

## APPENDIX D

### Disasters Affecting the San Francisco Bay Area 1950 - 2009

The California Office of Emergency Services has compiled two lists of disasters affecting the State, including the San Francisco Bay Area – one for the period from 1950 – 1999, and a second for more recent disasters. The following list of 69 disasters affecting all or part of the nine-county Bay Area during that 60-year period is extracted from those lists (of over 200 disasters statewide). All but nine of these disasters are caused by natural hazards, for an average of almost one natural disaster affecting all or part of the San Francisco Bay Area every year. Since the adoption of the 2005 LHMP, 12 new disasters have been declared. These disasters included winter storms, drought, fire, a levee break, pandemic flu and several manmade disasters. No earthquake disasters were declared during this period.

Individual jurisdictions participating in this plan may have experienced locally-significant emergencies in their history which were not state-declared disasters. These events are described in the individual annexes of each jurisdiction.

County	Floods	Weather/Storm	Drought	Wildfire	Energy Shortage	Earthquake	Agricultural Emergency	Civil Disturbance	Landslide	Water Mngmt & Fish Shortage	Infrastructure related	Oil Spill	Flu	TOTAL
Alameda	11	6	3	3	2	1	1	1	0	0	1	1	1	31
Contra Costa	12	6	3	0	2	1	1	1	0	0	1	1	1	29
Marin	9	7	3	1	2	2	0	0	0	1	0	1	1	27
Napa	9	7	3	3	0	1	0	0	0	0	0	0	1	24
San Francisco	4	2	1	0	1	1	0	1	0	1	1	1	1	14
San Mateo	10	5	3	0	1	1	1	0	1	1	0	1	1	25
Santa Clara	9	4	3	2	2	2	2	0	0	0	0	0	1	25
Solano	9	6	3	2	0	1	1	0	1	0	0	1	1	25
Sonoma	8	9	3	2	1	0	0	0	0	1	0	1	1	26
<b>TOTAL</b>	<b>81</b>	<b>52</b>	<b>25</b>	<b>13</b>	<b>11</b>	<b>10</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>9</b>	

### **April 28, 2009 - Swine Flu**

The swine flu disaster was a global outbreak of a new strain of the H1N1 influenza virus. It was first discovered in Veracruz, Mexico. Many Bay Area schools were closed due to concerns about spreading the virus to which young people were more susceptible.

Declared: statewide  
Damage: indeterminate

### **February 27, 2009 - Drought**

There was a three year drought of below-average rainfall, low snowmelt runoff, and the largest court-ordered water restriction in state history. The dry conditions damaged crops, deteriorated water quality, and caused extreme fire danger.

Declared: statewide  
Damage: \$300 million in agricultural revenue loss, potential \$3 billion in economic losses over time

### **May 22, 2008 to May 24, 2008 - Fire**

The Summit fire started at about 5:00 am on Thursday May 22, 2008. The location was Summit road and Maymen flats, South of Loma Prieta. Cause is under investigation as of May 30, 2008. Cost as of May 30, 2008 was 16.1 million. 35 residences and 64 outbuildings were destroyed.

Declared: Santa Clara (in addition to Santa Cruz County outside the Bay Area)  
Damage: 4,270 acres burned, 31 residences destroyed, 16 injuries reported (source: CalFire)

### **January 5, 2008 to January 14, 2008 - 2008 Winter Storms**

Heavy rainfall resulted in a flood watch for the entire Bay Area and the weather service issued an urban and small stream flood advisory for parts of San Mateo, San Francisco, Marin, Sonoma and Napa counties. In Petaluma (in Sonoma county), some residents were evacuated from their homes. There was also a mudslide that caused the closure of Highway 1 at Devil's slide.

Declared: San Francisco, City of Oakland (in addition to the City of Grass Valley, and Butte, Colusa, Del Norte, El Dorado, Glenn, Kings, Placer, Sacramento, San Francisco, Sierra, Sutter, Yuba, and Yolo counties outside the Bay Area)  
Damage: not available at this time

### **November 9, 2007 - Oil Spill (COSCO BUSAN)**

53,500 US gallons of heavy oil fuel spilled into the San Francisco bay. After the container ship, COSCO Busan operated by Fleet Management Ltd. struck the Delta Tower of the San Francisco-Oakland Bay Bridge in thick fog. As a result of the tides in the San Francisco Bay, the spill spread rapidly and affected a large of area of the California North Coast. The East Bay received the majority of the damage, including Richmond.

Declared: Alameda, Contra Costa, Marin, San Francisco, San Mateo, Solano, Sonoma  
Damage: 53,000 gallons of oil spilled into San Francisco Bay

### **April 29, 2007 - Freeway Collapse**

A tanker truck exploded on the Oakland to San Francisco Bay Bridge, which caused a connector ramp to collapse. This caused traffic delays, especially for commuters.

Declared: Alameda, Contra Costa, San Francisco  
Damage: \$6 million in roadway damage

### **January 12, 2007 - Freeze - DR 1689**

The very cold temperatures in California and the snow accumulation resulted from the Arctic low system pressure dip in the far West. The cold sensitive plants were adversely affected in the San Joaquin Valley, which is the largest citrus producing region in the United States.

Declared: Santa Clara (in addition to El Dorado, Imperial, San Bernadino, San Diego, Riverside, Los Angeles, Fresno, Kern, Kings, Madera, Merced, Monterey, San Luis Obispo, Santa Barbara, Stanislaus, Tulare, Ventura, and Yuba counties outside the Bay Area)

Federal: All above, except Santa Clara and El Dorado counties

Damage: not available at this time

### **June 6, 2006 - Water Management and Fish Shortage**

Klamath River Basin Chinook Salmon populations were extremely low because of poor ocean conditions, drought, water management, water quality, water flows, disease, and the elimination of access to historical spawning habitat. This is detrimental to environmental, recreational, commercial, and economic benefits to the people.

Declared: Marin, San Francisco, San Mateo, Sonoma (in addition to Del Norte, Humboldt, Mendocino, Monterey, Santa Cruz, and Siskiyou counties outside the Bay Area)

Damage: indeterminate

### **May 10, 2006 -Storms**

Roadway damage

Declared: Alameda, Contra Costa, Marin, Napa, San Mateo, Solano, Sonoma (in addition to Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Fresno, Humboldt, Kings, Lake, Lassen, Madera, Mendocino, Merced, Monterey, Nevada, Placer, Plumas, Sacramento, San Joaquin, San Luis Obispo, Santa Cruz, Shasta, Sierra, Siskiyou, Stanislaus, Sutter, Trinity, Tulare, Tuolumne, Yolo, and Yuba counties outside the Bay Area)

Damage: not available at this time

### **March 29, 2006 to April 1, 2006 - 2006 Spring Storms - DR 1646**

Severe Storms, Flooding, Landslides, and Mudslides

Declared: Alameda, Marin, Napa, San Mateo, Sonoma (in addition to Amador, Calaveras, El Dorado, Lake, Madera, Merced, Nevada, Placer, San Joaquin, Santa Cruz, Stanislaus, and Tuolumne counties outside the Bay Area)

Damage: not available at this time

### **December 17, 2005 to January 12, 2006 - '05-'06 Winter Storms - DR 1628**

Severe Storms, Flooding, Mudslides, and Landslides. Damage estimates are over 100 million. Storms are blamed for two deaths from falling trees. Marin County's downtown was put 4 feet under water and left coated with mud. Around 50 businesses were damaged and 3 homes nearly wiped out by mudslides.

Declared: Alameda, Contra Costa, Marin, Napa, San Mateo, Solano, Sonoma

Damage: not available at this time

### **June 3, 2004 - San Joaquin Levee Break (Upper Jones Tract) - DR 1529**

Flooded an island in the Sacramento-San Joaquin Delta. 300 people were evacuated. The breach ruined homes, killed animals, and flooded 12,000 acres of crops. The change in water level could mean that farmlands would get less water and salt water from the San Francisco Bay to contaminate the drinking water for many California cities.

Declared: (Outside of Bay Area – provided due to indirect impacts to Bay Area)

Damage: estimated at \$121 to \$125 million (source: San Joaquin Co. Office of Emergency Services)

### **September 3, 2000 - Napa Earthquake - DR 1342**

Magnitude 5.2. Considerable damage (MMI VII) at Napa. Felt (MMI V) at Boyes Hot Springs, El Verano, Freestone, Rutherford, Sonoma, Vallejo and Yountville; (MMI IV) at American Canyon, Benicia, Birds Landing, Calistoga, Canyon, Concord, Crockett, Deer Park, Duncans Mills, Fairfield, Guerneville, Lafayette, Marshall, Martinez, Montgomery Village, Novato, Penngrove, Pittsburg, Port Costa, Rohnert Park, San Bruno, San Francisco, Santa Rosa, Suisun City, Vacaville, Villa Grande, Winters and Woodacre. Felt in much of northern California from Sacramento to Santa Rosa and south to the San Francisco Bay area.

Declared: Napa

Casualties: 41 Injuries

Damage: estimated at \$15 to \$70 million (source: EERI Reconnaissance Report)

### **February 2, 1998 - El Nino - DR 1203**

Severe flooding and landslides. More than 11,000 people were evacuated because of 80 mile per hour winds and floods. Record flooding in San Mateo and Santa Clara. Devastating flash flooding occurred along the Petaluma River in Sonoma county and the Tres Pinos Creek in San Benito county. Severe and widespread landslides triggered by intense rain all winter occurred in many counties, including Alameda, Contra Costa, Sonoma, San Mateo, San Francisco and the Cities of Richmond, San Bruno, Fremont, Oakland Hills, Mill Valley, Bodega Bay, La Honda, Sebastopol, Pacifica, Santa Rosa, San Leandro, Orinda, Napa and Vallejo.

Declared: Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, Fresno, Glenn, Humboldt, Kern, Kings, Lake, Los Angeles, Marin, Mendocino, Merced, Monterey, Napa, Orange, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Ventura, Yolo, Yuba.

Federal: All above except Kings and Siskiyou counties

Casualties: 17 deaths

Damage: \$550 million

### **December 1996 to January 1997 - January 1997 Floods**

300 square miles were flooded including the Yosemite Valley. Over 120,000 people had to be evacuated in northern California. Several levee breaks were reported across the Sacramento and

San Joaquin Valleys. Over 23,000 homes and businesses, agricultural lands, bridges, and roads were damaged.

Declared: Alpine, Amador, Butte, Colusa, Del Norte, El Dorado, Glenn, Humboldt, Lake, Lassen, Modoc, Napa, Nevada, Plumas, Sacramento, San Joaquin, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Yuba (1/2/97); Calaveras, Madera, Mono, Monterey, Placer, San Benito, San Luis Obispo, San Mateo, Santa Cruz, Shasta, Stanislaus, Tuolumne, Yolo (1/3/97); Contra Costa, Fresno, Marin, Tulare (1/5/97); Mariposa (1/6/97); Merced, Santa Clara (1/10/97); Alameda, San Francisco (1/19/97); Kings, San Luis Obispo (1/31/97).

Federal: all 48 counties listed above

Casualties: 8 deaths

Damage: \$1.8 billion

Add: 300 square miles of land flooded; 23,000 homes, 2,000 businesses damaged or destroyed.

### February 1995 - Late Winter Storms

Severe Winter Storms, Flooding, Landslides, Mud Flows. Over 100 stations recorded their greatest 1-day rainfall in history. Most of the storms hit the Sacramento River Basin which resulted in small stream flooding due to drainage system failures.

Declared: FEMA 1046-DR-CA 57 counties (all except Del Norte).

Federal: 1/10/95

Casualties: 17 deaths

Damage: public property-\$190.6 million; individual-\$122.4 million; business-\$46.9 million; highways-\$79 million; ag-\$651.6 million; TOTAL-approximately \$1.1 billion; damage to homes: major-1,322; minor-2,299; destroyed-267

### January 1995 - Severe Winter Storms

Severe Winter Storms, Flooding, Landslides, Mud Flows. Over 100 stations recorded their greatest 1-day rainfall in history. Most of the storms hit the Sacramento River Basin which resulted in small stream flooding due to drainage system failures.

Declared: FEMA 1044-DR-CA Los Angeles, Orange (1/6/95), Humboldt, Lake, Sonoma (1/9/95), Butte, Colusa, Contra Costa, Del Norte, Glenn, Kern, Lassen, Mendocino, Modoc, Monterey, Napa, Placer, Plumas, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Tehama, Ventura, Yolo, Yuba (1/10/95), Alpine, Amador, Nevada, Riverside, Sacramento, San Bernardino, San Mateo, Shasta, Sutter, Trinity (1/11/95), San Diego (1/13/95), Alameda, Marin (1/14/95), Fresno, Kings (1/17/95), El Dorado (2/15/95), Madera, Solano (2/17/95), Siskiyou (3/14/95)

Federal: 1044 (1/13/95)

Casualties: 11 deaths

Damage: public-\$299.6 million; individual-\$128.4 million; businesses \$58.4 million; highways-\$158 million; ag-\$97 million; TOTAL-\$741.4 million; damage to homes: major-1,883; minor-4, 179; destroyed-370.

## December 1992 - Late Winter Storms

Snow, rain, and high winds

Declared: FEMA 979-DR-CA Alpine, Los Angeles (2/19/93), Humboldt, Napa, Santa Barbara, Culver City and the City of Los Angeles (2/8/93, for event beginning 1/25/93), Contra Costa, Mendocino, Sonoma (1/25/93, for event beginning 1/25/93), Fresno, Imperial, Madera, Monterey, San Bernardino, Sierra, Tehama, Trinity, and Tulare (1/21/93, for event beginning 1/19/93), Modoc, Orange, Riverside (1/19/93, for event beginning 1/15/93), Lassen, Siskiyou (1/15/93, for event beginning 1/13/93), Plumas (1/13/93, for event beginning 1/12/93), San Diego (1/7/93, for event beginning 1/7/93)

Federal: 1/15/93

Casualties: 20 deaths, 10 injuries

Damage: public property-\$32,215, \$600 million

## October 1991 - East Bay Hills Fire

Large urban fire that occurred on the hillsides of northern Oakland and southeastern Berkeley. It destroyed 1,520 acres. The fire started from an incompletely extinguished grass fire.

Declared: Alameda County, 10/20/91)

Federal: 919 (10/22/91)

Casualties: 25 deaths, 150 injuries

Damage: \$1.7 billion; 3,354 family dwellings and 456 apartments destroyed

## Early December 1990 - Freeze

Very cold air blew through the San Joaquin Valley, east through the Coachella and Imperial valleys, and down the coastal valleys of the Santa Paula district. The freeze caused joblessness and hunger among farm workers.

Declared: FEMA 894-DR-CA Santa Cruz (12/28/90), Fresno, Glenn, Imperial, Kern, Mendocino, Monterey, Riverside, San Benito, San Bernardino, San Diego, San Mateo, Santa Barbara, Santa Clara, Solano, Sonoma, Tulare, Ventura (1/11/91), Alameda, Butte, Colusa, Los Angeles, Madera, Marin, Merced, Napa, San Joaquin, San Luis Obispo, Sutter, Yolo, Yuba (1/18/91), Stanislaus, Tehama (2/14/91, beginning 12/19/90)

Federal: 2/11/91

Damage: public buildings-\$2,330,353; utilities-\$1,614,040; crop damage-\$852,385,282; TOTAL-\$856,329,675; 500 broken pipes, affecting 5,400 homes

## October 17, 1989 - Loma Prieta Earthquake

Magnitude 7.1. 12,000 homes and 2,600 businesses were damaged. Most severe damage in Oakland and San Francisco. Part of the San Francisco Bay Bridge collapsed. The Cypress Street Viaduct of Interstate 880 in West Oakland collapsed killing 42 and injuring many more.

Declared: FEMA 845-DR-CA Alameda, Monterey, San Benito, San Mateo, Santa Clara, Santa Cruz, San Francisco (10/18/89), Contra Costa, Marin, City of Isleton (10/23/89), City of Tracy, Solano (10/30/89)

Federal: 10/18/89

Casualties: 63 deaths, 3,757 injuries (10/18/89)

Damage: Alameda \$1,479,104,500, Contra Costa \$25 million, Monterey \$108 million, San Benito \$103.55 million, San Francisco \$2 billion, San Mateo \$292,941,001, Santa Clara \$727.7 million, Santa Cruz \$1.526 million, \$500 million to \$1 billion damage in roads and bridges, \$20 million in state government buildings. Total: \$5.9 billion; 23,408 homes damaged, 3,530 businesses damaged, 1,018 homes destroyed, 366 businesses destroyed.

### **August 1989 - Mediterranean Fruit Fly**

Declared: Santa Clara (9/6/89)  
Federal: not declared  
Damage: not applicable—damage was avoided

### **September 1988 - Fires (49er, Miller, and Fern)**

Declared: FEMA 815-DR-CA Shasta, Solano (9/20/88, beginning 9/17/88), Yuba, Nevada (9/13/88, beginning 9/11/88)  
Federal: 9/13/88  
Casualties: no deaths  
Damage: public-\$31,247,534; business-\$2,533,100; private-\$18,033,800; TOTAL-\$31,247,534; 238 homes destroyed, 41 homes damaged; 29 businesses destroyed

### **Early February 1986 - Storms**

Rains, winds, flooding, and mud slides

Declared: FEMA 758-DR-CA Humboldt, Napa, Sonoma (2/18/86), Glenn, Lake, Marin, Modoc, Sacramento, Santa Clara, Santa Cruz, Solano, Yuba (2/19/86), Alpine, Amador, Butte, Calaveras, Colusa, El Dorado, Lassen, Mendocino, Nevada, Placer, Plumas, San Joaquin, Sierra, Sutter, Tehama, Tuolumne, Yolo (2/20/86), Fresno, Madera, San Mateo (2/26/86), Alameda, Contra Costa, Del Norte, Trinity (3/4/86), Mono, San Benito, Shasta (3/12/86)  
Federal: 2/18/86  
Casualties: 13 deaths, 67 injuries  
Damage: public-\$157,987,493; private-\$249,551,411; TOTAL-\$407,538,904; 12,447 homes damaged; 1,382 homes destroyed; 967 businesses damaged; 185 businesses destroyed

### **June 1985 - Statewide Fires**

Declared: FEMA 739-DR-CA San Diego (7/1/85), City of Los Angeles (7/3/85), San Luis Obispo (7/8/85), Monterey, Santa Clara, Santa Cruz (7/9/85), Ventura (7/11/85)  
Federal: 4/25/84  
Casualties: 3 deaths, 470 injured (124 civilians, 346 firefighters)  
Damage: public-\$34,751,400; private-\$30,094,464; TOTAL-\$64,845,864; 375,000+ acres, 215 homes destroyed; 131 homes and businesses damaged; 71 miscellaneous structures and vehicles destroyed

### **April 1984 - Morgan Hill Earthquake**

Magnitude 6.2. Near Mt. Hamilton, 16 km east of San Jose. Houses fell off foundations into

stream banks. Over 550 buildings in Santa Clara County were reported to have received at least minor damage. Most damage occurred in the Jackson Oaks subdivision east of Morgan Hill. The earthquake was felt from Bakersfield to Sacramento and from San Francisco to Reno.

Declared: Santa Clara  
Federal: FEMA 4043-EM-CA (4/25//84  
Casualties: no deaths, 27 injuries  
Damage: public-\$365,000; business-\$1.7 million; private-\$5.2 million; TOTAL-\$7.265 million

#### **December 1983 - Levee Failure, High Winds, High Tides, Floods, Storms, Wind Driven Water**

Declared: Contra Costa (12/9/83), Alameda (1/18/84)  
Federal: not declared  
Damage: public-\$7,240,785; private-\$2.669 million; agricultural-\$1 million; TOTAL-\$10,909,785

#### **Winter '82-'83 - Winter Storms**

Heavy rains, high winds, flooding, levee breaks

Declared: FEMA 682-DR--CA Contra Costa, San Joaquin, Sacramento (12/8/82), Marin, San Mateo, Los Angeles, San Diego (1/27/83), Alameda, Orange, San Benito, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sonoma, Ventura, Trinity (1/31/83), Colusa, Lake, Mendocino, Monterey, San Luis Obispo, Solano, Yolo (2/7/83), Butte, Glenn, Kern, Kings, San Bernardino, Sutter Tehama, Merced (3/3/83), Del Norte, Fresno, Madera, Napa, Placer, Riverside, Stanislaus, Tulare (3/15/83), Humboldt, Mariposa, Nevada, Yuba (3/21/83)  
Federal: 2/9/83  
Damage: public-\$151,185,870; private-\$158,641,170; agricultural-\$213,789,992; TOTAL-\$523,617,032

#### **December 1982 - High Tides, Strong Winds, and Rains**

Declared: Contra Costa, Sacramento, San Joaquin (12/8/82)  
Federal: not declared  
Damage: public-\$5,313,198; private-\$1,651,800; TOTAL-\$6,964,998

#### **October 1982 - Rains Causing Agricultural Losses**

Declared: Fresno, Madera, Merced, Monterey, Kern, Tulare, Sacramento, San Joaquin, Solano, Stanislaus, Yolo (10/26/82)  
Federal: not declared  
Damage: agricultural \$345,195,974

#### **January 1982 – Winter Storms**

Heavy winds, rain, flooding, and mud slides

Declared: FEMA 651-DR-CA Alameda, Santa Clara, Solano, San Joaquin (1/9/82), Contra Costa, Humboldt, Marin, San Mateo, Santa Cruz, Sonoma (1/5/82)  
Federal: 1/7/82

Casualties: 33 dead, 481 injured  
Damage: public-\$101.400 million; private-\$172.450 million; TOTAL-\$273.850 million;  
256 homes and 41 businesses destroyed, 6259 homes and 1276 businesses  
damaged.

### **June 1981 - Atlas Peak Fire**

Declared: Napa (6/24/81)  
Federal: not declared  
Casualties: no deaths  
Damage: private-\$11 million; watershed-\$20 million; TOTAL-\$31 million; 23,000 acres  
burned, 69 structures destroyed

### **Summer '81- Mediterranean Fruit Fly Infestation**

Declared: Contra Costa (9/25/81), Los Angeles (8/25/81), San Benito (8/25/81), Stanislaus  
(8/14/81), Santa Cruz (8/13/81), San Mateo (8/8/81)  
Federal: not declared  
Damage: \$22 million

### **March 1980 - Storms**

Rain, winds, mud slides, and flooding

Declared: Stanislaus, Monterey, Solano, Santa Cruz (3/5/80)  
Federal: not declared  
Damage: \*include figures from 2/82. public-\$164,990,642; private-\$75,755,500;  
agricultural-\$75,894,675; TOTAL-\$316,640,817. These four counties proclaimed  
in Feb. 1982 but were not included in the Presidential declaration.

### **January 1980 - Delta Levee Break**

A 350-foot section of a dirt levee gave way flooding crops and more than a 20 houses and 50  
barns, forcing 270 people to evacuate. The saltwater threatened the freshwater fish and water  
supplies. Rain, high tides, strong winds, and flooding (Holland and Webb Levee breaks)

Declared: FEMA 3078-EM-CA Contra Costa, Sacramento, San Joaquin (1/23/80)  
Federal: 1/23/80  
Damage: public-\$11,158,700; private-\$1,479,500; agricultural-\$3,887,195; TOTAL-  
\$17,388,013

### **1979 - Gasoline Shortage Emergency**

After OAPEC declared an embargo on the U.S., there was a shortage of gasoline. Lines  
stretched out for blocks at gas stations and often ran out.

Declared: Alameda, Contra Costa, Los Angeles, Marin, Monterey, Orange, Riverside, San  
Francisco, San Diego, Santa Clara, Santa Cruz, San Mateo, Ventura, San  
Bernardino (11/13/79), San Bernardino (amending boundaries 9/29/79), Monterey  
(7/13/79), San Bernardino (7/13/79), Riverside (6/22/79), San Bernardino  
(6/7/79), Monterey (6/7/79), Riverside, (amending boundaries 5/18/79),  
Monterey, Riverside (portion) (5/11/79), San Mateo, Santa Cruz (5/9/79), San  
Bernardino (portion 5/8/79), Alameda, Contra Costa, Los Angeles, Marin,

Sonoma, Orange, Santa Clara, Ventura (5/8/79)  
Federal: not declared  
Damage: not applicable

### **1976 - Drought**

1976 and 1977 were the two driest years in California's history. The drought was most severe in the northern two-thirds of the State.

Declared: Alpine, Calaveras, Colusa, Fresno, Glenn, Madera, Merced, San Diego, San Joaquin, Solano, Stanislaus, Sutter, Tuolumne (2/9/76), Alameda, Butte, Contra Costa, Kings, Los Angeles, Riverside, San Luis Obispo, Tulare, Yolo (2/13/76), Amador, Monterey, Napa, Nevada, San Benito, San Bernardino, Tehama (2/24/76), San Mateo (3/26/76), Marin (7/6/76)  
Federal: not declared  
Damage: 1976-\$888.5 million; 1977-\$1.775 billion; TOTAL-\$2.664 billion

### **March 1974 - Gasoline Purchasing Problems**

After OAPEC declared an embargo on the U.S., there was a shortage of gasoline. Lines stretched out for blocks at gas stations and often ran out.

Declared: Alameda, Contra Costa, Los Angeles, Orange, Riverside, San Mateo, Solano (2/28/74), Santa Clara (3/4/74), Ventura (3/10/74)  
Federal: not declared  
Damage: not applicable

### **May 1973 - Eucalyptus Tree Freeze**

Declared: Alameda, Contra Costa (4/4/73)  
Federal: 5/25/73  
Damage: removal of approx. 2 million dead trees—\$8-10 million

### **April 1973 - Storms and Floods**

Declared: City of Pacifica—San Mateo (4/11/73) (Tax Relief)  
Federal: not declared  
Damage: public-\$450,000; private-\$250,000; TOTAL-\$700,000

### **February 1973 - Storms And Floods**

Declared: Colusa, Glenn, Napa, Placer, Sutter, Yuba (2/28/73)  
Federal: not declared  
Damage: public-\$1.357 million; private-\$507,000; TOTAL-\$1.864 million

### **January 1973 - Coastal Flooding**

Heavy rains, winds, floods, and tidal action

Declared: OEP 364-DR-CA Marin, San Luis Obispo (1/23/73), City of South San Francisco (San Mateo County 1/30/73), Santa Barbara, Solano (2/8/73), Ventura (2/28/73)  
Federal: 2/3/73  
Damage: public-\$5,291,350; private-\$12,706,900; TOTAL-\$17,998,250

### **1973 - Drought Conditions**

Declared: Glenn, San Benito, Santa Clara (7/3/73)

Federal: not declared

Damage: agricultural loss-\$8 million

### **Spring '72 - Freeze and Severe Weather Conditions**

Declared: Fresno, Kings, Tulare, Merced, Kern, Madera, San Benito, Stanislaus, El Dorado, Tehama, Placer, Nevada, San Joaquin (4/17/72), Colusa (5/22/72), Siskiyou, Modoc (5/22/72), Santa Clara (5/31/72)

Federal: not declared

Damage: crop loss-\$111,517,260/10/72

### **Fall '70 - Statewide Fires**

Declared: OEP 295-DR-CA City of Oakland (Alameda County 9/24/70), Los Angeles, Ventura, San Diego (9/28/70), Kern (10/1/70), San Bernardino (10/2/70), Monterey, Riverside (10/20/70), San Bernardino (11/14/70)

Federal: 9/29/70 amended 11/25/70 to include San Bernardino

Casualties: 19 deaths

Damage: public-\$52,862,000; watershed-\$24,826,000; private-\$145,923,000 TOTAL-\$223,611,000; 576,508 acres, 722 bldgs. San Bernardino-53,100 acres, 54 bldgs.

### **April 1970 - Storms And Floods**

Declared: Contra Costa (4/10/70) (Tax Relief)

Federal: not declared

Damage: not available

### **Early March 1970 - Freezing Conditions**

Declared: Ag. area of Napa (5/1/70), Ag. area of Sonoma (5/19/70), Ag. area of Mendocino (6/8/70), Ag. community of San Joaquin (6/10/70), Ag. community of Lake (7/24/70)

Federal: not declared

Damage: Agricultural loss \$19,749,200

### **February 10, 1970 - Slide Damage Caused by Heavy Rains and Storms**

Severe storms, flooding

Declared: City of Oakland (Alameda County) 2/10/70 (Tax Relief)

Federal: not declared

Damage: \$11.5 million

### **Winter '70 - Northern California Flooding**

Heavy Winds, Storms, Flooding

Declared: OEP 283-DR-CA Butte, Colusa, Glenn, Lake, Lassen, Marin, Modoc, Plumas, Shasta, Siskiyou, Tehama, Trinity (1/27/70), Sutter, Yuba (2/3/70), Del Norte (2/10/70), Alameda, El Dorado, Mendocino (3/2/70)

Federal: 2/16/70

Damage: public-\$19,659,078; private-\$7,998,400; TOTAL-\$27,657,478

### **December 1969 - Riots**

Declared: City of Berkeley (Alameda County) (2/5/69)  
Federal: not declared  
Casualties: no deaths, 20 injuries  
Damage: not available

### **Winter '69 - Storms**

Storms, flooding

Declared: OEP 253-DR-CA Los Angeles, San Luis Obispo (1/23/69), Fresno, Inyo, Riverside, San Bernardino, Santa Barbara, Tulare, Ventura (1/25/69), Amador, El Dorado, Kern, Kings, Madera, Modoc, Mono, Monterey, Orange, Placer, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Tuolumne (1/28/69), Mariposa, Merced (1/29/69), Calaveras, San Benito, Sierra (2/8/69), Contra Costa, Humboldt, Mendocino, Sonoma (2/10/69), Plumas, Tehama, Yuba (2/16/69), Butte, Marin, Yolo (3/12/69)  
Federal: 1/26/69  
Casualties: 47 dead, 161 injured  
Damage: public-\$185 million; private-\$115 million; TOTAL-\$300 million

### **August 1968 - Riots and Other Conditions**

Declared: City of Richmond (Contra Costa) (8/2/68)  
Federal: not declared  
Damage: not applicable (worker strike)

### **December 1966 - Earthslides**

Declared: Redwood City (San Mateo County) (12/16/66)  
Federal: not declared  
Damage: private-\$100,000

### **9/66 - Riots**

A riot broke out in San Francisco's Hunters Point, a black neighborhood, when a white police officer shot and killed a seventeen-year-old black as he fled the scene of a stolen car. A few hours after calling in the National Guard and Highway Patrol, the police responded to alleged gunfire by opening up on the Bayview Community Center and surrounding buildings. After riddling it with hundreds of bullets the police found no gunmen or weapons but only several pre-teen kids huddling in the corner.

Declared: San Francisco (9/27/66)  
Federal: not declared  
Casualties: no deaths, 42 injuries  
Damage: not available

### **September 1965 - Major and Widespread Fires**

Declared: Marin, Napa, Placer, Solano, Sonoma (9/18/65)  
Federal: not declared  
Casualties: no deaths  
Damage: not available; 113,766 acres and 41 bldgs. Destroyed

### **Winter '64-'65 - Late Winter Storms**

Abnormally heavy and continuous rainfall and windstorm

Declared: OEP 183-DR-CA Del Norte, Humboldt, Shasta, Mendocino (12/22/64), Colusa, Glenn, Lassen, Plumas, Sierra, Siskiyou, Sonoma, Sutter, Tehama, Trinity (12/23/64), Amador, Butte, El Dorado, Modoc, Nevada, Placer, Yuba (12/28/64), Alpine, Lake, Sacramento, Yolo (1/5/65), Marin (1/14/65)  
Federal: 12/29/64  
Damage: public-\$85.327 million; private-\$127.822 million; TOTAL-\$213.149 million

### **September 1964 - Tsunami Caused by March 1964 Earthquake in Alaska**

This earthquake generated a tsunami with waves between 10 and 20 feet high along parts of the California, Oregon and Washington coasts. The cost of damages in California was \$32 million (calculated in 1983 dollars), with the bulk of the costs incurred in Crescent City where 11 of the 13 California deaths occurred. A Tsunami warning was issued for Marin County for this event, but no significant damage was caused. Strong Currents from the tsunami caused boats and piers at marinas in Marin County to crash into other crafts.

Declared: Marin (9/15/64) (Tax Relief)  
Federal: not declared  
Damage: not applicable, only costs were for mitigation

### **September 1964 - Major and Widespread Fires and Excessively High Winds**

Declared: Napa (9/22/64), Sonoma (9/23/64), Santa Barbara (9/25/64)  
Federal: not declared  
Damage: private-\$3.5 million; watershed-\$13 million; TOTAL-\$16.5 million  
Note: By special appropriation, Congress approved \$860,000 for Santa Barbara County. The USDA, through Forest Service programs, spent \$1.044 million for seeding and reestablishing dams in these counties.

### **February 1963 - Flood and Rainstorms**

Declared: Alpine, Nevada, Placer, Plumas, Sierra (2/7/63), Amador, Colusa, El Dorado, Glenn, Lake, Lassen, Tehama, Santa Clara, Santa Cruz, Siskiyou, Yolo, Tulare (2/26/63), Mono, Trinity (2/29/63), Yuba (4/22/63)  
Federal: 145 (2/25/63), amended 1/30/63 to include Orange County and Redondo Beach  
Damage: not available

### **February 1963 - Abnormally Heavy and Continuous Rainfall**

Declared: Northern California (boundaries of San Luis Obispo, Ventura, Los Angeles, and San Bernardino counties to the Oregon State line) (2/14/64)  
Federal: not declared  
Damage: not available

### **Fall 1962 - Flood and Rainstorms**

Declared: Alameda, Butte, Contra Costa, Modoc, Napa, San Mateo, Sierra, Sutter, Yuba (10/17/62), Placer (10/25/62), Trinity (10/30/62), Lassen (11/4/62)  
Federal: 138 (10/24/62) amended to include Placer, Trinity, and Lassen Counties  
Damage: \$4 million+

### **September 1962 - Fires and Explosions**

Declared: City of San Leandro (Alameda County) (9/14/62)  
Federal: not declared  
Casualties: 1 death, 12 injuries  
Damage: \$500,000

### **September 1961 - Widespread Fires**

Declared: Amador, Butte, El Dorado, Napa, Nevada, Placer, San Diego, Sonoma, Tehama (9/8/61)  
Federal: not declared  
Damage: public-\$243,000; private-\$4,183,098; watershed-\$1,270,715; TOTAL-\$5,696,813

### **September 1959 - Unseasonal and Heavy Rainfall**

Declared: Tokay grape producing areas of Northern California (requested by Dept. of Agriculture) (9/19/59)  
Federal: not declared  
Casualties: 2 deaths  
Damage: \$100,000

### **April 1958 - Storm and Flood Damage**

Declared: statewide (4/2/58)  
Federal: 82 (4/4/58)  
Casualties: 13 deaths, several injuries  
Damage: \$20 million, plus \$4 million agricultural

### **February 1958 - Storm and Flood Damage**

Declared: Northern California (Southern boundaries of Santa Cruz, Santa Clara, Stanislaus, Tuolumne, Alpine Counties to the Oregon border) CDO 58-03 (2/26/58)  
Federal: not declared  
Damage: not available

### **May 1957 - Unseasonal and Heavy Rainfall**

Declared: State of Emergency—cherry producing areas of Northern California (requested by Department of Agriculture) 5/20/57  
Federal: not declared  
Casualties: no deaths, 2 injuries  
Damage: \$6 million in agricultural losses

### **December 1950 - Floods**

Declared: statewide CD 47-DR-CA (12/22/55)

Federal: 12/23/55

Casualties: 74 deaths

Damage: \$200 million

### **November 1950 - Floods**

Declared: statewide CA OCD 50-01(11/21/50)

Federal: not declared

Casualties: 9 deaths

Damage: Sacramento River Basin above Delta-\$4,983,000; Sacramento-San Joaquin Delta-\$4,550,000; San Joaquin River Basin-Consumnes River to Upper San Joaquin River-\$11,460,000; Upper San Joaquin River Basin-Kings River to Kern River-\$11,190,000; TOTAL-\$32,183,000

Source: FEMA: California State Disaster History and CALEMA: Emergency & Disaster Proclamations and Executive Orders by Date (November 2003-Current)