitude:** 343623 **Longitude:** 1200412

Station Name: Santa Ynez Fire Station #32 **Elevation (ft):** 600 **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1950-51	0.06	0.78	1.93	0.71	1.79	1.78	1.01	1.71	0.00	0.00	0.00	0.00	9.77
1951-52	0.00	0.53	3.04	3.94	8.69	0.40	6.62	1.14	0.00	0.00	0.00	0.00	24.36
1952-53	0.00	0.00	3.53	5.14	1.24	0.00	0.50	0.83	0.04	0.04	0.00	0.00	11.32
1953-54	0.00	0.00	1.94	0.25	3.85	1.35	3.24	0.22	0.00	0.00	0.00	0.00	10.85
1954-55	0.00	0.00	0.90	2.16	4.11	1.61	0.69	1.71	0.99	0.01	0.00	0.05	12.23
1955-56	0.01	0.00	1.98	4.93	4.24	0.55	0.00	1.89	1.00	0.00	0.00	0.00	14.60
1956-57	0.00	0.34	0.00	0.28	2.70	2.39	1.01	1.41	1.17	0.25	0.00	0.00	9.55
1957-58	0.00	0.63	0.49	3.26	2.16	7.26	6.22	5.96	0.81	0.00	0.00	0.00	26.79
1958-59	1.12	0.00	0.14	0.08	3.35	5.98	0.00	0.94	0.00	0.00	0.00	0.00	11.61
1959-60	0.05	0.00	0.00	0.92	3.45	3.21	0.52	1.07	0.00	0.00	0.00	0.00	9.22
1960-61	0.00	0.03	3.70	0.97	1.92	0.21	0.74	0.29	0.10	0.00	0.00	0.00	7.96
1961-62	0.02	0.00	2.49	2.11	2.19	11.50	0.93	0.00	0.09	0.03	0.00	0.00	19.36
1962-63	0.00	0.40	0.02	0.15	0.46	4.88	3.04	1.79	0.30	0.61	0.00	0.79	12.44
1963-64	1.29	1.01	2.45	0.07	2.05	0.09	1.42	1.46	0.17	0.16	0.00	0.00	10.17
1964-65	0.01	1.67	2.32	1.72	1.14	0.54	2.03	4.27	0.00	0.00	0.00	0.00	13.70
1965-66	0.00	0.00	9.95	2.93	1.75	0.77	0.36	0.05	0.00	0.00	0.00	0.00	15.81
1966-67	0.19	0.00	2.99	3.05	3.09	0.32	3.19	4.62	0.16	0.09	0.00	0.00	17.70
1967-68	0.35	0.00	3.93	1.04	0.68	1.08	2.63	0.90	0.01	0.00	0.00	0.00	10.62
1968-69	0.00	1.85	0.88	1.70	11.67	8.46	1.24	1.76	0.05	0.00	0.03	0.00	27.64
1969-70	0.02	0.12	1.33	0.44	2.21	1.88	2.16	0.15	0.00	0.00	0.00	0.00	8.31
1970-71	0.00	0.05	3.21	4.07	0.54	0.41	0.40	0.95	0.92	0.00	0.00	0.00	10.55
1971-72	0.10	0.30	0.30	6.15	0.10	0.40	0.00	0.20	0.00	0.00	0.00	0.00	7.55
1972-73	0.00	1.50	3.50	1.00	4.90	7.80	2.80	0.00	0.00	0.00	0.00	0.00	21.50
1973-74	0.00	0.40	2.50	1.82	7.03	0.00	3.00	0.70	0.00	0.00	0.00	0.00	15.45
1974-75	0.00	1.10	0.30	5.95	0.10	4.48	6.16	1.70	0.00	0.00	0.00	0.00	19.79
1975-76	0.00	0.30	0.60	0.20	0.00	5.50	1.10	1.50	0.00	0.00	0.00	0.30	9.50
1976-77	4.10	0.90	0.40	0.70	3.40	0.20	2.10	0.40	1.80	0.00	0.00	0.00	14.00
1977-78	0.00	0.10	0.30	2.70	5.60	11.00	8.60	2.50	0.00	0.00	0.00	0.00	30.80
1978-79	2.60	0.00	2.10	1.20	6.10	2.90	4.90	0.00	0.00	0.00	0.00	0.00	19.80
1979-80	0.30	0.70	0.47	1.20	4.11	10.47	3.53	2.10	0.15	0.00	0.00	0.00	23.03
1980-81	0.00	0.00	0.00	1.00	3.56	2.80	6.20	0.60	0.00	0.00	0.00	0.00	14.16
1981-82	0.10	0.50	1.60	0.70	2.90	0.50	6.20	2.00	0.00	0.00	0.00	0.00	14.50
1982-83	0.37	1.52	4.60	2.00	7.90	5.60	8.20	4.00	0.30	0.00	0.00	0.00	34.49
1983-84	1.10	0.97	1.90	3.10	0.10	0.30	0.60	0.40	0.00	0.00	0.00	0.00	8.47
1984-85	0.10	0.50	2.60	3.30	0.80	1.82	1.40	0.50	0.00	0.00	0.00	0.00	11.02
1985-86	0.00	0.50	3.26	0.55	1.40	5.10	5.00	0.50	0.00	0.00	0.00	0.00	16.31
1986-87	0.78	0.00	0.60	1.40	1.80	1.80	3.20	0.20	0.00	0.00	0.00	0.00	9.78
1987-88	0.00	1.74	0.93	4.20	2.80	0.00	3.40	3.60	0.10	0.10	0.00	0.00	16.87
1988-89	0.00	0.00	0.80	3.30	0.30	1.10	0.52	0.10	0.30	0.00	0.00	0.00	6.42
1989-90	0.30	0.30	0.30	0.00	2.90	1.90	0.20	0.10	0.75	0.00	0.00	0.00	6.75
1990-91	0.00	0.00	0.25	0.30	1.30	3.30	11.60	0.00	0.00	0.10	0.00	0.00	16.85
1991-92	0.00	0.30	0.08	7.10	2.90	10.70	3.70	0.10	0.00	0.00	0.10	0.00	24.98
1992-93	0.00	0.90	0.00	4.50	9.90	7.70	5.00	0.00	0.00	0.00	0.00	0.00	28.00
1993-94	0.00	0.20	0.90	1.90	1.20	4.70	2.60	1.00	1.00	0.00	0.00	0.00	13.50
1994-95	0.10	0.50	1.30	0.60	15.80	1.40	8.60	0.50	0.90	0.60	0.00	0.00	30.30
1995-96	0.00	0.00	0.20	1.10	1.50	6.20	2.70	0.40	0.10	0.00	0.00	0.00	12.20
1996-97	0.00	2.10	1.80	4.10	3.44	0.20	0.00	0.00	0.00	0.00	0.10	0.00	11.74
1997-98	0.00	0.00	2.80	5.60	4.80	16.20	3.10	1.80	2.06	0.00	0.00	0.00	36.36
1998-99	0.00	0.10	1.20	0.68	1.90	0.80	5.10	2.00	0.00	0.01	0.38	0.00	12.17
1999-00	0.00	0.00	1.41	0.00	1.61	6.68	2.32	3.19	0.04	0.00	0.00	0.00	15.25
2000-01	0.00	2.26	0.00	0.07	7.37	5.04	9.49	1.28	0.03	0.00	0.05	0.00	25.59
2001-02	0.00	0.64	2.84	2.47	0.94	0.15	0.54	0.14	0.09	0.00	0.00	0.00	7.81
2002-03	0.06	0.01	2.92	5.99	0.11	2.26	2.59	1.30	1.31	0.01	0.00	0.02	16.58
2003-04	0.01	0.02	1.72	2.17	0.49	5.21	0.69	0.00	0.00	0.00	0.01	0.00	10.32
2004-05	0.00	4.88	0.34	8.83	8.79	7.92	2.93	0.86	0.57	0.01	0.00	0.01	35.14
2005-06	0.08	0.40	1.34	0.79	4.27	1.94	3.77	3.98	1.00	0.01	0.00	0.00	17.58
2006-07	0.01	0.17	0.18	1.71	1.18	2.28	0.12	0.92	0.00	0.00	0.00	0.01	6.58
2007-08	0.16	0.36	0.05	1.78	11.44	1.95	0.04	0.04	0.05	0.00	0.01	0.00	15.88
2008-09	0.00	0.10	3.44	1.83	0.53	5.59	1.02	0.30	0.00	0.26	0.00	0.01	13.08
2009-10	0.05	1.41	0.02	2.97	9.63	4.11	0.26	2.82	0.01	0.00	0.00	0.00	21.28

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 218 **Station Type: Alert, Data Logger w/TB** **Latitude: 343623** **Longitude: 1200412**

Station Name: Santa Ynez Fire Station #32 **Elevation (ft): 600** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
2010-11	0.00	2.09	1.19	9.30	0.74	3.09	8.96	0.17	0.35	0.45	0.00	0.00	26.34
Total	13.44	35.18	98.26	144.18	208.92	215.76	180.19	75.02	16.72	2.74	0.68	1.19	992.28
N	61	61	61	61	61	61	61	61	61	61	61	61	61
Mean	0.22	0.58	1.61	2.36	3.42	3.54	2.95	1.23	0.27	0.04	0.01	0.02	16.27
Max	4.10	4.88	9.95	9.30	15.80	16.20	11.60	5.96	2.06	0.61	0.38	0.79	36.36
StdDev	0.65	0.83	1.65	2.18	3.32	3.52	2.78	1.32	0.47	0.13	0.05	0.11	7.64
CV	2.96	1.45	1.02	0.92	0.97	1.00	0.94	1.08	1.73	2.85	4.60	5.47	0.47
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.37	1.23	2.05	2.65	2.91	2.49	0.86	0.09	0.00	0.00	0.00	14.98
5	0.37	1.05	2.79	3.87	5.52	6.16	4.88	2.13	0.51	0.08	0.02	0.03	21.63
10	0.83	1.55	3.83	5.02	7.52	8.23	6.40	3.03	0.89	0.19	0.05	0.09	25.86
25	1.55	2.19	5.14	6.41	10.08	10.75	8.25	4.21	1.41	0.34	0.10	0.19	31.01
50	2.15	2.68	6.09	7.41	11.99	12.61	9.61	5.07	1.82	0.47	0.15	0.28	34.80
100	2.77	3.16	7.04	8.36	13.87	14.36	10.89	5.93	2.25	0.60	0.20	0.38	38.38
200	3.41	3.64	7.97	9.29	15.72	16.07	12.15	6.79	2.67	0.74	0.25	0.49	41.89
500	4.72	4.44	9.43	10.64	18.78	18.59	14.00	8.21	3.41	1.01	0.36	0.71	47.04
1000	4.97	4.74	10.07	11.36	19.98	19.89	14.96	8.75	3.68	1.07	0.38	0.74	49.69
10000	7.29	6.31	13.01	14.20	25.99	25.21	18.86	11.52	5.15	1.56	0.57	1.13	60.57

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
805.568.3440 - www.countyofsb.org/pwd

Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 256 **Station Type: Alert, Data Logger w/TB** **Latitude: 345159** **Longitude: 1201737**

Station Name: Sisquoc Fire Station #23 **Elevation (ft): 420** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
1947-48	0.00	0.22	0.16	0.46	0.00	2.42	2.92	2.52	1.01	0.00	0.00	0.00	9.71
1948-49	0.00	0.00	0.00	3.01	1.15	2.00	3.75	0.15	1.04	0.00	0.00	0.00	11.10
1949-50	0.00	0.00	1.84	3.00	3.07	1.68	1.45	0.80	0.20	0.00	0.70	0.00	12.74
1951-52	0.00	0.76	1.26	4.52	6.54	1.00	7.43	0.69	0.08	0.00	0.00	0.00	22.28
1953-54	0.00	0.00	2.62	0.32	4.69	1.13	4.00	0.36	0.00	0.00	0.00	0.00	13.12
1954-55	0.00	0.00	1.28	3.37	4.33	1.63	0.35	1.34	1.26	0.00	0.00	0.00	13.56
1955-56	0.00	0.00	1.96	6.88	4.09	0.58	0.00	1.68	0.00	0.00	0.00	0.00	15.19
1956-57	0.00	0.46	0.00	0.25	3.15	3.15	0.55	1.20	1.50	0.18	0.00	0.00	10.44
1957-58	0.00	1.95	0.38	3.51	2.85	6.15	3.98	6.58	0.00	0.00	0.00	0.60	26.00
1958-59	0.75	0.00	0.27	0.30	2.56	4.39	0.00	1.37	0.00	0.00	0.00	0.00	9.64
1959-60	0.00	0.00	0.00	0.52	4.01	4.01	1.01	2.30	0.00	0.00	0.00	0.00	11.85
1960-61	0.45	0.63	3.61	1.17	1.05	0.10	1.10	0.40	0.27	0.00	0.00	0.00	8.78
1961-62	0.00	0.00	3.00	2.04	3.08	12.61	1.85	0.00	0.00	0.00	0.00	0.00	22.58
1962-63	0.00	1.48	0.00	0.21	0.35	4.93	3.30	2.80	0.38	0.05	0.00	0.16	13.66
1963-64	0.00	0.00	2.59	0.10	1.92	0.10	1.86	0.96	0.60	0.25	0.03	0.00	8.41
1964-65	0.00	2.03	3.22	2.03	1.33	0.41	1.72	4.59	0.00	0.00	0.00	0.00	15.33
1965-66	0.00	0.00	5.79	4.15	1.57	1.20	0.00	0.12	0.00	0.00	0.00	0.00	12.83
1966-67	0.22	0.00	2.45	5.39	3.72	0.46	2.61	6.87	0.17	0.27	0.00	0.00	22.16
1967-68	0.36	0.00	2.60	1.32	1.35	1.24	3.78	0.82	0.05	0.00	0.00	0.00	11.52
1968-69	0.00	1.93	1.00	2.17	9.75	8.68	1.42	1.80	0.10	0.00	0.00	0.00	26.85
1969-70	0.00	0.00	0.00	0.00	0.00	1.94	2.15	0.12	0.00	0.00	0.00	0.00	4.21
1970-71	0.00	0.00	2.99	3.27	0.40	0.23	0.43	1.16	0.88	0.00	0.00	0.00	9.36
1971-72	0.00	0.14	0.19	3.78	0.12	0.35	0.00	0.20	0.00	0.00	0.00	0.00	4.78
1972-73	0.00	0.61	4.31	1.18	4.52	6.80	3.49	0.00	0.14	0.00	0.00	0.00	21.05
1973-74	0.13	0.47	2.61	2.44	4.68	0.19	5.47	1.29	0.00	0.00	0.00	0.00	17.28
1974-75	0.00	0.95	0.16	3.80	0.20	4.22	3.92	0.86	0.00	0.00	0.00	0.00	14.11
1975-76	0.00	0.62	0.48	0.17	0.00	5.49	1.73	1.71	0.03	0.05	0.00	0.75	11.03
1976-77	4.53	0.45	0.39	0.80	2.01	0.05	1.55	0.00	1.80	0.00	0.00	0.00	11.58
1977-78	0.00	0.00	0.17	3.78	5.97	9.15	6.71	2.48	0.00	0.00	0.00	0.00	28.26
1978-79	1.90	0.00	1.29	1.22	3.44	4.14	4.84	0.00	0.05	0.00	0.00	0.00	16.88
1979-80	0.35	0.55	0.92	1.80	4.37	7.96	1.98	0.48	0.38	0.00	0.00	0.00	18.79
1980-81	0.00	0.00	0.00	0.14	3.92	2.26	5.13	0.50	0.00	0.00	0.00	0.00	11.95
1981-82	0.00	0.80	1.19	0.70	3.23	0.94	4.55	2.45	0.00	0.00	0.00	0.00	13.86
1982-83	0.80	1.60	3.91	1.40	7.31	4.38	6.24	2.98	0.00	0.00	0.00	0.26	28.88
1983-84	0.00	0.92	2.25	2.71	0.19	0.32	0.57	0.57	0.00	0.00	0.00	0.00	7.53
1984-85	0.00	0.76	2.46	3.36	0.59	1.15	1.38	0.00	0.00	0.00	0.00	0.00	9.70
1985-86	0.00	0.30	3.69	0.67	0.60	3.18	4.71	0.60	0.00	0.00	0.00	0.00	13.75
1986-87	0.73	0.00	0.91	1.42	1.57	1.73	3.48	0.22	0.00	0.11	0.00	0.00	10.17
1987-88	0.00	0.94	1.08	3.47	1.69	1.34	0.60	2.88	0.16	0.16	0.00	0.00	12.32
1988-89	0.00	0.00	0.81	5.04	0.45	0.87	0.73	0.08	0.16	0.00	0.00	0.00	8.14
1989-90	0.73	0.39	0.28	0.00	2.26	1.81	0.18	0.24	0.63	0.00	0.00	0.00	6.52
1990-91	0.54	0.00	0.26	0.57	1.23	1.47	9.69	0.00	0.00	0.00	0.00	0.00	13.76
1991-92	0.46	0.20	0.00	3.60	2.69	5.93	1.83	0.00	0.00	0.00	0.61	0.00	15.32
1992-93	0.90	0.00	0.00	4.13	5.99	5.74	4.29	0.00	0.16	0.16	0.00	0.00	21.37
1993-94	0.00	0.25	1.13	1.56	2.14	3.46	2.86	0.74	1.11	0.00	0.00	0.00	13.25
1994-95	0.38	1.08	2.00	1.23	11.79	2.26	8.51	0.43	0.62	0.74	0.00	0.00	29.04
1995-96	0.00	0.00	0.29	2.18	1.66	10.84	2.17	0.92	0.25	0.01	0.00	0.00	18.32
1996-97	0.00	2.35	2.34	4.10	3.92	0.06	0.00	0.00	0.00	0.00	0.01	0.00	12.78
1997-98	0.28	0.00	4.47	2.66	4.10	13.42	5.05	4.34	3.02	0.00	0.00	0.00	37.34
1998-99	0.54	0.15	2.04	0.64	2.14	1.16	5.55	1.03	0.00	0.00	0.00	0.00	13.25
1999-00	0.02	0.00	1.47	0.00	1.53	8.73	1.59	3.42	0.00	0.16	0.00	0.00	16.92
2000-01	0.00	2.07	0.01	0.10	5.52	5.08	4.85	1.50	0.00	0.00	0.00	0.00	19.13
2001-02	0.00	0.80	3.69	1.96	1.03	0.28	0.87	0.16	0.40	0.00	0.00	0.00	9.19
2002-03	0.00	0.02	3.13	5.43	0.04	2.14	2.26	1.72	1.39	0.00	0.01	0.00	16.14
2003-04	0.01	0.00	2.17	2.20	0.79	4.98	0.70	0.00	0.00	0.00	0.00	0.00	10.85
2004-05	0.00	3.81	0.56	5.63	5.80	3.79	3.43	0.78	1.77	0.03	0.00	0.00	25.60
2005-06	0.03	0.95	1.22	1.52	4.54	0.96	4.43	4.71	0.92	0.00	0.00	0.00	19.28
2006-07	0.00	0.43	0.15	1.42	0.86	2.11	0.37	0.44	0.01	0.00	0.00	0.03	5.82
2007-08	0.35	0.92	0.00	2.01	9.87	2.20	0.00	0.07	0.00	0.00	0.00	0.00	15.42
2008-09	0.00	0.11	2.02	1.93	0.26	5.27	1.14	0.28	0.10	0.10	0.00	0.00	11.21

Santa Barbara County - Flood Control District

123 E. Anapamu St., Santa Barbara, CA 93101
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Official Monthly and Yearly Rainfall Record

(Monthly Depth Durations and Average Recurrence Intervals)

Station: 256 **Station Type: Alert, Data Logger w/TB** **Latitude: 345159 Longitude: 1201737**

Station Name: Sisquoc Fire Station #23 **Elevation (ft): 420** **Rainfall (in.)**

WY	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	WY
2009-10	0.02	2.02	0.01	3.50	6.78	3.49	0.45	2.51	0.16	0.00	0.01	0.00	18.95
2010-11	0.00	1.86	1.30	12.82	1.06	3.63	5.82	0.14	0.31	0.36	0.00	0.00	27.30
Total	14.48	35.98	92.38	145.06	181.82	203.37	168.78	79.36	21.11	2.63	1.37	1.80	948.14
N	62	62	62	62	62	62	62	62	62	62	62	62	62
Mean	0.23	0.58	1.49	2.34	2.93	3.28	2.72	1.28	0.34	0.04	0.02	0.03	15.29
Max	4.53	3.81	5.79	12.82	11.79	13.42	9.69	6.87	3.02	0.74	0.70	0.75	37.34
StdDev	0.64	0.78	1.40	2.14	2.58	3.11	2.27	1.55	0.58	0.12	0.12	0.12	6.74
CV	2.75	1.35	0.94	0.91	0.88	0.95	0.83	1.21	1.71	2.74	5.25	4.30	0.44
Reg CV	2.68	1.28	1.03	0.84	0.90	0.99	0.87	1.11	1.83	2.91	3.81	4.10	0.44
Reg Skew	3.80	1.80	1.40	1.00	1.60	1.10	1.10	1.70	2.60	3.60	4.40	4.80	1.10
FIC	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Average Recurrence Intervals (in Years)													
2	0.00	0.37	1.14	2.03	2.27	2.70	2.30	0.90	0.11	0.00	0.00	0.00	14.08
5	0.40	1.06	2.58	3.83	4.73	5.72	4.50	2.22	0.64	0.08	0.03	0.04	20.34
10	0.88	1.56	3.55	4.97	6.44	7.63	5.90	3.16	1.10	0.18	0.10	0.13	24.31
25	1.64	2.21	4.76	6.35	8.63	9.97	7.60	4.38	1.75	0.32	0.21	0.28	29.15
50	2.27	2.70	5.63	7.33	10.27	11.69	8.86	5.27	2.27	0.44	0.30	0.42	32.72
100	2.93	3.18	6.51	8.27	11.88	13.31	10.04	6.17	2.79	0.57	0.40	0.57	36.08
200	3.62	3.66	7.37	9.20	13.46	14.91	11.20	7.06	3.32	0.70	0.50	0.72	39.38
500	5.00	4.47	8.72	10.54	16.08	17.24	12.91	8.54	4.23	0.96	0.71	1.05	44.23
1000	5.27	4.77	9.32	11.24	17.11	18.45	13.78	9.11	4.57	1.01	0.75	1.11	46.72
10000	7.73	6.35	12.03	14.05	22.25	23.38	17.38	11.99	6.40	1.47	1.13	1.68	56.94