Hazard Mitigation Plan

City of Montclair

Approved by FEMA on May 23, 2011

Revised on June 5, 2012

MONTCLAIR

CITY OF MONTCLAIR
HAZARD MITIGATION PLAN
LETTER OF ADOPTION

The City of Montclair Hazard Mitigation Plan (Plan) is a comprehensive description of the jurisdictions commitment to reduce or eliminate the impacts of disasters. This Plan was developed in partnership with the San Bernardino County Operational Area Multi-Jurisdictional Hazard Mitigation Plan. The Plan is coordinated and maintained by the City of Montclair, Office of Emergency Services, but is the culmination of input and recommendations from our jurisdiction and from numerous stakeholders from the public, private business and organizations.

In adopting this Plan, the City of Montclair agrees to comply with all applicable state and federal statutes and regulations and will update the plan at least every five years. The Plan may be amended to reflect new or revised state and federal statutes and regulations. Future amendments will also reflect changes to the City of Montclair organization or policy as appropriate.

I, Paul M. Eaton, as Mayor do hereby formally adopt this Hazard Mitigation Plan on this the 9TH day in the month of MARCH in the year 2005.

Paul M. Eaton
Paul M. Eaton, Mayor

3/9/05
Date

CITY OF MONTCLAIR
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 626-8571 FAX (909) 621-1584

RESOLUTION NO. 11-2898

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MONTCLAIR ADOPTING THE LOCAL HAZARD MITIGATION PLAN UPDATE, AUTHORIZING FUTURE NONSUBSTANTIVE ADMENDMENTS TO THE PLAN, AUTHORIZING ALL DUTIES REQUIRED TO CARRY OUT THE PLAN, AND ADOPTING THE PLAN INTO THE SAFETY ELEMENT OF THE CITY'S GENERAL PLAN

WHEREAS, the preservation of life and property is an inherent responsibility of local, state, and federal government; and

WHEREAS, the City of Montclair joined with agencies in the San Bernardino County to develop, adopt, and maintain a Multi-Jurisdictional Multi-Hazard Mitigation Plan; and

WHEREAS, the City of Montclair is charged and entrusted with the protection of persons and property prior to, during, and after emergencies and/or disaster conditions; and

WHEREAS, the goal of a Local Hazard Mitigation Plan is to minimize, reduce, or eliminate loss of life and/or property; and

WHEREAS, the Local Hazard Mitigation Plan represents a comprehensive description of the City of Montclair's commitment to reducing, preventing, or eliminat-ing potential impacts of disasters caused by natural hazards; and-

WHEREAS, the City of Montclair previously adopted its Local Hazard Mitigation Plan with a Letter of Adoption on March 9, 2005; and

WHEREAS, the City Council of the City of Montclair desires to adopt the updated Local Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the City of Montclair has undertaken a comprehensive planning effort in developing the Local Hazard Mitigation Plan by organizing resources, assessing risks, and developing and implementing a mitigation plan and monitoring process; and

WHEREAS, the Local Hazard Mitigation Plan is a federal requirement under the Disaster Mitigation Act of 2000 for the City of Montclair to receive federal funds for disaster recovery and mitigation; and

WHEREAS, the Local Hazard Mitigation Plan establishes a coordinated effort to support mitigation activities and identifies measures to combat natural hazards within the City of Montclair; and

WHEREAS, the Local Hazard Mitigation Plan is an extension of the State of California Multi-Hazard Mitigation Plan and is reviewed and exercised periodically and revised as necessary to meet changing conditions; and

WHEREAS, the City of Montclair agrees to adopt the Local Hazard Mitigation Plan Update and urges all officials, employees, public and private organizations, and residents, individually and collectively, to do their share in furthering the goals and objectives of hazard mitigation within the City of Montclair.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Montclair does hereby approve the Local Hazard Mitigation Plan Update of the City of Montclair.

BE IT FURTHER RESOLVED that the City Council of the City of Montclair does hereby authorize the Director of Emergency Services, or his/her duly-appointed representative, to make necessary administrative and operational changes to the plan that are in keeping with the intent of the plan as approved.

BE IT FURTHER RESOLVED that the City Council of the City of Montclair does hereby authorize the Director of Emergency Services, or his/her duly-appointed representative, to perform all duties required to carry out the Local Hazard Mitigation Plan.

BE IT FURTHER RESOLVED that the City Council of the City of Montclair does hereby find and determine that the Federal Emergency Management Agency-approved Local Hazard Mitigation Plan will be adopted into the Safety Element of the City of Montclair's General Plan in compliance with Assembly Bill 2140.

BE IT FINALLY RESOLVED that the City Council of the City of Montclair does hereby find and determine that the Deputy City Clerk shall certify to the passage and adoption of this Resolution and enter it into the book of original Resolutions.

APPROVED AND ADOPTED this 2nd day of May, 2011.

Mayor Pro Tem

ATTEST:

Deputy City Clerk

I, Yvonne L. Smith, Deputy City Clerk of the City of Montclair, DO HEREBY CERTIFY that Resolution No. 11-2898 was duly adopted by the City Council of said city and was approved by the Mayor of said city at a regular meeting of said City Council held on the 2nd day of May, 2011, and that it was adopted by the following vote, to-wit:

AYES: Ruh, Dutrey, Paulitz, Raft
NOES: None
ABSTAIN: None
ABSENT: Eaton

Yvonne L. Smith
Deputy City Clerk

Distribution List

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Chaffey Joint Unified School District	1	CD
Ontario-Montclair School District	1	CD
Monte Vista Water District	1	CD

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Section 1 – Introduction

1.1 Purpose of the Plan

Emergencies and disasters cause death, leave people injured, or displaced; cause significant damage to our communities, businesses, public infrastructure, and our environment; and cost tremendous amounts in terms of response, recovery dollars, and economic loss.

Hazard mitigation reduces or eliminates losses of life and property. After disasters, repairs and reconstruction are often completed in such a way as to simply restore to pre-disaster conditions. Such efforts expedite a return to normalcy; however, the replication of pre-disaster conditions results in a cycle of damage, reconstruction, and repeated damage. Hazard mitigation ensures that such cycles are broken and that post-disaster repairs and reconstruction result in a reduction of hazard vulnerability.

While we cannot prevent disasters from happening, their effects can be reduced or eliminated through a well-organized public education and awareness effort, preparedness, and mitigation. For those hazards that cannot be fully mitigated, the community must be prepared to provide efficient and effective response and recovery.

1.2 Authority

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a mitigation plan that describes the process for identifying hazards, risks, and vulnerabilities; identifies and prioritizes mitigation actions; encourages the development of local mitigation; and provides technical support for those efforts. This mitigation plan serves to meet those requirements. Also in accordance with Section 201.6(c)(4) of 44 CFR this plan will be monitored, evaluated, and updated at least every five years.

1.3 Community Profile

The Community Profile provides background information on the physical setting of Montclair including its topography, nearest cities, climate, and weather. This profile provides information on Montclair's history and demographics, detailing information about population, races, ancestries, level of education, marital status, and crime. Existing land uses and development trends are also addressed in this section.

1.3.1 Physical Setting

Topography

Montclair is one of the western-most cities of San Bernardino County, and borders the Los Angeles County border on the west side. The elevation is 1,077 feet above sea level and consists of a mostly flat landscape. The City's land area measures 5.2 square miles (3,342 acres).

Nearest Cities

The City of Montclair is directly surrounded by the cities of Chino, Claremont, Ontario, Pomona, and Upland, and unincorporated areas of San Bernardino County. Other nearby cities are Chino Hills (10.19 miles), La Verne (7.23 miles), Rancho Cucamonga, (10.39 miles), and San Antonio Heights (8.51 miles).

Listed below are cities near Montclair according to ascending population:

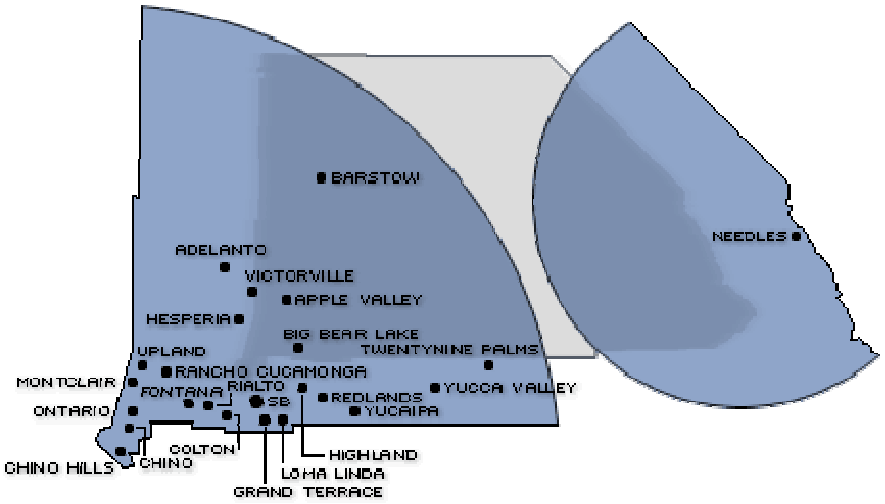
- Nearest city with population 50,000+:

  Chino, CA (3.7 miles; 2002 pop. 67,168; 2008 est. pop. 83,031).

- Nearest city with population 200,000+:

  Anaheim, CA (20.9 miles; 2002 pop. 328,014; 2008 est. pop. 335,288).
- Nearest city with population 1,000,000+:

  Los Angeles, CA (46.6 miles; 2002 pop. 3,694,820; 2008 est. pop. 3,833,995).



The map above shows cities that neighbor the City of Montclair in San Bernardino County (map courtesy of sbcounty.gov).

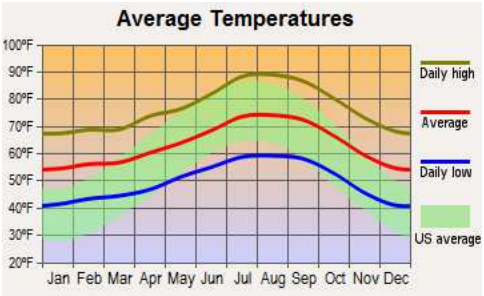
Climate

Montclair has a Mediterranean-like climate with moderate temperatures and low humidity year-round. The average annual days of sunshine is 312. The median temperature is 83 degrees Fahrenheit and the average rainfall is 16.1 inches.

Average weather in Montclair

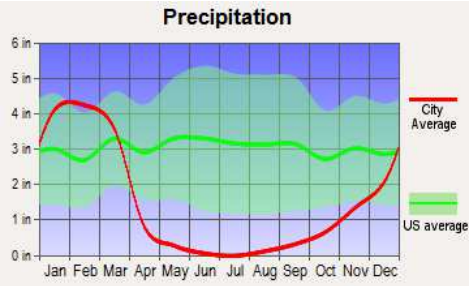
Based on data reported by over 4,000 weather stations

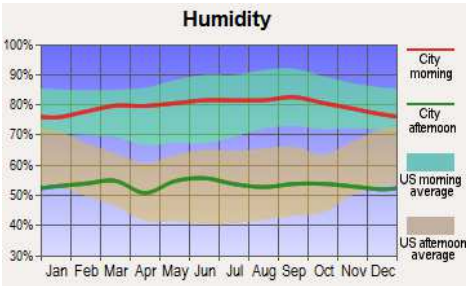
Temp. (°F)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average	55.0	56.6	57.4	61.0	64.8	69.5	74.5	75.1	73.1	67.5	69.8	55.2
High	67.8	69.1	69.5	74.2	77.1	82.7	88.9	89.6	87.1	80.6	73.4	88.5
Low	42.2	44.0	45.3	47.9	52.5	56.3	60.0	60.5	59.0	53.3	46.1	41.7
Precip. (in.)	4.2	4.4	3.7	0.9	0.3	0.1	0.0	0.1	0.4	0.7	1.4	2.2

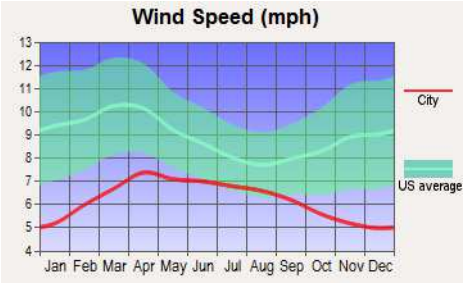


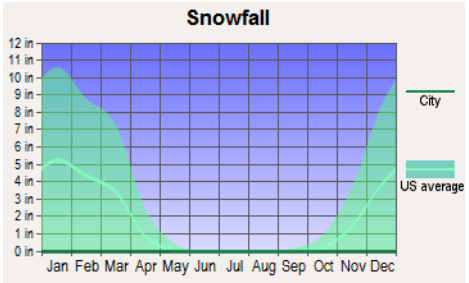
Normal climate around Montclair
Based on data reported by main weather stations

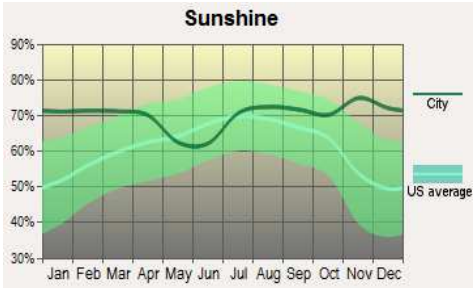
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Days with precip.	6	5	5	3	1	0	0	0	1	2	3	5
Wind speed (mph)	5.2	6.0	6.7	7.4	7.1	7.0	6.8	6.6	6.2	5.6	5.2	5.0
Morning humidity (%)	76	78	80	80	81	82	82	82	83	81	79	77
Afternoon humidity (%)	53	54	55	51	55	56	54	53	54	54	53	52
Sunshine (%)	71	71	71	70	62	62	71	72	72	70	75	72
Days clear of clouds	12	10	11	12	10	12	18	19	15	13	13	13
Partly cloudy days	8	7	9	10	13	12	11	10	11	11	8	8
Cloudy days	11	11	11	8	8	6	2	2	4	7	8	10
Snowfall (in.)	0	0	0	0	0	0	0	0	0	0	0	0

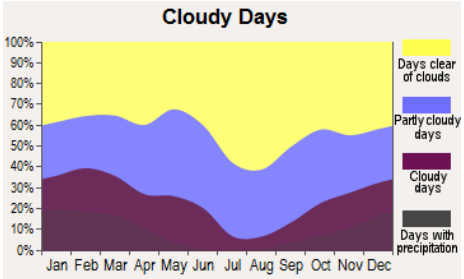












1.3.2 History

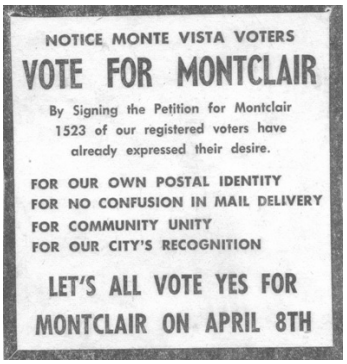
Until the 1890s Montclair was little more than grazing land and a watering hole, but in 1897, Mrs. Edward Fraser was instrumental in founding "The Township of Marquette," the area's first modern name. This signaled the beginning of land development, which would slowly turn this area into a viable community.

In the early 1900s Emil Firth, a Los Angeles land developer, was credited with naming a 1,000-acre land tract in this area "Monte Vista." All of the tracts were laid out in 10-, 20-, and 40-acre lots with special terms as enticements to plant orchards and build homes. The first "modern" settlement within the tract was called Narod.

Like most Southland areas, the Monte Vista Land Tract boomed after World War II. Fearing that it would be annexed by a neighboring city, and the right to control their destiny would be lost forever, long-time residents formed the Monte Vista Improvement Association. This Association proposed city incorporation of the Monte Vista Land Tract, and the residents were asked to vote on the incorporation proposal in the April 1956 election. Upon its official incorporation on April 25, 1956, the City of Monte Vista had a total population of 8,008 spread over 4.2 square miles.

Monte Vista's municipal government made many advances during the first year of its existence; a master street lighting plan was drawn up, zoning ordinances were passed, provisions were made for the City's streets to be swept, engineering data was gathered, and a City recreation program began. At the end of its first year of existence the City of Monte Vista had ten full-time employees.

The Monte Vista Fire Protection District was formed in 1948 by the County Supervisors and in 1949, a $50,000 bond issue was approved to construct a station and to buy equipment. In 1950 the station was completed and housed two fire trucks. In 1967 the City assumed fire operations and dedicated two new fire stations in 1970.

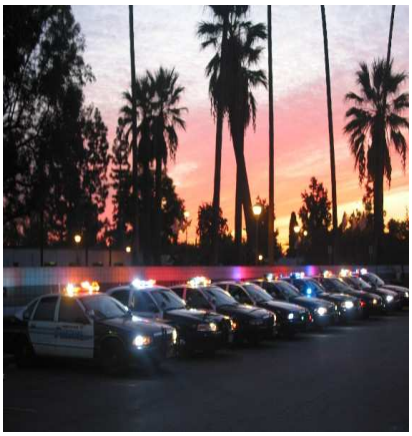


On April 8, 1958, the voters of the City of Monte Vista went to the polls to decide upon a name change for their city because there was another city in California also named Monte Vista. Although the other city was located in the northern part of California, there was some confusion in mail services. The new name chosen by the residents of Monte Vista was Montclair.

As early as 1953, the residents of Montclair had the forethought to negotiate a lease-purchase of land on the southeast corner of Benito St. and Fremont Ave. for a Civic Center. At that time, the property was covered with orange trees and the revenue from them helped pay for the lease. On April 25, 1964, the Civic Center was dedicated on this property, and it housed the City administrative offices and Police Department.

During its early years, Montclair struggled to locate a greater tax base to finance the services it provided its residents. In 1964, land developers approached the City with an answer to their tax problems: a large shopping center. The opening of the

Montclair Plaza in 1968, bringing economic stability to the City, was but an indication of things to come. Located at the westernmost edge of San Bernardino County, Montclair is the region's premier shopping destination nestled at the Los Angeles, Orange County, and Inland Empire crossing.



Montclair is located in very close proximity to private universities/colleges, including the prestigious Claremont Colleges, State universities, and several community colleges.

Montclair is a full-service City with its own Police and Fire Departments and has a young and diverse population that represents the ethnic and cultural diversity that is characteristic of Southern California.

1.3.3 Demographics

Population
Based on data reported in the Census 2000 and 2008 Population Estimates

Year 2000: 33,049, Estimated population in 2008: 36,530 (+9.5% change)
Males: 16,492 (49.9%), Females: 16,557 (50.1%)

Median resident age: 29.0 years

Races in Montclair
Based on data reported in the Census 2000

Race	**Percent**
White only	44.8
Black or African American only	6.4
American Indian and Alaska Native only	1.0
Asian only	8.1
Native Hawaiian and other Pacific Islander only	0.3
Some other race only	34.6
Two races	4.6
Three or more races	0.2
Hispanic or Latino	60.0
(Total can be greater than 100 percent because Hispanics could be counted in other races.)	

Ancestries	**Percent**
German	5.4
Irish	4.7
English	3.6
United States	2.5
Italian	2.4
French	1.6

34.1% foreign born (26.1% Latin America, 6.9% Asia)

Education Attainment for population 25 years and over in Montclair
Based on data reported in the Census 2000

Level of Education	Percent
High school or higher	60.4
Bachelor's degree or higher	9.6
Graduate or professional degree	2.5
Unemployed	17.2

Mean travel time to work: 31.6 minutes

Marital Status for population 15 years and over in Montclair
Based on data reported in the Census 2000

Marital Status	Percent
Never married	22.3
Now married	40.3
Separated	1.9
Widowed	3.5
Divorced	6.2

Crime
The crime statistics listed below were provided by the Montclair Police Department.

	Calls for Service	Arrests	Hate Crime	Officers Injured/ Killed/ Assaulted	Reproductive Crimes	Juvenile Injured/ Killed (Accidental with Firearm)	Bomb/ Destructive Device
2000	22850	2529	4	9	0	0	N/A
2001	24641	2932	3	1	0	0	N/A
2002	24212	2867	2	12	0	0	N/A
2003	24207	3186	2	12	0	0	1
2004	25466	3131	3	2	0	0	1
2005	43170	3145	2	10	0	0	2
2006	42215	3404	1	10	0	0	4
2007	39981	3328	1	4	0	1	0
2008	43896	3132	1	10	0	0	4
2009	41910	2913	0	11	0	0	1
2010 (Jan. to June)	17570	1291	0	1	0	0	1

	Battery by Gassing	Death in Custody	Homicide	Rape	Robbery	Assault (aggravated and simple)	Burglary
2000	0	0	1	7	72	492	268
2001	0	0	2	16	87	491	269
2002	0	0	1	8	78	488	303
2003	0	1	2	15	62	397	293
2004	0	0	4	12	82	407	262
2005	0	0	5	12	89	359	253
2006	0	0	4	10	114	381	278
2007	0	1	4	12	120	389	272
2008	0	1	2	13	112	404	349
2009	0	0	4	12	90	353	250
2010 (Jan. to June)	0	0	2**	3	48	147	95

Crime Statistics Continued

	Larceny /Theft	Grand Theft Auto	Arson	Notice to Appear Citations	Parking Citations
2000	1033	367	6	8659	N/A
2001	1178	358	5	8561	N/A
2002	1180	417	5	7469	5197
2003	1416	520	3	7931	5859
2004	1479	473	5	8150	4122
2005	1339	455	7	8861	8272
2006	1729	444	4	7878	8278
2007	1683	391	4	6022	9066
2008	1569	318	13	5463	7955
2009	1479	381	6	6492	7498
2010 (Jan. to June)	577	172	15	2244	2989 (Jan. to May)

Effective 2005, call for service data based on total incident numbers including officer initiated activity/traffic stops. Call for service data for 2004 and prior is based on log item numbers issued only (log item numbers are issued for all types of calls for service).

** One May homicide reclassified in June to manslaughter – year-to-date total reduced by one

1.3.4 Existing Land Use

Land Use Mix	Information provided by the City of Montclair website.
Total Area	3,342 acres, 5.2 square miles
Industrial	271 acres (8.1%)
Retail/Office/Commercial	591 acres (17.7%)
Residential	1,711 acres (51.2%)
Parks/Public Facilities	517 acres (15.5%)
Vacant Land	252 acres (7.5%)

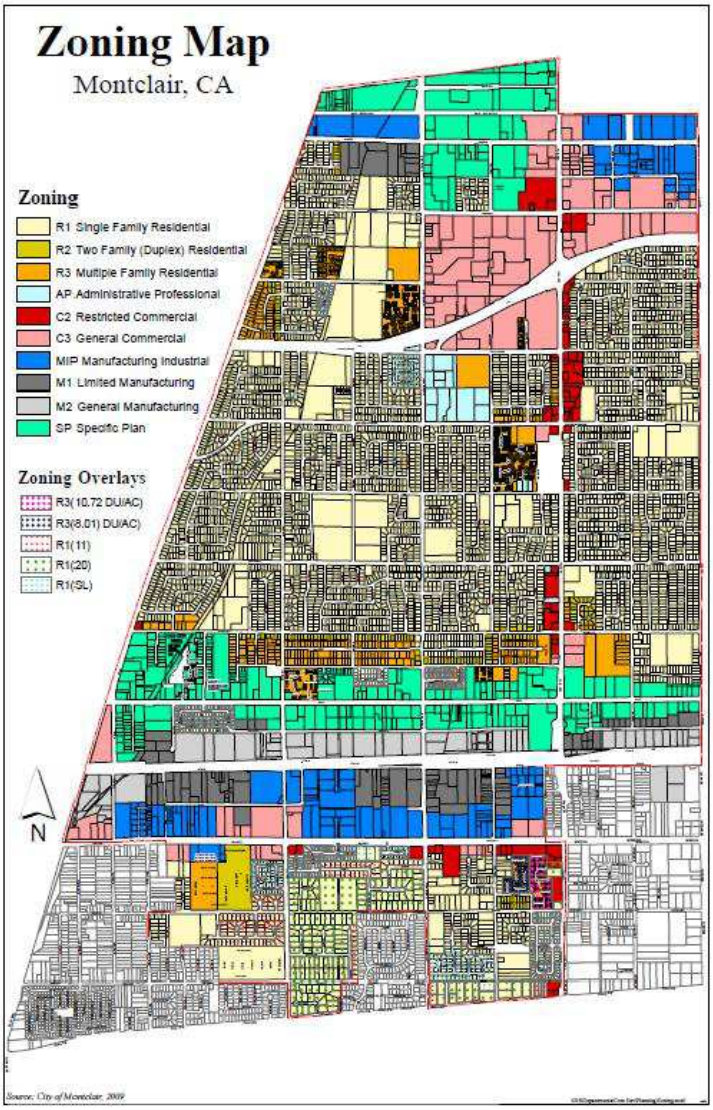
Northern Region

The northern region of the City is designed to be 100 acres of mix-use street level development combined with high-to medium-density housing served by the region's premier commuter transportation center, the Metrolink. The centerpiece of north Montclair is the Montclair Plaza, a 1.3 million square-foot regional fashion mall with a 10-mile trade area population of 997,575 and an average household income of $86,397. Montclair is home to the master-planned Montclair Transcenter and Metrolink Station Regional Transit Park and Ride facility.

Southern Region

Light industry is mostly located within the southern region of the City. This industry ranges from small, family-owned businesses, to large corporation-run businesses. The industrial businesses consist of a wide-range of products and number of employees. Since 2005, a number of single-family housing developments, retail centers, and dining establishments have been built in the southern region of the City.

The City of Montclair is composed of a mix of housing, retail, manufacturing, and recreational development as can be seen in the table and map below.



1.3.5 Development Trends

Economy

This is a community of homeowners. A strong majority of homes are owner-occupied. Single-family homes predominate and these homes are affordable; according to the Census 2000, the median value is just over $135,700. The average income per household is approximately $40,797.

Transportation Infrastructure

The City has the Interstate-10 Freeway intersecting it in the north with off ramps at Central Avenue and Monte Vista Avenue. The Metrolink train system runs along the north border of the City, and it is serviced by the Metrolink Station and park-n-ride. The Santa Fe, Union Pacific, and Southern Pacific railways travel east and west through the City.

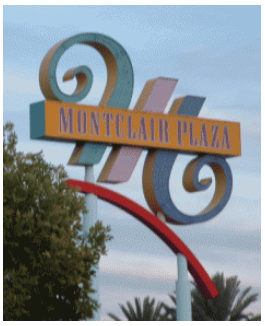
Single-family new house construction building permits
Based on data reported by the U.S. Census Bureau

Year	No. of buildings	Average Cost
1996	1	$157,064
1997	40	$186,188
1998	27	$191,229
1999	103	$166,430
2000	1	$185,940
2001	0	$0
2002	0	$0
2003	3	$238,166
2004	116	$241,941
2005	97	$249,034
2006	130	$254,615
2007	58	$215,042
2008	1	$235,634
2009	26	$236,685
2010	28	$243,918

Development History

Montclair's retail tradition had the support of a professional and pro-business city government. The City of Montclair Redevelopment Agency has a reputation for assisting quality development in the City. With more than 30 years of experience, the Agency offers tools to businesses and retailers who want to take advantage of Montclair's clear opportunities. The Agency can assemble or buy land for resale, provide on-site or off-site improvements, retrofit structures, and provide relocation or financing assistance.

Montclair has a retail market area with solid household incomes, a central, high-traffic location; and a strong retail heritage backed by a pro-business city government.



The Montclair Plaza mall played a strategic role in development of the City's economic base. However, as populations and housing development increased so has retail development. The owners of the Montclair Plaza have not responded to the advancing retail presence in other communities. Therefore, Montclair's regional retail position had eroded over time. This, combined with the economy downturn beginning in 2008, has caused a significant decline in retail sales and City revenue.

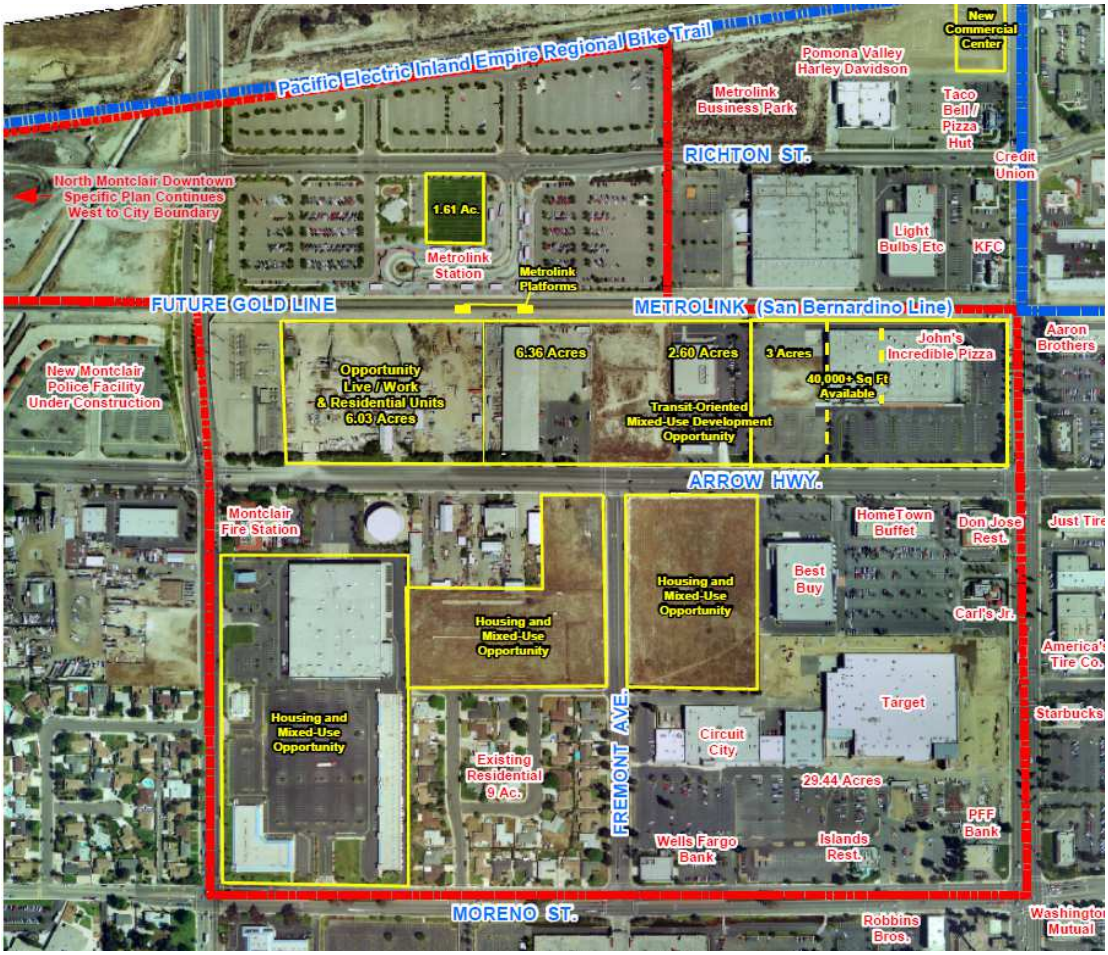
Montclair has several automobile dealerships selling new cars that add to its economy. Metro AutoPlex is a four dealership auto mall with Interstate-10 Freeway frontage directly across from the Montclair Plaza. The AutoPlex has Infiniti, Honda, Nissan, and Acura dealerships. To the south, the Montclair Auto Plaza is centered on the crossroads of two major area traffic arteries: Central Avenue and Holt Boulevard. The Auto Plaza consists of dealerships selling a variety of used auto makes and is home to a regional headquarters of Enterprise Car Sales.

Clustered around the Montclair Plaza is a mix of classic dining opportunities. Restaurants include Red Lobster, Olive Garden, Chili's, Applebee's, Macaroni Grill, and the Elephant Bar.

Montclair's auto sales and main retail centers are located within Redevelopment Project Areas of the City of Montclair Redevelopment Agency.

Future Development

In an attempt to capitalize on Montclair's commuter transportation system and build population to support existing retail in the City, the City Council has adopted the North Montclair Downtown Specific Plan. The Specific Plan calls for the creation of higher density residential development, office use, and neighborhood-serving commercial uses that promotes the use of mass transit and creates a downtown setting in north Montclair. Montclair currently has a 19-acre Metrolink station called the Montclair Transcenter with 1,600 parking spaces. The station serves as a park-and-ride location, as well as a bus terminal for Omnitrans, Foothill Transit, and Riverside Transit. The Montclair Transcenter will also become a Gold Line station. It is anticipated that the Gold Line service will become available in 2017. The North Montclair Downtown Specific Plan is an important project for Montclair's future. More information regarding the North Montclair Downtown Specific Plan may be obtained at http://www.ci.montclair.ca.us/depts/redev_agency/econdev/downtown.asp. This future development project will be constructed to meet current building codes, however, due to the proposed high density housing, community vulnerability from earthquakes and flooding may be increased. Since this future development project is located in a region of the City that may be inundated by dam failure the potential for structural damage is increased.



Section 2 – Plan Adoption

2.1 Adoption by Local Governing Body

The Montclair City Council adopted the Montclair Hazard Mitigation Plan on March 9, 2005 (see Letter of Adoption on page 2).

The Montclair City Council adopted the updated Montclair Hazard Mitigation Plan on May 2, 2011 (see Resolution No. 11-2898 on pages 3 and 4).

This plan was adopted as part of the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan in 2005 and 2011.

2.2 Promulgation Authority

This Hazard Mitigation Plan was reviewed and approved by the following Promulgation Authorities in 2005:

Paul M. Eaton, **Mayor**
City of Montclair
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763
(909) 626-8571
peaton@cityofmontclair.org

Lee McDougal, **City Manager**
City of Montclair
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763
(909) 626-8571
lmcdougal@cityofmontclair.org

This Hazard Mitigation Plan was reviewed and approved by the following Promulgation Authorities in 2011:

Paul M. Eaton, **Mayor**
City of Montclair
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763
(909) 626-8571
peaton@cityofmontclair.org

Edward C. Starr, **City Manager**
City of Montclair
5111 Benito Street, P.O. Box 2308, Montclair, CA 91763
(909) 626-8571
ecstarr@cityofmontclair.org

2.3 Primary Point of Contact

The primary Point of Contact for this Hazard Mitigation Plan is:

Angelic Bird, **Secretary/Emergency Services Coordinator**
Montclair Fire Department
8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763
(909) 447-3540
abird@cityofmontclair.org

Section 3 – Planning Process

The purpose of this section is to document the planning process that was taken to review and revise the Hazard Mitigation Plan adopted in 2005. A description of the planning process not only informs the reader about how the plan was developed, but also provides a permanent record of how decisions were reached so it may be replicated or adapted in future plan updates. This section includes a list of the planning team members, a summary of the meetings held, coordination efforts with surrounding communities/groups, and all Public Outreach efforts.

3.1 Preparing the Plan

The City of Montclair formed a Planning Team consisting of representatives from each City Department, many community organizations, and local businesses to prepare and update the Hazard Mitigation Plan. This Team developed a planning process to prepare and update the Hazard Mitigation Plan that incorporates research, analysis, discussion, outreach, and participation. The planning process involved numerous steps as listed below:

- Formulation of goals and objectives
- Identification of natural hazards that affect Montclair
- Determination of hazard probability
- Assessment of community risks and vulnerabilities
- Research of critical facilities
- Estimation of potential losses
- Assessment of community capabilities
- Evaluation of proposed mitigation projects
- Development of new mitigation projects
- Development of a plan maintenance process

In an effort to implement the steps listed above, the Planning Team engaged in the following activities:

Date	Activity
October 5, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team used information presented and developed at the September 14, 2010 meeting to develop an Implementation Strategy. The Planning Team also discussed how this plan will be maintained during the coming five-year cycle. See Attachment 'A' for the Planning Team meeting roster and notes.
September 14, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team reviewed mitigation projects proposed in the 2005 plan and discussed their current status. After determining the status of past projects, the Team evaluated whether or not some of these projects should be continued and classified as ongoing. The Team also developed new mitigation projects and used the STAPLEE criteria to determine if these projects where feasible. See Attachment 'O' for the Planning Team meeting roster and notes.

Date	Activity
August 24, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team met to prioritize and rank hazards using the new matrix created by ICF, update the Critical Facilities list, review potential loss estimation information, and discuss development trends in the City. See Attachment 'P' for the Planning Team meeting roster and notes.
August 12, 2010	**Review of Flood Maps** Team Members Rosales and Bird met to review Montclair's flood maps.
August 11, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team met to discuss the results of flooding and dam failure in Montclair. The Team also discussed the probability of future events for flooding and dam failure. See Attachment 'Q' for the Planning Team meeting roster and notes.
August 3, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team met to discuss the 2010 Hazard Mitigation Plan update project. The group discussed the hazards that affect Montclair, developed descriptions of the hazards, and discussed past occurrences of these hazards. See Attachment 'N' for the Planning Team meeting roster and notes.
July 6, 2010	**Hazard Mitigation Planning Team Meeting** The Planning Team met to discuss the 2010 Hazard Mitigation Plan update project. The group discussed the requirements of the update and laid out a plan of how to proceed with the update. The Team also discussed methods for reaching out to the public. See Attachment 'I' for the Planning Team meeting roster and notes.
June 16, 2010	**Pre-Plan Meeting with the Fire Chief** Team member Angelic Bird met with the Fire Chief to discuss the requirements of the Hazard Mitigation Plan update and the planning process.
June 15, 2010	**Developed Timeline of Important Dates for Hazard Mitigation Plan Update** Developed a timeline of important dates for the Hazard Mitigation Plan update process. See Attachment 'E' for the Montclair Hazard Mitigation Plan Update Timeline.
August 17, 2004	**Hazard Mitigation Planning Team Meeting** Planning Team met, reviewed, and corrected the plan.
August 3, 2004	**Hazard Mitigation Planning Team Meeting** Discussed the replacement costs associated with identified facilities and the City's general plan for current and future plans and development strategies.
July 27, 2004	**Hazard Mitigation Planning Team Meeting** Meeting attended by Mike Donley, April Mitts, Dennis McGehee, Randy Morales, Steve Griggs, Melinda Flores, MaryAnn Melleby. Discussed storm drain improvements and replacement costs. Meeting was from 1000-1100 hours. See Attachment 'J' for Points of Discussion and meeting roster.

Date	Activity
July 20, 2004	**Hazard Mitigation Planning Team Meeting** Discussed Estimate of Losses pertaining to potential hazards concerning our city. Also discussed prior mitigation projects and future goals for the City. Several projects and goals identified. More research needed for cost estimates.
July 6, 2004	**Hazard Mitigation Planning Team Meeting** Meeting with planning team. Local hazards identified to be earthquake, dam failure, and flooding. Each member has been assigned specific facilities/assets to research, identify, and set replacement/economic impacts for. See Attachment 'I' for meeting roster.
June 29, 2004	**Hazard Mitigation Planning Team Meeting** The Mitigation Planning Team met to discuss federal requirements pertaining to the Hazard Mitigation Plan. An overview was presented by Emergency Services Coordinator Donley as to the mitigationplan.com website, as well as the multijurisdictional approach being taken by the City and County Offices of Emergency Services. See Attachment 'M' for meeting roster and notes.
June 15, 2004	**Hazard Mitigation Software Training** Training on mitigation.com software at the County Emergency Operations Center.
June 9, 2004	**Pre-Plan Meeting with Fire Chief** Met with Fire Chief to discuss the requirements of the mitigation plan and the planning process.
April 12, 2004	**Hazard Mitigation Plan Software Demo** Presented by Visual Risk showing web based mitigationplan.com internet based plan development capabilities.
March 18, 2004	**Hazard Mitigation Workshop No. 1** Attended by Team member Donley.

3.1.1 Planning Team

This Hazard Mitigation Plan was compiled and authored in 2005 by members of the following Planning Team:

Name and Title	Contribution to Planning Team	Contact Information
Mike Donley, Emergency Services Coordinator	Responsible for the Emergency Operations Plan, Hazard Mitigation Plan, and the operation of the Emergency Operations Center in the event of a natural or manmade disaster.	City of Montclair, 8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763 (909) 447-3540 mdonley@cityofmontclair.org
Melinda Flores, Administrative Analyst	Assigned to the Redevelopment Department for the City. Provided expertise to the planning team on current and future development citywide.	City of Montclair, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 626-8571 mflores@cityofmontclair.org

Name and Title	Contribution to Planning Team	Contact Information
Steve Griggs, **Building Official**	Provided expertise in the evaluation of building vulnerability and cost related to the reconstruction post-disaster.	City of Montclair 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 626-8571 sgriggs@cityofmontclair.org
Mary Ann Harvey-Melleby, **Public Affairs Director**	Provided knowledge and expertise in the water infrastructure in the City of Montclair and surrounding communities. She developed the Hazard Mitigation Plan for the Monte Vista Water District.	Monte Vista Water District, 10575 Central Avenue, P.O. Box 71, Montclair, CA 91763 (909) 267-2165 mmelleby@mvwd.org
Dennis McGehee, **Environmental Control Specialist**	Provided expertise on City's roads, highways, public areas, and public works issues.	City of Montclair, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 dmcgehee@cityofmontclair.org
April Mitts, **Administrative Analyst**	Assigned to the City's Administrative Department and provided expertise in cost analysis, current and future land development, and administrative procedures.	City of Montclair, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 626-8571 amitts@cityofmontclair.org
Randy Morales, **Police Sergeant**	Provided knowledge in the displacement of citizens in the event of a natural or man-made hazard. Also provided information on maintaining public calm during the potential event.	Montclair Police Department, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 621-5873 rmorales@cityofmontclair.org
Steve Shull, **Division Chief**	Provided expertise in fire related issues, which will be affected during natural and man-made disasters.	Montclair Fire Department, 8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763 (909) 447-3540 sshull@cityofmontclair.org
See Attachment 'B' for 2005 Planning Team Signatures.		

This Hazard Mitigation Plan was reviewed and updated in 2010 by members of the following Planning Team:

Name and Title	Contribution to Planning Team	Contact Information
Angelic Bird, **Secretary/ Emergency Services Coordinator**	Responsible for the Emergency Operations Plan, Hazard Mitigation Plan, and the operation of the Emergency Operations Center in the event of a natural or man-made disaster.	Montclair Fire Department, 8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763 (909) 447-3540 abird@cityofmontclair.org
Jason Reed, **Police Lieutenant**	Provided knowledge in the displacement of citizens in the event of a natural or man-made hazard. Also provided information on crime statistics in Montclair.	Montclair Police Department, 4870 Arrow Highway, P.O. Box 2308, Montclair, CA 91763 (909) 448-3604 jreed@cityofmontclair.org
Robert Avels, **Police Lieutenant**	Provided knowledge regarding law enforcement response to natural disasters.	Montclair Police Department, 4870 Arrow Highway, P.O. Box 2308, Montclair, CA 91763 (909) 448-3600 ravels@cityofmontclair.org
Merry Westerlin, **Building Official**	Provided expertise in the evaluation of building vulnerability and cost related to the reconstruction post-disaster.	City of Montclair, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 625-9437 mwesterlin@cityofmontclair.org
Jonathan Dizon, **Engineer**	Provided knowledge and expertise in the water infrastructure in the City of Montclair and surrounding communities.	Monte Vista Water District, 10575 Central Avenue, P.O. Box 71, Montclair, CA 91763 (909) 267-2177 JDizon@mvwd.org
Kathy Standridge, Projects Assistant	Provided knowledge and expertise in the water infrastructure in the City of Montclair and surrounding communities.	Monte Vista Water District, 10575 Central Avenue, P.O. Box 71, Montclair, CA 91763 (909) 624-0035 ext. 117 KStandridge@mvwd.org
Joseph Rosales, **National Pollutant Discharge Elimination System Coordinator**	Provided expertise on the City's storm drain system, roads, highways, public areas, and public works issues.	City of Montclair, 5111 Benito Street, P.O. Box 2308, Montclair, CA 91763 (909) 625-9470 jrosales@cityofmontclair.org

Name and Title	Contribution to Planning Team	Contact Information
Gary Charleston, Personnel Officer	Assigned to the City's Administrative Services Department and provided expertise in cost analysis and administrative procedures.	City of Montclair 5111 Benito Street Montclair, CA 91763 (909) 625-9406 gcharleston@cityofmontclair.org
Dale Gillum, Public Safety Director	Provided knowledge and expertise regarding the infrastructure of the Montclair Plaza.	Montclair Plaza 5060 Montclair Plaza Lane Montclair, CA 91763 (909) 626-6888 dgillum@andrewsinternational.com
Jimmie Gatten, Ancil Manager	Provided knowledge and expertise regarding the infrastructure of the Montclair Costco.	Costco 9404 Central Avenue Montclair, CA 91763 (909) 575-5001 w686mgr4@costco.com
Milissa Checchi, Classified Training/ Development Specialist	Provided knowledge and expertise regarding the infrastructure of the Ontario-Montclair School District.	Ontario-Montclair School District 950 West 'D' Street Ontario, CA 91762 (909) 633-1293 milissachecchi@omsd.k12.ca.us
Sue Churchill, Director of Risk Management	Provided knowledge and expertise regarding the infrastructure of the Chaffey Joint Unified School District.	Chaffey Joint Unified School District 211 West Fifth Street Ontario, CA 91762 (909) 988-8511, ext. 2560 Sue_Churchill@cjuhsd.net

During the 2010 update, ICF International and Emergency Management Services Initiative (EMSI) provided consulting services to the City of Montclair. Listed below is contact information for the representatives of these two companies.

Name and Title	Contact Information
Carl Heintz, Vice President	Emergency Management Services Initiative (EMSI) (951) 205-5920 carlheintz@msn.com
Andy Petrow, Consultant	ICF International (818) 294-5472 APetrow@icfi.com

3.2 Coordination with Other Jurisdictions, Agencies, or Organizations

Accomplishing a shared goal for emergency preparedness and hazard mitigation requires the coordinated efforts of various jurisdictions, agencies, and organizations.

The San Bernardino County Fire Department Office of Emergency Services (SB OES) coordinated the update of the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan. The current San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan process consists of information from 55 local Hazard Mitigation Plans, which are included as an annex to the County's Operational Area

plan. The 55 participants include all 24 incorporated cities and towns, 30 special districts, and the unincorporated county.

Montclair's coordination with other jurisdictions, agencies, or organizations consisted of the following actions:

Date	Actions
March 10, 2011	**S.B. County Operational Area Stakeholders Conference Call** This conference call provided stakeholders with an update regarding the status of plans being reviewed by Cal EMA and FEMA. Per this conference call the City of Montclair is currently in FEMA review.
February 17, 2011	**S.B. County Operational Area Stakeholders Conference Call** This conference call provided stakeholders with an update regarding the status of plans being reviewed by Cal EMA and FEMA. Stakeholders were informed that each jurisdiction will have separate approval dates. The process for approval by a local governing body was also discussed during this call.
January 27, 2011	**S.B. County Operational Area Stakeholders Conference Call** This conference call provided stakeholders with an update regarding the status of plans being sent to Cal EMA for review. Stakeholders that had not yet submitted plans were given instructions on how to independently submit their plans to Cal EMA.
January 11, 2011	**S.B. County Operational Area Stakeholders Conference Call** This conference call provided stakeholders with an update regarding the status of plans being sent to Cal EMA for review.
December 15, 2010	**S.B. County Operational Area Stakeholders Conference Call** Discussion focused on the process for submitting Hazard Mitigations to San Bernardino Office of Emergency Services.
December 2, 2010	**S.B. County Operational Area Stakeholders Conference Call** Discussion focused on the process for submitting Hazard Mitigations to San Bernardino Office of Emergency Services (SB OES). Jurisdictions in Group 2-A need to submit their plans to SB OES by January 7, 2011. Jurisdictions in Group 2-B should submit by the third or fourth week of January (TBD). Andy Petrow advised that FEMA will be contacting jurisdictions directly upon their review of the plans with comments and suggested revisions.
November 4, 2010	**S.B. County Operational Area Coordinating Council Meeting** Andy Petrow from ICF International made a presentation on the Hazard Mitigation Plan Update and solicited questions and input from the stakeholders.
October 28, 2010	**S.B. County Operational Area Stakeholders Conference Call** During this conference call stakeholders were informed that new risk assessment maps will be made available on the website portal. Stakeholders were reminded to use the latest version of the Crosswalk and that a revised guidance document would be made available shortly.
September 23, 2010	**S.B. County Operational Area Stakeholders Conference Call** During this conference call access to charts and maps on the ICF portal were discussed. ICF advised there were no repetitive loss properties in Montclair. ICF answered questions and concerns brought forth by the stakeholders.

Date	Actions
September 9, 2010	**S.B. County Operational Area Stakeholders Conference Call** How to review and develop mitigation projects was a topic discussed during this call. Also discussed were methods of funding projects and how to develop an implementation process.
September 1, 2010	**Monte Vista Water District (MVWD) Planning Team Meeting** Team Member Bird attended Monte Vista Water District's Hazard Mitigation Planning Team meeting to give an overview of the City's planning process and to offer assistance to the WMVD during their planning process. This meeting was facilitated by Team Member Dizon. Also in attendance were Team Member Standridge and a representative from the Chino Basin Water Conservation District. At this meeting the MVWD Planning Team discussed their public involvement/outreach, risk assessment, and upcoming milestones.
August 26, 2010	**S.B. County Operational Area Stakeholders Conference Call** During this conference call repetitive loss and severe repetitive loss properties, and information that was received from FEMA on this subject were discussed. ICF also advised on how to conduct cost analysis of mitigation projects.
August 19, 2010	**S.B. County Operational Area Stakeholders Conference Call** Discussed new table of contents and formatting the plan. ICF answered questions and concerns brought up by stakeholders. ICF advised on how plans are to be submitted for review.
August 17, 2010	**Sent Information Request to Montclair Hospital Medical Center** Team Member Bird sent a request to the Emergency Coordinator at the hospital for updated information regarding this facility and potential loss estimations.
August 16, 2010	**Conversation with Monte Vista Water District** Team Members Bird and Dizon discussed the dam inundation maps from the Army Corps of Engineers.
August 12, 2010	**S.B. County Operational Area Stakeholders Meeting** Team Member Bird attended a Stakeholders meeting for the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan. At this meeting Andy Petrow of ICF International gave more explanation about how to document the planning process, prioritize hazards, and how to identify properties with repetitive loss.
August 5, 2010	**S.B. County Operational Area Coordinating Council Meeting** Consultants from ICF International made a presentation on the Hazard Mitigation Plan Update and solicited questions and input from the stakeholders.
July 15, 2010	**S.B. County Operational Area Stakeholders Meeting** Team Member Bird attended a Stakeholders meeting for the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan. At this meeting Andy Petrow of ICF International gave more explanation about the planning process and use of the website portal.

Date	Actions
July 1, 2010	**S.B. County Operational Area Website Portal Roll-Out Meeting** Team Member Bird participated in a live meeting/conference call hosted by ICF International. During the meeting, Andrew Petrow of ICF demonstrated how the portal is set up and how it may be used for public and private use.
June 10, 2010	**Kick-Off Meeting for Hazard Mitigation Plan Update** Team Member Bird attended the Kick-Off meeting for the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan. At this meeting, Andy Petrow of ICF International explained the planning process. See Attachment 'F' for Letter of Invitation from San Bernardino County Fire Department.
August 9, 2010	**Confirmed Participation on Planning Team** Received an e-mail from Director Sue Churchill of the Chaffey Joint Unified School District confirming her participation on the planning team.
August 5, 2010	**S.B. County Operational Area Coordinating Council Meeting** Team Member Bird attended the OACC meeting. The Hazard Mitigation Plan was discussed along with strategies for preparing the plan.
July 1, 2010	**Confirmed Participation on Planning Team** Received a phone call from Police Chief Jones that Lieutenant Jason Reed would be participating on the Planning Team. Also received a phone call from Jeff Marshburn of Costco stating that Jimmie Gatten would be participating on the Planning Team.
June 29, 2010	**Confirmed Participation on Planning Team** Received an e-mail from Teri Douglas of the Ontario-Montclair School District that Milissa Checchi would be participating on the Planning Team.
June 24, 2010	**Confirmed Participation on Planning Team** Received an e-mail from Engineer Jonathan Dizon confirming his participation on the Planning Team. Received a phone call from Personnel Officer Gary Charleston confirming his participation on the Planning Team.
June 23, 2010	**Confirmed Participation on Planning Team** Received e-mails from Building Official Merry Westerlin and National Pollutant Discharge Elimination System Coordinator Joseph Rosales confirming their participation on the Planning Team. Received a phone call from Public Safety Director Dale Gillum confirming his participation on the Planning Team.
June 22, 2010	**Invited Staff/Community Members to Join Planning Team** Sent a memorandum to City of Montclair staff and letters to community members asking for their assistance to assign one representative from their department/agency to participate on the 2010 Hazard Mitigation Plan Update Planning Team. Community members consisted of Ontario-Montclair School District, Montclair High School, Montclair Hospital Medical Center, Montclair Plaza, Monte Vista Water District, and the Montclair Costco. See Attachment 'D' for a sample of the memorandum sent to City of Montclair staff and letters sent to community members.

Date	Actions
April 20, 2010	**Participation in the Hazard Mitigation Plan Update** Mailed a Letter of Commitment to San Bernardino County Office of Emergency Services stating that the City of Montclair will be participating in the Hazard Mitigation Plan Update as a multi-jurisdictional partner. See Attachment 'G' for a Letter of Commitment.
August 12, 2004	**Contact with Ontario-Montclair School District** Contacted Pete Peterson with Ontario-Montclair School District regarding replacement costs for Montclair schools.
August 5, 2004	**Discussed Ontario's Local Hazard Mitigation Plan (LHMP)** Team member Donley discussed the City of Ontario's LHMP with Susan Cobb at the OACC Meeting.
August 5, 2004	**S.B. County Operational Area Coordinating Council Meeting** Team member Donley attended the meeting. The Hazard Mitigation Plan was discussed along with strategies for preparing the plan.
July 26, 2004	**Ontario-Montclair School District** Contacted Brent Davis regarding the need for building replacement costs for the schools within our City limits.
July 26, 2004	**Replacement Costs/Ontario-Montclair School District** Contacted OMSD to obtain replacement costs for their schools within the Montclair City limits. Information will be supplied via fax. See Attachment 'K' for a letter faxed to the school district.
July 21, 2004	**Meeting with Chino Basin Water Conservation District** Team member Dennis McGehee attended a Mitigation Planning Meeting at Chino Basin Water Conservation District to share information from our team concerning flood/storm drain issues.
May 3, 2004	**Discussion with Monte Vista Water District** Telephone discussion between M. Donley from City of Montclair and Mary Ann Melleby of Monte Vista Water District. Strategies for working toward a common goal between the City of Montclair and the Monte Vista Water District in regards to the HMP development.

3.3 Public Outreach

In order for this plan to be comprehensive, accessible, and effective the City of Montclair extended many opportunities for the public to become involved in the preparation of this plan. Listed below are the actions taken by the Planning Team to reach out to the public (see Attachment "H" for Public Outreach documents):

Date	Actions
January 2012	**Updated Disaster Preparedness Section of City's Website** Created a section on the City's website that provides the public with information about this plan and invites the public to review the plan and provide comments.
September 2, 2010	**Press Release to Daily Bulletin** The City of Montclair, Monte Vista Water District, and Chino Basin Water Conservation District partnered together to issue a press release to the Daily Bulletin to inform the public of the Hazard Mitigation Plan Update and their opportunity to review and comment on the plans for these agencies.

Date	Actions
July 22, 2010	**Placed a Slide on City Televisions and Public Access Channel** Placed a slide on the City of Montclair's public access cable channel, the television in the foyer at Montclair City Hall, and the television in the lobby at the Montclair Police Department to inform the public of the Hazard Mitigation Plan update and their opportunity to review and comment on the plan.
July 21, 2010	**Inserted a Flyer into the Trash and Sewer Bills** Inserted a flyer into the August trash and sewers bills that were sent to City residents to inform the public of the Hazard Mitigation Plan update and their opportunity to review and comment on the plan.
July 19, 2010	**Posted a Public Notice at Montclair City Hall and Montclair Library** Posted a public notice at Montclair City Hall and the Montclair Library to inform the public of the Hazard Mitigation Plan update and their opportunity to review and comment on the plan.
July 15, 2010	**Placed an Announcement on the City of Montclair's Website** Placed an announcement on the City of Montclair's website to inform the public of the Hazard Mitigation Plan update and their opportunity to review and comment on the plan.
July 22, 2004	**Community Group/Kiwanis Meeting** Team Member Steve Shull attended the Kiwanis of Montclair meeting and discussed the Hazard Mitigation Plan. They were asked for comments or suggestions that pertain to the HMP. They were also given the mitigationplan.com website information so they could view the public information for the plan.

3.4 Assess the Hazard

The natural hazards that affect Montclair were assessed by the City's Planning Team because they have personal experience and knowledge from working within various functions of the City's infrastructure and are familiar with the history of past hazardous events that have affected the City.

The Planning Team used a variety of resources to assess the hazards in Montclair. These resources include, but are not limited to, hazard maps, history of past occurrences, other City plans, geological surveys, known results of identified hazards, hazard probability information, scenario maps, and data.

More information on how the Planning Tam assessed the hazards in Montclair can be seen in Section 4: Risk Assessment.

3.5 Set Goals

The Planning Team set goals that are aligned with the purpose of this Plan, which consist of:

- Identifying natural hazards that affect the City of Montclair;
- Estimating the amount of loss that will be incurred from the identified hazards;
- Developing strategies and projects to reduce and/or eliminate losses to life and property;

- And for hazards that cannot be fully mitigated, developing means for providing efficient and effective response and recovery.

3.6 Review and Propose Mitigation Measures

By reviewing and proposing mitigation measures, the Planning Team was able to show the City's long-term approach for reducing and/or eliminating the potential losses identified in the Risk Assessment section of this Plan.

In an effort to review the mitigation measures established in the 2005 plan, the Planning Team developed a five-year progress report that identifies the current status of mitigation goals, objectives, projects, and activities. The status of these projects is identified as completed, ongoing, deleted, or deferred.

The process of identifying new goals for the update of this Plan began with a review and validation of the goals and objectives in the 2005 Hazard Mitigation Plan. Using the 2005 Plan as the basis, the City's Planning Team completed an assessment/discussion of whether each of the goals was still valid. This discussion also led to the opportunity to identify new goals and objectives. Section 6 of this Plan provides an overview of the mitigation goals, objectives, and projects.

In an effort to prioritize mitigation projects and determine their feasibility, the Planning Team used the STAPLEE criteria. This criterion assesses the social, technical, administrative, political, legal, economic, and environmental feasibility of projects. Each project was designated with "high", "medium", or "low" priority ranking.

The Implementation Strategy for these projects focuses on the ones with the highest priority that may be implemented during the next five years.

3.7 Draft the Hazard Mitigation Plan

The drafting of this plan was a collaborative effort of the Planning Team members. Each member was assigned to update certain portions of the plan independently according to his/her agency affiliation or area of expertise and then bring the information back to the group via meeting, telephone, or e-mail. While some portions of the plan were drafted independently, the team also decided to draft sections of the Plan collectively at Planning Team meetings by projecting the plan onto a screen and directly input updated data into the plan. Projecting the plan onto a screen allowed team members to collectively review the 2005 plan, discuss any changes that may have occurred since 2005, and update the information so that it is relevant and current.

Drafting of the Hazard Mitigation Plan consisted of the following actions:

Date	Activity
September 20, 2010	**Data Entry** Updated Section 3: Planning Process of the plan to reflect the most current meetings and events that have transpired.
September 9, 2010	**Developed Charts for Mitigation Strategies Section** Using the Plan Update Requirements and Guidance provided by ICF, charts were developed to insert in the Mitigation Strategies Section of this plan. These charts will be used to show progress that has been made in the last five years towards completing mitigation projects referenced in the 2005 Plan. The charts will also be used to develop a new set of goals, objectives, and projects to reduce and/or eliminate hazards.

Date	Activity
September 8, 2010	**Updated Preparing the Plan and Coordination with other Agencies Sections, Updated the Hazard Assessment Matrix, and Researched Past Mitigation Projects** Updated the activity tables located in the Preparing the Plan and Coordination with other Agencies sections with new information. Updated Hazard Assessment Matrix and hazard prioritization information. Researched past mitigation projects and their current status.
September 7, 2010	**Updated Community Development Trends** Updated information in plan pertaining to the City's Development History and Future Development Trends.
August 18, 2010	**Actions Completed by Ontario-Montclair School District** Team Member Checchi researched information for Hazard Mitigation Plan, requested information from facilities to update square footage of school sites, requested information from Accounting to update replacement costs and economic impact using the GASBE-34 report and ADA for school sites, and met with Mike Ainsworth to discuss preparing a summary of OMSD school site modernizations and modifications made between 2005-2010.
August 18, 2010	**Updated Asset Inventory** Updated the Building Inventory Information.
August 17, 2010	**Researched and Updated Critical Facilities** Reviewed list of critical facilities identified in 2005 and conducted research to assess if there are any new critical facilities in Montclair. Also updated the Critical Facilities list.
August 16, 2010	**Data Entry** Updated Crime Statistics.
August 11, 2010	**Updated Flood and Dam Failure Data** Updated information regarding results and probability of flooding and dam failure.
August 10, 2010	**Updated Format of Plan to Use New Table of Contents** Used the new table of contents developed by ICF International to update the format of the plan.
August 9, 2010	**Researched Crime Statistics in Montclair** Researched crime statistics in Montclair and updated data.
July 28, 2010	**Researched Hazards in Montclair and Data Entry** Researched hazards in Montclair and updated data.
July 26, 2010	**Researched Hazards in Montclair and Data Entry** Researched hazards in Montclair and updated data.
July 21, 2010	**Data Entry** Updated Community Profile information.
July 15, 2010	**Data Entry** Updated Community Profile information.
June 28, 2010	**Updated Simple Data** Updated simple data (i.e. population and demographic information)
June 23, 2010	**Reviewed FEMA Document** Reviewed FEMA's Local Multi-Hazard Mitigation Planning Guidance for requirements of the plan update.
August 16, 2004	**Data Entry** Updated data.

Date	Activity
August 12, 2004	**Data Entry** Updated data.
August 11, 2004	**Data Entry** Updated data.
July 26, 2004	**Research of Potential Losses/Data Entry** The potential replacement costs and economic impact was researched by Mike Donley. Insurance policies will provide information on City-owned properties.
July 19, 2004	**Data Entry** Updated data.
July 14, 2004	**Research of Past Hazard History** Conducted research on past occurrences of hazards.
July 14, 2004	**Data Entry** Updated data.
July 12, 2004	**Research on Earthquake Activity for Montclair** USGS website researched for earthquake activity in and around the City of Montclair. No significant activity/damage was found. No documented injuries or deaths found in relation to seismic activity.
July 12, 2004	**Research Critical Facilities/Data Entry** Researched Critical Facilities and updated data.
July 9, 2004	**Data Entry** Updated data.
June 21, 2004	**Review of Federal Mitigation Requirements** Federal Regulation/Title 44-Emergency Management and Assistance/Chapter 1-Federal Emergency Management Agency/ Part 201 were reviewed to strategize the most effective way to formulate the plan. The plan due date is November 1, 2004. Mitigation for natural disasters is required to this date. Man-made disasters will follow under future mandates.
June 21, 2004	**Review of Earthquake History for Montclair** Reviewed records contained within the USGS database to locate historical information for the City of Montclair.
June 16, 2004	**Research of City Emergency Operations Plan** Team Member Donley reviewed the current Emergency Operations Plan for the City of Montclair to identify the hazards listed within the plan.

3.8 Adopt the Hazard Mitigation Plan

As one of 55 confirmed participants in the 2010 San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Planning Project, the City of Montclair updated its Hazard Mitigation Plan. This updated plan was submitted to the San Bernardino County Office of Emergency Services (SB OES). SB OES forwarded the plan onto the California Emergency Management Agency (Cal EMA) and Cal EMA forwarded it to the Federal Emergency Management Agency (FEMA) for review. These reviews addressed the federal criteria outlined in FEMA Interim Final Rule 44 CFR Part 201. The Montclair City Council formally adopted this plan after it received "approval pending adoption" from FEMA. The City Council is responsible for and has the authority to promote sound public policy regarding hazards that affect Montclair. Upon acceptance by FEMA, the City of Montclair will gain eligibility for Hazard Mitigation Grant Program funds.

Adoption of the Hazard Mitigation Plan consisted of the following actions:

Date	Activity
May 23, 2011	The City received a final approval letter from FEMA. See Attachment 'V' for a copy of the letter.
May 17, 2011	The City forwarded formal adoption documentation to FEMA. See Attachment 'U' for a copy of the letter sent to FEMA.
May 5, 2011	The City Council formally adopted the update of this Hazard Mitigation Plan.
April 1, 2011	The City received a letter from FEMA indicating that the Hazard Mitigation Plan is eligible for final approval pending its adoption by the Montclair City Council. See Attachment 'T' for a copy of the letter.
March 14, 2011	The City received a letter from FEMA indicating that the Hazard Mitigation Plan was received and their review should be completed within 45 days See Attachment 'S' for a copy of the letter.
March 9, 2011	The City received a letter from Cal EMA indicating that the Hazard Mitigation Plan was forwarded to FEMA for review. See Attachment 'R' for a copy of the letter.
January 13, 2011	SB OES sent the City's Hazard Mitigation Plan to Cal EMA for review.
December 23, 2010	The City submitted its Hazard Mitigation Plan to SB OES.
July 15, 2010	Team Member Bird spoke with City Clerk Donna Jackson via telephone to discuss the process for setting an agenda item for the City Council to adopt the updated Hazard Mitigation Plan in 2011. The adoption date will vary depending on when FEMA approval is received.
March 9, 2005	The City Council formally adopted this Hazard Mitigation Plan.

Section 4 – Risk Assessment

The goal of mitigation is to reduce the future impacts of a hazard including property damage, disruption to local and regional economies, and the amount of public and private funds spent to assist with recovery. However, mitigation should be based on risk assessment.

Risk assessment is measuring the potential loss from a hazardous event by assessing the vulnerability of buildings, infrastructure, and people. It identifies the characteristics and potential consequences of hazards, how much of the community could be affected by a hazard, and the impact on community assets. A risk assessment consists of four components: hazard identification, profiling hazardous events, inventorying assets, and estimating losses.

4.1 Hazard Identification

Important first steps to take when identifying hazards are to collect data and review documents such as hazard maps, hazard probability research, or other local plans. In the 2005 version of this plan the hazards that affect Montclair were determined to be earthquakes, flooding, and dam failure.

As part of the update process in 2010, the planning team reviewed new hazard data, researched information about emergencies or disasters that occurred since 2005, and discussed the affects of different hazard types as they pertain to Montclair. The Planning Team discussed many hazard types that may affect the City such as earthquakes, dam failure, extreme heat, drought, high winds, and flooding.

Dam Failure

Dam failure ranked high. Engineering studies of the San Antonio Dam indicate that a breech or large release of water from the dam is expected to inundate the northern region of Montclair. While the probability of this hazard occurring is unlikely, the impact may be critical depending on the amount of water that breeches or is released from the dam. As part of their methodology in ranking this hazard the Planning Team analyzed dam inundation maps, assessed what critical facilities in the City would be compromised by a

dam failure, and considered history of previous occurrences. More information regarding this hazard may be found in Section 4.2.3.

Extreme Heat

Extreme heat ranked medium. Temperatures that remain 10 degrees or more above the average high temperature for the region and last for several weeks are defined as extreme heat. During summer months, Montclair may experience extreme heat conditions. During times of extreme heat the City provides a Cooling Center program. This program provides access to public buildings for area residents to relax and cool down during periods of intense summer heat. Results experienced from this hazard may be fluctuation in electrical power due to a many cooling systems operating throughout the City and heat related illnesses.

High Winds

High winds ranked low. High winds may result from thunderstorm inflow and outflow, or downburst winds when a storm cloud collapses, strong frontal systems, gradient winds (high or low pressure systems), or feohn winds such as Santa Anas. High winds are speeds reaching 50 miles per hour or greater, either sustaining or gusting. High winds are occasionally experienced in Montclair with negligible impact to the City. Often times the results of this hazard are fallen tree branches or down power lines.

Drought

Drought ranked medium. A drought is a period of drier-than-normal conditions that result in water-related issues. Precipitation (rain or snow) falls in uneven patterns across the country. When no rain or only a small amount of rain falls, soils may dry out and plants may die. If dry weather persists and water supply problems develop, the dry period may become a drought. Droughts differ from typical emergency events such as floods or forest fires, in that they occur slowly over multiyear periods. The first evidence of drought usually is seen in records of rain fall. The effects of a drought on flow in streams and rivers or on water levels in lakes and reservoirs may not be noticed for several weeks or months. Water levels in wells may not reflect a shortage of rainfall for a year or more after the drought begins. A period of below-normal rainfall does not necessarily result in drought conditions. Some areas of the United States are more likely to have droughts than other areas. In humid or wet regions, a drought of a few weeks is quickly reflected in a decrease in soil moisture and in declining flow in streams. In arid or dry regions, people rely on ground water and water in reservoirs to supply their needs. The arid or dry regions are protected from short-term droughts, but may have severe problems during long dry periods because they may have no other water source if wells or reservoirs go dry. California has faced numerous challenges in recent years, including a nearly decade-long drought on the Colorado River, snowpacks that are below normal, and court-mandated reductions in the amount of water available for delivery by the State Water Project. Drought impacts increase with the length of the drought, as carry-over supplies in reservoirs are depleted, and water levels in ground water basins decline. Climate change, population growth, and the increasing instability of water supplies threaten to exacerbate the crisis. The Monte Vista Water District that serves the City of Montclair is currently experiencing a drought that began in 2007. The typical duration of a drought is seven years. The U.S. Weather Service is forecasting 20 more years of below average rainfall.

Flooding

Flooding ranked high. In the past, the City of Montclair experienced some flooding, usually confined to the east part of the City, along Benson Avenue. The water would travel rapidly

south on Benson Avenue, and would often flow over the west curb and into some of the residences that bordered the street. Sandbagging was helpful and would control the water flow during the short term flooding. Since the mid 1980s, the City has been actively upgrading the storm drain system along Benson Avenue to the east and along Mission Boulevard to the south. This upgrade was completed in 1995. The storm drain upgrades have made a significant improvement in the water collection at the north end of the City and have appeared to correct water drainage problems. In 2003, the West State Street Storm Drain Channel project was completed. An area that continues to be subject to flooding in Montclair during heavy rains is on Mills Avenue from Palo Verde Street to San Bernardino Street in the number one lane. This flooding does not affect residences along Mills Avenue; it only floods the road. One area of future concern for flooding is the area surrounding the to be constructed Monte Vista Grade Separation. During the planning phase of this project staff recognized the need to install an additional storm drain system to alleviate water that may be caused by heavy rains from flooding the area surrounding the grade separation. As part of their methodology in ranking this hazard the Planning Team used data from past experiences, reviewed upgrades to storm drain systems, and gave consideration to the types of weather experienced in Montclair. More information regarding this hazard may be found in Section 4.2.2.

Earthquake

Earthquake ranked high. The City of Montclair is in the vicinity of several known active and potentially active earthquake faults including the San Andreas. New faults within the region are continuously being discovered. Scientists have identified almost 100 faults in the greater Los Angeles area known to be capable of a magnitude 6.0 or greater earthquake. A major earthquake occurring in Montclair could cause numerous casualties, extensive property damage, fires, flooding, and other ensuing hazards. The effects could be aggravated by aftershocks and by the secondary effects of fire, infrastructure failure, and reservoir failure. As part of their methodology in ranking this hazard the Planning Team used information contained in the 2005 Plan, the earthquake probability maps contained in this plan, and the Facility Risk Assessment table provided by ICF. More information regarding this hazard may be found in Section 4.2.1.

4.1.1 Hazard Screening Criteria

The City of Montclair Hazard Mitigation Planning Team used several areas of criteria to prioritize the potential hazards within the City. These criteria consisted of a review of previous local disasters, a review of hazard maps, an examination of the population densities for elevated risk areas, local resources available, and an examination of the infrastructure of the City.

4.1.2 Hazard Assessment Matrix

The intent of screening hazards is to help prioritize which hazard creates the greatest concern in the community. The hazard assessment matrix below utilizes a nonnumeric ranking system. It generates a High, Medium, or Low ranking for the probability and impact from each screened hazard.

Probability		**Impact**
High	Highly Likely or Likely	Catastrophic or Critical
Medium	Possible	Limited
Low	Unlikely	Negligible

4.1.3 Hazard Prioritization

In the hazard assessment matrix below the green boxes represent the highest priority hazards, red boxes represent medium priority hazards, and white boxes represent the lowest priority hazards. After discussing and ranking the hazards listed in Section 4.1, the Planning Team determined that the top three hazards that still affect Montclair are earthquakes, flooding, and dam failure.

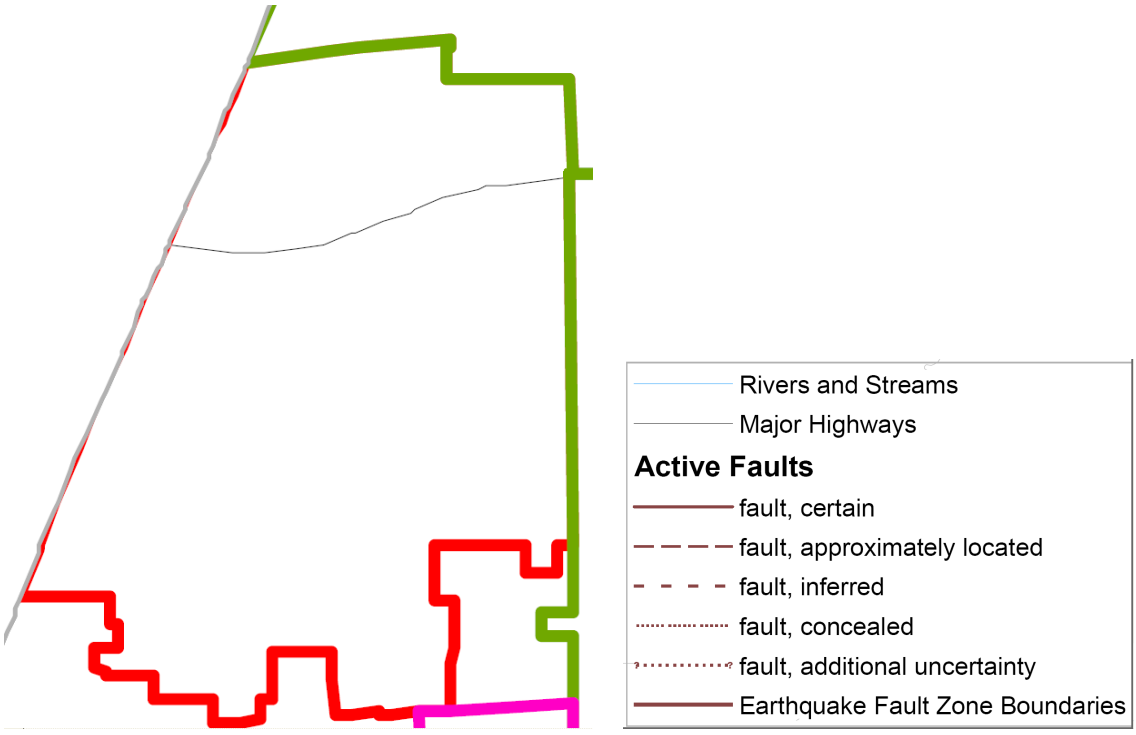
		Impact		
		High	**Medium**	**Low**
Probability	**High**	Earthquake	Flooding	
	Medium		Extreme Heat Drought	High Winds
	Low	Dam Failure		

4.2 Hazard Profiles

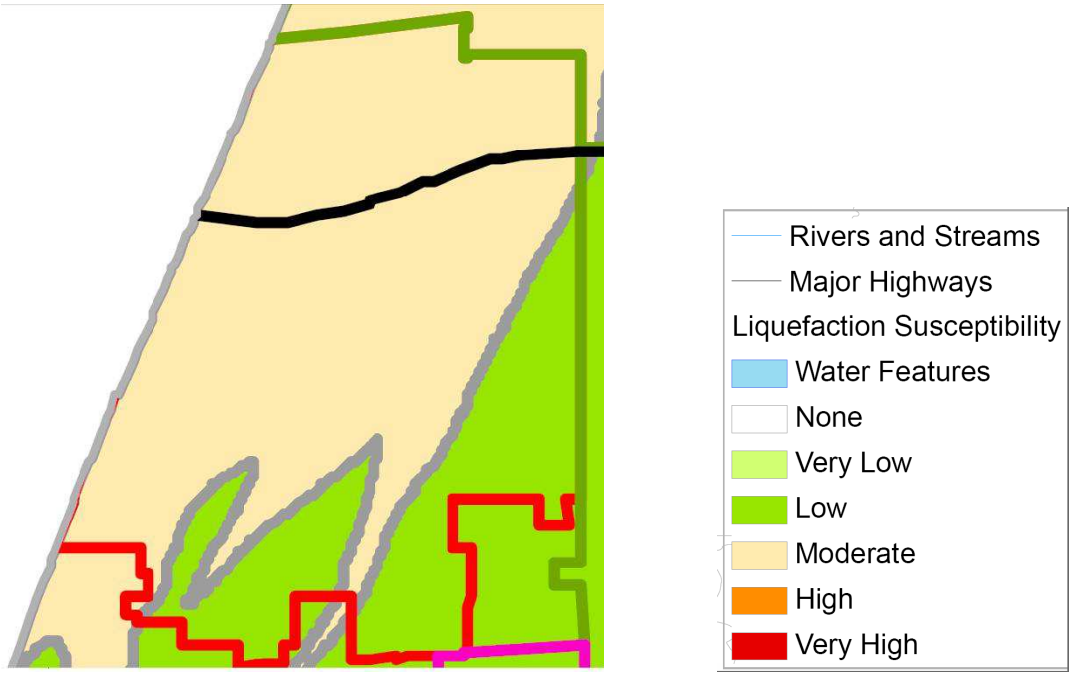
4.2.1 Earthquakes

Earthquake Hazard Maps

Map of Fault Zones in Montclair
California Geological Survey, Alquist-Priolo Earthquake Fault Zones in California - Statewide Collection (2000), New and Revised Earthquake Fault Zones (May 1, 2003)
Map creation date: June 22, 2010



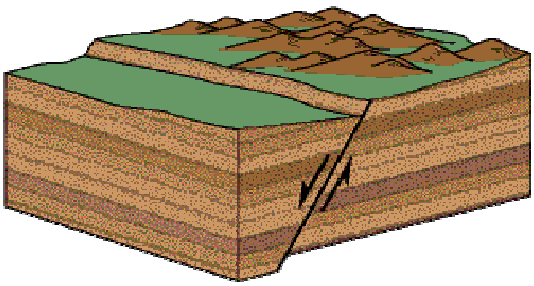
Map of Liquefaction Susceptibility in Montclair
Liquefaction Susceptibility data source:
Liquefaction susceptibility data developed for the "Shake Out" Scenario, USGS Open File Report 2008-1150, Chap. 3C (p. 48-87)
Map creation date: June 21, 2010



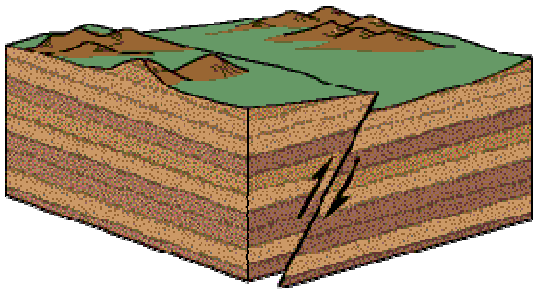
General Definition

An earthquake is a sudden, rapid shaking of the Earth caused by the breaking and shifting of rock beneath the Earth's surface. For hundreds of millions of years, the forces of plate tectonics have shaped the Earth as the huge plates that form the Earth's surface move slowly over, under, and past each other. Sometimes the movement is gradual. At other times, the plates are locked together, unable to release the accumulating energy. When the accumulated energy grows strong enough, the plates break free causing the ground to shake. Most earthquakes occur at the boundaries where the plates meet; however, some earthquakes occur in the middle of plates.

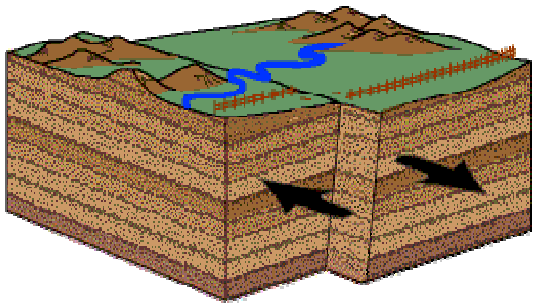
The boundaries where the plates meet are called faults; these are cracks in the Earth's crust. There are three types of faults: normal fault, thrust fault, and strike-slip fault.



Normal faults happen in areas where the rocks are pulling apart (tensile forces) so that the rocky crust of an area is able to take up more space. The rock on one side of the fault is moved down relative to the rock on the other side of the fault. Normal faults will not make an overhanging rock ledge. In a normal fault it is likely that you could walk on an exposed area of the fault.



Thrust faults happen in areas where the rocks are pushed together (compression forces) so that the rocky crust of an area must take up less space. The rock on one side of the fault is pushed up relative to the rock on the other side. In a thrust fault the exposed area of the fault is often an overhang.



Strike-slip faults happen in areas where the rocks slide past one another. A left-lateral strike-slip fault is one in which the displacement of the far rock is to the left when viewed from either side. A right-lateral strike-slip fault is one on which the displacement of the far rock is to the right when viewed from either side. The San Andreas Fault is an example of a right-lateral strike-slip fault.

Ground shaking from earthquakes can collapse buildings and bridges; disrupt gas, electric, and phone service; and sometimes trigger landslides, avalanches, flash floods, fires, and huge, destructive ocean waves (tsunamis). Buildings with foundations resting on unconsolidated landfill and other unstable soil, and trailers and homes not tied to their foundations are at risk because they may be shaken off their mountings during an earthquake. When an earthquake occurs in a populated area, it may cause deaths, injuries, and extensive property damage.

Earthquakes strike suddenly and without warning. Earthquakes can occur at any time of the year and at any time of the day or night. On a yearly basis, 70 to 75 damaging earthquakes occur throughout the world.

There are 45 states and territories in the United States at moderate to very high risk from earthquakes, and they are located in every region of the country. California experiences the most frequent damaging earthquakes; however, Alaska experiences the greatest number of large earthquakes—most located in uninhabited areas. The largest earthquakes felt in the United States were along the New Madrid Fault in Missouri, where a three-month long series of quakes from 1811 to 1812 included three quakes larger than a magnitude of 8 on the Richter Scale. These earthquakes were felt over the entire Eastern United States, with Missouri, Tennessee, Kentucky, Indiana, Illinois, Ohio, Alabama, Arkansas, and Mississippi experiencing the strongest ground shaking.

Description

A major earthquake occurring in Montclair could cause numerous casualties, extensive property damage, fires, flooding, and other ensuing hazards. The effects could be aggravated by aftershocks and by the secondary effects of fire, infrastructure failure, and reservoir failure. The time of day and the season of the year would also have a profound effect on the number of dead and injured and the amount of damage sustained. Such an earthquake could be catastrophic in its effect on the community and the state. Damage control and disaster relief support could be

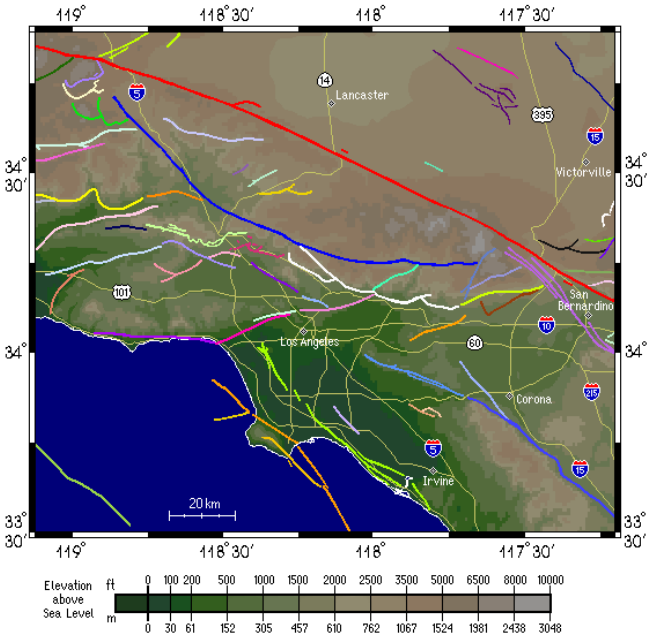
required from other local governmental and private organizations, and from the state and federal governments.

Extensive search and rescue operations may be required to assist trapped or injured persons. Emergency medical care, food, and temporary shelter would be required by injured or displaced persons. Identification and burial of dead persons would pose difficult problems; public health would be a major concern. Some evacuation may be essential to save lives, specifically in areas of service failure. Numerous families would be separated, particularly if the earthquake occurred during working hours, and a personal injury or locator system would be essential to maintain morale. Emergency operations could be seriously hampered by the loss of communications, and damage to transportation routes within, and to and from, the disaster area and by the disruption of public utilities and services.

Extensive federal assistance could be required and could continue for an extended period. These efforts would be required to remove debris and clear roadways, demolish unsafe structures, assist in re-establishing public services and utilities, and provide continuing care and welfare for the affected population, including temporary housing for displaced persons.

Additionally, concerns for preserving the central business district of the City need to be addressed so that revenue and taxes may be maintained to support the City in both private and public sectors. Short- and long-term recovery will be an issue and require close affiliation between the businesses of the community and government to assure controlled reconstruction with mitigation of existing hazards and the rapid opening of existing businesses as a focus to preserve the City's identity and promoting commerce.

Geographic Area Affected



The City of Montclair is in the vicinity of several known active and potentially active earthquake faults including the San Andreas. New faults within the region are continuously being discovered. Scientists have identified almost 100 faults in the greater Los Angeles area known to be capable of a magnitude 6.0 or greater earthquake. The January 17, 1994, magnitude 6.7, Northridge Earthquake (thrust fault) that produced severe ground motion, caused 57 deaths, 9,253 injuries, and left over 20,000 displaced. Although the June 1992 Landers-Big Bear Earthquake in San Bernardino County was larger, there was significantly less damage and loss of life.

Los Angeles Region Fault Map
Courtesy of the Southern California Earthquake Data Center

Seismologists are watching two major earthquake faults in Southern California. The San Jacinto fault, the most active earthquake fault in Southern California that extends for more than 100 miles from the international border into San Bernardino and Riverside, a major metropolitan area often called the Inland Empire. The Elsinore fault is more than 110 miles long, and extends into the Orange County and Los Angeles area as the Whittier fault. The Elsinore fault is capable of a major earthquake that would significantly affect the large metropolitan areas of Southern California. The Elsinore fault has not hosted a major earthquake in more than 100 years. The occurrence of these earthquakes along the San Jacinto fault and continued aftershocks demonstrates that the earthquake activity in the region remains at an elevated level. The San Jacinto fault is known as the most active earthquake fault in southern California. Caltech and USGS seismologist continue to monitor the ongoing earthquake activity using the Caltech/USGS Southern California Seismic Network and a GPS network of more than 100 stations.

The tables below list faults near Montclair that include the San Jose Fault, the Cucamonga Fault Zone, Red Hill Fault (also know as the Etiwanda Avenue Fault), the Chino Fault, and the San Andreas Fault.

San Jose Fault	
Type of faulting	Left-lateral strike-slip; minor reverse component possible
Length	About 18 km
Nearby communities	Claremont, La Verne, Pomona
Last significant quake	Feb. 28, 1990; Ml 5.4
Intervals between major rupture	Unknown
Slip rate	Between 0.2 and 2.0 mm/yr
Probable magnitude	Ml 6.0 – 6.5
Other notes	The San Jose fault dips steeply to the north.

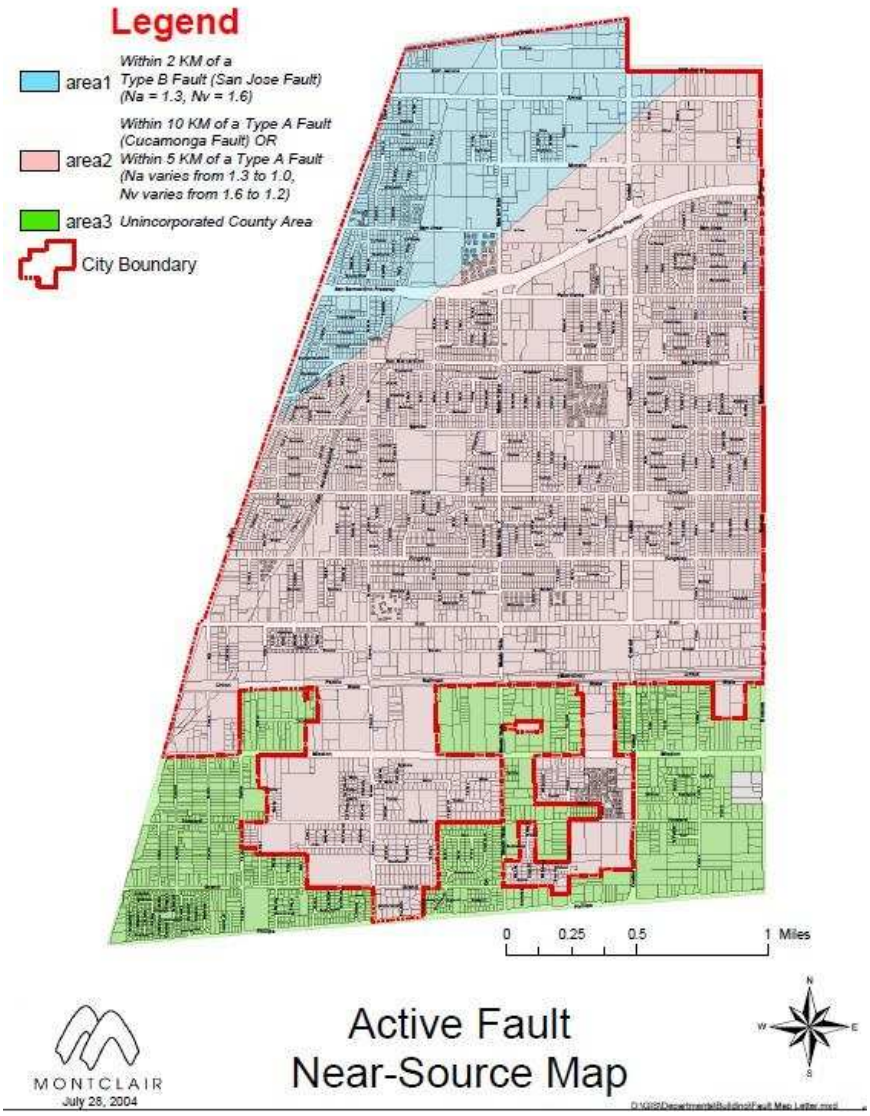
San Andreas Fault	
Type of faulting	Right-lateral strike-slip
Length	1200 km; 550 km south from Parkfield; 650 km northward
Nearby communities	Parkfield, Frazier Park, Palmdale, Wrightwood, San Bernardino, Banning, Indio
Last significant quake	January 9, 1857 (Mohave segment); April 18, 1906 (Northern segment)
Intervals between major rupture	Average of about 140 years on the Mojave segment; recurrence interval varies greatly – from under 20 years (at Parkfield only) to over 300 years
Slip rate	About 20 – 35 mm per year
Probable magnitude	Mw 6.8 – 8.0
Other notes	The San Gorgonio Pass area is fairly complex, geologically speaking. Here the San Andreas fault interacts with other faults (most notably the San Jacinto fault zone and the Pinto Mountain fault) and thereby becomes somewhat fractured, over the distance extending from just north of San Bernardino to just north of Indio, some 110 kilometers (70 miles).

San Andreas Fault Continued	
Other notes Continued	Because this deformation has been going on for well over a million years, ancient and inactive strands of the San Andreas fault may be found here. Other faults in this area have been "reawakened" recently after being dormant for hundreds of thousands of years. There is even evidence to suggest that there is no active, continuous main trace of the San Andreas fault going all the way through the pass, not even at depth – implying that the San Andreas fault may currently be in the process of creating a new fault path through this area! This could also mean that a single, continuous rupture from Cajon Pass to the Salton Sea (a stretch of the San Andreas that has not ruptured in historical times) is unlikely to occur. Fault rupture mechanics are still not well understood, however, and the discontinuity could prove to have little effect on tempering a major earthquake on the southern stretch of the San Andreas fault zone.

Chino Fault	
Type of faulting	Right-thrust
Length	21 km
Nearby communities	Corona, Chino
Last significant quake	Late Quaternary
Intervals between major rupture	Unknown
Slip rate	About 1.0 mm/yr
Probable magnitude	Mw 6.0 - 7.0
Other notes	The dip of this fault is to the southwest.

Cucamonga Fault Zone	
Type of faulting	Thrust
Length	About 30 km
Nearby communities	Claremont, Upland, Cucamonga
Last significant quake	Very recent Holocene
Intervals between major rupture	Estimated at roughly 600 – 700 years
Slip rate	Between 5 and 14 mm/yr
Probable magnitude	Mw 6.0 – 7.0
Other notes	Typical ground rupture per major event estimated at 2 meters. Slip rate (and thus recurrence interval) is somewhat disputed. If fastest slip rate is assumed, surface rupture interval may be as short as 150 – 200 years. This zone of faulting dips to the north.

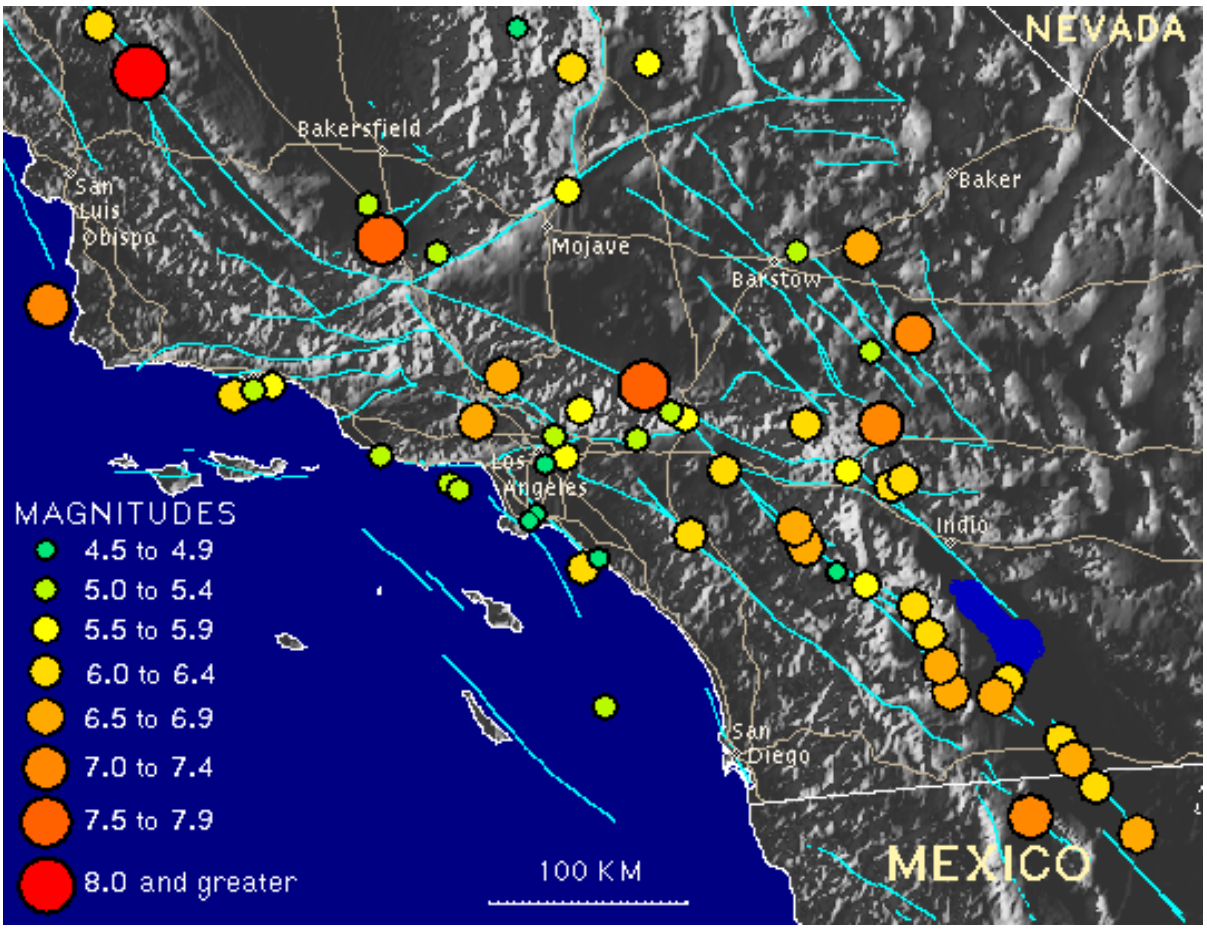
Red Hill Fault (also know as the Etiwanda Avenue Fault)	
Type of faulting	Thrust
Length	About 25 km
Nearby communities	Etiwanda, Alta Loma, Upland
Last significant quake	Holocene at eastern end; otherwise, Late Quaternary
Intervals between major rupture	Unknown
Slip rate	Uncertain
Probable magnitude	Mw 6.0 – 7-0
Other notes	This fault dips to the north. The eastern 9 kilometers of the Red Hill – Etiwanda Avenue fault is often considered to be a part of the Cucamonga fault zone, as it shows surface rupture more similar to that of the Cucamonga fault zone than to that of the rest of the Red Hill Fault.



Previous Occurrences

This section lists and describes the historical events associated with earthquake hazards that have occurred in and near the City of Montclair.

Below is a map of Southern California provided by the Southern California Earthquake Data Center, with epicenters of historic earthquakes as far back as 1812. This map does not show the epicenters of all earthquakes greater than magnitude 4.5 recorded in the Southern California area since the 19th century. It is meant as an overview of large and destructive, fairly recent, or unusual earthquakes.



Southern California Earthquake	
Date	July 7, 2010
Time	4:53 p.m. Pacific Standard Time (PST)
Location	33.420°N, 116.489°W
Rupture Length	Not Available
Magnitude (M)	5.4
Type of Faulting	Right-lateral strike-slip
Faults Ruptured	San Jacinto fault
Average Slip	2 inches/year
Depth	0.4 km (0.2 miles)
Largest Aftershock	Not Available

Southern California Earthquake Continued	
Description	A M5.4 earthquake occurred in Southern California at 4:53 p.m. (PST) about 30 miles south of Palm Springs, 25 miles southwest of Indio, and 13 miles north-west of Borrego Springs. The earthquake occurred near the Coyote Creek segment of the San Jacinto fault, which is one of the strands of the San Jacinto fault. The earthquake exhibited sideways horizontal motion to the northwest, consistent with slip on the San Jacinto fault. It was followed by more than 60 aftershocks of M>1.3 during the first hour. Seismologists expect continued aftershock activity. In the last 50 years, there have been four other earthquakes in the M5 range within 20 km of this location: M5.8 in 1968, M5.3 on 2/25/1980, M5.0 on 10/31/2001, and M5.2 on 6/12/2005. The biggest earthquake near this location was the M6.0 Buck Ridge earthquake on 3/25/1937. The earthquake was felt all over southern California, with strong shaking near the epicenter. The San Jacinto fault, along with the Elsinore, San Andreas, and other faults, is part of the plate boundary that accommodates about 2 inches/year of motion as the Pacific plate moves northwest relative to the North American plate. The largest recent earthquake on the San Jacinto fault, near this location, the 1968, M6.5 Borrego Mountain earthquake the occurred on April 8, 1968, was about 25 miles southeast of the July 7, M5.4 earthquake. This M5.4 earthquake follows the April 4, 2010, Easter Sunday, Mw7.2 earthquake, located about 125 miles to the south, well south of the U.S./Mexico international border. A M4.9 earthquake occurred in the same area on June 12, 2010, at 8:08 p.m. (PST). Thus this section of the San Jacinto fault remains active.

Northern Baja California Earthquake (Sierra El Mayor)	
Date	April 4, 2010
Time	3:40 p.m. Pacific Standard Time (PST)
Location	32.259°N, 115.287°W
Rupture Length	Not Available
Magnitude (M)	7.2
Type of Faulting	Northwest-trending strike-slip
Faults Ruptured	Laguna Salada fault
Average Slip	1.8 inches/year
Depth	10 km (6.2 miles) (poorly constrained)
Largest Aftershock	Gulf of California

Northern Baja California Earthquake (Sierra El Mayor) Continued	
Description	The M7.2 Sierra El Mayor earthquake of Sunday, April 4, 2010, occurred in northern Baja California, approximately 40 miles south of the Mexico-U.S.A. border at a shallow depth along the principal plate boundary between the North American and Pacific plates. This is an area with a high level of historical seismicity, and also it has recently been seismically active, though this is the largest event to strike in this area since 1892. The April 4th earthquake appears to have been larger than the M6.9 earthquake in 1940 or any of the early 20th century events (e.g., 1915 and 1934) in this region of northern Baja California. In the vicinity of this earthquake, there are several active faults and it has not yet been determined specifically which fault the earthquake occurred on. Within the transition from the ridge-transform boundary in the Gulf of California to the continental transform boundary in the Salton Trough, faulting is complex. Most of the major active faults are northwest-southeast oriented right-lateral strike-slip faults that are common in mechanism to the San Andreas fault and parallel Elsinore and San Jacinto faults that run north of the Mexico-USA border.

Greater Los Angeles Area Earthquake	
Date	May 18, 2009
Time	8:39 p.m. Pacific Standard Time (PST)
Location	33.937°N, 118.345°W
Rupture Length	Not Available
Magnitude (M)	4.7
Type of Faulting	Not Available
Faults Ruptured	Newport-Inglewood fault
Average Slip	Not Available
Depth	15.1 km (9.4 miles)
Largest Aftershock	Not Available
Description	A M4.7 earthquake struck about 3 miles east of Los Angeles International airport at 8:39 p.m. (PST) local time, at a depth of 8.5 miles. Given that the location is in a densely populated part of the Los Angeles basin, it was widely felt. Initial estimates from the USGS Shake Map indicated that although strong shaking was felt by many people, damage was expected to be light. The initial focal mechanism is consistent with slip on the Newport-Inglewood fault, which was the source of the damaging 1933 Long Beach earthquake. Three of the early aftershocks, however, are west of the Newport-Inglewood fault trend. Later aftershocks are expected to help define the fault plane that ruptured. The Los Angeles basin is crossed from northwest to southeast by the intensively studied Newport-Inglewood fault zone.

Greater Los Angeles Area Earthquake Continued	
Description Continued	In 1920, the Inglewood earthquake (M4.9) occurred in nearly the identical location to this earthquake. The 1920 event was the original reason for identification of this as an active fault zone capable of damaging earthquakes, which then later proved to be the case in the 1933 Long Beach event. After the 1933 event, the name of the fault zone was changed to the Newport-Inglewood fault zone in recognition that it is continuous from Beverly Hills to Newport Beach.

Greater Los Angeles Area Earthquake	
Date	January 9, 2009
Time	7:49 p.m. Pacific Standard Time (PST)
Location	34.107°N, 117.304°W
Rupture Length	Not Available
Magnitude (M)	4.5
Type of Faulting	Not Available
Faults Ruptured	Not Available
Average Slip	Not Available
Depth	14.1 km (8.8 miles)
Largest Aftershock	Not Available
Description	Not Available

Greater Los Angeles Area Earthquake	
Date	July 29, 2008
Time	11:42 a.m. Pacific Standard Time (PST)
Location	33.953°N, 117.761°W
Rupture Length	Not Available
Magnitude (M)	Mw 5.5
Type of Faulting	Mixture of thrust and left-lateral strike-slip
Faults Ruptured	Unknown, between the Whittier Fault and Chino Fault, see description of further information
Average Slip	Not Available
Depth	Not Available
Aftershocks	The main shock was followed by a M3.8 aftershock at 11:52 a.m. In the first two hours after the quake, 37 smaller aftershocks were also recorded in the magnitude range of 1.3 to 2.8. A M3.6 aftershock occurred at 1:41 p.m.
Description	A Mw5.4 mainshock-aftershock sequence started 2 miles southwest of Chino Hills at a depth of about 9 miles, in the east Los Angles area at 11:42 a.m. on Tuesday, July 29, 2008. The sequence was felt across Southern California. Strong shaking was reported to the north in the Chino Basin and to the southwest in the Los Angles basin. About 30,000 people responded as having felt the earthquake, approximately two hours following the earthquake.

Greater Los Angeles Area Earthquake Continued	
Description Continued	It is not possible to tell at this time what fault caused the earthquake. It is located half-way in between the Whittier fault and Chino fault. The moment tensor showed a mixture of thrust and left-lateral strike-slip faulting on a plane striking 43 degrees east of north, forming a high angle to both faults. This plane has a dip of 58 degrees, and rake of 43 degrees. The preliminary locations of the aftershocks suggest that this is the fault plane. A southwest trend of small earthquakes extending across this region into the Los Angles basin was identified in 1990 and called the Yorba Linda trend. The auxiliary plane has a strike of 291 degrees, dip of 59 degrees, and rake of 142 degrees. This plane has the same strike as the Whittier fault, and day-lights out at the mapped fault. However, the mapped dip of the Whittier fault is 82 degrees while the earthquake has a dip of 59 degrees. Also, the preliminary distribution of aftershock depths does not support the Whittier fault being the causative fault. Further research is needed to determine the causative fault. This earthquake is similar to the Mw5.9 1 October 1987 Whittier Narrows earthquake, located approximately 18 miles to the northwest. However, the Whittier Narrows main shock was a pure east-west thrust faulting earthquake. Ten miles to the north, the Upland earthquakes that occurred in the early 1990s, had left-lateral strike-slip motion. This earthquake occurred on a fault system located to the south of the San Gabriel Mountains and south of the Sierra Madre fault zone. The north edge of the Peninsular Ranges block is deforming as it collides with the San Gabriel mountains block. The zone where we expect this deformation to happen is the Sierra Madre fault zone, instead the deformation is occurring further south, which is also seen in other mountain building regions. About five percent of earthquake sequences in Southern California are foreshock sequences. Thus, it is unlikely that this sequence will be followed immediately, within the three days after the quake, by another, larger sequence. Nonetheless, seismologists will be watching for possible further activity on the Whittier and Chino faults, as well as the Sierra Madre fault, which are the large faults in the region.

Greater Los Angeles Area Earthquake	
Date	August 9, 2007
Time	12:58 a.m. Pacific Standard Time (PST)
Location	7.5 km (4.7 miles)

Greater Los Angeles Area Earthquake Continued	
Rupture Length	Not Available
Magnitude (M)	ML 4.4
Type of Faulting	Not Available
Faults Ruptured	Not Available
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	Not Available

Greater Los Angeles Area Earthquake	
Date	June 16, 2005
Time	1:53 p.m. Pacific Standard Time (PST)
Location	34.058°N, 117.011°
Rupture Length	Not Available
Magnitude (M)	4.9
Type of Faulting	Not Available
Faults Ruptured	Not Available
Average Slip	Not Available
Depth	11.8 km (7.3 miles)
Largest Aftershock	Not Available
Description	Two people were injured in San Bernardino and one person at Lake Arrowhead. The quake was felt at Angelus Oaks, Anza, Banning, Beaumont, Colton, Corona, Forest Falls, Highland, Loma Linda, Mentone, Moreno Valley, Perris, Redlands, Riverside, San Bernardino, San Jacinto, Sun City, and Yucaipa. It was also felt in much of Southern California, and in Arizona and Nevada.

Southern California Earthquake	
Date	June 12, 2005
Time	8:41 a.m. Pacific Standard Time (PST)
Location	33.533°N, 116.578°W
Rupture Length	Not Available
Magnitude (M)	Not Available
Type of Faulting	Not Available
Faults Ruptured	Not Available
Average Slip	Not Available
Depth	0.3 km (0.2 miles)
Largest Aftershock	Not Available
Description	There was light damage at Anza, Coachella, and La Quinta. The quake was felt at Aguanga, Borrego Springs, Cathedral City, Hemet, Homeland, Idyllwild, Indian Wells, Indio, Menifee, Mountain Center, Nuevo, Palm Desert, Palm Springs, Rancho Mirage, San Jacinto and Warner Springs, Aliso Viejo, Banning, Bloomington, Bonita, Bonsall, Carlsbad, Chino, Chino Hills, Colton, Corona, Descanso, Desert Hot Springs, Diamond Bar, El Cajon, El Centro, Escondido, Fallbrook, Grand Terrace, Imperial, Jamul, Joshua Tree, Julian, Lake Elsinore, Lakeside, Loma Linda, Mecca, and Mentone.

Southern California Earthquake Continued	
Description Continued	Other cities include Mira Loma Moreno Valley, Morongo Valley, Murrieta, Norco, Ontario, Pala, Perris, Pine Valley, Ramona, Riverside, San Marcos, Spring Valley, Sun City, Temecula, Thermal, Thousand Palms, Valley Center, Vista, Wildomar, and Winchester. It was felt throughout Southern California and as far as Arizona, Nevada, and Baja California. Several small rock slides occurred on Highway 74.

Yorba Linda Earthquake	
Date	September 3, 2002
Time	8:51 a.m. Pacific Daylight Time (PDT)
Location	33° 55.2 min. N (33.919N) 117° 45.9 min. W (117.764W)
Rupture Length	Not Available
Magnitude (M)	ML 4.8
Type of Faulting	Strike-slip
Faults Ruptured	Adjacent to Whittier fault
Average Slip	2 -3 mm/year
Depth	7.3 km (4.5 miles)
Largest Aftershock	The two largest aftershocks were ML2.8 at 12:15 a.m. and 4:34 a.m.
Description	A M4.8 (updated from M4.6) main-shock occurred at 12:08 a.m. on September 3, 2001, northeast of Yorba Linda in Orange County at a depth of 10 km. It was preceded by two foreshocks at 09:50 p.m. (ML2.6) and 10:23 p.m. (ML1.5) on September 2nd. It was also followed by 23 aftershocks during the next 9 hours. Seismic records are used to determine the orientation of the fault on which an earthquake occurs. The main-shock exhibited strike-slip faulting (horizontal movement) on a vertical plane striking N30°W. This mechanism is consistent with the main-shock being near the Whittier fault, one of the fastest moving faults (~2 to 3 mm/yr) in the Los Angeles basin. However, preliminary locations of the aftershocks appear to form a northeast trend thus suggesting that this sequence is occurring on a small conjugate fault, adjacent to the Whittier fault. Alternatively, this sequence is occurring near a jog in the Whittier fault itself. This sequence is located along the eastern part of the Los Angeles basin where the Whittier fault and the buried thrust faults to the west form a complex zone of deformation. The 1987 ML5.9 Whittier Narrows earthquake occurred near the north end of this zone. The last previous M4 earthquake to occur in the greater Los Angeles area was located near Compton on October 28, 2001. This M4.6 event was the largest in the Los Angeles metropolitan area since a M5.1 Northridge aftershock in April 1997.

Hector Mine Earthquake	
Date	October 16, 1999
Time	2:46:44 a.m. Pacific Daylight Time (PDT)
Location	34° 36' N, 116° 16' W 32 miles north of the town of Joshua Tree 47 miles east-southeast of Barstow
Hypo-Central Depth	0.01 km
Magnitude (M)	Mw 7.1
Type of Faulting	Right-lateral strike-slip - Animation
Faults Ruptured	The Lavic Lake fault and the central section of the Bullion fault; some slip may have occurred along other nearby fault zones (current studies are working on this issue)
Surface Rupture Length	Approximately 41 km (26 miles)
Mazimum Surface Offset	5.2 meters
Description	Most of Southern California, as well as parts of Arizona and Nevada, shook and rattled in the seismic wake of the largest earthquake to strike the area since the M7.3 Landers earthquake of June 28, 1992. Originally measured at M7.0, this earthquake was centered in such a remote part of the Mojave Desert that instead of being named for the nearest town or the community that suffered the greatest damage, it was named after the closest spot in the list of reference points used by the Southern California Seismic Network: the Hector Mine, an open pit quarry 14 miles (22 km) northwest of the epicenter. The Hector Mine earthquake was preceded by a small cluster of foreshocks that began about 20 hours before the onset of the main shock. The largest of these foreshocks was a M3.8 tremor that occurred at 7:41 p.m. PDT on October 15. These foreshocks were in the same location as a cluster of aftershocks triggered by the 1992 Landers earthquake. When the main shock struck, just before 2:47 a.m. PDT, the rupture was somewhat slow in starting, but within about 10 seconds it was over, having ruptured in both directions (bilaterally) from the epicenter: north along the Lavic Lake fault for about 15 kilometers, and south along the Lavic Lake fault and the central Bullion fault for another 26 kilometers. The location of the earthquake was so remote that it caused relatively negligible damage for a M7.1 earthquake. The surface rupture was located entirely within the boundaries of the Twenty Nine Palms Marine Corps Base, and crossed neither paved roads nor structures.

Landers Earthquake	
Date	June 28, 1992
Time	4:57:31 a.m. Pacific Daylight Time (PDT)
Location	34° 13' N, 116° 26' W 6 miles north of Yucca Valley
Rupture Length	85 km (53 miles)
Magnitude (M)	MW7.3
Type of Faulting	Right-lateral strike-slip - ANIMATION

Landers Earthquake Continued	
Faults Ruptured	Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock; several other faults experienced minor rupture, rupture during large aftershocks, or triggered slip
Average Slip	About 3 to 4 meters; maximum slip of 6 meters
Depth	1.1 km
Largest Aftershock	Big Bear earthquake, MS 6.4
Description	One person was killed at Yucca Valley, two people died of heart attacks, more than 400 people were injured and substantial damage occurred in the Landers - Yucca Valley area. Maximum intensity IX. Preliminary estimate of damage for this earthquake plus the following M6.5 event at 15:05 UTC is 92 million U.S. dollars. The quake was felt throughout Southern California, southern Nevada, western Arizona, and southern Utah. It was also felt in high-rise buildings as far north as Boise, Idaho, and as far east as Albuquerque, New Mexico, and Denver, Colorado. Surface faulting observed along a 70 kilometer segment from Joshua Tree to near Barstow with as much as 5.5 meters of horizontal displacement and as much as 1.8 meters of vertical displacement.

Big Bear Earthquake	
Date	June 28, 1992
Time	8:05:30 a.m. Pacific Daylight Time (PDT)
Location	34° 12' N, 116° 49.6' W 8 km (5 miles) SE of Big Bear Lake 40 km (25 miles) east of San Bernardino
Rupture Length	Not Available
Magnitude (M)	MS 6.4
Type of Faulting	Left-lateral strike-slip
Faults Ruptured	Johnson Valley, Landers, Homestead Valley, Emerson, and Camp Rock; several other faults experienced minor rupture, rupture during large aftershocks, or triggered slip
Average Slip	Not Available
Depth	5 km
Largest Aftershock	Not Available
Description	While technically an "aftershock" of the Landers earthquake (indeed, the largest aftershock), the Big Bear earthquake occurred over 40 km west of the Landers rupture, on a fault with a different orientation and sense of slip than those involved in the main shock -- an orientation and slip which could be considered "conjugate" to the faults which slipped in the Landers rupture. The Big Bear earthquake rupture did not break the surface; in fact, no surface trace of a fault with the proper orientation has been found in the area. However, the earthquake produced its own set of aftershocks, and from these, we know the fault geometry -- left-lateral slip on a northeast-trending fault.

Big Bear Earthquake Continued	
Description Continued	Following the Landers main-shock by three hours (it occurred while TV news coverage of the Landers earthquake was being broadcast live from Caltech). The Big Bear earthquake caused a substantial amount of damage in the Big Bear area, but claimed only one life. Landslides triggered by the jolt blocked roads in the San Bernardino Mountains, however, aggravating the clean-up and rebuilding process.

Upland Earthquake	
Date	February 28, 1990
Time	3:44 p.m. Pacific Standard Time (PST)
Location	34° 08' N, 117° 42' W about 3 km (2 miles) NW of Upland about 48 km (30 miles) east of Los Angeles
Rupture Length	Not Available
Magnitude (M)	ML 5.4
Type of Faulting	Left-lateral strike-slip
Faults Ruptured	San Jose fault
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	The 1990 Upland earthquake was much more damaging than the quake of 1988. It triggered landslides that blocked roads in the Mount Baldy area, and it caused some damage to the San Antonio Dam, which lies across the path of the main watershed coming south from Mount Baldy. Thirty-eight people sustained minor injuries, and damage was considerable near the epicenter. The quake was felt as far northeast as Las Vegas, Nevada, and as far south as Ensenada, Mexico.

1988 Upland Earthquake	
Date	June 26, 1988
Time	8:05 a.m. Pacific Daylight Time (PDT)
Location	34° 08' N, 117° 42.5' W about 3 km (2 miles) NW of Upland about 48 km (30 miles) east of Los Angeles
Rupture Length	Not Available
Magnitude (M)	ML 4.7
Type of Faulting	Left-lateral strike-slip
Faults Ruptured	San Jose fault
Average Slip	Not Available
Depth	7.9 km
Largest Aftershock	Not Available
Description	The 1988 Upland earthquake caused minor damage in the epicenter area, but would have been of relatively little note were it not for the possibility that it may have been triggered by the Whittier Narrows earthquake -- nine months earlier, and 20 km away. While poorly understood, these kinds of causal connections are of great interest as they apply to the potential of more accurately forecasting earthquake probabilities.

1988 Upland Earthquake Continued	
Description Continued	There is no conclusive evidence, however, that shows that the 1988 Upland earthquake was triggered by the Whittier Narrows earthquake; the relation between the two is likely coincidental.

Lytle Creek Earthquake	
Date	September 12, 1970
Time	7:31 a.m. Pacific Daylight Time (PDT)
Location	34° 16.2' N, 117° 32.4' W 24 km (15 miles) northwest of San Bernardino about 67 km (42 miles) ENE of Los Angeles
Rupture Length	Not Available
Magnitude (M)	ML 5.2
Type of Faulting	Not Available
Faults Ruptured	Not Available
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	Twenty minutes after a M4.1 "foreshock" (which was actually in a slightly different location), the Lytle Creek earthquake struck the area near Cajon Pass, knocking a San Bernardino radio station off the air, and causing landslides and rock-falls in the Transverse Ranges. Several roads were blocked or partially blocked. The quake caused some unusual damage in areas a fair distance from the epicenter. Power was disrupted in the Santa Monica Mountains northwest of Hollywood. A high-pressure water system in a Riverside aerospace plant was damaged, leading to a subsequent boiler explosion that injured four people. More typical minor damage also occurred, primarily in the Lytle Creek area (intensity VII on the Modified Mercalli Scale) and to a lesser degree in the nearby towns of Colton, Crestline, Cucamonga, Fontana, Glendora, Highland, Mt. Baldy, Rialto, Rubidoux, and Wrightwood. Though ultimately a forgettable event, and certainly overshadowed by the San Fernando (Sylmar) Earthquake that followed five months later, the Lytle Creek quake did get the attention of much of Southern California -- it was felt strongly as far away as Barstow, Mojave, Oxnard, and Palm Springs, and even caused tall buildings to sway in downtown San Diego.

San Jacinto Earthquake	
Date	July 22, 1923
Time	11:28 p.m. Pacific Standard Time (PST)
Location	34° 00' N, 117° 15' W 11 km (7 miles) south of San Bernardino about 88 km (55 miles) east of Los Angeles near Loma Linda, CA.
Rupture Length	Not Available
Magnitude (M)	ML 6.3
Type of Faulting	Right-lateral strike-slip

San Jacinto Earthquake Continued	
Faults Ruptured	San Jacinto fault
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	Damage from this quake, which awoke sleepers across Southern California, was greatest in San Bernardino and Redlands, though it consisted primarily of minor damage - chimneys thrown down, broken windows, and the like. Two people were critically injured, but no one was killed. Those buildings that sustained significant damage in the shaking were generally of poor construction. The San Bernardino County Hospital and the Hall of Records were badly damaged. Probably the greatest damage occurred at the State Hospital at Patton, about two miles from the epicenter. Trees fell in the nearby San Bernardino Mountains. In Los Angeles damage was slight. The shaking was felt as far away as Needles and Santa Barbara. *Source: Southern California Earthquake Data Center*

San Jacinto Earthquake	
Date	April 21, 1918
Time	2:32 p.m. Pacific Standard Time (PST)
Location	33° 45' N, 116° 53' W near the town of San Jacinto about 112 km (70 miles) ESE of Los Angeles near Hemet, CA
Rupture Length	Not Available
Magnitude (M)	ML 6.8
Type of Faulting	Right-lateral strike-slip
Faults Ruptured	San Jacinto fault
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	While the damage caused by the San Jacinto earthquake of 1918 was high, its timing was fortunate, and kept the number of fatalities and injuries low. Most of the damage caused by the quake occurred in the business districts of the towns of San Jacinto and Hemet, where large masonry structures collapsed in the shaking. Luckily, the quake struck on a Sunday afternoon, when the business districts were empty. Still, as it was, several people were injured and one death was reported. Two miners were trapped in a mine near Winchester, but were eventually rescued, uninjured. In another display of amazingly good fortune, two men in an automobile were swept off a road by a landslide, and would have rolled several hundred feet down a hillside had they not been stopped by a large tree before they had moved very far off the road at all.

San Jacinto Earthquake Continued	
Description Continued	The shaking cracked the ground, concrete roads, and concrete irrigating canals, but none of the cracks left behind were thought to represent actually surface rupture, though in one place, the alignment of a road was said to be off by about 7.5 centimeters (3 inches). Landslides, as mentioned above, were triggered, and the road from Hemet to Idyllwild was blocked in several places. Huge boulders rolled down nearby slopes. The flow rates of several springs in the area were altered, and it is claimed that the temperature of nearby hot springs changed. Sand craters were formed on one farm, and an area near Blackburn Ranch seemed to have "sunk" roughly one meter during the quake. The earthquake caused minor damage outside the San Jacinto area, as well, and was felt as far away as Taft (west of Bakersfield), Seligman (Arizona), and Baja California. *Source: Southern California Earthquake Data Center*

Elsinore Earthquake	
Date	May 15, 1910
Time	7:47 a.m. Pacific Standard Time (PST)
Location	Near 33° 45' N, 117° 27' W just northwest of Lake Elsinore about 24 km (15 miles) south of Riverside
Rupture Length	Not Available
Magnitude (M)	ML 6
Type of Faulting	Right-lateral strike-slip
Faults Ruptured	Elsinore fault
Average Slip	Not Available
Depth	Not Available
Largest Aftershock	Not Available
Description	Preceded by moderate foreshocks on April 10th and May 12th, the May 15, 1910, earthquake was not a particularly strong or damaging quake, though it did topple chimneys in Corona, Temescal, and Wildomar, and caused some alarm among the citizens of Los Angeles and San Diego, as well as those in towns closer to the epicenter. What is notable about this quake is that best estimates place its epicenter as somewhere along the Elsinore Fault Zone, a fault zone along which no other earthquakes as large as or greater than M6 have been historically recorded. Estimates of the location and magnitude of this quake are by no means precise, but seem to indicate a quake of roughly M6, in the vicinity of Temescal Valley, northwest of Lake Elsinore.

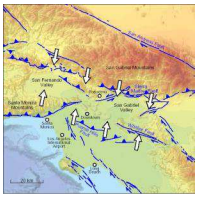
Fort Tejon Earthquake	
Date	January 9, 1857
Time	About 8:20 a.m. Pacific Standard Time (PST)
Location	35° 43' N, 120° 19' W about 72 km (45 miles) northeast of San Luis Obispo, about 120 km (75 miles) northwest of Bakersfield, as shown on the map (epicenter location uncertain).
Rupture Length	About 360 km (225 miles)
Magnitude (M)	8.0 (approximate)
Type of Faulting	Right-lateral strike-slip
Faults Ruptured	San Andreas fault
Average Slip	4.5 meters (15 feet)
Depth	Not Available
Largest Aftershock	Not Available
Description	The Fort Tejon earthquake of 1857 was one of the greatest earthquakes ever recorded in the U.S. and left an amazing surface rupture scar over 350 kilometers in length along the San Andreas fault. Yet, despite the immense scale of this quake, only two people were reported killed by the effects of the shock -- a woman at Reed's Ranch near Fort Tejon was killed by the collapse of an adobe house, and an elderly man fell dead in a plaza in the Los Angeles area. The fact that only two lives were lost was primarily due to the nature of the quake's setting. California in 1857 was sparsely populated, especially in the regions of strongest shaking, and this fact, along with good fortune, kept the loss of life to a minimum. The effects of the quake were quite dramatic, even frightening. Were the Fort Tejon shock to happen today, the damage would easily run into billions of dollars, and the loss of life would likely be substantial, as the present day communities of Wrightwood, Palmdale, Frazier Park, and Taft (among others) all lie upon or near the 1857 rupture area. As a result of the shaking, the current of the Kern River was turned upstream, and water ran four feet deep over its banks. The waters of Tulare Lake were thrown upon its shores, stranding fish miles from the original lake bed. The waters of the Mokelumne River were thrown upon its banks, reportedly leaving the bed dry in places. The Los Angeles River was reportedly flung out of its bed, too. Cracks appeared in the ground near San Bernardino and in the San Gabriel Valley. Some of the artesian wells in Santa Clara Valley ceased to flow, and others increased in output. New springs were formed near Santa Barbara and San Fernando. Ridges (mole tracks) several meters wide and over a meter high were formed in several places.

Fort Tejon Earthquake Continued	
Description Continued	In Ventura, the mission sustained considerable damage, and part of the church tower collapsed. At Fort Tejon, where shaking was greatest, damage was severe. All around Southern and Central California, the strong shaking caused by the 1857 shock was reported to have lasted for at least one minute, possibly two or three! The surface rupture caused by the quake was extensive. The San Andreas fault broke the surface continuously for at least 350 km (220 miles), possibly as much as 400 km (250 miles), with an average slip of 4.5 meters (15 feet), and a maximum displacement of about 9 meters (30 feet) (possibly greater) in the Carrizo Plain area. Kerry Sieh (1978) noted that the Elkhorn Thrust, a low-angle thrust fault near the San Andreas, may have slipped simultaneously in the 1857 quake -- an observation that a team of researchers (1996) have recently used to support the idea that future movements along the San Andreas fault zone might produce simultaneous rupture on thrust faults in and near the Los Angeles area, causing a terrible "double earthquake". The location of the epicenter of the Fort Tejon earthquake is not known. As the name suggests, one idea is to locate it near the area of strongest reported shaking, Fort Tejon. However, because there is evidence that foreshocks to the 1857 earthquake may have occurred in the Parkfield area, near the northwestern end of the surface rupture, just southeast of Parkfield, near Cholame. *Source: Southern California Earthquake Data Center*

Probability of Future Events

Through studies conducted by the United States Geological Survey (USGS) scientist have been able to determine that there is a greater than 99 percent chance of having one or more magnitude 6.7 or larger earthquakes in California over the next 30 years. The earthquake probabilities that are derived by scientist can assist communities in planning and preparing for future earthquakes. In an effort to produce probability values, a multidisciplinary group of scientists and engineers, called the 2007 Working Group on California Earthquake Probabilities, developed the Uniform California Earthquake Rupture Forecast (UCERF). The UCERF combines information from geodesy, geology, seismology, and paleoseismology.

Geodesy is precise data on the slow relative movement of the Earth's tectonic plates.



In respect to this process, geology is mapped locations of faults and documented offsets of them.

Seismology records occurrence patterns of past earthquakes.

Paleoseismology is data from trenches across faults documenting the dates and offsets of past earthquakes on them.

When these four types of information are combined they produce probability values for future ruptures in the California area, in regions of the State, and on individual vaults.

The following maps and captions present information regarding the probability of major earthquakes occurring within the next 30 years in the Southern California area. This information is provided by the 2007 Working Group on California Earthquake Probabilities, 2008, ***The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)***: U.S. Geological Survey Open-File Report 2007-1437 and California Geological Survey Special Report 203 [http://pubs.usgs.gov/of/2007/1437/].

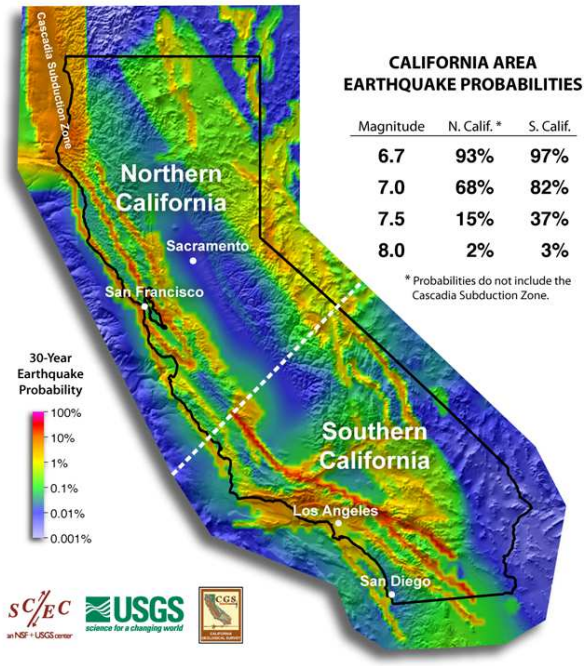


Figure No. 1
The colors on this California map represent the UCERF probabilities of having a nearby earthquake rupture (within 3 or 4 miles) of magnitude 6.7 or larger in the next 30 years. As shown in the table, the chance of having such an event somewhere in California exceeds 99%. The 30-year probability of an even more powerful quake of magnitude 7.5 or larger is about 46%.

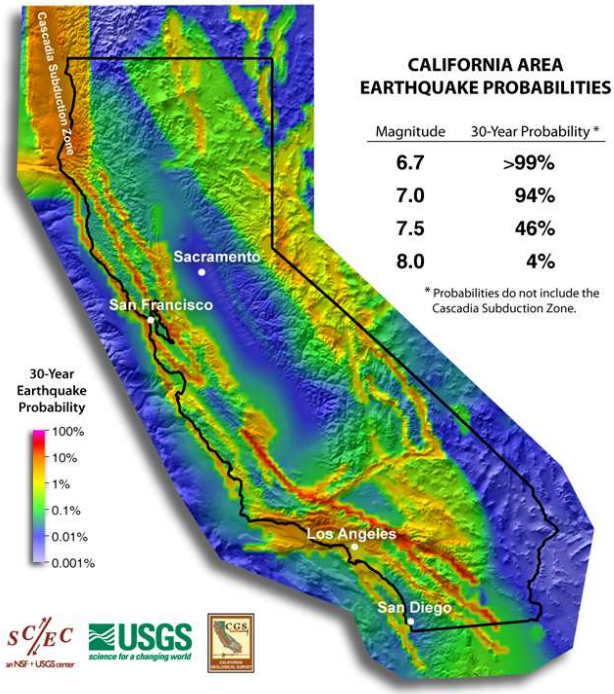


Figure No. 2
The dashed line of this California map is the boundary between northern and southern California used in the UCERF study. As shown in the table, the 30-year probability of an earthquake of magnitude 7.5 or larger is higher in the southern half of the state (37%) than in the northern half (15%). The colors represent the same local probabilities shown in Figure 1.

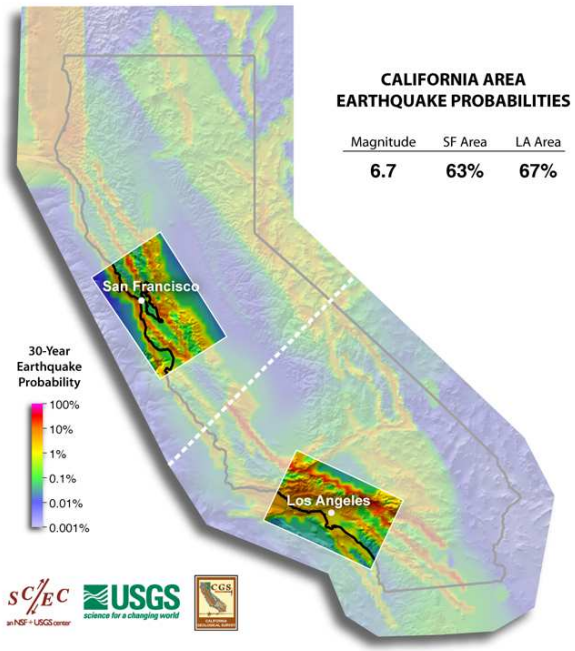


Figure No. 3

UCERF was developed using a uniform methodology across the entire state, allowing meaningful comparisons of earthquake probabilities in sub-regions, such as the San Francisco Bay area and the greater Los Angeles area (boxes outlined in white). As listed in the table, the probability of a magnitude 6.7 or larger earthquake during the next 30 years is 63% in the former region and 67% in the latter. The colors represent the same local probabilities shown in Figure 1.

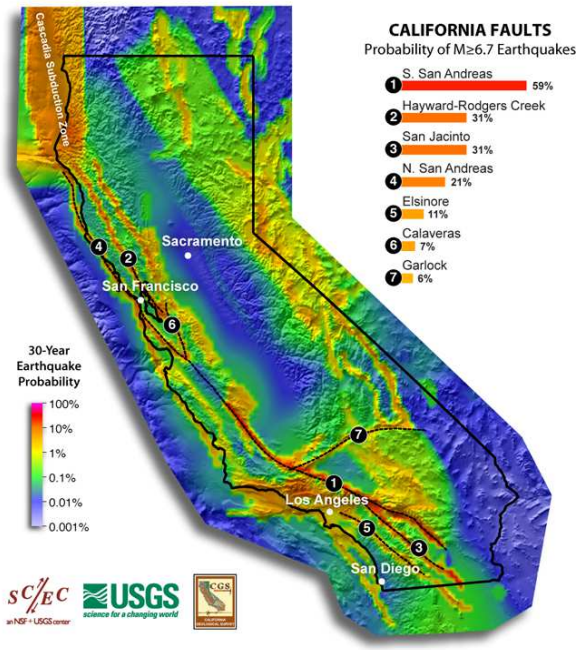


Figure No. 4

The UCERF report assigns individual probabilities to major faults. The bar graph compares the 30-year probabilities of magnitude 6.7 or greater quakes for seven of the faults with the best data (numbered on the map). The fault with the highest probability is the southern San Andreas (59% in the next 30 years). The colors represent the same local probabilities shown in Figure 1.

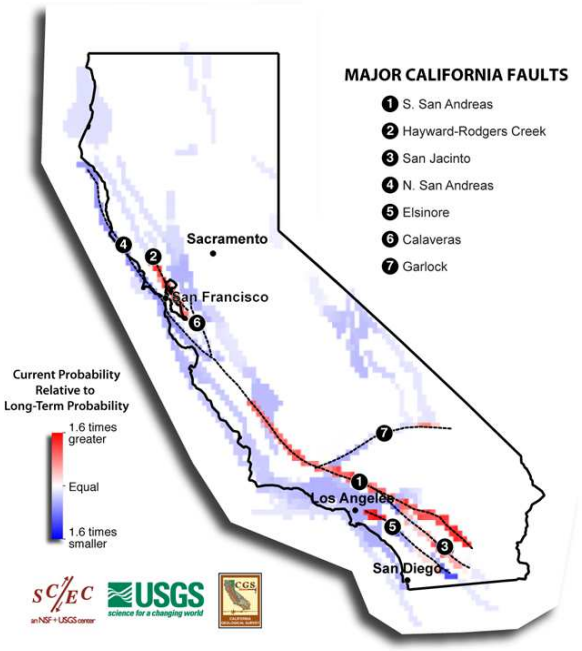
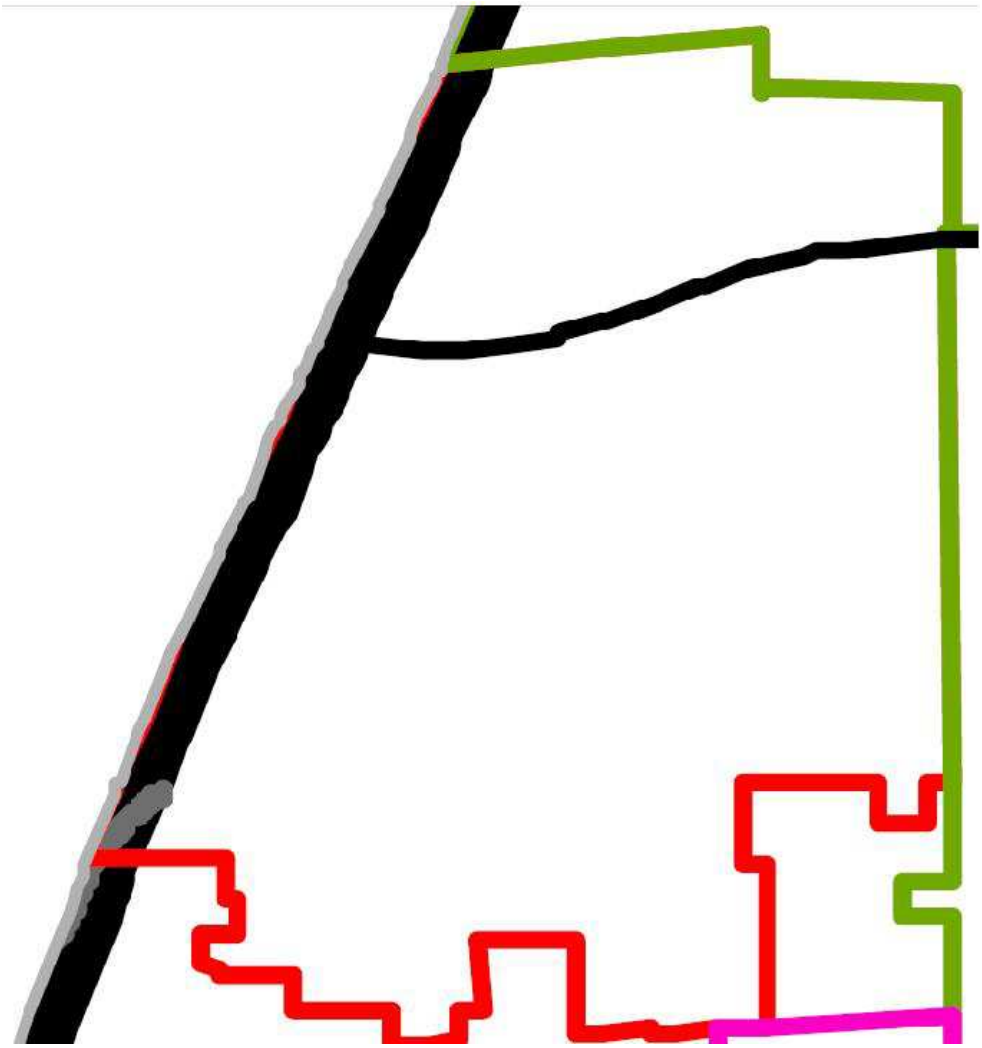


Figure No. 5
The UCERF model includes the concept that earthquake likelihoods change with time. This map compares the current earthquake probabilities with the long-term probabilities. Faults with elevated probabilities (red colors) include the southern San Andreas and Hayward-Rodgers Creek faults.

4.2.2 Flooding

Flood Hazard Map



Rivers and Streams
Major Highways
Special Flood Hazard Areas
Subject to Inundation by the 1% Annual Chance Flood
Zone A (No Base Flood Elevations Determined)
Zone AE (Base Flood Elevations Determined)
Zone AH (Flood Depths of 1 to 3 feet, usually areas of ponding; Base Flood Elevations Determined)
Zone AO (Flood Depths of 1 to 3 feet, usually sheet flow on sloping terrain; Average depths determined)
Other Flood Areas
Zone X (Shaded) - 0.2% Annual chance (500yr) Flood
Zone X Protected by Levee - areas protected from the 1% annual chance flood
Other Areas
Zone D - areas in which flood hazards are undetermined, but possible
Zone X (unshaded) - areas determined to be outside the 0.2% annual chance (500-year) floodplain

General Definition

Floods are the most common and widespread of all natural disasters, except fire. Most communities in the United States have experienced some kind of flooding, after spring rains, heavy thunderstorms, or winter snow thaws.

A flood, as defined by the National Flood Insurance Program is: "A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is your property) from:

1. Overflow of inland or tidal waters,
2. Unusual and rapid accumulation,
3. Runoff of surface waters from any source or a mudflow,
4. Or the collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood."

Floods can be slow or fast rising, but generally develop over a period of days. Flooding tends to occur in the summer and early fall because of the monsoon season and is typified by increased humidity and high summer temperatures.

The standard for flooding is the "100-year flood," a benchmark used by the Federal Emergency Management Agency (FEMA) to establish a standard of flood control in communities throughout the country. Thus, the 100-year flood is also referred to as the "regulatory" or "base" flood.

Actually, there is little difference between a 100-year flood and what is known as the 10-year flood. Both terms are really statements of probability that scientists and engineers use to describe how one flood compares to others that are likely to occur. In fact, the 500-year flood and the 10-year flood are only a foot apart on flood elevation, which means that the elevation of the 100-year flood falls somewhere in between. The term 100-year flood is often incorrectly used and can be misleading. It does not mean that only one flood of that size will occur every 100 years. What it actually means is that there is a one percent chance of a flood of that intensity and elevation happening in any given year. In other words, it is the flood elevation that has a one percent chance of being equaled or exceeded each year. And it could occur more than once in a relatively short period of time. (By comparison, the 10-year flood means that there is a ten percent chance for a flood of its intensity and elevation to happen in any given year.) *Source: Rod Bolin, The Ponca City News, July 18,2002, Page 5-A.*

Description

The type of flooding that primarily affects the City of Montclair is known as Urban flooding (see descriptions below*).* In addition, any low-lying area has the potential to flood. The flooding of developed areas may occur when the amount of water generated from rainfall and runoff exceeds a storm water system's capability to remove it.

Urban Flooding:

As land is converted from fields to roads, buildings, and parking lots, it loses its

ability to absorb rainfall.

Urbanization of a watershed changes the hydrologic systems of the basin. Heavy rainfall collects and flows faster on impervious concrete and asphalt surfaces. The water moves from the clouds, to the ground, and into storm drain systems at a much faster rate in urban areas. Adding these elements to the hydrological systems can result in flood waters that rise very rapidly and peak with violent force.

Over 50 percent of the area in the City of Montclair has a high concentration of impermeable surfaces that either collect water, or concentrate the flow of water in unnatural channels. During periods of urban flooding, streets can become swift moving rivers. Storm drains often back up with vegetative debris causing additional localized flooding.

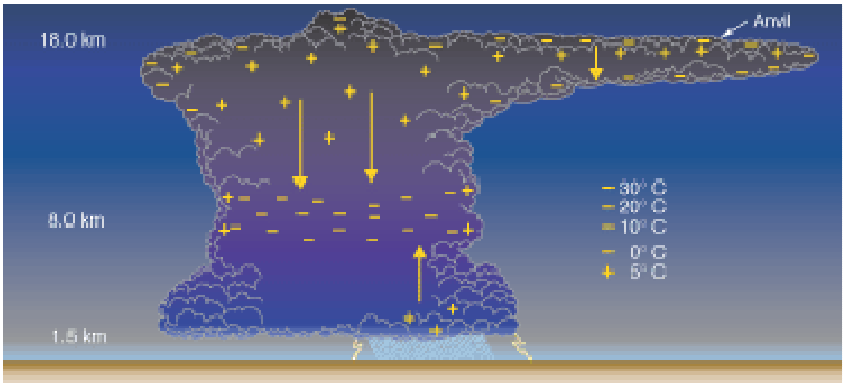
Thunderstorms:

Heavy rain fall is known to be a source of flooding in Montclair. Often times this heavy rain comes in the form of a thunderstorm.

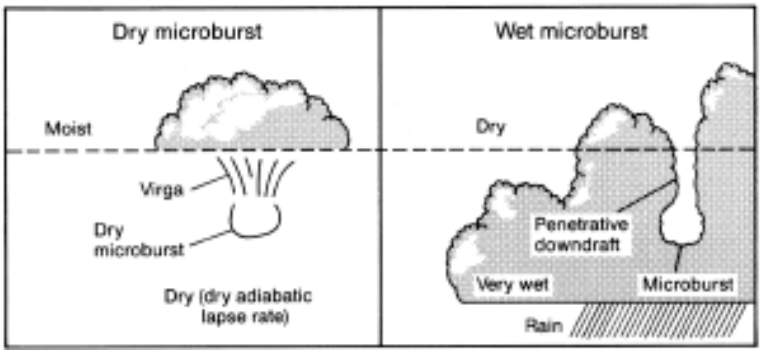
A thunderstorm is a storm with lightning and thunder; produced by cumulonimbus clouds, usually producing gusty winds, heavy rain, and sometimes hail. The typical thunderstorm is 15 miles in diameter and lasts an average of 30 minutes. A thunderstorm is formed from a combination of moisture, rapidly rising warm air and a force capable of lifting air such as a warm and cold front.

All thunderstorms are dangerous. About 10 percent of the thunderstorms that occur each year in the United States are classified as severe. A thunderstorm is considered severe if it produces hail at least 3/4 inch in diameter, winds 58 mph or greater, or tornadoes.

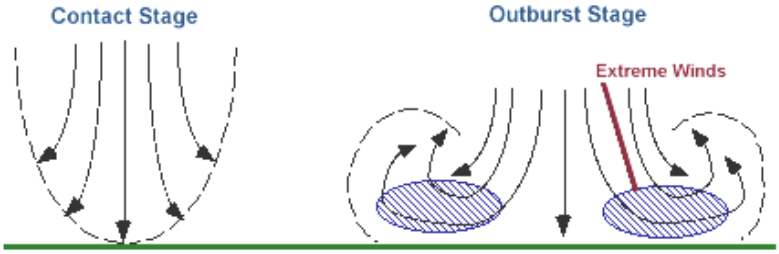
Every thunderstorm produces lightning, which kills more people each year than tornadoes. Heavy rain from thunderstorms can lead to flash flooding. Strong winds, hail, and tornadoes are also dangers associated with some thunderstorms.



Thunderstorms may result in a microburst. Microbursts are strong, damaging winds that strike the ground and often give the impression a tornado has struck. The origin of a microburst is downward moving air from a thunderstorm's core, but unlike a tornado, they affect only a rather small area.

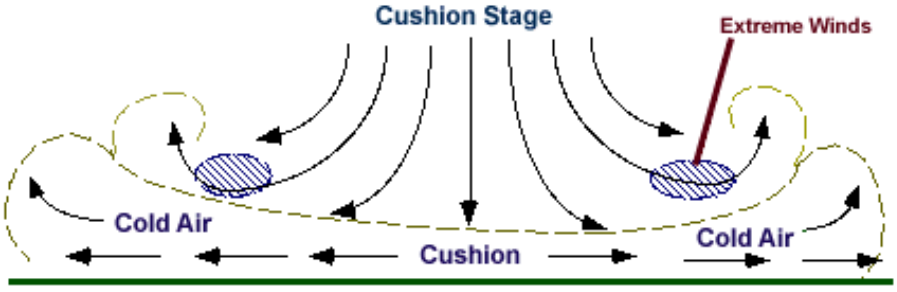


University of Chicago storm researcher Dr. Ted Fujita first coined the term "downburst" to describe strong, downdraft winds flowing out of a thunderstorm cell that he believed were responsible for the crash of Eastern Airlines Flight 66 in June of 1975. A downburst is a straight-direction surface wind in excess of 39 miles per hour caused by a small-scale, strong downdraft from the base of convective thundershowers and thunderstorms. During Dr. Fujita's investigations into the phenomena, he defined two sub-categories of downbursts: the larger macrobursts and small microbursts.



Macrobursts are downbursts with winds up to 117 miles per hour which spread across a path greater than 2.5 miles wide at the surface and which last from 5 to 30 minutes. The microburst, on the other hand, is confined to an even smaller area, less than 2.5 miles in diameter from the initial point of downwdraft impact. An intense microburst can result in damaging winds near 170 miles per hour and often lasts for less than five minutes.

Downbursts of all sizes descend from the upper regions of severe thunderstorms when the air accelerates downward through either exceptionally strong evaporative cooling or by very heavy rain, which drags dry air down with it. When the rapidly descending air strikes the ground, it spreads outward in all directions, like a fast running faucet stream hitting the bottom of the sink.



When the microburst wind hits an object on the ground such as a house, garage, or tree, it can flatten the buildings and strip limbs and branches from the tree. After striking the ground, the powerful outward running gust can wreak further havoc along its path.

Damage associated with a microburst is often mistaken for the work of a tornado, particularly directly under the microburst. However, damage patterns away from the impact area are characteristic of straight line winds rather than the twisted pattern of tornado damage.

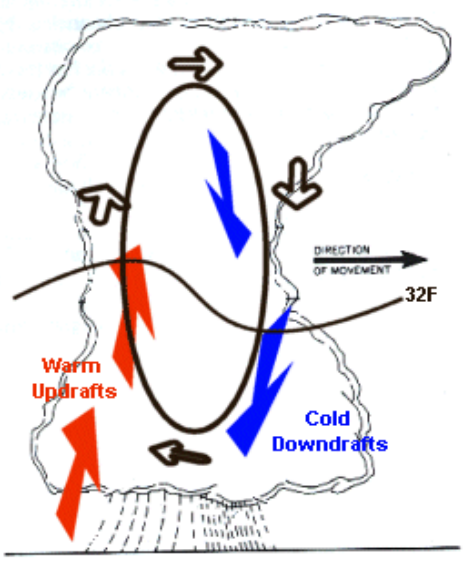
Tornados, like those that occur every year in the Midwest and Southeast portions of the United States, are a rare phenomenon in most of California, with most tornado-like activity coming from microbursts.

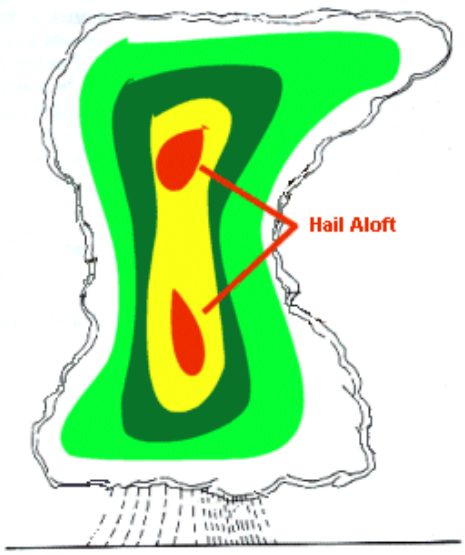
Thunderstorms may also result in hail. Inside of a thunderstorm are strong updrafts of warm air and downdrafts of cold air. If a water droplet is picked up by the updrafts it can be carried well above the freezing level. With temperatures below 32 degrees Fahrenheit, the water droplet freezes.

As the frozen droplet begins to fall, carried by cold downdrafts, it may thaw as it moves into warmer air toward the bottom of the thunderstorm.

The half-frozen droplet may also gets picked up again by another updraft, carrying it back into very cold air and re-freezing it. With each trip above and below the freezing level the frozen droplet adds another layer of ice.

Finally, the frozen water droplet, with many layers of ice falls to the ground as hail. Even small hail can cause significant damage to buildings (broken glass), vehicles, and trees/plants.



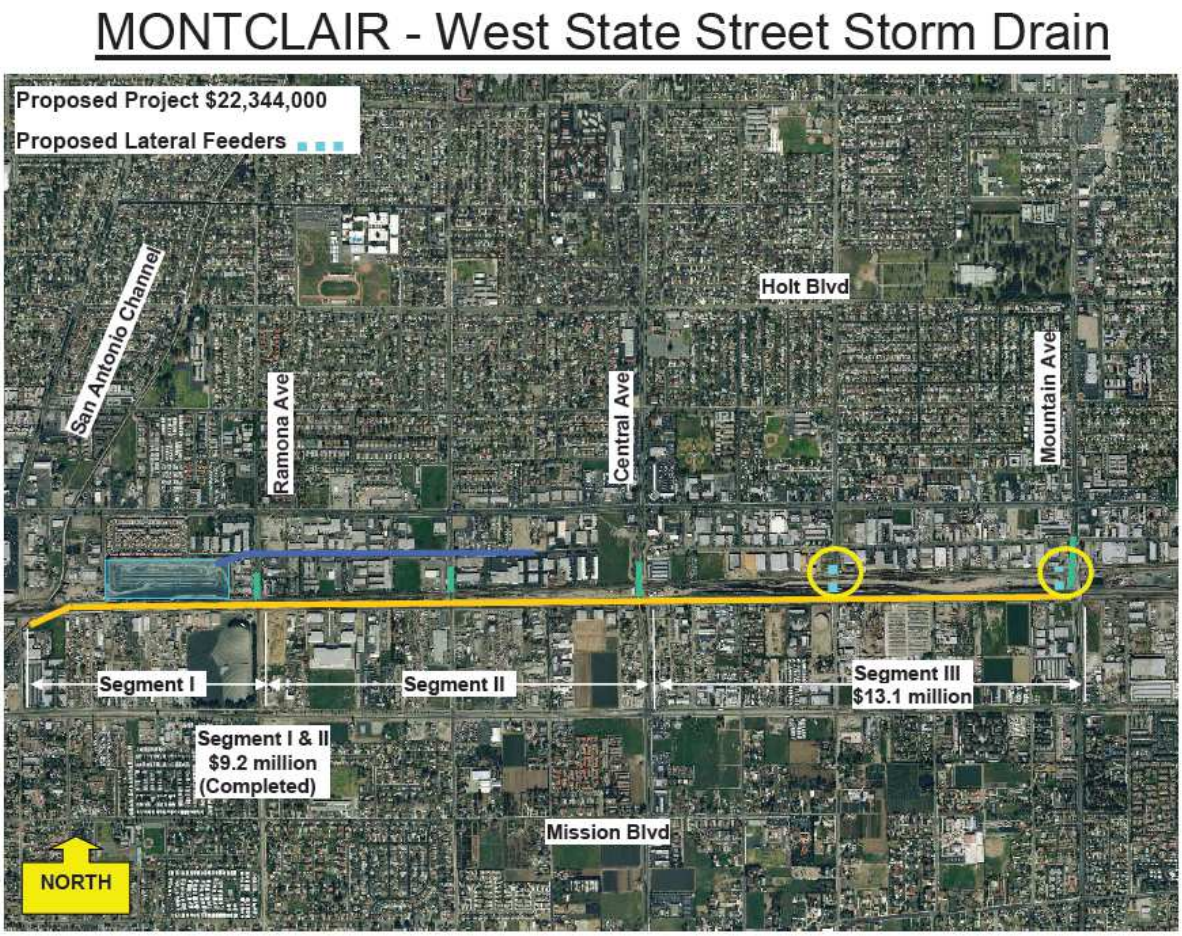


For additional information on flooding events, also refer to the Dam Failure Section.

Geographic Area Affected

In the past, the City of Montclair has experienced some flooding, usually confined to the east part of the City, along Benson Avenue. The water would travel rapidly south on Benson, and would often flow over the west curb and into some of the residences that bordered the street. Sandbagging was helpful and would control the water flow during the short term flooding.

Since the mid 1980s, the City has been actively upgrading the storm drain system along Benson Avenue to the east and along Mission Boulevard to the south. This upgrade was completed in 1995. The storm drain upgrades have made a significant improvement in the water collection at the north end of the City and have appeared to correct water drainage problems. In 2003, the West State Street Storm Drain Channel project was completed.



Segment #1 (San Antonio Channel to Ramona Ave.) and Segment #2 (Ramona to Central) construction was completed in June 2003 at a final construction cost of $9,226,480, including $800,000 in construction management.

Segment #3 includes channel construction (Central to Mountain) and jacking of double-box culvert under railroad tracks at Mountain Ave. and Benson Ave. The contract for the jacking was completed in February 2005 for $3,974,625. Start of construction of Segment #3 channel is scheduled for FY 11/12. Estimated construction cost for this channel portion is $9.143 million.

On December 18, 2006, under Annexation No. 27, the City annexed an area of San Bernardino County generally bounded by Mission Boulevard, Ramona Avenue, State Street, and Silicon Avenue. With this annexation the City inherited a flooding problem that affected two properties located at 4230 Mission Boulevard (this address has two parcels). Storm water runoff from Third Street to the north flowed through the properties. During periods of moderate to heavy rain, runoff made access to and through these properties impossible. The two property owners granted easements to the City to construct a storm drain that safely intercepts the street runoff on Third Street and conveys it to an existing storm drain in Mission Boulevard. The cost of the project was $142,299 and it was completed in July 2011.

One area of the City that continues to flood during heavy rains is on Mills Avenue from Palo Verde Street to San Bernardino Street in the number one lane. This flooding does not affect residents along Mills Avenue; it only floods the road.

Previous Occurrences

There has been no significant flooding in Montclair from 2005 through 2010 that affected property or the welfare of residents or visitor. In the past five years flooding has not disrupted the normal operations of the City.

The following tables list and describe the historical events associated with flooding hazards in and near the City of Montclair.

The Flood of 1969
The January and February 1969 floods were the most damaging floods on record in San Bernardino County. Unprecedented damages were sustained by property in the County. The storms and floods caused the deaths of at least 13 people. Flood damages in San Bernardino County from both floods were more than $54,000,000. In the Santa Ana River drainage areas, the flood damages from the January flood were slightly greater than the flood damages from the February flood ($22,165,000 in the January and $20,622,000 in February). However, in the Mojave River drainage areas, monetary damages from the February flood were more than 10 times greater than those caused by the January flood ($1,020,000 in January and $10,380,000 in February.) Damages to residential property in the County were widespread, totaling about $12,000,000. Damages in the Rancho Cucamonga area were particularly heavy: more than $2,000,000 in damages occurred to residential property and hundreds of people were forced to leave their homes, some for as long as three months. Damages to business and industrial property in San Bernardino County also were great, totaling more than $8,000,000. Damages to business and industrial property were also especially severe in the Rancho Cucamonga area, where more than $5,000,000 in damages was sustained. Agricultural losses were very severe. Intangible losses in the County were also great. Except for fatalities and injuries sustained during the floods, probably the greatest intangible damages sustained were the damages to morale of people whose homes were damaged or destroyed in the 1969 January and February floods. Other intangible dames included the disruption of normal community business and social activities, transportation and communications facilities, and public-utility services. Flood damaged sewer-lines and sewage-treatment plants posed a threat to the lives and health of many residents of San Bernardino County.

The Flood of 1966

On December 6, 1966, Santa Ana River flood waters threatened Redlands Sewage Treatment Plant for the second time in two years. The Santa Ana River struck the sewer plant after washing out the west end of a long earthen dike constructed by the County Flood Control District after the November 1965 flood. About three-fourths of the dike was still intact that morning, but it was being slowly washed away. A six-foot high wire fence strung along the channel in front of the sewage plant appeared to be reducing the force of the flow, but did not stop the erosion.

Montclair Basins – A Montclair man was believed drowned late Tuesday when his car dropped into a 45-foot deep washout on Moreno Street. Scuba divers probed a lake created by flood waters in a flood control percolation basin between Moreno and San Jose streets. The washout occurred between two percolation basins, separated by 200 feet, lying north and south of Moreno Street. Surface water from Upland and Montclair drains into the northern basin while Claremont surface water is channeled into the southern basin. The washout was about 45 feet deep, 100 feet across at its widest point, and 200 feet long.

Flow across Alabama Street caused closure of the street. Southern California Edison Plant No. 3 above East Highland was cut off when the rampaging river carried away a foot bridge. Greenspot Road was washed out near the bridge between East Highland and Mentone. The south approach to the Waterman Avenue bridge, undamaged a year ago, was almost lost. The north approach to the Tippecanoe Avenue Bridge was washed out, closing Tippecanoe Avenue for approximatly two or three months.

Mill Creek – Wild waters in Mill Creek Canyon destroyed at least two homes, chewed through the State Highway, created fears that two men had drowned, and knocked out electric power. A residence at 4 Alder Drive in Mountain Home Village, was badly damaged in the 1965 flood and collapsed. Another home in Mountain Home Village, undermined in the 1965 flood, was destroyed. In addition, Mountain Home Creek, a tributary to Mill Creek, jumped its banks, causing erosion and uprooting trees. State Highway 38 was washed out a short distance inside the mouth of the canyon. In the village there was much local damage, such as the destruction again of lower Alder Drive, bordering Mill Creek, and the outage of the Mountain Home Creek Bridge at Kilkare Road.

The Mill Creek Channel suffered heavy debris flows and some levee damage. Flows broke through a levee at one point and cut across a corner of the Lockheed Propulsion Company property near Mentone. Highway 38 was washed out at the old fish hatchery at the same location washed out in 1965, forcing a detour through Yucaipa in order to reach Upper Mill Creek Canyon. Mill Creek was high enough to flow over the top of the Garnet Street Bridge east of Mentone, washing out bridge approaches as well.

Mission-Zanja Creek – On the night of December 5, the overtaxed Zanja Storm Drain flowed out of its banks between two railroad bridges north of Church Street and poured through a portion of the Redlands downtown area flooding business establishments and depositing debris.

The Flood of 1966 Continued

To the west of the city, the Kansas Street Bridge lay cocked at a crazy angle, one of its abutments undercut and dropped down west, the rampaging stream dangerously eroded the north approach to the Alabama Street Bridge across the Mission-Zanja Channel.

Day Creek – West End Substation deputies evacuated about 40 people living along Day Creek Wash at Baseline Road when flood waters eating away at the banks threatened to topple eight homes into the flooded creek.

Flood control officials said the only thing that saved the homes was a rupture in the dike near Highland Avenue. Water coming down the wash was believed to be more than six feet deep at its crest. The overflow channeled into vineyards east of the wash, creating an island around the homes and trapping residents.

Lytle Creek – Lytle Creek went on a rampage that Tuesday afternoon, washing out Devore Road at Neely Corner and Baseline Road. A number of people were evacuated from the area. Highland Avenue at Lytle Creek was closed due to flooding.

Cucamonga Creek – Cucamonga Creek closed every street it crossed and washed out half of Baseline. A car was washed into Cucamonga Creek from Edison Street west of Archibald Avenue. The "G" Street Bridge was badly damaged and the adjacent roadway approach completely washed out.

Big Bear – Almost isolated by the storm, Big Bear received 9.43 inches of rain in 24 hours. The storms raised the level of big bear lake to 55 feet, 6 inches. This was well over the top of most of the old dam and the highest level the lake has been since 1948. A total of 22.04 inches of rain fell at the lake's dam in the five-day series of storms.

San Antonio Creek – One cabin lost a wall and a dozen others were seriously endangered by undermining as normally docile San Antonio Creek went on a torrential rampage on Wednesday. Trouble began Tuesday night at Buckhorn Bridge above Baldy Village as the swiftly moving creek waters swelled to 30 feet wide and eroded a path through the Buckhorn Café.

A temporary dike was constructed on the west side of the creek in an effort to save the bridge and many of the homes in the village below. Although this action probably saved a majority of the cabins, the shifting of the stream was responsible for a two-foot depth of water running through one home. At least six families, permanent residents of the Bear Avenue area, evacuated their homes during the peak of the overflow Wednesday.

Estimates placed the water flow at 500 to 700 feet a second through the customarily three-foot wide creek bed. The earth-moving force of the water is emphasized at the east end of Bear Avenue where the creek bed, usually 50 feet below the homes, now is level with the street.

Plunge and Oak Creek – Northeast of Redlands, Plunge and Oak Creek both overflowed into Greenspot Avenue.

The Flood of 1966 Continued

Etiwanda Creek – Monday night the eastbound lanes of the San Bernardino Freeway were badly flooded near Etiwanda Avenue.

Damage Loss – Estimates on storm damages suffered by the County earlier this month have now climbed to $3.5 million.

Disaster Area – Governor Edmund G. Brown declared San Bernardino County a disaster area as a result of flooding.

Disaster Area – The Board of Supervisors declared San Bernardino County a disaster area, after receiving a report indicating that the recent rains did damage totaling $3,500,000 to County roads, bridges, and drainage facilities. The flow of water in some cases exceeded that of the disastrous 1937-38 flood. Many areas had flooding conditions which come only once in 40 years, while lake Arrowhead had a 100-year rainfall.

The Flood of 1937-38

During the winter of 1937-38 California was visited by two disastrous floods, one in December 1937, in the northern part of the state, and the other in March 1938, in the southern part of the State.

A series of heavy rainstorms in the coastal area, extending from San Diego on the south to San Luis Obispo on the north and inland to parts of the Mojave Desert, produced extreme floods. These floods that appear to have been the greatest within the last 70 years caused the loss of 87 lives and damage estimated at $78,602,000.

The storm seems to have centered in the San Bernardino and San Gabriel Mountain areas tributary to the Los Angeles, San Gabriel, Santa Ana, and Mojave River Basins. These mountain areas are among the highest in Southern California, ranging in altitude from about 1,000 feet to 11,485 feet above sea level. Their average precipitation for the period February 27, through March 4 was about 22.5 inches, and the greatest precipitation recorded for 32.20 inches at Kelly's Kamp, in the San Gabriel Mountains between Ontario and Cucamonga Peaks, at an altitude of 8,300 feet.

The typical drainage areas within this mountain region are small, short rough, and steep, the average land slope ranging from about 35 to 65 percent.

The Flood of 1937-38 Continued

In much of the region, considerably more than half of the average rainfall of 22.5 inches was absorbed in the soil mantle and underlying rock and held in storage at the end of the storm period, notwithstanding the many factors conducive to rapid surface runoff.

The rates of rainfall during the storm period of March 1938, were not particularly high as compared with the rates in other storm periods in the same region. Only for periods as long as 24 hours do the maximum rates of rainfall appear to equal or exceed those earlier storms. The maximum discharge coming at the culmination of those maximum 24-hour periods produced in some areas a runoff of more than 1,000 second-feet per square mile. These high rates of flood runoff occurred at a time when antecedent rainfall has been such as to fill most of the space available for subsurface storage.

During the flood of March 1938 the streams moved down their mountain channels a great quantity of debris, much of which had accumulated since the time of previous major floods. Measured on a real basis the debris load in parts of the region exceeded 70 acre-feet per square mile. This movement of debris from the stream channels had the effect of reducing the storage capacity of many of the mountain reservoirs as much as 78 percent.

The rains that caused the severe flood of March 1938 in Southern California began with a general light fall on February 27, and during the early hours of February 28. The later hours of February 28, were marked by generally intense and continuous precipitation. On March 1, there was a lull, followed on March 2, by the heaviest rains of the storm and on March 3, by light and intermittent rain that continued in some places through March 4. Although the storm in generally referred to as that of February 27, through March 4, it had ceased over most of the area on March 3.

The heavy rains covered the Pacific coast area for about 250 miles north of the boundary with Mexico and extended inland 50 to 100 miles. The storm appears to have centered in the San Gabriel and San Bernardino Mountain areas tributary to the Santa Ana, San Gabriel, and Los Angeles Rivers. Many of the rainfall records indicated from 20 to 30 inches of rain during the period February 27, through March 4.

The Flood of 1937-38 Continued

During the period February 27, through March 3, the total direct flood runoff from the mountain areas, in mean depth in inches, ranged from less than 1-inch to more than 13-inches. Rates of maximum discharge ranged from 200 to 600 second-feet per square mile and were estimated to be as high as 1,000 second-feet per square mile in some places. The streams flowing in the steep, narrow canyons moved enormous quantities of debris and greatly disturbed the material in the bottom of the canyons. The damage in the canyons, however, where the population is sparse, was small in comparison with that on the outer slopes and floors of the valleys.

Santa Ana River – The area centering at Colton, where Warm and Lytle Creeks join the Santa Ana River, was extensively overflowed and parts of the cities of San Bernardino and Riverside were also submerged.

At the stream-measurement station on Santa Ana River near Mentone, a peak discharge of 52,300 second-feet occurred during the flood of March 1938, as compared with a peak discharge of 29,100 second-feet on January 27, 1916.

In San Bernardino damage was done to several flood control projects in the stream channels, said City Engineer Charles L. Foulke, and streets in the northern part of the City near Arrowhead Avenue were filled with black run-off waters from Badger and Sycamore Canyons burned over by the November 22, mountain fire."

Redlands Zanja – Disaster Relief Unit mobilized to help control Mill Creek, Redlands. Disaster Preparedness and Relief organization mobilized to dam the headwaters of the Zanja to keep Mill Creek from following the old channel and flooding the City of Redlands.

Men piled boulders into the dry channels just below the Rainbow Angling Club, but their labors went for aught when the stream found a channel to the north and moved away from the Zanja.

The emergency relief crew spent hours unplugging bridges across the Zanja in the City of Redlands. This act stopped the water from flowing over the banks and destroying property along the way.

Lytle Creek – A portion of the South Mt. Vernon Avenue bridge across Lytle Creek was torn away last night by the raging storm waters. A home on the north bank of the channel collapsed and was swept downstream.

The Flood of 1937-38 Continued

Cajon Creek – Half the road at Blue Cut in Cajon Pass was washed out.

City Creek – The bridge across City Creek at Highland Avenue was reported out.

Lytle Creek – Foothill Blvd. was inaccessible, Lytle Creek having cut into its old channel and flooded the entire area between Mt. Vernon Avenue and the bridge. Lytle Creek cut across the Colton Road near the Colton Plunge, flooding the railroad yards with water as high as the windows of the coaches on the siding.

City Creek – City Creek was running over Base Line.

Plunge Creek – Plunge Creek broke out of its banks and roared down the Santa Fe right-of-way to Greenspot – E. Highlands Highway.

Sand Canyon Creek – Sand Canyon was pouring a torrent across Highland Avenue, west of Patton.

Warm Creek - Warm Creek was at flood stage from above Highland Avenue south to below Orange Show.

San Bernardino – Approximately 100 bridges were washed out in the San Bernardino area alone. Extensive damage has been done to water and sewage systems that are included in the $15,000,000 loss estimate.

Santa Ana River – Indications of the tremendous flow that poured down the Santa Ana River at Orange Street, north of Redlands, was contained in a report given to Edward Hyatt, Chief of the State Dept. of Water Resources. The report estimated a flow of 45,000 second feet, in comparison to 30,000 second feet at the maximum of 1916, and 15,000 at the record flow last year. At the Orange Street Bridge, the flow is coming from the Santa Ana Canyon and several smaller ones in the eastern end of the valley, chief of which are Mill Creek and Plunge Creek.

Rancho Cucamonga – Torrents of water which cut through two washes leading from Cucamonga Canyon took a high property toll in the Cucamonga-Alta Loma District and, for a while, made an island of Red Hill. A new channel 25 feet deep and an eighth of a mile wide was cut east of Red Hill by the flood.

Rancho Cucamonga – No rainfall records are available for Cucamonga canyon, but with a watershed of 10 square miles it had a peak discharge of 12,000 second feet or 60,000 miners' inches of water according to the United States Geological Survey, which was at a rate of 1,200 second feet

The Flood of 1937-38 Continued

per square mile of watershed. The discharge of debris is problematical but on the basis of the above figures at a rate of 40,000 cubic yards per square mile was probably in excess of 400,000 cubic yards. The amount of debris deposited in the cross walls and basins within the Cucamonga spreading works is estimated as between 200,000 and 300,000 cubic yards.

The peak flow on the Santa Ana River at Prado was estimated as 94,000 second feet, and 4,000 acres was flood in Orange County.

From the Upland "News" – On March 2, 1938, San Bernardino and Los Angeles counties experienced a major flood that equaled and probably exceeded any previous flood of record. In San Bernardino county property was directly damaged to an estimated amount of $11,550,000, and indirectly $6,167,600.

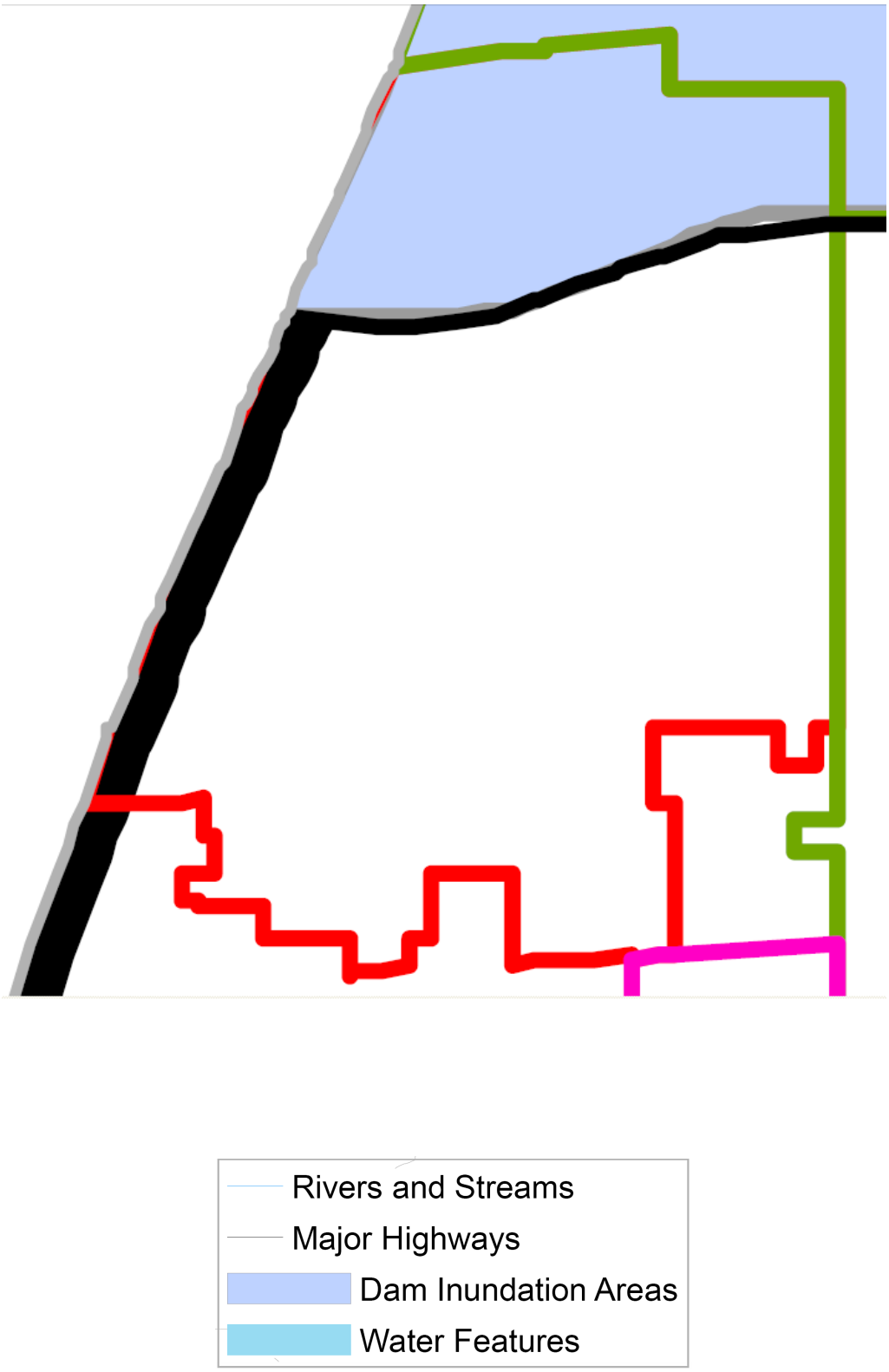
Probability of Future Events

The City of Montclair and its administrative body are aware that any location within Southern California is subject to flooding if there is enough heavy local rainfall and snowfall in the local mountains. With the close proximity of the San Antonio Dam, the potential of flooding occurs if a dam failure or rapid water release should occur. For this reason, disaster mitigation and participation in the National Flood Insurance Program (NFIP) remain a priority for potential future flooding.

A future project that will be constructed in the City is the Monte Vista Grade Separation Project. During the planning phase of this project staff recognized the need to install an additional storm drain system to alleviate water that may be caused by heavy rains from flooding the area surrounding the grade separation. The storm drain upgrades for this project are included in this Plan and identified as Project No. 1 in Section 6.3.

4.2.3 Dam Failure

Hazard Map



General Definition

A dam is defined as a barrier constructed across a watercourse for the purpose of storage, control, or diversion of water. Dams typically are constructed of earth, rock, concrete, or mine tailings. A dam failure is the collapse, breach, or other failure resulting in downstream flooding.

A dam impounds water in the upstream area, referred to as the reservoir. The amount of water impounded is measured in acre-feet. An acre-foot is the volume of water that covers an acre of land to a depth of one foot. As a function of upstream topography, even a very small dam may impound or detain many acre-feet of water. Two factors influence the potential severity of a full or partial dam failure: the amount of water impounded, and the density, type, and value of development and infrastructure located downstream.

Each dam identified in the National Inventory of Dams is assigned a downstream hazard classification based on the potential loss of life and damage to property should the dam fail. The three classifications are high, significant and low. With changing demographics and land development in downstream areas, hazard classifications are updated continually.

The hazard classification is not an indicator of the adequacy of a dam or its physical integrity. Dam failures typically occur when spillway capacity is inadequate and excess flow overtops the dam, or when internal erosion (piping) through the dam or foundation occurs.

Dam failures may result from any one or a combination of the following causes:

- prolonged periods of rainfall and flooding, which causes most failures;
- inadequate spillway capacity, resulting in excess overtopping flows;
- internal erosion caused by embankment or foundation leakage or piping;
- improper maintenance, including failure to remove trees, repair internal seepage problems, replace lost material from the cross section of the dam and abutments;
- improper design, including the use of improper construction materials and construction practices;
- negligent operation, including failure to remove or open gates or valves during high flow periods;
- failure of upstream dams on the same waterway;
- landslides into reservoirs, which cause surges that result in overtopping;
- high winds, which can cause significant wave action and result in substantial erosion;
- and earthquakes, which typically cause longitudinal cracks at the tops of embankments that weaken entire structures.

Description

The San Antonio Dam is owned and operated by the United States Army Corps of Engineers, Los Angeles District. The dam is a flood control and water conservation project. The construction of the dam began in April 1952, and was completed on May 1, 1956. It is located at the northerly city limits of Claremont and Upland. It is normally empty except during or immediately after periods of significant runoff.

The table below details the physical data of the San Antonio Dam.

Embankment		
Type	Earth Fill	
Crest Elevation	2,260 feet NGVD	688.85 meters NGVD
Maximum height above streambed	160 feet	48.77 meters
Crest Length	3,850 feet	1,173.48 meters
Freeboard	5.1 feet	1.55 meters

Spillway		
Type	Ungated overflow concrete ogee	
Crest Elevation	2,238 feet NGVD	682.14 meters NGVD
Crest Length	200 feet	60.96 meters

Outlet Works		
Number of gates	3	
Gates type	Vertical Lift	
Height x Width (each)	10 feet x 5 feet-8 inch	3.05 x 1.73 meters
Entrance Invert Elevation	2,125 feet NGVD	647.70 meters NGVD
Length of Transition (from vertical gates to circular conduit)	86.44 feet	26.35 meters

Conduit		
Number of Conduits	1	
Shape of Conduit	circular	
Size (inside diameter)	14.5 feet	4.42 meters
Length of Conduit	576.06 feet	154.84 meters
Maximum Capacity	11,800 cfs	334.14 cms
Outlet Invert Elevation	2090.51 feet NGVD	637.19 meters NGVD

Reservoir		
Area at Spillway Crest	145 acres	586,794 sm
Gross Storage at Spillway Crest	9,350 acre-feet	11.53 MCM
Flood Control Allocation (1990 Survey)	7,582 acre-feet	9.35 MCM
Debris Pool Allocation (1990 Survey)	953 acre-feet	1.18 MCM

Reservoir Design Flood		
Total Volume (2-day)	22,500 acre-feet	27.75 MCM
Peak Inflow	19,000 cfs	538 cms
Peak Outflow	8,000 cfs	227 cms

Spillway Design Flood		
Total Volume (1-day)	18,500 acre-feet	22.82 MCM
Peak Inflow	59,700 cfs	1,690 cms
Peak Outflow	51,160 cfs	1,449 cms

Historic Maximum Flood		
Maximum Elevation (19 February 1980)	2,225.60 feet NGVD	678.36 meters NGVD
Peak Inflow (25 January 1969)	5,924 cfs	168 cms
Peak Outflow (25 January 1969)	7,830 cfs	222 cms

NGVD = National Geodetic Vertical Datum of 1929
MCM = million cubic meters
cfs = cubic feet per second
cms = cubic meters per second
sm = square meters

Geographic Area Affected

Should a breach in the San Antonio Dam occur, the water released would flow in a southerly direction through the City of Upland and into Montclair. The extent of water flow and/or potential damage after the dam is compromised is hard to predict. The dam water level, and the severity of the fracture, will dictate the flow of water and its impact on the City of Montclair. The majority of flooding would be expected in the northern part of the City if there is a dam failure or large water release. Additionally, flooding could occur along the flood channels within the City.

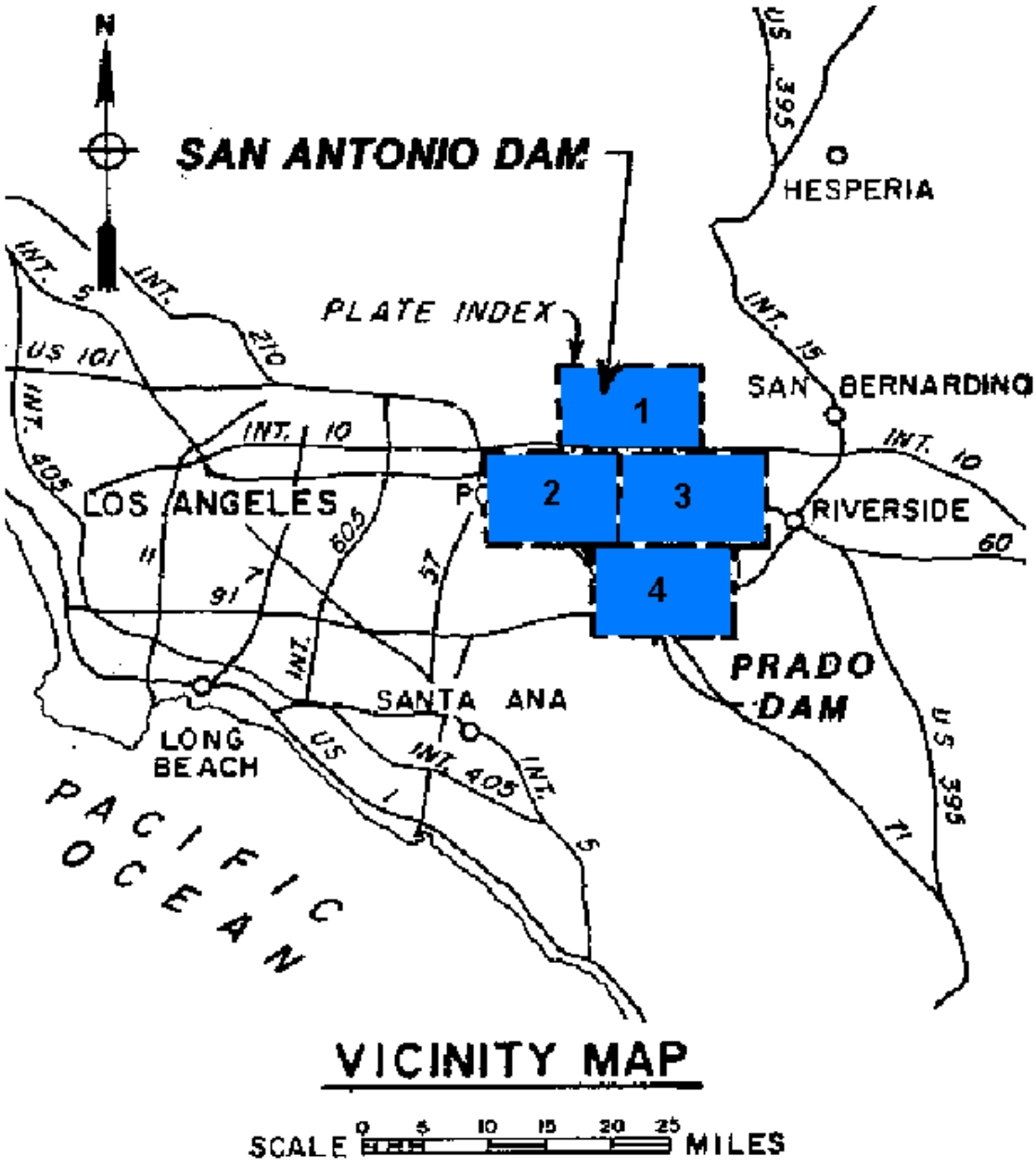
The San Antonio Dam Emergency Plan Inundation Maps* below were prepared by the Army Corps of Engineers in February 1986 and are based on the three scenarios listed below:

1. breaching at the westerly abutment,
2. breaching at the midpoint,
3. and breaching at the easterly abutment.

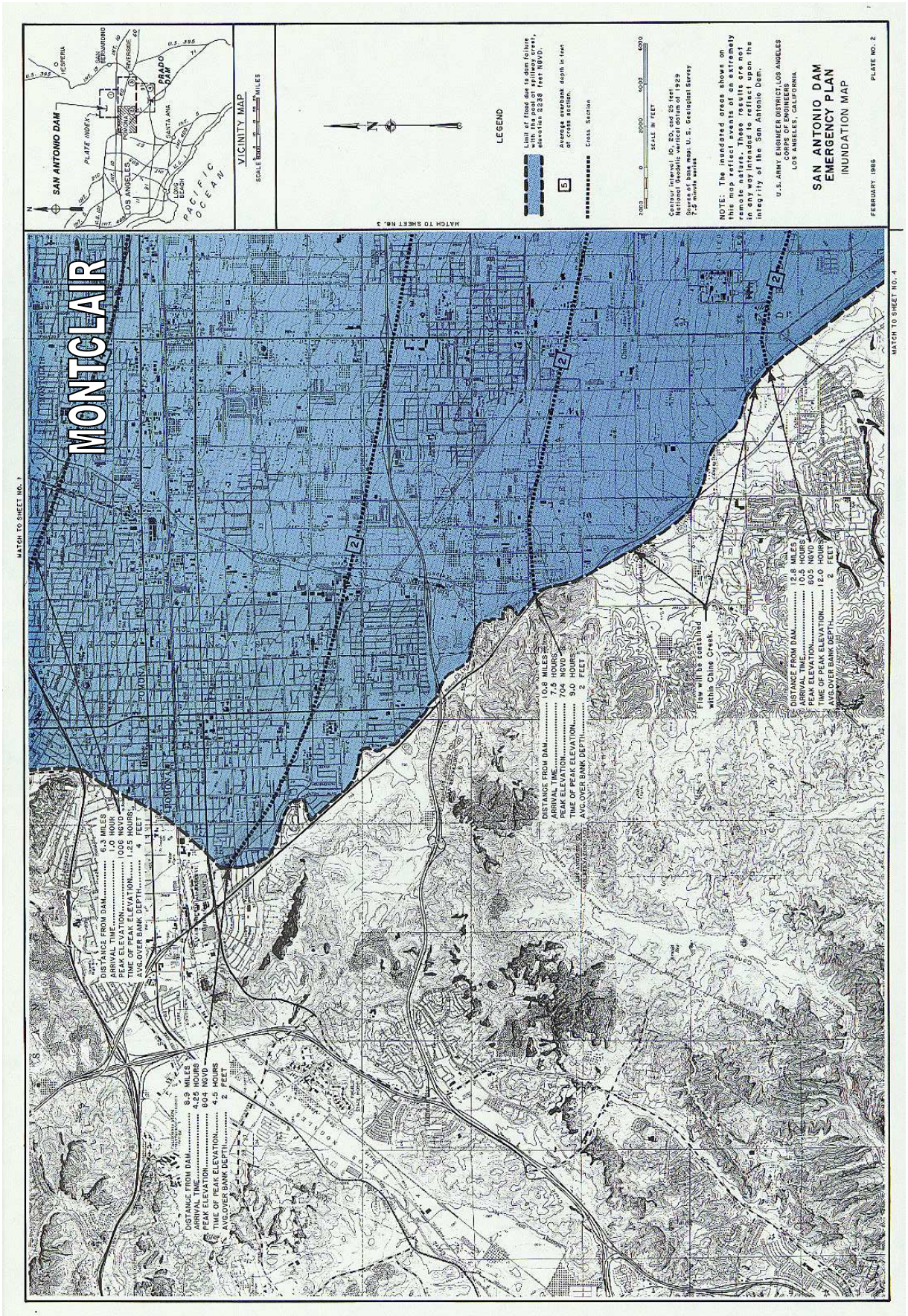
*During the update of this plan in 2010 the Planning Team questioned the validity of these maps because they were prepared so many years ago, and since then land development has altered the land features between where the dam is located and the City's northern border. To verify the maps' validity, Jonathan Dizon of the Monte Vista Water District, contacted the Los Angeles District of the United States Army Corps of Engineers. He received a response via e-mail from Reservoir Regulation Section Chief Ned J. Araujo stating that their files indicate that the San Antonio Dam Emergency Plan Inundation Maps dated February 1986 are still current.

The maps below provide the following information regarding the water flow from the San Antonio Dam into the City of Montclair:

- Distance from the dam: 6.3 miles
- Arrival time: 1 hour
- Average overbank depth of cross section: 4 feet
- Peak elevation: 1006 NGVD
- Time of peak elevation: 1.25 hours



VICINITY MAP



Vicinity Map Area 2

Previous Occurrences

There are no historical events associated with this hazard in Montclair. It should however be noted that during the 1990 Upland earthquake, the San Antonio Dam did sustain damage.

Probability of Future Events

In the future, flooding may occur if there is an intense rainstorm with heavy downpour or a large water release from the San Antonio Dam. This water release could be due to structural failure or an emergency release of water from the dam.

Dam failures typically occur when spillway capacity is inadequate and excess flow overtops the dam, or when internal erosion (piping) through the dam or foundation occurs.

Dam failures can result from any one or a combination if the following causes: prolonged periods of rainfall and flooding, which causes most failures; inadequate spillway capacity, resulting in excess overtopping flows; internal erosion caused by embankment or foundation leakage or piping; improper maintenance, including failure to remove trees, repair internal seepage problems, replace lost material from the cross section of the dam abutments; improper design, including the use of improper construction materials and construction practices; negligent operation, including failure to remove or open gates or valves during high flow periods; failure of upstream dams on the same waterway; landslides into reservoirs, which causes surges that result in overtopping; high winds, which can cause significant wave action and result in substantial erosion; and earthquakes which typically cause longitudinal cracks at the tops of embankments that weaken entire structures.

4.3 Inventory Assets

In order to identify appropriate mitigation actions to reduce losses from identified hazards it is necessary to identify assets within the City of Montclair that are vulnerable to these hazards. These assets may be identified in terms of population, buildings (existing and future), critical facilities, noncritical facilities, and facilities of high economic importance. Listed below are the assets that the Planning Team identified:

4.3.1 Population

The total population of the City of Montclair that is vulnerable to natural hazards is approximately 36,530.

Dam Failure:	The population vulnerable to this hazard is 4.41 percent.
Earthquake:	The population vulnerable to this hazard is 25.24 percent.
Flooding:	The population vulnerable to this hazard is 0.58 percent.

4.3.2 Buildings

The table below provides a summary of the building inventory data for the City of Montclair. The table details building replacement value, contents replacement value, building square footage, and building count. It is categorized by general occupancy including residential, commercial, industrial, and other occupancies. This information was developed from the San Bernardino County Assessor's Office, under FEMA

funding, as part of the San Bernardino County Essential Facilities Risk Assessment (SBEFRA) Project completed in 2009. The SBEFRA project report may be downloaded from: http://fema.gov/library/viewRecord.do?id=3804.

Building Inventory Information by General Occupancy	Building Replacement Value ($1,000)	Contents Replacement Value ($1,000)	Building Square Footage (1,000 Sq. Ft.)	Building Count
Residential	$1,382,370	$691,179	14,029	8,759
Commercial	$556,419	$557,806	6,409	433
Industrial	$2,875,073	$4,312,608	38,182	242
Other	$183,038	$118,511	1,046	279
TOTAL	**$4,996,900**	**$5,680,104**	**59,666**	**9,713**

Selected Building Inventory Data by General Building Type	Building Replacement Value ($1,000)	Building Replacement Value (%)	Estimated Building Count	% of Building Count
Concrete	$1,071,284	21.4%	180	2%
Manufactured Housing	$46,011	0.9%	1,212	12%
Precast Concrete	$336,084	6.7%	80	1%
Reinforced Masonry	$1,345,981	26.9%	318	3%
Steel	$76,629	1.5%	47	0%
Unreinforced Masonry	$33,578	0.7%	22	0%
Wood Frame (Other)	$1,030,201	20.6%	524	5%
Wood Frame (Single-family)	$1,057,131	21.2%	7,329	75%
TOTAL	**$4,996,900**		**9,713**	

4.3.3 Critical Facility List

Facilities critical to government response and recovery activities (life safety, property, and environmental protection) include: dispatch centers, emergency operations centers, police and fire stations, public works facilities, communications centers, sewer and water facilities, hospitals, bridges, roads, and shelters; facilities that, if damaged, could cause serious secondary impacts may also be considered "critical." Critical and essential facilities are those facilities that are vital to the continued delivery of key government services or that may significantly impact the public's ability to recover from the emergency. These facilities may include: buildings such as the jail, law enforcement center, public services building, community centers, senior and youth centers, and other public facilities such as schools.

Listed below are the critical facilities in the City of Montclair.

Government Facilities
• City Hall/Youth Center/Senior Center • Public Works/Corporate Yard
Hospitals
• Montclair Hospital Medical Center
Public Safety Facilities
• Fire Station No. 151 (Headquarters) • Fire Station No. 152 • Police Department (EOC)
Roads/Bridges/Overpasses/Municipal Facilities
• Interstate 10 - Central Avenue and Monte Vista Avenue Overpasses • Sewer Infrastructure • Storm Drain System • Grade Separations (Ramona, Central, and Monte Vista)
Schools
• Buena Vista Elementary School • David Stine Chaffey West County Community School • Howard Elementary School • Kingsley Elementary School • Lehigh Elementary School • Montclair High School • Monte Vista Elementary School • Montera Elementary School • Moreno Elementary School • Ramona Elementary School • Serrano Middle School • Vernon Middle School
Shelter Locations (City designated)
• Montclair Community Center
Utilities
• Monte Vista Water District • Southern California Edison San Antonio Substation • Chino Basin Water Conversation District • Southern California Gas Company facilities

This section provides a description and Point of Contact for the critical facilities.

Government Facilities

City Hall/Youth Center/Senior Center	
Facility Location:	5111 Benito Street, Montclair, CA 91763
Size of Facility (sq. ft.):	16,335 - City Hall 11,776 - Youth Center 8,500 - Senior Center

City Hall/Youth Center/Senior Center Continued	
Facility Description:	 The Montclair City Hall is used for general administration and management for the City. Included within City Hall are the Council Chambers. These Chambers contain public forums and meetings with elected and non-elected City representatives. The building also contains several offices including City Management, Public Works, Administration, Finance, Redevelopment, and the Building Division. In the same complex are the Youth Center and Senior Center. The Youth Center now occupies what use to be the City's Police facility. The Senior Center is a newly constructed building. Both of these facilities opened to the public in 2010. The Senior Center provides a place to administer services and programs for Senior Citizens. This location is home to the Senior Nutrition program; a well-balanced hot lunch is served five days a week. This facility also hosts many programs for Senior citizens such as needlecraft, scrapbooking, bingo, bunco, choral group, the Montclair Walkers, and many others. This facility will also be used to house on-duty staff during disasters.  **Montclair Senior Center** The Youth Center is open to youth in sixth through twelfth grade who live or attend school in Montclair. This facility includes the following building features: **Information Area:** Front desk where youth may sign up to be members of the Center. Members are required to check-in and check-out with a personal identification card. **Assembly Room:** A multipurpose room that may accommodate up to 90 people and may be divided into two smaller rooms. This room may be used for meetings, classes, workshops, presentations, karaoke, and fitness video games.

City Hall/Youth Center/Senior Center Continued	
Facility Description Continued	**Study Room:** Quiet room where youth can do homework and study. **Snack Bark and Lounge:** Place where youth can purchase a variety of snacks, spend time with friends, and cooking demonstrations are held. **Arts and Crafts Room:** This room is dedicated to arts and crafts, complete with storage and sink. **Cyber Café:** Open area with 10 computers for youth to write papers, do research, and surf the internet while being monitored. **Game Area:** An open room that features two air hockey tables, a pool table, two foosball tables, and video games. **Patio Area:** Outdoor area for bar-b-ques, movie nights, and special events.  **Montclair Youth Center**
Primary Contact:	City of Montclair
Address:	5111 Benito Street, Montclair, CA 91763
Phone:	(909) 626-8571
Fax:	(909) 621-1584

Public Works/Corporate Yard	
Facility Location:	10835 Monte Vista Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	16,083 – Total 6,294 - Truck Maintenance Garage 7,200 – Shop and Office Building 2,364 – Carport 225 – Storage Shed
Facility Description:	The City Corporate Yard is owned and operated by the City of Montclair. In general the City Yard consists of offices, bulk material bunkers, two wash racks, parking, and storage of equipment and materials. The following divisions operate out of the City Corporate Yard: streets, sewers, parks, fleet, and facilities maintenance.

Public Works/Corporate Yard Continued	
Facility Description Continued:	The following is a list of equipment and materials used and stored at the facility: **Street Division:** One asphalt patch truck used for street repairs, three dump trucks, one water truck, one case backhoe, one case loader, one stencil truck for maintenance of traffic legends, and three street sweepers. **Sewer Division:** One hydraulic jetter truck, one vacuum combo truck, one self contained television inspection truck, one confined space operations trailer and necessary equipment, and one six-inch trash pump. **Parks Division:** One tree truck with bucket lift, one tree chipper, and various tools and equipment necessary for maintenance of landscaped areas. **Facilities Maintenance Division:** Two multi-compartment truck equipped with tools for facilities maintenance functions; one garage housing paints, tools, and equipment for facilities maintenance functions; and one storage bin housing supplies and materials for facilities maintenance functions. **Fleet:** Capable of the maintenance and repair of light equipment to heavy vehicles and other machinery and equipment used by the City of Montclair in daily maintenance functions. The Fleet facility consists of four repair bays, a welding shop, storage bins, and a parts house. **Graffiti Abatement:** One storage bin housing paint and materials for graffiti abatement function, two pick-up trucks, and two trailer mounted high pressure washer/sand blaster rigs. **Sign Shop:** Housing equipment and materials for the maintenance and fabrication of City signs and one truck properly equipped for sign shop functions.
Primary Contact:	Xavier Mendez, Public Works Superintendent
Address:	10385 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763
Phone:	(909) 625-9480
Fax:	(909) 627-1685
E-mail:	xmendez@cityofmontclair.org

Hospitals

Montclair Hospital Medical Center (MHMC)	
Facility Location:	5000 San Bernardino Street, Montclair, CA 91763
Facility Description:	 As a full service 102-bed acute care hospital and academic facility, MHMC provides comprehensive healthcare services. Some of the services this hospital offers include a Family Birthing Center, 24-hour Emergency Services, Medical/Surgical unit, ICU, Surgical Services, and Diagnostic Imaging Services. MHMC's location is critical in maintaining the ongoing medical services to the City's citizenry and those patients that come from the surrounding areas.
Primary Contact:	Business Office
Address:	5000 San Bernardino Street, Montclair, CA 91763
Phone:	(909) 625-5411

Public Safety Facilities

Fire Station No. 151 (Headquarters)	
Facility Location:	8901 Monte Vista Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	14,035 – Total 12,514 – Fire Station 1,521 – Carport and Wood Shop
Facility Description:	 Fire Station No. 151 is headquarters for the City's fire services. This station houses five on-duty firefighters and one on-duty Division Chief, 24 hours a day, 365 days a year. It also contains the administrative offices and personnel for the Fire Department, and Fire Prevention. This station houses two fire engines, one medic squad, one command vehicle, and several administrative staff vehicles. The building and its contents are crucial in maintaining public safety and property protection within the City, especially during the time of a disaster.
Primary Contact (St. 151 and 152):	Troy Ament, Fire Chief
Address:	8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763
Phone:	(909) 447-3540
Fax:	(909) 621-5261
E-mail:	tament@cityofmontclair.org

Fire Station No. 152	
Facility Location:	10825 Monte Vista Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	7,800 – Total 5,960 – Fire Station 1,840 – Drill Tower
Facility Description:	 Fire Station No. 152 houses three on-duty firefighters, 24 hours a day, 365 days a year. This station houses two fire engines, one USAR trailer, and one rescue vehicle. The Fire Department's Drill Tower is also at this location. The building and its contents are crucial in maintaining public safety and property protection within the City, especially during the time of a disaster.

Police Department (EOC)	
Facility Location:	4870 Arrow Highway, Montclair, CA 91763
Size of Facility (sq. ft.):	45,340
Facility Description:	 This facility contains several business offices, a jail facility, dispatch center, briefing room, lunch area, shooting range, emergency generator, fuel pumps with 3k gallons of gasoline and 1k gallons for diesel fuel, and the City's Emergency Operations Center (EOC). An EOC is a location from which centralized emergency management may be performed during a major emergency or disaster. This location facilitates a coordinated response by City staff and representatives from other agencies and organizations that are assigned emergency management responsibilities. The building and its contents are crucial in maintaining law and order within the City, especially during the time of a disaster.
Primary Contact:	Keith Jones, Police Chief
Address:	4870 Arrow Highway, Montclair, CA 91763
Phone:	(909) 448-3600
Fax:	(909) 621-4413
E-mail:	kjones@cityofmontclair.org

Roads/Bridges/Overpasses/Municipal Systems

Interstate 10 – Central Avenue and Monte Vista Avenue Overpass	
Facility Location:	The Interstate 10 runs through the northern region of the City.
Facility Description:	 The Interstate 10 is the fourth largest interstate highway. It is the southernmost east-west, coast-to-coast Interstate Highway in the United States. This highway is an integral part of the City's transportation infrastructure. Not only does it provide a means to travel from place to place on a daily basis, but it also provides a route to transport supplies or conduct mass evacuations during emergency situations.
Primary Contact:	California Department of Transportation, District 8
Address:	464 West 4th Street, San Bernardino, CA 92401
Phone:	(909) 383-4631

Sewer Infrastructure	
Facility Description:	The City of Montclair has approximately 71 miles of sewage lines. The sewerage system is designed to convey wastewater or water-borne wastes from homes, businesses, and industries to the Publicly Owned Treatment Works facility for treatment.
Primary Contact:	City of Montclair Public Works Department
Address:	5111 Benito Street, Montclair, CA 91763
Phone:	(909) 625-9440
Fax:	(909) 621-1584

Storm Drain System	
Facility Description:	The City of Montclair has approximately nine miles of storm drains. The storm drain system is a drainage structure designed to capture and convey stormwater runoff to prevent the accumulation and retention of water on our roadways and other surfaces. The City's storm drain system discharges into one of five recharge basins or the San Antonio Channel that is owned and operated by the Army Corps of Engineers.
Primary Contact:	City of Montclair Public Works Department
Address:	5111 Benito Street, Montclair, CA 91763
Phone:	(909) 625-9440
Fax:	(909) 621-1584

Grade Separations	
Locations:	Central Avenue and Ramona Avenue bridges over railroad tracks (south of Holt Blvd.) and Monte Vista Avenue underpass below Metrolink tracks
Facility Description:	The grade separations built at Central Avenue and Ramona Avenue are bridges spanning the railroad tracks to carry vehicular traffic over multiple sets of tracks belonging to Union Pacific Railroad. The grade separations eliminate traffic delays of vehicles having to wait for trains. They also eliminate the potential for a train vs. vehicle collision. The grade separation at Monte Vista Avenue and the Metrolink tracks was constructed for the same reasons, but was accomplished by constructing a bridge to carry two sets of railroad tracks over a depressed section of the street.
Primary Contact:	City of Montclair Public Works Department
Address:	5111 Benito Street, Montclair, CA 91763
Phone:	(909) 625-9440
Fax:	(909) 621-1584

Schools

Below is the Primary Point of Contact information for all facilities located in the City of Montclair that are owned and operated by the Ontario-Montclair School District (OMSD):

Primary Contact:	Craig Misso, Director I, Operations
Address:	950 West D Street, Ontario, CA 91762
Phone:	(909) 418-6369
Fax:	(909) 459-2550
E-mail:	craig.misso@omsd.k12.ca.us

Mission Elementary School was listed in the 2005 Plan as a Critical Facility. This school was removed from the Montclair Hazard Mitigation Plan because it is located in the City of Ontario.

Buena Vista Elementary School (OMSD)	
Facility Location:	9762 Benson Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	28430
Facility Description:	Elementary school Regular school population of 417 Six permanent buildings 12 portable buildings Since 2005, a multipurpose room was added, three new portable buildings were added, and the kitchen square footage was reduced.

David Stine Chaffey West County Community School (San Bernardino County Superintendent of Schools)	
Facility Location:	5033 Holt Boulevard, Montclair, CA 91763
Size of Facility (sq. ft.)	20,000 of classroom space
Facility Description:	David Stine Chaffey West County Community Day School provides educational services to approximately 90 alternative education students in junior and senior high. The school is located on a 5 acre site. It also provides flexibility for growth. The school plans on adding an art history class, as well as a building skills class that will provide training in trades such as tiling, plumbing, framing and dry-walling. There also are outdoor athletic facilities.
Primary Contact:	San Bernardino County Superintendent of Schools
Address:	601 North E Street, San Bernardino, CA 92415
Phone:	(909) 888-3228

Howard Elementary School (OMSD)	
Facility Location:	4650 Howard Street, Montclair, CA 91763
Size of Facility (sq. ft.):	33670
Facility Description:	Elementary school Special Education population of 25 Regular population 605 19 permanent buildings 10 portable buildings Decrease of 2 buildings since 2005 No multipurpose room on-site Since 2005, the kitchen square footage was reduced.

Kingsley Elementary School (OMSD)	
Facility Location:	5625 Kingsley Street, Montclair, CA 91763
Size of Facility (sq. ft.):	44416
Facility Description:	Elementary school Regular population of 804 Special Education population of 11 23 permanent buildings 13 portable buildings Since 2005, a multipurpose room was added and the kitchen square footage was reduced.

Lehigh Elementary School (OMSD)	
Facility Location:	10200 Lehigh Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	51557
Facility Description:	Elementary school Regular population of 727 22 permanent buildings 16 portable buildings Since 2005, two buildings and a multipurpose room were added, and the kitchen square footage was reduced.

Montclair High School (Chaffey Unified School District)	
Facility Location:	4725 Benito Street, Montclair, CA 91763
Size of Facility (sq. ft.):	260719
Facility Description:	The High school campus serves the community for general education purposes. The campus consists of classrooms, business offices, auditorium, cafeteria, industrial tech/ROTC building, band building, and library. The buildings are mostly steel construction with masonry block.
Primary Contact:	Martin Alvarado, Principal
Address:	4725 Benito Street, Montclair, CA 91763
Phone:	(909) 621-6781 ext. 2020
Fax:	(909) 391-5323
E-mail:	martin_alvarado@cjuhsd.net
Alternate Contact:	Michelle Boyette, Assistant Principal
Phone:	(909) 621-6781 ext. 2026
E-mail:	michelle_boyette@cjuhsd.net
District Contact:	Mat Holton, Superintendent
Address:	211 West Fifth Street, Ontario, CA 91762
Phone:	(909) 988-8511 ext. 2501
E-mail:	mat_holton@cjuhsd.net

Monte Vista Elementary School (OMSD)	
Facility Location:	4825 Bandera Street, Montclair, CA 91763
Size of Facility (sq. ft.):	47349
Facility Description:	Elementary school Regular population of 669 Special Education population of 27 24 permanent buildings 11 portable buildings Since 2005, four buildings have been removed from the school and the kitchen square footage was reduced.

Montera Elementary School (OMSD)	
Facility Location:	4825 Bandera Street, Montclair, CA 91763
Size of Facility (sq. ft.):	52462
Facility Description:	Elementary school Regular population of 564 16 permanent buildings 20 portable buildings Since 2005, the kitchen square footage was reduced.

Moreno Elementary School (OMSD)	
Facility Location:	4825 Moreno Street, Montclair, CA 91763
Size of Facility (sq. ft.):	48926
Facility Description:	Elementary school Regular population of 494 Special Education population of 26 20 permanent buildings and 14 portable buildings Since 2005, the school was reduced by four buildings, a multipurpose room was added, and the kitchen square footage was reduced.

Ramona Elementary School (OMSD)	
Facility Location:	4225 Howard Street, Montclair, CA 91763
Size of Facility (sq. ft.):	42290
Facility Description:	Elementary school Regular population of 704 Special Education population of 32 22 permanent buildings 13 portable buildings Since 2005, the school was reduced by four buildings, a multipurpose building was added, and the kitchen square footage was reduced.

Serrano Middle School (OMSD)	
Facility Location:	4725 San Jose Street, Montclair, CA 91763
Size of Facility (sq. ft.):	60629
Facility Description:	Middle school Regular population of 676 Special Education population of 38 30 permanent buildings 14 portable buildings Since 2005, the school was reduced by 10 buildings. School has a kitchen and a multipurpose room, but is not currently being requested by the Red Cross as an alternative shelter facility.

Vernon Middle School (OMSD)	
Facility Location:	9775 Vernon Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	69036
Facility Description	Middle school Regular population of 715 Special Education population of 62 27 permanent buildings 10 portable buildings Since 2005, the school was reduced by three buildings. School has a kitchen and a multipurpose room, but is currently is not being requested by the Red Cross as an alternative shelter facility.

Shelter Locations (City designated)

Montclair Community Center	
Facility Location:	5111 Benito Street, Montclair, CA 91763
Size of Facility (sq. ft.):	25,746 – Total 13,927 – Community Building 10,102 – Recreation Building 1,274 – Multi-Purpose Building 443 – Restroom Building
Facility Description:	 The Montclair Community Center is home to many programs and activities. This facility is composed a gym, meeting rooms, offices, restrooms, a medical clinic, classrooms, kitchen, outdoor stage, racquet ball courts, work out room, and locker rooms. The Gym and Community Center are designated as an American Red Cross approved shelter for disaster situations.
Primary Contact:	Montclair Human Services Division
Address:	5111 Benito Street, P.O. Box 2308, Montclair, CA 91763
Phone:	(909) 625-9460
Fax:	(909) 399-9751

Utilities

Monte Vista Water District	
Facility Location:	Lon: 34.074624, Lat: 117.689533 10575 Central Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	17200
Facility Description:	 This facility consists of five buildings, including a main office headquarters, housing administrative, customer service, business, and computer functions. Four smaller buildings house maintenance, engineering, water system operations, and support facilities. Groundwater production Well No. 1 is housed at this location, but is currently idle. The well was constructed in 1936 and was taken out of service in 1987. It will be rehabilitated for use as an Aquifer Storage and Recovery (injection) well.
Primary Contact:	Mark Kinsey
Address:	10575 Central Avenue, P.O. Box 71, Montclair, CA 91763
Phone:	(909) 624-0035 ext. 170
Fax:	(909) 624-0037
E-mail:	mkinsey@mvwd.org

Southern California Edison San Antonio Substation	
Primary Contact:	Lydia Roman, Region Manager and Local Public Affairs
Address:	1351 East Francis Avenue, Ontario, CA 91761
Phone:	(909) 930-8501
Fax:	(909) 930-8407
E-mail:	Lydia.Roman@sce.com

Chino Basin Water Conservation District (CBWCD)	
Facility Location:	4594 San Bernardino Street, Montclair, CA 91763
Size of Facility (sq. ft.):	2400
Facility Description:	 Since its establishment is 1949, the District has protected and replenished the Chino Groundwater Basin with natural area railfall and stormwater discharge from the San Gabriel Mountains. The District's services the cities of Chino, Chino Hills, Montclair, Ontario, Rancho Cucamonga, and Upland.
Primary Contact	Eunice M. Ulloa, General Manager
Phone:	909-626-2711
Fax:	909-626-5974
E-mail:	eulloa@cbwcd.org

Southern California Gas Company Facilities	
Primary Contact:	Robert Cruz, Public Affairs Manger South Inland
Address:	196 East 3rd Street, Pomona, CA 91766
Phone:	(909) 469-2268
Fax:	(909) 620-9175
E-mail:	Rcruz1@SempraUtilities.com

4.3.4 Noncritical Facility List

While evaluating the critical facilities in Montclair, the Planning Team identified a few facilities that are not considered critical, but still provided a valuable resource and function within the City and have identified these as Noncritical Facilities that are listed below.

Noncritical Facilities
• Library • Stater Bros. Grocery Store

This section provides a description and Point of Contact for each noncritical facility.

Stater Bros. Grocery Store	
Facility Location:	9575 Central Avenue, Montclair, CA 91763
Facility Description:	Stater Bros. supplies the residents of Montclair with food and other items. The store provides many jobs to local citizens.
Phone:	(909) 621-4637

Library	
Facility Location:	9955 Fremont Avenue, Montclair, CA 91763
Facility Description:	The Montclair Branch Library is part of the San Bernardino County Library System. The library is a community resource for access to information to promote knowledge, education, lifelong learning, leisure, and cultural enrichment for the residents of Montclair and the surrounding area. While this facility is not critical to the daily operations of the City, is provides a valuable services to the community that may be interrupted in the event of a major disaster.
Primary Contact:	Clint Rees, Branch Manager
Address:	9955 Fremont Avenue, Montclair, CA 91763
Phone:	(909) 624-4671

4.3.5 Facilities of High Economic Importance List

Listed below are the facilities of high economic importance in the City of Montclair.

Facilities of High Economic Importance
• Costco • Giant RV • Montclair Autoplex • Montclair Plaza • Target

This section provides a description and Point of Contact for each facility of high economic importance.

Costco	
Facility Location:	9404 Central Avenue, Montclair, CA 91763
Size of Facility (sq. ft.):	146,000
Facility Description:	Costco is a large discount warehouse providing food, furniture, auto services, optical services, appliances, and healthcare items. The store provides approximately 300 jobs to local citizens. Due to the large volume of sales, the loss of Costco would cause a major economic hardship on the City of Montclair.
Primary Contact:	Jeff Marshburn, Store Manager
Address:	9404 Central Avenue, Montclair, CA 91763
Phone:	(909) 575-5004

Giant RV	
Facility Location:	9150 Benson Avenue, Montclair, CA 91763
Facility Description:	 Giant RV Montclair opened in the fall of 2003. This location is home to the company's corporate offices and eight acres of recreational vehicles.
Primary Contact:	Business Office
Address:	9150 Benson Avenue, Montclair, CA 91763
Phone:	(888) 636-1732

Montclair Autoplex	
Facility Location:	Autoplex Drive (south of the I-10 freeway between Monte Vista Avenue and Central Avenue) Metro Acura – 9377 Autoplex Drive Metro Nissan – 9440 Autoplex Drive Infinity of Montclair – 9440 Autoplex Drive Metro Honda – 9399 Autoplex Drive
Facility Description:	The Montclair Autoplex is home to many vehicle dealership such as Honda, Acura, Nissan, and Infiniti.
Phone:	Metro Acura - (866) 591-7594 Metro Nissan – (909) 625-5575 Infinity of Montclair – (909) 625-8990 Metro Honda – (909) 625-5000

Montclair Plaza	
Facility Location:	Located off Interstate 10 at Central Avenue, Montclair
Size of Facility (sq. ft.):	1,300,000
Facility Description:	MONTCLAIR PLAZA 1.3 million square foot, two level, regional shopping center with four anchor stores (Nordstrom, Macy's, Sears, and J.C. Penney), approximately 160-165 inline retail tenants, approximately 50 carts/kiosks, 6,249 parking spaces
Primary Contact:	Larry Martin, General Manager
Address:	5060 Montclair Plaza Lane, Montclair, CA 91763
Phone:	(909) 626-2501
Fax:	(909) 624-6195

Target	
Facility Location:	9052 Central Avenue, Montclair, CA 91763
Facility Description:	TARGET Target is a retail store in Montclair offering the public food, clothing, house hold items, furniture, electronics, gardening items, hygiene products, and much more. This location also has a pharmacy.
Phone:	(909) 624-5717

4.3.6 Repetitive Loss Properties

There are no Repetitive Loss Properties in the City of Montclair.

Below is Montclair's Flood Insurance Rate Map information.

MONTCLAIR

Flood Insurance Rate Map Information

The official Flood Zone Map Number for the City of Montclair is 06071C, and the panel numbers and zone designations are as follows:

Northwest portion of City – North of Holt Boulevard, generally west of Rose Avenue: Zone X, Panel No. 8605 – Community No. 060276, effective January 17, 1997. This panel number represents the majority of the City.

Northeast portion of City – North of Holt Boulevard, generally east of Rose Avenue: Zone X, Panel No. 8608 – Community No. 060276, effective March 18, 1996.

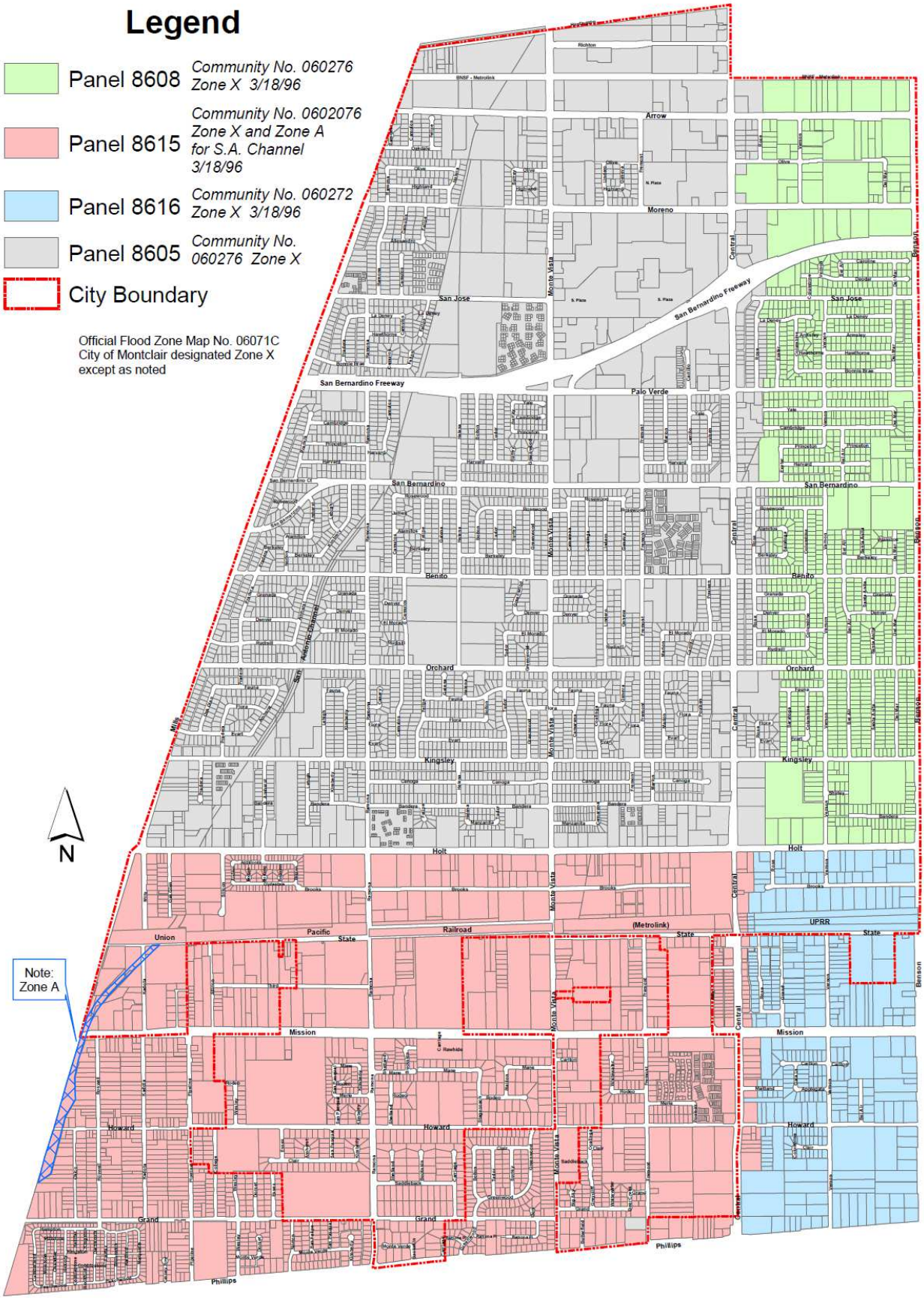
Southwest portion of City – South of Holt Boulevard, generally west of Rose Avenue: Zone X, Panel No. 8615 – Community No. 060276, effective March 18, 1996, except the San Antonio Channel right-of-way from State Street south to Howard/9th Street which is Zone A.

Southeast portion of City – South of Holt Boulevard, generally east of Rose Avenue: Zone X, Panel No. 8616 – Community No. 060272, effective March 18, 1996.

For properties located near the boundaries given above, refer to the attached map or the actual panel number for precise locations.

ZONE A: No base flood elevations determined.

ZONE X: Areas determined to be outside 500-year floodplain.


Legend
Panel 8608
Community No. 060276
Zone X 3/18/96
Panel 8615
Community No. 0602076
Zone X and Zone A
for S.A. Channel
3/18/96
Panel 8616
Community No. 060272
Zone X 3/18/96
Panel 8605
Community No.
060276 Zone X
City Boundary
Official Flood Zone Map No. 06071C
City of Montclair designated Zone X
except as noted
N
Note:
Zone A
San Bernardino Freeway
Arrow
Moreno
San Jose
Palo Verde
San Bernardino
Bento
Orchard
Kingsley
Holt
Railroad
(Metrolink)
UPRR
Union
Pacific
State
Mission
Howard
Grand
Phillips
Monte Vista
Central
Benson
Mills
San Antonio Channel

4.4 Vulnerability Assessment

This section provides an assessment of vulnerability for the three hazards (earthquakes, flooding, and dam failure) that pose significant threats to the City of Montclair. This is the final step in the four-step risk assessment process and utilizes data and information collected from the City and various external agencies. It provides loss estimates and vulnerability of general buildings, key facilities with critical functions and governance relationships, and people living and working in the City of Montclair. The vulnerability assessment provides a solid basis for analyzing the risk, the potential exposure, and consequences to City operations and safety.

The following items were taken into account when assessing the vulnerability:

- Updates to inventories of existing structures in hazard areas, including new development, redeveloped areas or structures located in annexed areas;
- Potential impacts of future land development, including areas that may be annexed in the future;
- New buildings that house special high-risk populations (elderly, low-income, or disabled people);
- And completed mitigation actions that reduced overall vulnerability.

4.4.1 Methodology

To conduct the vulnerability assessment, a combination of quantitative and qualitative approaches was used. A quantitative assessment of earthquake risk was performed with City provided data, FEMA's HAZUS software, and Special Publication No. 60 from the California Department of Conservation, Geological Survey. For flooding and dam failure, the City conducted an analysis using the Army Corp of Engineers' data, reports available from the City, Montclair Emergency Operation Plan, and various other public sources, including the FEMA-funded SBEFRA Project.

4.4.2 Estimating Potential Losses

This section provides an estimation of the potential dollar losses to vulnerable structures identified in Section 4.3 (Inventory Assets) of this plan. These estimations include facility replacement costs (structure and contents), estimated economic impact (functional losses), and a description of the economic impact.

Government Facilities

City Hall/Youth Center/Senior Center	
Facility Replacement Costs	2010-2011 Limits City Hall Structure - $2,450,000 City Hall Contents - $750,000 Youth Center Structure - $1,750,000 Youth Center Contents - $50,000 Senior Center Structure - $3,100,000 Senior Center Contents – $300,000
Estimated Economic Impact	$250,000

City Hall/Youth Center/Senior Center Continued	
Description of Economic Impact	An economic loss would be felt if these facilities were damaged during a disaster. Many regular City functions and services would cease until recovery measures where enacted. Economic impact may come from the inability to collection permit, license, or citation fees; fees associated with youth or senior activities or programs; of payments for City municipal services; and so on. This may also result in the loss of a potential disaster staff shelter location. The replacement costs were calculated using the City's Commercial Property Insurance Policy Property Schedule.

Public Works/Corporate Yard	
Facility Replacement Costs	2010-2011 Limits Truck Maintenance Garage Structure - $735,000 Truck Maintenance Garage Contents - $265,000 Shop and Office Building Structure - $750,000 Shop and Office Building Contents - $215,000 Carport Structure - $150,000 Carport Contents - $525,000 Storage Shed Structure - $10,000
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The recovery period after a disaster is critical. Without prompt and continual recovery measures, the City could not return to the normal business operations, which the citizens need and expect. The exact extent of economic impact is unknown, but could be substantial if recovery is not swift in the traffic corridors where sales tax revenues are crucial. The replacement costs were calculated using the City's Commercial Property Insurance Policy Property Schedule.

Hospitals

Montclair Hospital Medical Center	
Facility Replacement Costs	$22,000,000
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	Additional research will be conducted to determine the amount and type of economic impact felt at the hospital during a disaster.

Public Safety Facilities

Fire Station No. 151 (Headquarters)	
Facility Replacement Costs	2010-2011 Limits Fire Station Structure - $2,100,000 Carport Structure - $100,000 Contents - $520,000
Estimated Economic Impact	Approximately $19,000 per month (based on figures from the 2010 Fire Department Revenue Report)
Description of Economic Impact	If major damage was sustained to Station No. 151, collection of revenues such as plan check and permit fees, cost/recovery fees, grant funds, and EMS billing services, would cease or be limited.

Fire Station No. 152	
Facility Replacement Costs	2010-2011 Limits Fire Station Structure - $850,000 Drill Tour Structure - $250,000 Contents - $80,000
Estimated Economic Impact	$0
Description of Economic Impact	The replacement costs for Station Nos. 151 and 152 were calculated using the City's Commercial Property Insurance Policy Property Schedule.

Police Department (EOC)	
Facility Replacement Costs	2010-2011 Limits Structure - $25,950,000 Contents - $3,000,000
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The replacement costs were calculated using the City's Commercial Property Insurance Policy Property Schedule.

Roads/Bridges/Overpasses/Municipal Systems

Interstate 10 – Central Avenue and Monte Vista Avenue Overpass	
Facility Replacement Costs	$24,000,000
Estimated Economic Impact	$0
Description of Economic Impact	Unknown however, with major damage to the freeway; it would certainly diminish, if not halt, the functionability and economic resources for the Montclair Plaza. The shopping areas within the City, are crucial to the financial well being of the community. Blocked roadways would prevent shopping and require alternative routing around the City streets and businesses. Economic impact would consist of sales tax revenues being diminished and possible unemployment for those citizens who work in and around the failed roadways.

Sewer Infrastructure	
Facility Replacement Costs	$78,022,817.46
Estimated Economic Impact	$0
Description of Economic Impact	The financial impact is unknown however, with major damage to the sewer infrastructure; it would most certainly diminish, if not halt, the functionability of this system.

Storm Drain System	
Facility Replacement Costs	At this time an estimation for the value of this system has not been performed. Further studies will need to be conducted based on the City's inventory.
Estimated Economic Impact	$0
Description of Economic Impact	The financial impact is unknown however, with major damage to the storm drain system; it would most certainly diminish, if not halt, the functionability of this system.

Grade Separations	
Facility Replacement Costs	Approx. $20,000,000 each (total of $60,000,000)
Estimated Economic Impact	$0
Description of Economic Impact	The financial impact is unknown however, with major damage to grade separations; it would most certainly diminish, if not halt, the functionability and economic resources for businesses in the City. The shopping areas within the City are crucial to the financial well being of the community. Blocked roadways would prevent shopping and require alternative routing around the City streets and businesses. The economic impact would consist of sales tax revenues being diminished and possible unemployment for those citizens who work in and around the failed roadways. This would also impact the daily operations of the Metrolink and the Union Pacific Railroad as these grade separations are built over and under these railroad tracks.

Schools

American's with Disabilities Act (hereinafter referred to as "ADA")

Buena Vista Elementary School (OMSD)	
Facility Replacement Costs	$3,581,000
Estimated Economic Impact	$250,000

Buena Vista Elementary School (OMSD) Continued	
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 417 students at $26.82 per student, would be a loss of $11,183.94 per day.

David Stine Chaffey West County Community School (San Bernardino County Superintendent of Schools)	
Facility Replacement Costs	$9,500,000
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The amount of damage to the school structures would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. With the student reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. It would decrease if damage was minimal and did not completely close a school.

Howard Elementary School (OMSD)	
Facility Replacement Costs	$9,627,250
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 630 students at $26.82 per student, would be a loss of $16,896.60 per day.

Kingsley Elementary School (OMSD)	
Facility Replacement Costs	$10,159,250
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 815 students at $26.82 per student, would be a loss of $21,858.30 per day.

Lehigh Elementary School (OMSD)	
Facility Replacement Costs	$9,543,000
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 727 students at $26.82 per student, would be a loss of $19,498.14 per day.

Montclair High School (Chaffey Unified School District)	
Facility Replacement Costs	$42,598,000 – buildings $4,348,000 – contents
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structures would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the Chaffey Unified School District. With the student reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous costs associated with an over-populated damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school.

Monte Vista Elementary School (OMSD)	
Facility Replacement Costs	Unknown, further research will be conducted to determine this figure.
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 696 students at $26.82 per student, would be a loss of $18,736.32 per day.

Montera Elementary School (OMSD)	
Facility Replacement Costs	$950,000
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 564 students at $26.82 per student, would be a loss of $15,126.48 per day.

Moreno Elementary School (OMSD)	
Facility Replacement Costs	$9,399,000
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. Current ADA 520 students at $26.82 per student, would be a loss of $13,946.40 per day.

Ramona Elementary School (OMSD)	
Facility Replacement Costs	$9,627,250
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 736 students at $26.82 per student, would be a loss of $19,739.52 per day.

Serrano Middle School (OMSD)	
Facility Replacement Costs	$23,674,525
Estimated Economic Impact	$250,000

Serrano Middle School (OMSD) Continued	
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 714 students at $26.82 per student, would be a loss of $19,149.48 per day.

Vernon Middle School (OMSD)	
Facility Replacement Costs	$23,971,500
Estimated Economic Impact	$250,000
Description of Economic Impact	The amount of damage to the school structure would dictate the annual economic impact. The students who are displaced by structural damage to the school will be reassigned to another school in the area. The student fees collected from the State by the school will still be available if the students continue to attend a school within the OMSD. With the student, reassignments, portable classrooms, restrooms, transportation, and staff overtime would have to be included into the final economic impact. The estimation above is based on the rental of four portable classrooms, two portable restrooms, and miscellaneous cost associated with an over-populated temporary school setting. These costs would increase if there was major damage throughout the City, closing more than one school. It would decrease if damage was minimal and did not completely close a school. Current ADA 777 students at $26.82 per student, would be a loss of $20,839.14 per day.

Shelter Locations (City designated)

Montclair Community Center	
Facility Replacement Costs	2010-2011 Limits Community Building Structure – $2,200,000 Community Building Contents - $45,000 Recreation Building Structure - $1,650,000 Recreation Building Contents - $213,000 Multi-Purpose Building Structure - $165,000 Multi-Purpose Building Contents - $3,700 Restroom Building Structure – $74,000
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	An economic loss would be felt if this facility was damaged during a disaster. Many regular City functions and services would cease until recovery measures where enacted. Economic impact may come from the inability to collection fees associated with youth, adult, and senior activities or programs and so on. This may also result in the loss of a potential disaster public shelter location. The replacement costs were calculated using the City's Commercial Property Insurance Policy Property Schedule.

Utilities

Monte Vista Water District	
Facility Replacement Costs	$4,285,000
Estimated Economic Impact	$8,750,000
Description of Economic Impact	The Monte Vista Water District depends on an uninterrupted flow of water to its consumers. The amount of economic impact would depend on the overall damage caused to the Water District's facilities, along with the time the facilities are rendered inoperative. There would be a loss of primary business facility, billing capability, payment collection capacity, and an impairment of cash flow.

Southern California Edison San Antonio Substation and Southern California Gas Company Facilities	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	These companies depend on an uninterrupted flow of electricity and gas to its consumers. The amount of economic impact would depend on the overall damage caused to Edison's and the Gas Co.'s facilities, along with the time the facilities are rendered inoperative.

Chino Basin Water Conversation District	
Facility Replacement Costs	$3,724,000
Estimated Economic Impact	$0
Description of Economic Impact	Cost to clean up and rebuild the office complex and costs for temporary rental of replacement office space, and purchase of replacement office equipment and office furnishing.

Noncritical Facilities

Library	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	$0
Description of Economic Impact	Unknown, additional research needs to be conducted to determine with there would be any economic impact on the library during a disaster.

Stater Bros. Grocery Store	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The economic impact would be the result of lost sales tax revenue to the City. An additional economic hardship would be the result of loss of jobs.

Facilities of High Economic Importance

Costco	
Facility Replacement Costs	$8,175,000
Estimated Economic Impact	$1,575,000
Description of Economic Impact	The economic impact would be the result of lost sales tax revenue to the City. An additional economic hardship would be the result of the loss of approximately 300 jobs.

Giant RV	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The economic impact would be the result of lost sales tax revenue to the City. An additional economic hardship would be the result of loss of jobs.

Montclair Autoplex	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The economic impact would be the result of lost sales tax revenue to the City. An additional economic hardship would be the result of loss of jobs.

Montclair Plaza	
Facility Replacement Costs	$162,500,000
Estimated Economic Impact	$5,000,000
Description of Economic Impact	The economic impact estimate is directly related to the annual sales tax revenue generated for the City. Original costs plus adjustments for increased construction costs.

Target	
Facility Replacement Costs	Unknown, additional research needs to be conducted
Estimated Economic Impact	Unknown, additional research needs to be conducted
Description of Economic Impact	The economic impact would be the result of lost sales tax revenue to the City. An additional economic hardship would be the result of loss of jobs.

4.4.3 Results of Earthquakes

The information presented below provides detailed estimates of potential earthquake losses in Montclair from an 8.3 Richter magnitude earthquake on the southern San Andreas Fault. The basis for the information below was extracted from planning scenarios presented by the California Department of Conservation, Geological Survey, in Special Publication 60, 1982. These estimates are for planning purposes only and are best guesses based on similar situations experienced in other areas.

Casualties:

Since studies predicted only the total number of deaths and hospitalized injuries, for the entire county of San Bernardino, it is assumed that a proportionate number of casualties will be generated in Montclair. The total number of casualties projected in the event an 8.3 magnitude earthquake occurs on a weekday at 4:30 p.m. are as follows:

Projected Deaths: 35
Projected Hospitalized Injuries: 240
Projected Non-Hospitalized Injuries: 1050

Long-Term Homeless:

There could be approximately 250 homeless persons in American Red Cross Shelters for more than one week.

Dams and Flood Control Channels:

Because of current design and construction practices and ongoing programs of review and modification, catastrophic dam failure is considered unlikely. Many flood control channels are expected to suffer damage.

Damage to Vital Public Services, Systems, and Facilities

Bed loss in Hospital:

Montclair has one hospital with a total capacity of 102 beds. Approximately 52 or 50 percent of the total number of beds could be lost during a major earthquake.

Highways and Bridges:

Damage to freeway systems is expected to be major. Interstate I-15, which connects San Bernardino County via the Cajon Pass, would most likely be impassable, indefinitely. Bridges and overpasses at key interchanges would be severely damaged, especially at the I-10/I-215; I-10/I-15; and I-15/I-215 freeways. Major inner surface transportation routes could be subject to delays and detours. Surface street connections in the vicinity of freeways could be blocked due to collapsed overpasses. Many surface streets near, and adjacent to, the Montclair Plaza and residential areas, will be blocked by debris from buildings, falling electrical wires, and pavement damage.

Airports:

Ontario International Airport, approximately three miles southeast of the City Of Montclair, will probably sustain extensive damage and will be available for limited use only because of its location in a severe liquefaction area.

Railroads:

Damage to railroads will significantly affect Montclair and the San Bernardino Valley. All major rail companies have lines via the Cajon Pass are expected to be severely damaged and be out of service for an extended period of time after an earthquake. Many railroad bridges are susceptible to damage because of age, design, and construction. Some lines could be blocked because of damage to freeway overpass structures. The rail transportation capability of the Los Angeles Basin could be seriously impeded because the Colton Train Yard is one of the largest reclassification yards in the world. Hazardous materials in railroad tank cars, fuel releases, and fires could pose a substantial threat to this facility as well as other locations where hazardous materials are in transit or stored.

Natural Gas:

Damage to natural gas facilities will consist primarily of isolated breaks in major transmission lines, innumerable breaks in mains, and individual service connections within the distribution system, particularly in the areas of intense ground shaking.

These leaks in the distribution system will affect a major portion of the City, resulting in a loss of service for extended periods. Fires should be expected at the site of a small percentage of ruptures both in the transmission lines and distribution system.

Petroleum Fuels:

Most major pipelines cross the San Andreas Fault, and pipeline breakage is expected. Additionally, because of landslides, roadway damage, and other utility transmission systems in close proximity to locations of expected pipeline breakage, an already limited response capability will be limited further. There is a possibility of fire where pipeline failures occur. Priorities will have to be established to assure adequate fuel for emergency crews. Multi-product petroleum fuel lines run through Montclair from the Wilmington-Long Beach area of Los Angeles County to the Colton Tank Farm in San Bernardino County. The pipeline continues on, to San Bernardino International Airport (formally Norton AFB) with a branch continuing via the Cajon Pass, across the San Andreas Fault to Southern California International Airport (formerly George AFB) in Victorville and then across the desert to Las Vegas.

Fire Operations:

Although total collapse of fire stations is not expected, possible disruption of utilities, twisted doors, and loss of power can create major problems. Numerous fires due to disruption of power and natural gas networks can be expected. Many connections to major water sources may be out and storage facilities would have to be relied on; water supply could vary from little or none to inadequate. First response from fire personnel is expected to be assessment of the area to establish what is needed to determine response and recovery needs. Operations may take days because of the disruption of transportation routes for fire department personnel and equipment. City and County fire services may be supplemented by statewide mutual aid systems or supported by California Department of Forestry and U.S. Forest Service resources as required.

Communications:

During the first three days, telephone communication will be functioning at between 10 and 40 percent of capacity. Degradation of telephone service will be cause by overloading from post-earthquake calls and by damage to equipment. The effectiveness of radio systems will decline due to physical damage to base stations, repeaters, antennas, and related equipment. Portable, mobile, and amateur radios that are not dependent upon repeaters will likely retain full effectiveness. A majority of commercial radio and TV broadcasts will be out of operation for at least the first 24 hours.

Electrical Power:

Major power plants are expected to sustain some damage due to liquefaction and the intensity of the earthquake. Up to 60 percent of the system load may be interrupted immediately following the initial shock. According to representatives of Edison International, electrical power will not be rerouted and will be lost for an undefined period of time. Most of the imported power is expected to be lost. In some areas of greatest shaking, it should be anticipated that some distribution lines, both underground and surface, will be damaged. Much of the affected area may have service restored in days; damage areas with underground distribution may require a longer time. Loss of Edison International transmissions lines is possible.

Sanitation Systems:

Many wastewater treatment facilities could be out of service from four to six months, depending on the damage caused by the severity of intensity and liquefaction. There is a limited volume of storage available in wastewater treatment plants; if treatment capability cannot be restored before storage is expected, the wastewater will require discharge with emergency chlorination to reduce health hazards. Overflow of sewage through manholes can be expected due to breakage in mains and loss of power. As a result, there will be a danger of excessive collection of explosive gas in sewer mains, and flow of untreated sewage in some street gutters. Many house sewer connections will break and plug.

Water Supply:

Southern California's three imported water supplies (State Water Project/California Aqueduct, Colorado River Aqueduct, and the Los Angeles Aqueduct) cross the San Andreas Fault. Many other fault lines bisect major water facilities throughout the region. Experts consider it likely that one or more of these supplies will be disrupted in the event of a major earthquake.

Restoring service at any of these facilities following a catastrophic outage could take up to six month, according to Metropolitan Water District (MWD) of Southern California. This, in turn, could reduce annual deliveries by roughly 50 percent for water supplied by MWD. MWD has reserved half of Diamond Valley Lake in Hemet (400,00 acre feet of water) for storage to meet extreme emergency water conditions. With few exceptions, MWD asserts that it can deliver this emergency supply throughout its service area via gravity, thereby eliminating dependence on power sources that could also be disrupted by a major earthquake. MWD has identified a water shortage plan that will guide its management of available supplies and resources during the emergency.

Monte Vista Water District, the retail water supplier to the inhabitants of the City of Montclair, purchases 30 percent of its water supply from the State Water Project through its contractor, the Inland Empire Utilities Agency, one of the 27 member agencies comprising the Metropolitan Water District. The additional 70 percent of the District's water supply is obtained from groundwater supplies through its nine active production wells.

In case of widespread or even local power disruption, the District could no longer pump water from its groundwater production wells throughout the District, but it could obtain its entire water supply from MWD if supplies are still intact. Water from the State Water Project's California Aqueduct is directed to Lake Silverwood, which, at capacity, can provide water supply for several months. From there, the water is directed through the Devil's Canyon connection to the Rialto/Foothill Feeder.

From the Rialto/Foothill Feeder, the imported water is directed to the Water Facility Authority treatment plant in Upland (Benson and 18th Street) and distributed to the authority's five member agencies (Monte Vista Water District, and the cities of Chino, Chino Hills, Ontario, and Upland). The WFA plant has a diesel-powered generator, capable of operating at full capacity to treat surface water for up to five days with on-site fuel reserves. From the WFA, MWD's service area could be supplied on gravity feed using available capacity without any disruption of service to customers,

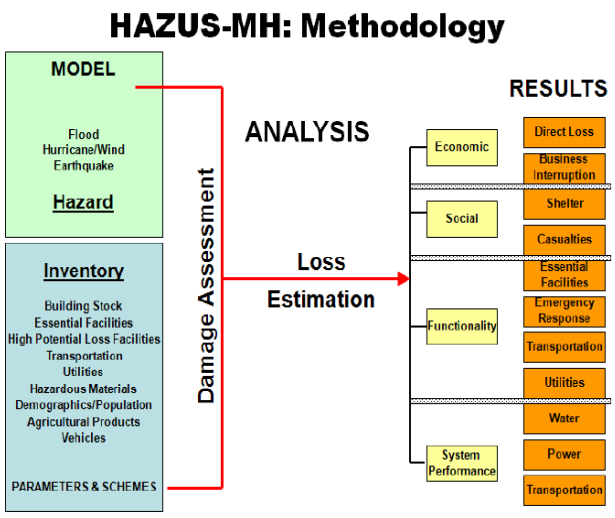
provided the distribution system is intact. Valves in the distribution systems can be operated manually if the computer systems are inoperable.

During emergency situations, Monte Vista Water District may be required to activate its water conservation ordinance. Customers will be notified to decrease their non-essential water use that range from Stage 1, voluntary water conservation measures, to Stage VI, special provision water conservation measures with prohibited uses of water.

Public health notifications conforming to state laws will be distributed if District management determines that any damage to the water supply distribution system has compromised water quality, i.e. some level of contamination to the drinking water supply has occurred. Public advisories include directives to use bottled water or to boil tap water for consumption. In case of the absence of natural gas or electricity, instructions on the use of household bleach to disinfect tap water will be provided.

If the imported water supplies are reduced dramatically and power supply is not available for extended periods of time, the District will rely on the implementation of MWD's regional emergency water supply plan, in coordination with our wholesale agency, the Inland Empire Utilities Agency.

Scenarios



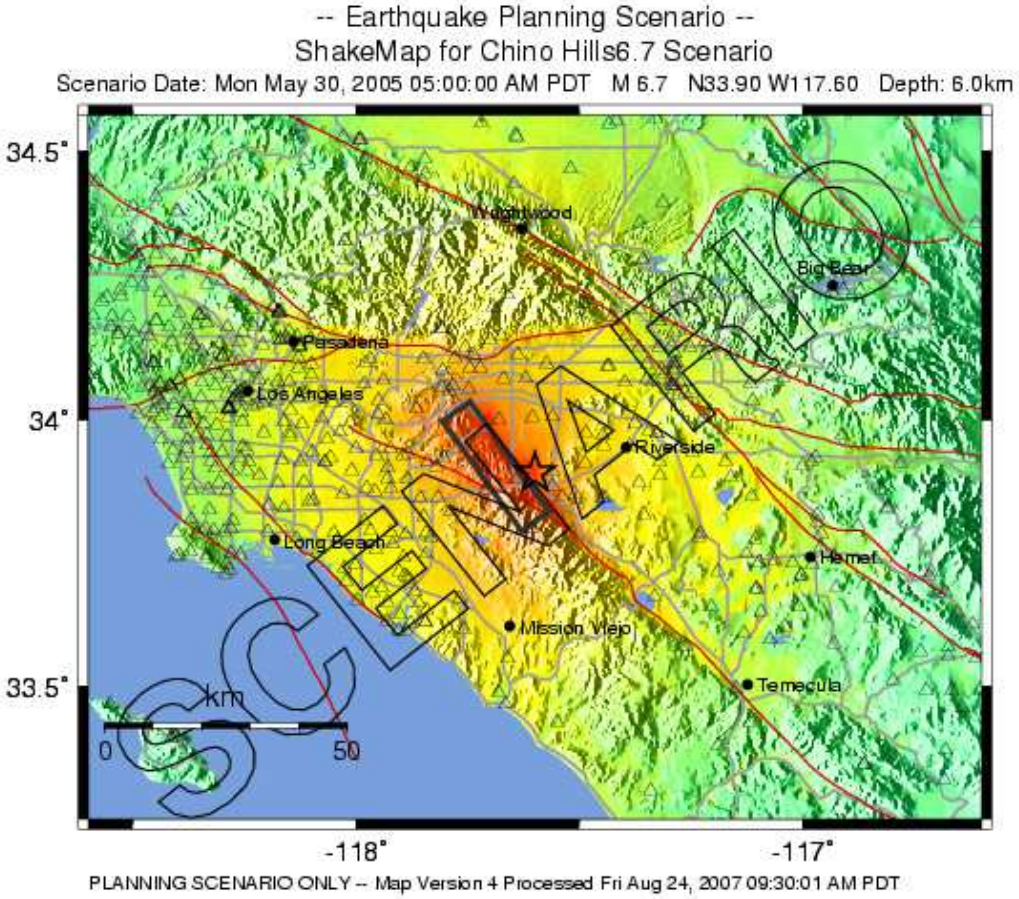
Regional earthquake loss estimates and critical facility damage and functionality have been estimated using the latest version of HAZUS (HAZUS-MH MR-4), with the improved regional building and essential facility inventory databases developed under FEMA funding for the San Bernardino County Essential Facilities Risk Assessment (SBEFRA) Project. The risk assessment of critical facilities considers those essential facilities (fire stations, police facilities, EOC's and schools) for which HAZUS-compatible databases have been developed.

Given an earthquake fault or epicenter, magnitude, and location as input, the HAZUS earthquake module produces quantitative estimates of losses to buildings and lifeline infrastructure, estimates of impact on the functionality of facilities, and casualty and other population impacts. Alternatively, the users may import "user-supplied" hazard data, such as a Shake Map generated by the USGS. Output from HAZUS includes several items. Losses are presented as direct economic losses from building and lifeline damage, as well as selected indirect economic losses. Functionality estimates are calculated in terms of restoration time for critical facilities, such as highway bridges, water treatment plants, and electric power substations, and system restoration assessments for potable water and electrical power networks.

Casualty estimates are provided as various levels of injury severity and death. The model also estimates losses due to fire-following earthquake and the quantity of earthquake-related debris generated.

Below are maps and tables detailing three earthquake scenarios that affect Montclair. The first scenario is a magnitude 6.7 earthquake centered in Chino Hills, the second is a 6.7 earthquake centered at San Jacinto, and the last is a 7.8 earthquake that was used for the Shake Out scenario. The maps show the amount of perceived shaking and potential damage in Montclair. The tables detail the direct economic losses for buildings, the amount of casualties, the amount of people displaced in shelters, the amount of debris, building damage count by general building type, and the effects of these magnitude quakes on the City's essential facilities.

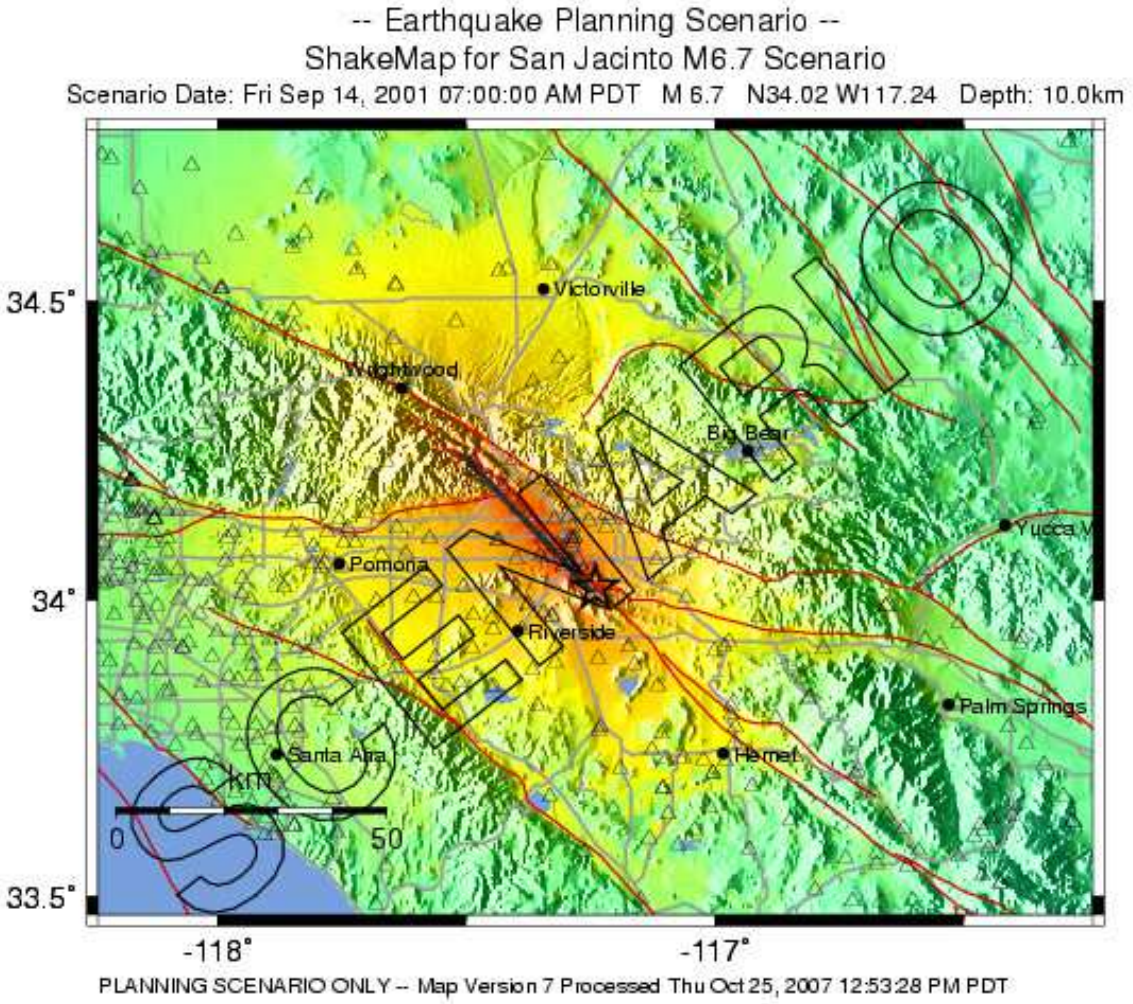
Chino Hills – Magnitude 6.7 Earthquake
The map below depicts a 6.7 earthquake scenario in Chino Hills, California. The perceived shaking in Montclair is estimated to be very strong to violent. The potential damage is moderate to heavy.



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

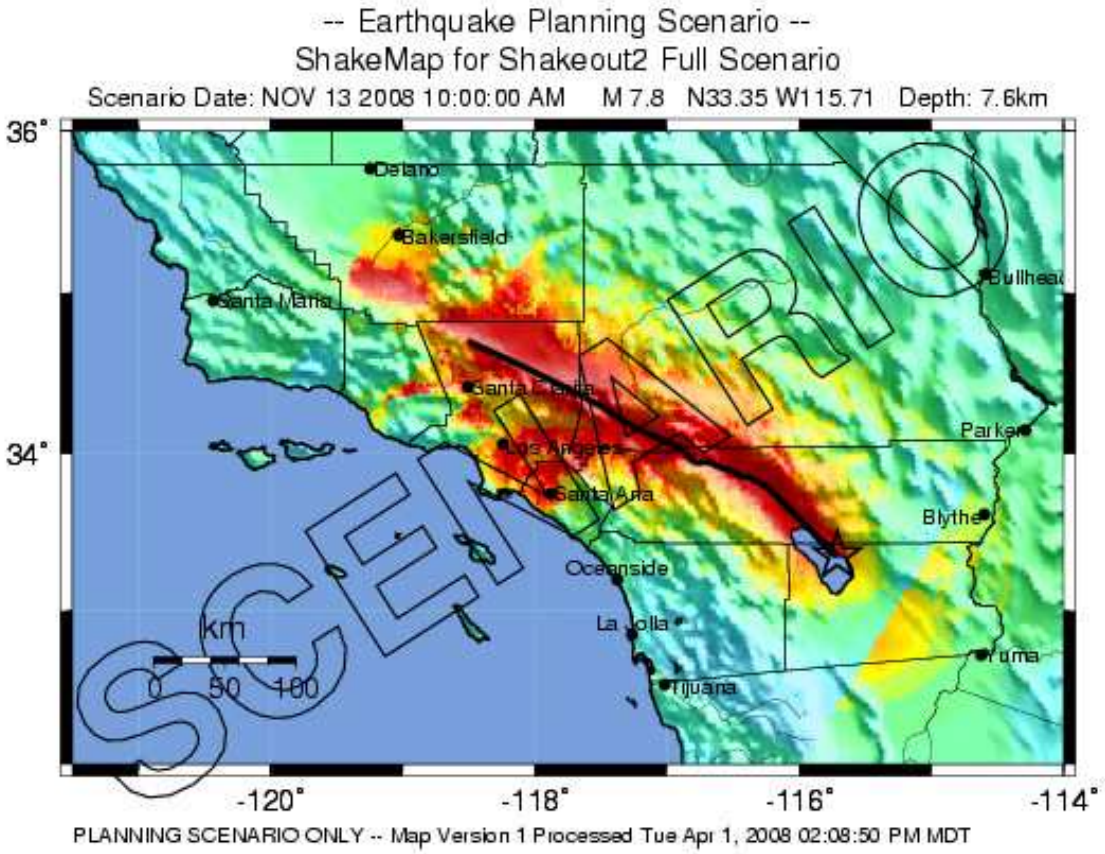
San Jacinto – Magnitude 6.7 Earthquake

The map below depicts a 6.7 earthquake scenario at San Jacinto, California. The perceived shaking in Montclair is estimated to be very strong to very strong. The potential damage is light to moderate.



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

ShakeOut Scenario – Magnitude 7.8 Earthquake
The map below depicts a 7.8 earthquake scenario spanning across California.



PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	*<.17*	*.17-1.4*	*1.4-3.9*	*3.9-9.2*	*9.2-18*	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	*8.1-16*	*16-31*	*31-60*	*60-116*	*>116*
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

		Earthquake Scenario		
		M7.8 ShakeOut Scenario (including Liquefaction)	**M6.7 San Jacinto Fault (including Liquefaction)**	**M6.7 Chino Hills Fault (including Liquefaction)**
Direct Economic Losses for Buildings ($1,000)				
	Total Building Exposure Value	4,996,900		
Capital Stock Losses	Cost of Structural Damage	77,556	3,203	40,124
	Cost of Non-Structural Damage	222,884	29,892	175,705
	Total Building Damage (Str. + Non-Str.)	300,440	33,095	215,829
	Building Loss Ratio %	6.0%	0.7%	4.3%
	Cost of Contents Damage	112,905	20,254	105,207
	Inventory Loss	8,856	1,636	7,931
Income Losses	Relocation Loss	48,569	1,508	30,922
	Capital-Related Loss	7,124	191	3,744
	Rental Income Loss	16,206	606	9,617
	Wage Losses	12,016	315	6,124
	Total Direct Economic Loss	**506,116**	**57,605**	**379,374**
	% Of Countywide Loss	2.3%	1.1%	12.5%
Casualties				
Day Casualties	**Casualties - 2 pm**			
	Fatalities	3	0	0
	Trauma injuries	1	0	0
	Other (non-trauma) hospitalized injuries	7	0	0
	Total hospitalized injuries	**8**	**0**	**0**
	Injuries requiring Emergency Department Visits	161	4	65
	Injuries treated on an Outpatient basis	291	8	127
	Total injuries	**463**	**12**	**192**
	Hospital visits requiring EMS transport	11	0	3
Night Casualties	**Casualties - 2 am**			
	Fatalities	2	0	1
	Trauma injuries	1	0	0
	Other (non-trauma) hospitalized injuries	7	0	0
	Total hospitalized injuries	**8**	**0**	**0**
	Injuries requiring Emergency Department Visits	237	7	127
	Injuries treated on an Outpatient basis	435	15	246
	Total injuries	**682**	**22**	**374**
	Hospital visits requiring EMS transport	14	0	6
Shelter				
Shelter	Number of Displaced Households	413	8	383
	Number of People Requiring Short-term Shelter	217	4	205
Debris (thousands of tons)				
Debris	Brick, Wood & Other (Light) Debris	99	5	61
	Concrete & Steel (Heavy) Debris	276	4	90
	Total Debris	**375**	**9**	**151**

		Earthquake Scenario		
		M7.8 ShakeOut Scenario (including Liquefaction)	M6.7 San Jacinto Fault (including Liquefaction)	M6.7 Chino Hills Fault (including Liquefaction)
Building Damage Count by General Building Type				
Concrete	None	46	161	46
	Slight	53	16	71
	Moderate	55	2	56
	Extensive	22	0	7
	Complete	4	0	0
	TOTAL	**180**	**180**	**180**
Manuf. Housing	None	0	465	3
	Slight	6	473	31
	Moderate	95	269	328
	Extensive	569	5	682
	Complete	542	0	168
	TOTAL	**1,212**	**1,212**	**1,212**
Precast Concrete	None	34	67	17
	Slight	33	11	36
	Moderate	13	1	25
	Extensive	0	0	1
	Complete	0	0	0
	TOTAL	**80**	**80**	**80**
Reinforced Masonry	None	151	292	108
	Slight	94	23	120
	Moderate	53	3	81
	Extensive	18	0	9
	Complete	2	0	0
	TOTAL	**318**	**318**	**318**
Steel	None	8	41	12
	Slight	14	5	18
	Moderate	19	1	15
	Extensive	6	0	2
	Complete	1	0	0
	TOTAL	**47**	**47**	**47**
Unreinforced Masonry	None	2	7	1
	Slight	3	2	5
	Moderate	6	0	10
	Extensive	8	0	5
	Complete	4		1
	TOTAL	**22**	**9**	**22**

		Earthquake Scenario		
		M7.8 ShakeOut Scenario (including Liquefaction)	M6.7 San Jacinto Fault (including Liquefaction)	M6.7 Chino Hills Fault (including Liquefaction)
Building Damage Count by General Building Type (Continued)				
Wood Frame (Other)	None	187	470	156
	Slight	166	53	262
	Moderate	132	2	101
	Extensive	36	0	4
	Complete	3	0	0
	TOTAL	**524**	**524**	**524**
Wood Frame (Single-family)	None	4,325	6,668	2,773
	Slight	2,718	645	3,833
	Moderate	282	16	688
	Extensive	4	0	31
	Complete	0	0	4
	TOTAL	**7,329**	**7,329**	**7,329**
ALL BUILDING TYPES	None	4,753	8,172	3,117
	Slight	3,085	1,228	4,376
	Moderate	655	295	1,305
	Extensive	663	5	742
	Complete	556	0	173
	TOTAL	**9,713**	**9,699**	**9,713**

Essential Facilities Risk Assessment - City of Montclair

		Earthquake Scenario		
	FACILITY TYPE	M7.8 ShakeOut Scenario (including Liquefaction)	M6.7 San Jacinto Fault (including Liquefaction)	M6.7 Chino Hills Fault (including Liquefaction)
Fire Stations	**Montclair Fire Department**			
	Total Number of Buildings	**2**		
	Damage:			
	# Buildings with >50% Probability of Moderate or Greater Damage	0	0	0
	# Buildings with >50% Probability of Complete Damage	0	0	0
	Functionality:			
	Functionality < 50 % on Day 1	0	0	2
	Functionality 50 - 75% on Day 1	2	0	0
	Functionality >75% Day 1	0	2	0
EOCs	**City of Montclair**			
	Total Number of Buildings	**1**		
	Damage:			
	# Buildings with >50% Probability of Moderate or Greater Damage	0	0	0
	# Buildings with >50% Probability of Complete Damage	0	0	0
	Functionality:			
	Functionality < 50 % on Day 1	0	0	0
	Functionality 50 - 75% on Day 1	0	0	0
	Functionality >75% Day 1	1	1	1
Police Facilities	**Montclair Police Department**			
	Total Number of Buildings	**1**		
	Damage:			
	# Buildings with >50% Probability of Moderate or Greater Damage	0	0	0
	# Buildings with >50% Probability of Complete Damage	0	0	0
	Functionality:			
	Functionality < 50 % on Day 1	0	0	0
	Functionality 50 - 75% on Day 1	0	0	0
	Functionality >75% Day 1	1	1	1
Schools	**Ontario-Montclair School District***			
	Total Number of Buildings	**596**		
	Damage:			
	# Buildings with >50% Probability of Moderate or Greater Damage	8	0	5
	# Buildings with >50% Probability of Complete Damage	4	0	0
	Functionality:			
	Functionality < 50 % on Day 1	82	0	383
	Functionality 50 - 75% on Day 1	510	9	197
	Functionality >75% Day 1	4	587	16

* Ontario-Montclair school district data are also listed on the City of Ontario risk assessment table

4.4.4 Results of Flooding

The purpose of this section is to describe the extent, magnitude, and severity of the results of flooding in the City of Montclair.

Medical and Health:

It is anticipated and past experience has shown that the medical and health aspects of flooding in this jurisdiction are not great in the short-term.

The primary impact is on minor delays during the response and transport phases of medical emergencies. Flooded travel routes and unusual traffic congestion in the area mandate that responding medical aid units utilize alternate routes and slower speeds while en-route to the scene, and while en-route to treatment facilities.

These expected impacts on service are to be mitigated by tactical planning that will place medical response units in position of greater advantage as conditions change.

It is not expected that long-term health problems for the community will develop due to flooding problems. While floods are a regularly occurring event in certain areas of the jurisdiction, experience has shown that once causative factors are diminished, the local habitat readily returns to a normal state. While medical aid responses may be somewhat above normal, and the type of response may be alternated by the emergency, it is not anticipated that local resources will be greatly impacted. However, increased numbers of personnel will be required due to the extraordinary placement of personnel and equipment in anticipation of flood related problems.

Local Emergency Medical Services (EMS) resources will be alternated and mobilized as directed by response plans to include:

1. Dispatch of on-duty personnel to designated areas of operation,

2. Recall of off-duty personnel,

3. And Utilization of public, private, and volunteer resources.

Additionally, local resources will participate in evacuation and treatment of victims, and casualties in accordance with said directives.

Medical communications will be established and coordinated through the Ontario Dispatch Center. Emergency medical management on a local level will be coordinated through the local EOC communications system. Local emergency management will establish tactical Branch's of operation based on severity of the event and assessed needs. Field Treatment Sites (FTS) will be predesignated by County officials for the congregation, triage, austere medical treatment, holding, and evacuation of casualties following a major disaster. They represent the operational interface between Operational Area and State medical responses.

Highway/Roadways/Bridges:

The City of Montclair has experienced roadway flooding with rapid water movement in the past during major weather events. Usually the flooding does not cause major problems and is usually short-term. In the future, flooding may occur if there is an intense rain storm with heavy downpour or a large water release from the San Antonio Dam. This water release could be due to structural failure or an emergency release of water from the dam.

The actual effects on highways, roadways, and bridges within Montclair would depend on several factors. These factors include, but are not limited to, weather, structural integrity of the dam, volume of water released, and the ability of storm drains and flood channels to divert water off the roadways and through the City. The majority of the flooding would be expected in the northern part of the City if there is a dam failure or large water release, especially if the water release is unexpected. Additional flooding could occur along the flood channels within the City.

Public and Private Property Damage:

In the chance that there was a 500-year flood or severe storm event private dwellings, businesses, and public buildings may experience damage from floods.

Construction and improvements through the years have altered the environment in a manner making them less susceptible to this condition. In some cases, the jurisdiction has been able to mitigate the threat through appropriate prevention activities. In others, only a rapid response to known trouble areas has lessened the impact.

Railroad Failures:

Rail failures are not heavily impacted by flooding, other than damage to road beds and trestles. Problems with railroad track areas seem to make themselves known after periods of extended rain when the ground becomes well saturated. In these cases derailments become more commonplace.

4.4.5 Results of Dam Failure

The purpose of this section is to describe the extent, magnitude, and severity of the results of dam failure in the City of Montclair.

Medical and Health:

It is anticipated and past experience has shown that the medical and health aspects of flooding in this jurisdiction are not great in the short-term.

The primary impact is on minor delays during the response and transport phases of medical emergencies. Flooded travel routes and unusual traffic congestion in the area mandate that responding medical aid units utilize alternate routes and slower speeds while en-route to the scene, and while en-route to treatment facilities. These expected impacts on service are to be mitigated by tactical planning that will place medical response units in position of greater advantage as conditions change.

It is not expected that long-term health problems for the community will develop due to flooding problems. While floods are a regularly occurring event in certain areas of the jurisdiction, experience has shown that once causative factors are diminished, the local habitat readily returns to a normal state. While medical aid responses may be somewhat above normal, and the type of response may be alternated by the emergency, it is not anticipated that local resources will be greatly impacted. However, increased numbers of personnel will be required due to the extraordinary placement of personnel and equipment in anticipation of flood related problems.

Local EMS resources will be alternated and mobilized as directed by response plans to include the following:

1. Dispatch of on-duty personnel to designated areas of operation,
2. Recall of off-duty personnel,
3. And utilization of public, private, and volunteer resources.

Additionally, local resources will participate in evacuation and treatment of victims and casualties in accordance with said directives.

Medical communications will be established and coordinated through the Ontario Dispatch Center. Emergency medical management on a local level will be coordinated through the local Emergency Operations Center communications system. Local emergency management will establish tactical branches of operation based on

the severity of the event and assessed needs. Field Treatment Sites (FTS) will be pre-designated by County officials for the congregation, triage, austere medical treatment, holding, and evacuation of casualties following a major disaster. They represent the operational interface between Operational Area and State medical responses.

Highways, Roadways, and Underpasses:

The actual effect on the highways, roadways, and underpasses within Montclair would depend on several factors. These factors include, but are not limited to, weather, structural integrity of the dam, volume of water released, and the ability of storm drains and flood channels to divert water off the roadways and through the City. The majority of the flooding would be expected in the northern part of the City if there is a dam failure or large water release, especially if the water release is unexpected. Additional flooding could occur along the flood channels within the City. It is possible that water could flood the underpass for Metrolink tracks on Monte Vista Avenue because the pumps might not be able to accommodate the amount of water.

Public and Private Property Damage:

In the event that a dam failure occurred private dwellings, businesses, and public buildings may experience damage from flood inundation. Construction and improvements throughout the years have altered the environment in a manner making them less susceptible to this condition. In some cases, the jurisdiction has been able to mitigate the threat through appropriate prevention activities.

Railroad Failures:

Rail failures are not heavily impacted by flooding other than damage to road beds and trestles. Problems with railroad track areas seem to make themselves known after periods of extended rain when the ground becomes well saturated. In these cases derailments become more commonplace.

Section 5 – Community Capability Assessment

The City of Montclair strives to protect and maintain the health, safety, and welfare of the community on a day-to-day basis, and takes extra measures to reduce the impacts of natural hazards. The City uses a variety of different tools, assets, and authorities to effectively prepare for, mitigate against, respond to, and recover from emergencies and disasters. These include voluntary and mandatory measures; individual and community efforts; private and public actions; and preventive as well as responsive approaches. Example mitigation activities include educating citizens, enforcing building and development codes, constructing capital improvement projects, adopting plans, establishing incentive programs, and improving emergency preparedness and response.

The capabilities available to the City of Montclair fall into the following broad categories: Agencies and People, Plans, Codes and Regulations, Mitigation Programs, and Financial Resources. Identifying and documenting these capabilities provides the basis for developing future mitigation opportunities and how they may be implemented within existing City programs.

5.1 Agencies and People

Montclair departments have specific responsibilities and related activities/actions assigned to them for each identified hazard and threat. Each department is responsible for ensuring coordination with the other departments. In an emergency, all employees are disaster service workers. "Subject to such disaster service activities as may be assigned to them by their supervisors, or by law." (CA CG §3100) In the event of an emergency/disaster the City will also coordinate with non-governmental and private sector organizations such as the Red Cross, United Way, Monte Vista Water District, Ontario-Montclair School District, Chaffey-Joint Unified School District, and so on. The table below provides information about how each department promotes or implements mitigation and risk reduction activities.

Department	Role in Disaster Mitigation and Management
Mayor and City Council	• Adopts policies, codes, and standards and approves plans. • Continually trains in Incident Command System (ICS) courses.
City Manager	• Has the overall responsibility of coordinating the City's response to each emergency and oversees the development of plans to reduce risk within the City. • Assigned to the EOC as the EOC Director. • Continually trains in Incident Command System (ICS) courses.
Police Department	• The Police Chief is assigned to the Operations Section Chief in the EOC (may also be filled by the Fire Chief depending on the incident). • Identifies key departmental personnel for each EOC/DOC position with a primary and alternate assignment. • Administration office administers the Homeland Security Grant. • Continually trains in Incident Command System (ICS) courses. • Initiates post-disaster public safety procedures. • The City's Emergency Operations Center is housed at the Police Department. • Conducts public education programs.

Department	Role in Disaster Mitigation and Management
Fire Department	• The Fire Chief is assigned to the Operations Section Chief in the EOC (may also be filled by the Police Chief depending on the incident). • Identifies key departmental personnel for each EOC/DOC position with a primary and alternate assignment. • Coordinates the City's Emergency Preparedness Program. • Coordinates the City's Auxiliary Communications Services group (amateur radio operators). • Works with nongovernmental and volunteer groups such as the water district and school districts to coordinate a unified response to hazards. • Coordinates the update of the City's Hazard Mitigation Plan and Emergency Operations Plan. • Participates in the San Bernardino County Operational Area Coordinating Council. • Continually trains in Incident Command System (ICS) courses. • Initiates post-disaster public safety procedures. • The City's Alternate Emergency Operations Center is housed at the Fire Department. • Conducts public education programs. • Provides emergency preparedness information on the City website. • Coordinates the update of the Fire Code. • Coordinates the Urban Search and Rescue Program. • Conducts annual inspections of business and residents within the City.
Public Works/ Redevelopment Department	• Identifies key departmental personnel for each EOC/DOC position with a primary and alternate assignment. • Provides leadership, planning, and administration of all public works programs, including engineering for capital projects. • Conducts environmental assessments. • Maintain the City's Flood Zone maps. • Coordinates the City's Sand Bag program with the Fire Department. • Continually trains in Incident Command System (ICS) courses.
Community Development Department	• Identifies key departmental personnel for each EOC/DOC position with a primary and alternate assignment. • Human Services Division Coordinates services with the Red Cross to provide sheltering for displaced citizens. • Continually trains in Incident Command System (ICS) courses. • Building and Planning Divisions maintain the City's General Plan and land use regulations. • Coordinates the update of the Building Code. • Conducts inspections of the City's residential and commercial structures to ensure compliance with all applicable codes and regulations.

Department	Role in Disaster Mitigation and Management
Administrative Services Department	• Identifies key departmental personnel for each EOC/DOC position with a primary and alternate assignment. • Continually trains in Incident Command System (ICS) courses. • Information Technology Division maintains and provides digital mapping services. • Finance Division maintains vital information concerning the City's fiscal resources. • Personnel Division coordinates the City's Risk Management Program.

5.2 Existing Plans

The City of Montclair has adopted the philosophy that plan integration is an essential element to future and long-term community sustainability. The City's long-term goal is to integrate all aspects of comprehensive planning and development to correlate with a continuum of adopted codes and standards to support this philosophy. Current and future plans will define important City policies and support the ordinances and activities described below. For example, the goal is to enhance the objectives of hazard mitigation, including the Health and Safety Element of the General Plan. Other plans focus on different aspects of disaster management such as emergency response. Other plans have implications that are relevant to hazard mitigation, such as plans related to spending on public facilities and storage of hazardous materials. This section reviews City plans and highlights the elements that are relevant to mitigation and may support future implementation of activities identified in this Plan.

General Plan
All cities and counties in California are required to adopt a General Plan that lays out major policy goals. The General Plan includes elements, which are sections that address a variety of important topics. The element most closely related to this Hazard Mitigation Plan is the Safety Element, which focuses on reducing risks posed by natural and technological hazards and other human caused emergency events. Other elements also provide guidance relevant to mitigation, including the Land Use, Open Space, Conservation, Housing, Transportation, and Noise elements. For example, the Land Use Element restricts land uses and density in hazardous areas, thereby limiting the number of people and buildings exposed to hazards.

The City of Montclair's Hazard Mitigation Plan has been adopted into the Safety Element of the City's General Plan in compliance with Assembly Bill No. 2140. These two plans work in conjunction to ensure that the community is protected from any unreasonable risks associated with the hazards identified in Montclair. By incorporating this Plan into the General Plan's Safety Element, the City hopes to attain access to AB 2140 post-disaster assistance.

Capital Improvement Program (CIP)
The CIP outlines the annual appropriations in the City's budget for capital improvement projects such as street or park improvements, building construction, and various kinds of major facility maintenance. Capital improvement projects are supported by expenditure plans, which detail funding sources and expenditure amounts. They are often multi-year projects, which require funding beyond the one-year period of the annual budget.

Emergency Operations Plan
The City of Montclair produced an Emergency Operations Plan to comply with the Standardized Emergency Management System (SEMS) that was developed by the State of

California, and the National Incident Management System (NIMS) that was developed by the Federal Emergency Management Agency. The plan includes information on the Emergency Operations Organization, the roles and responsibilities of each section, and includes operational checklists to guide response actions.

Mutual Aid Agreements
Inter-jurisdictional arrangements to assure public safety, protection, and other assistance services today generally are in the form of "mutual aid" agreements. Mutual aid and other agreements provide for voluntary cooperative efforts and for provision or receipt of services and aid to or from other agencies or jurisdictions when local capabilities are exceeded by an emergency event. Through mutual aid agreements, individual City agencies coordinate emergency response planning with adjacent cities, the County of San Bernardino, the State, federal agencies, and other public and private organizations, such as the School District and the American Red Cross. The California Emergency Management Agency (Cal EMA) is designated by law to provide coordination and State resources to regions or local areas that are declared disaster areas by the Governor.

5.3 Regulations, Codes, Policies, and Ordinances

The City has adopted codes and regulations to govern development, construction, and land use activities. They include construction standards, requirements, use limitations, study requirements, and mitigation requirements that help directly or indirectly minimize the exposure of people and property to loss or injury resulting from disasters. As such, they are an effective tool and capability that the City may continue to use to reduce the amount of damage or harm arising from disasters. This Plan provides an opportunity to review existing regulations to determine if they are effective or whether they need to be revised in certain areas to more adequately prevent loss or injury from disasters.

Zoning Management Ordinance
The Development Code regulates the use of land and buildings, the height, bulk, location of structures, the amount of open space, and the density of population by establishing zone classifications.

Subdivision Management Ordinance
The City's subdivision regulations are outlined in the Development Code, which establishes standards to regulate the division and merger of land, and defines minimum lot sizes, densities, and development standards.

Building Code
Chapter 10.08 of the Montclair Municipal Code adopted the California Building Code Volumes 1 and 2, 2010 Edition (Part 2, Title 24, California Code of Regulations) by reference, and amending part 2 of Title 24 of the California Code of Regulations, comprising the California Building Code, Volumes 1 & 2, 2010 Edition. In addition, the Montclair Municipal Code has adopted the following Codes to complete construction regulations for Montclair; they include: Chapter 10.04: Uniform Codes for the Abatement of Dangerous Buildings, Chapter 10.20: Electrical Code, 10.32: Housing Code, 10.36: Mechanical Code, 10.40: Plumbing Code, 10.42: Residential Code.

Fire Code
Chapter 10.28 of the Montclair Municipal Code adopted the California Fire Code, 2007 Edition (Part 9, Title 24, California Code of Regulations), with Appendix Chapter 1, Appendix Chapter 2, and Appendices A, B, C, D, E, F, G, and H, which incorporates and amends the International Fire Code, 2006 Edition, published by the International Code Council, as compiled and adopted by the California Building Standards Commission.

On January 17, 2011, the City of Montclair will adopt the California Fire Code, 2010 Edition, based on the 2009 International Fire Code as published by the "International Code Council," and referenced as the California Code of Regulations, Title 24, Part 9, including: Appendix Chapter 4, and Appendices B, BB, C, CC, D, E, F, and H, and the whole thereof, save and except such portions as are hereinafter deleted, modified, or amended.

Storm Water Management Ordinance
Chapter 9.24 of the Montclair Municipal Code was adopted on January 4, 1992. The City adopted Chapter 9.24 and regulations to govern non-storm water pollution runoff, to include construction and land use activities, industrial/commercial facilities, and municipal activities. Non-storm water activities will be accomplished by eliminating all non-permitted discharges to the City storm drain system, controlling the discharge from spills, dumping or disposal of materials other than storm water, and reducing pollutants in storm water discharges to the maximum extent practicable. The intent of this is to protect and enhance the water quality of our watercourses, water bodies, groundwater, and wetlands.

Disaster Service Employee Recall Policy
A "Report to Work/Post Earthquake" policy was written for City personnel in June 22, 2004. This policy was condensed and incorporated into the Emergency Operations Plan. The policy that was written in 2004 is currently being revised and reviewed. When the new policy is approved (projected date of 2011) it will be called the "Disaster Service Employee Recall Policy."

5.4 Mitigation Programs

Below is a partial listing of mitigation programs that may be available to property owners and small business owners through other agencies:

Agency	Program	Details
FEMA	National Flood Insurance Program (NFIP)	The City of Montclair is a member of the NFIP. Montclair's NFIP No. 06071C. This program enables property owners to purchase insurance as a protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages. http://www.fema.gov/business/nfip/
HUD	Community Development Block Grants (CDBG)	Grants to develop viable communities, principally for low and moderate income persons. CDBG funds available through Disaster Recovery Initiative. http://www.hud.gov/offices/cpd/communitydevelopment/programs/
HUD	Disaster Recovery Assistance	Disaster relief and recovery assistance in the form of special mortgage financing for rehabilitation of impacted homes. http://www.hud.gov/offices/cpd/communitydevelopment/programs/dri/assistance.cfm

Agency	Program	Details
HUD	Neighborhood Stabilization Program	Funding for the purchase and rehabilitation of foreclosed and vacant property in order to renew neighborhoods devastated by the economic crisis. http://www.hud.gov/offices/cpd/communitydevelopment/programs/neighborhoodspg/
U.S. Small Business Administration	Small Business Administration Loan Program	Low-interest, fixed rate loans to small businesses for the purpose of implementing mitigation measures. Also available for disaster damaged property. http://www.sba.gov/services/financialassistance/index.html

Listed below are mitigation programs offered to Montclair residents by the City and other cities nearby:

The Insurance Services Office Public Protection Classification (PPC) Program

The Insurance Services Office's (ISO) PPC Program evaluates communities according to a uniform set of criteria defined in the Fire Suppression Rating Schedule (FSRS). This criterion incorporates nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. The Montclair Fire Department was analyzed and rated by the ISO in June 2002. The analysis takes into consideration several factors including fire alarm and communication systems, fire department radios, distribution, and staffing levels, and the water supply system. The Montclair Fire Department is rated by ISO every 10 years. The current rating credit is 74.67 percent. This equals a Public Protection Class 3 rating, indicating that the City of Montclair fire suppression services are keeping up with the demands of the changing environment. The rating scale is from 1-10 with 1 being the highest possible score. For more information about the ISO rating, please see attachment "C."

Weed Abatement Program

The City's Fire Prevention Bureau conducts property surveys at least twice per year, in spring and summer/early fall to locate and identify fire hazards. Abatement notices are prepared and mailed to owners of properties that are in violation of California Fire Code Section 304.1.1, relating to combustible vegetation, and deemed a potential fire hazard. Follow-up inspections are performed to determine if the property owners have complied. If the property owner has not complied the City will move forward with abatement actions by contracting with a private service to abate the hazard at the property owner's expense, including administrative fees.

Sand Bag Program

The Public Works Department and the Fire Department partner together to make sand bags available to all Montclair residents at the City Yard facility during normal business hours. If residents are in need of sand bags after hours they may visit Fire Station No. 2. Residents are issued a maximum of 10 bags per address. These sand bags are vital in assisting residents that experience flooding problems on their property.

Programs that Reduce Excess Waste Materials

The following programs are sponsored by the City of Montclair to mitigate the potential effects of excess materials that could impact waste disposal and landfill capabilities following a major catastrophic event:

- Annual Electronic Waste Event sponsored by the Chamber of Commerce
- Residential Recycling Program
- Household Hazardous Waste Municipal Collection Centers
- Curbside-Residential Bulky Item Service
- Waste Oil/Recycling Program
- SHARPS Program

5.5 Fiscal Resources

The City of Montclair has a General Fund Budget of $25,365,567 for Fiscal Year (FY) 2010-11. The Redevelopment Agency has a budget of $52,420,040 for FY 2010-11, which includes capital improvement projects. The City's Capital Improvement Program for FY 2010-11 is $500,000.

One of the key analytical tools used during the budget process is a comprehensive seven-year financial forecast for the General Fund. This forecast considers key revenue and expenditure projection factors such as population, increases in the consumer price index (CPI), and other growth factors. The trending of these key factors and their effect on revenues and expenditures for the past ten years provides a historical basis for the seven-year financial forecast.

As part of the mid-year budget review process, the revenue assumptions included in the forecast are comprehensively reexamined based on actuals for the prior year, as well as emerging trends at the mid-point of the year. Accordingly, with a few notable exceptions, the revenue projections reflected in the Budget rely heavily on the projections made as part of the seven-year forecast.

Sources used in developing these revised projections include economic trends as reported in the national media, forecast data for San Bernardino County, economic and fiscal information developed by the State Legislative Analyst and the State Department of Finance, and materials prepared by the League of California Cities and State Controller's Office.

Ultimately, however, the revenue projections reflect the staff's best judgment about the performance of the local economy over the next two years and how it will affect City revenues.

The following provides a brief description of the City's top general revenue sources along with the general assumptions used in preparing revenue projections. These sources account for over 80 percent of total general revenues.

General Property Taxes
Under Proposition 13 (adopted in June of 1978) property taxes for general purposes may not exceed one percent of market value. Property tax assessment, collection, and apportionment are performed by the County. The City receives approximately 20-25 percent of the levy within its limits. Assessment increases to reflect current market value

are allowed when property ownership changes or when improvements are made; otherwise, increases in assessed value are limited to two percent annually.

Sales and Use Tax
The City receives one percent from all taxable retail sales occurring in its limits. This is collected for the City by the State of California, along with their component of the sales tax (6.75 percent for the State General Fund and one percent for local transportation purposes, for a total sales tax rate in San Bernardino County of 8.75 percent).

Franchise Fees
Franchise Fees are levied by the City on a variety of utilities at various rates. The State sets franchise fees for utilities regulated by them (most notably gas and electricity): one percent of gross sales or two percent of revenues attributable to their investment in infrastructure, whichever is greater. The City sets rates on a gross receipts basis for the following utilities: cable television (five percent), and solid waste collections (10 percent).

Motor Vehicle In-Lieu
The State Revenue and Taxation code imposes an annual license fee of two percent of the market value of motor vehicles in lieu of a local motor vehicle property tax. Cities and counties equally share 81.25 percent of the total tax collected statewide; the State then distributes this revenue to cities and counties on a per capita basis. Motor Vehicle In-Lieu taxes have increased over the last several years, but were reduced during 2000/01 due to the calculation method imposed by the State to utilize actual population estimates. During 2003-04 the City experienced a decrease in VLF by the State as a bailout measure employed by the State in the amount of approximately $550,000.

Development Related Fees
Development related fees recover costs for planning, building and safety, engineering, and fire plan check services. Cost recovery for these services is generally set at 100 percent of total costs.

Hazard Mitigation Grant Program (HMGP)
Hazard Mitigation Grant Program (HMGP): This FEMA administered program provides grants to states and local governments following a presidential disaster declaration. The funds can be used to implement long-term hazard mitigation measures. According to the Disaster Mitigation Act of 2000, communities must have a Local Hazard Mitigation Plan (LHMP) approved to receive HMGP funds after May 1, 2005. Funds will be granted only to projects that conform to local and state mitigation plans. Federal grant funds can provide 75 percent of a project's total cost; other sources must provide 25 percent matching funds. After any federally declared disaster, up to 20 percent of the amount spent by FEMA on disaster response and relief costs is made available in the form of HMGP grants to communities in the affected state.

Pre-Disaster Mitigation Program (PDM)
FEMA developed the PDM program to coincide with the requirements of the Disaster Mitigation Act of 2000 that requires communities to prepare local hazard mitigation plans, such as this plan. Funds are authorized by Congress on an annual basis for PDM competitive grants, technical assistance, and program support. FEMA grants can fund 75 percent of a project; other nonfederal sources must provide 25 percent matching funds. Funds are only granted to communities with an approved LHMP, and supported projects must be identified in those plans.

Severe Repetitive Loss (SRL)
According to the National Flood Insurance Program, the City of Montclair has zero repetitive loss properties within its jurisdiction.

Flood Mitigation Assistance Program (FMA) provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the National Flood Insurance Program.

Community Development Block Grants (CDBG)
Block grants are administered by the Department of Housing and Urban Development to fund housing, economic development, public works, community facilities, and public service activities serving lower income people. These funds can be used for mitigation works. CDBG funds are considered local funds once they are received, and thereby are eligible to provide the 25 percent local match required for receipt of the HMGP funds.

There are other federal programs that support emergency and rebuilding costs in communities, such as FEMA's Public and Individual Assistance Programs which are activated following federally declared disasters. These funds primarily support repair projects, but may also include the cost of code upgrades or other mitigation measures as part of the repair if they are cost effective.

Section 6 – Mitigation Strategies

6.1 Overview

The Mitigation Strategies section represents the City's long-term approach for reducing and/or eliminating the potential losses identified in the Risk Assessment section of this Plan. This section will provide an overview of the progress made on mitigation goals and projects identified in the 2005 Plan; detail new goals, objectives, and projects; and provide an action plan describing how the goals and projects will be prioritized, implemented, and administered by the City.

6.2 Mitigation Five-Year Progress Report

This five-year progress report will identify the status of mitigation goals, objectives, projects, and activities identified in the 2005 Plan. The status will be identified as completed, on-going, deleted, or deferred.

Mitigation Project	Description	Priority	Status	Explanation of Status and Hazards Mitigated
Develop a Hazard Mitigation Plan	The Hazard Mitigation Plan identifies potential hazards that occur in the City. Along with these hazards are projects that could reduce deaths, injuries, and/or property damage.	High	On-going	The strategy for carrying out this action was to form a Planning Team. A Hazard Mitigation Plan was adopted by the City Council on March 9, 2005. This project is classified as on-going because it will be updated every five years and maintained on a yearly basis by the Planning Team. This project assists in the mitigation of earthquakes, flooding, and dam failure.
Storm Drain Upgrades	Upgrade the storm drain system within the City.	High	On-going	Due to past flooding that was caused by heavy rainfall, the City decided to upgrade the storm drain system. The first phase of this project was completed on August 1, 1995. Approximately seven years ago the City reconstructed the West State Street Storm Drain Channel. Since 2005, the Palo Verde Street Storm Drain project has been completed. Other main storm drains have been constructed, reducing areas of significant ponding, including a catch basin and connector pipe in Benson Avenue north of the Union Pacific Railroad tracks. Storm mainline and catch basins were all constructed as part of the Mission Boulevard Corridor Improvement Project.

Mitigation Project	Description	Priority	Status	Explanation of Status and Hazards Mitigated
Storm Drain Upgrades Continued	Upgrade the storm drain system within the City.	High	On-going	Miscellaneous drains were installed as part of the Ramona Avenue Grade Separation Project. This mitigation project assisted in the mitigation of flooding and dam failure hazards.
Adoption of a Stringent Building Code	The City has adopted a very strict building code to mitigate potential hazards that affect the City.	High	On-going	This project was completed on October 1, 1995. The Building Division implemented the most rigid building code in order to ensure sound building practices within the City. In addition, all residential structures are required to be sprinklered to help extinguish fires and prevent losses. The 2010 Building Codes will be adopted and implemented on January 1, 2011. This project assisted in the mitigation of earthquakes, flooding, and dam failure.
Upgrade Emergency Operations Center (EOC)	The City's EOC is designated as the operations center during and post-disaster. The continual update of this center is important to returning the City to a normal status after a disaster. It is necessary to constantly update and re-evaluate the functionality of the Center on a regular basis (this should be done on an annual basis). The objectives of this project were to make the EOC more technically up-to-date, complete EOC signage for better functionality, and improve the telephone system.	Medium	On-going	Each fiscal year, funds from the Emergency Management Performance Grant and the City are used to purchase upgraded items for the EOC. These items may consist of technological improvements, food rations, water, signage, furniture, printed items, etc. This project assists in the mitigation of earthquakes, flooding, and dam failure. Since 2005, the EOC has been relocated from Fire Station No. 1 to the new Police facility. The prior location at the fire station is now designated as the City's alternate EOC. The new facility is equipped with a new telephone system, has new signage, and is more technologically up-to-date with flat screen TV monitors and an overhead LDC projector. This project is on-going because upgrades are continuing to be made.

Mitigation Project	Description	Priority	Status	Explanation of Status and Hazards Mitigated
Conduct Community Outreach	The citizens of Montclair should have the most current and up-to-date information on hazards that may affect the City. This information needs to be helpful, but not frightening to the public. The objective of this project was to provide current and valuable disaster information to the public via the Montclair website, cable TV, and informational handouts.	Medium	On-going	Actions taken toward implementing this project include posting earthquake and other hazard information on the City's website, providing informational handouts to the public at City facilities and at City events, and providing tips and answers regarding hazards via the local cable television broadcasts. Hazard awareness is also communicated at the local schools through curriculum, fire drills, and earthquake drills. This project assists in the mitigation of earthquakes, flooding, and dam failure.
Store Historical/Critical Records Off-Site	The historical and critical records for the City are stored at City Hall. An exact and complete copy of each critical record should be made and stored at an off-site location where the temperature and climate can be controlled for optimum storage. The site must be secure and structurally secure. It is important to duplicate records so that they will be available in the event of a disaster that severely damages City Hall.	Medium	Deferred	The strategy to complete this project was to copy the electronic and paper records and find a suitable location in which to store them. This project was not completed in the last 5-year cycle because of budget constraints and lack of necessary personnel. While this project was deferred during the last 5-year cycle, the Planning Team realized its importance and decided to include this project in the next 5-year cycle. Its priority was raised from medium to high. This project assists in the mitigation of earthquakes, flooding, and dam failure.
Development of an Emergency Operation Plan (EOP)	The EOP addresses the City's response to emergencies associated with natural disasters and technological incidents. This plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standard Emergency Management System (SEMS) and National Incident Management System (NIMS).	A priority was not listed in the 2005 plan.	On-going	This plan was approved by the City Council on April 28, 2009. This project is classified as on-going because it will be updated every five (5) years and maintained on an as needed basis. This project assists in the mitigation of earthquakes, flooding, and dam failure.

Mitigation Project	Description	Priority	Status	Explanation of Status and Hazards Mitigated
Development of an Emergency Operation Plan (EOP) Continued	The objective of this plan is to incorporate all the facilities and personnel of the City into an efficient organization capable of responding to any emergency.			
Disaster/ICS Drills	The best way to prepare for a disaster is to practice disaster drills which utilize the NIMS/SEMS protocol. These drills will present various hazardous events that require unified command at the Incident Command Post (ICP) and the EOC. The objectives of this project were to train City employees on with their roles are during a disaster, erase fears about working under NIMS/SEMS while in the EOC, and build confidence of the employees and the public.	A priority was not listed in the 2005 plan.	On-going	Since 2005 the City has participated in many drills and planning exercises at the local level and in conjunction with the San Bernardino County Operational Area. This project has been classified as on-going because the City will continue to prepare for disasters by participating in drills. This project assists in the mitigation of earthquakes, flooding, and dam failure.
Building upgrades/ Retrofits to the Montclair Plaza	The Montclair Plaza made upgrades to the building by retrofitting it.	High	Complete	This project was identified in the 2005 plan as having been completed prior to the development of the Hazard Mitigation Plan. This project assisted in the mitigation of earthquakes.

A progress report will be completed every five years during the plan update process. A record of actions taken towards implementation of current mitigation projects during each five-year period will be kept in the notes from Annual Review Meetings.

6.3 Mitigation Goals, Objectives, and Projects

The process of identifying goals began with a review and validation of the goals and objectives in the 2005 Hazard Mitigation Plan. Using the 2005 Plan as the basis, the City's Planning Team completed an assessment/discussion of whether each of the goals were still valid. This discussion also led to the opportunity to identify new goals and objectives. The following section provides an overview of the mitigation goals, objectives, and projects.

The table below is a comprehensive list of mitigation goals, objectives, and projects that may be implemented to reduce and/or eliminate the hazards that affect Montclair. In the following section titled "Mitigation Priorities" these goals, objectives, and projects will be prioritized to determine which will be implemented within the next five years.

Project No.	1
Project Name	**Storm Drain Upgrades**
Estimated Cost	Storm Drain on Mills Avenue $3,434,451.15 Monte Vista Grade Separation Project (total cost) $44 Million
Description	Install an additional storm drain system along the east side of street on Mills Avenue between San Bernardino Street and Palo Verde Street. Install an additional storm drain system and sewer system in connection with the Monte Vista Grade Separation Project.
Goal/Objective	Reduce the amount of flooding on Mills Avenue from San Bernardino Street to Palo Verde Street. Water currently causes a hazard in the number one (1) lane. By installing an additional storm drain system with the Monte Vista Avenue Grade Separation; this will alleviate water from flooding the area surrounding the grade separation. This project will meet the goal of eliminating losses to property.
Hazards Mitigated	Flooding and Dam Failure

Project No.	2
Project Name	**Upgrade Emergency Operations Center (EOC)**
Estimated Cost	Costs associated with the project include supplies purchased for the EOC. Additional research needs to be conducted to determine the estimated cost for this project.
Description	The continual update of the EOC is important to returning the City to a normal status after a disaster. It is necessary to constantly update and re-evaluate the functionality of the EOC on a regular basis. Updating the EOC may consist of developing software to manage incidents, procuring necessary supplies, and improve signage and maps.
Goal/Objective	The objective of this project is to make the EOC more technically advanced and functionally efficient. This project will meet the goals of reducing and/or eliminating losses to life and property during an emergency situation or disaster, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	3
Project Name	**Update Building Code**
Estimated Cost	Training (outside – seminars): $2,960 Training (in-house hours): 144 hours, $8,088 Books: $2,823 Code Adoption (hours) 40 - $$2,800 Public Hearing (newspaper listing): $400
Description	The current 2007 California Building, Fire, Electrical, Mechanical, and Plumbing codes have been adopted and are in use. The 2010 Building Codes will be adopted and implemented on Jan. 1, 2011. These codes will be in effect until the 2013 Building Code is adopted in 2014. In addition to these stringent codes, the City Municipal Code requires that all new construction include fully fire sprinklered buildings to help extinguish fires and prevent losses.
Goal/Objective	This objective of this project is to ensure that the Building and Safety Code is continually maintained so that it is current and sets the highest and most stringent standards. This project will meet the goal of eliminating losses to life and property.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	4
Project Name	**Update Hazard Mitigation Plan**
Estimated Cost	If a consultant is hired to assist in the update of the Hazard Mitigation Plan this cost is estimated to be approximately $10,000.
Description	The Hazard Mitigation Plan identifies natural hazards that can potentially occur in the City. The plan also identifies mitigation projects that may be implemented to reduce deaths, injuries, and property damage. This plan is required to be updated every five years and will be maintained on a yearly basis.
Goal/Objective	The goal of this project is to ensure that the Hazard Mitigation Plan remains active and relevant. By updating it on a continual basis it will have the most current information on hazards that affect the City and will provide constant feedback concerning the proposed mitigation projects. This project will meet the goals of reducing and/or eliminating losses to life and property, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	5
Project Name	**Conduct Community Outreach**
Estimated Cost	Duplicating of public outreach materials will be produced in-house. There is not additional cost associated with running public information on the cable TV station or posting information on the City's website.
Description	The citizens of Montclair should have the most current and up-to-date information on hazards that may affect the City. This information needs to be helpful, but not frightening to the public.
Goal/Objective	The objective of this project was to provide current and valuable disaster information to the public via the Montclair website, cable TV, and informational handouts. This project will meet the goal of reducing and/or eliminating losses to life and property.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	6
Project Name	**Store Historical/Critical Records Off-site**
Estimated Cost	To store electronic data off-site OBM software would be installed on 12 servers for $900, $240/month for online backup manager, $500/month for GB storage, and $20/month per 25 block of mailboxes. To store paper records off-site a storage facility would be paid a monthly fee and additional City personnel may be required to duplicate original records.
Description	The historical and critical records for the City are stored at City Hall. An exact and complete copy of each critical record should be made and stored at an off-site location where the temperature and climate can be controlled for optimum storage. The site must be secure and structurally secure. Historical and critical records include both paper and electronic versions.
Goal/Objective	The objective of this project is to ensure that there are duplicate City records at an off-site location so that they will be available in the event of a disaster that severely damages City Hall. This project will meet the goal of reducing and/or eliminating losses to property.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	7
Project Name	**Update the City's Emergency Operations Plan (EOP)**
Estimated Cost	Costs associated with this project include personnel costs, duplicating costs (in-house), services, consulting fees (if necessary), and training (if necessary).
Description	The EOP addresses the City's response to emergencies associated with natural disasters and technological incidents. This plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standard Emergency Management System (SEMS) and National Incident Management System (NIMS). The objective of this plan is to incorporate all the facilities and personnel of the City into an efficient organization capable of responding to any emergency. This plan was approved by the City Council on April 28, 2009. This project is classified as on-going because it will be updated every three (3) years and maintained on an as needed basis.
Goal/Objective	The objective/goal of this project is to incorporate all the resources and personnel of the City into an efficient and organized structure capable of responding to any hazard/emergency. This project will meet the goals of reducing and/or eliminating losses to life and property during an emergency situation or disaster, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	8
Project Name	**Disaster/ICS Drills**
Estimated Cost	Costs associated with the project will vary depending on the type and scale of the training or drill. Cost may include personnel costs to instruct courses, supplies, consulting fees (if necessary), training (if necessary), and the cost to duplicate course materials for participants.
Description	The best way to prepare for when hazards occur is to practice disaster drills, which utilize the NIMS/SEMS protocol. These drills will present various hazardous events that require unified command at the Incident Command Post (ICP) and the EOC.
Goal/Objective	The objectives of this project are to train City employees on with their roles are during a disaster, erase fears about working under NIMS/SEMS while in the EOC, and build confidence of the employees and the public. This project will meet the goals of reducing and/or eliminating losses to life and property during an emergency situation or disaster, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	9
Project Name	**Secure Furniture, Cabinets, and Files throughout City Buildings**
Estimated Cost	An additional study needs to be conducted to estimate the amount of personnel time that will be spent installing and securing objects. It is also necessary to inventory all areas needing reinforcement to determine the amount of equipment that needs to be purchased.
Description	Ensure that bookshelves, filing racks, and cabinets are secured to walls. Install safety latches on cabinet doors. Secure paper files on shelves.
Goal/Objective	The goals and objectives of this project are to maintain continuity of operations after a disaster, promote employee safety, and minimize damage to equipment. This project will meet the goal of reducing and/or eliminating losses to life and property.
Hazards Mitigated	Earthquake

Project No.	10
Project Name	**Develop a Community Emergency Response Team (CERT) Program**
Estimated Cost	There will be no cost for the emergency supply back packs that are given to all class participants as these may be obtained through the San Bernardino County Office of Emergency Services (SB OES). There also is no cost for the training props used during the classes; these may be requested for use from SB OES. Cost that will be incurred by the City for this project are personnel cost for instructors to teach the classes, supplies ordered to replenish those used with the props from SB OES, and duplication of course materials for participants.
Description	The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT members can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members also are encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.
Goal/Objective	Provide a training program to prepare citizens of Montclair for when disasters occur. This project will meet the goals of reducing and/or eliminating losses to life and property during an emergency situation or disaster, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake, Flooding, and Dam Failure

Project No.	11
Project Name	**Overpass Study**
Estimated Cost	There should be no material costs associated with this project. The personnel cost may vary for this project depending on the amount of personnel involved from each agency.
Description	Conduct a study with Cal-trans to see what the state/condition of the overpasses at Monte Vista Avenue and Central Avenue are and if Cal-trans has any plans on how to mitigate the collapse of them or a response plan in the event that they do collapse.
Goal/Objective	The objective of conducting this study is to determine what state/condition the overpasses are in, so that if necessary mitigation actions such as retrofitting can be taken to reduce the effects of earthquakes on these structure. In addition, this project would also allow for planning opportunities to determine what to do in the event that the overpasses do collapse. This project will meet the goals of reducing and/or eliminating losses to life and property during an emergency situation or disaster, and developing means for providing efficient and effective response and recovery.
Hazards Mitigated	Earthquake

6.4 Mitigation Priorities

FEMA's approach to identify the costs and benefits associated with natural hazard mitigation strategies, measures, or projects, consists of a cost-effectiveness analysis.

Cost-effectiveness analysis evaluates how best to spend a given amount of money to achieve a specific goal. Determining the economic feasibility of mitigating natural hazards can provide decision-makers with an understanding of the potential benefits and costs of an activity, as well as a basis upon which to compare alternative projects.

Given federal funding, the Hazard Mitigation Planning Team will use a FEMA-approved cost-effective analysis approach to identify and prioritize mitigation projects. For other projects and funding sources, the Hazard Mitigation Planning Team will use other approaches to understand the costs and benefits of each action item and develop a prioritized list.

All projects are designated with a "high", "medium", or "low" priority ranking.

- "High" indicates projects that will be the primary focus of implementation over the next five (5) years.
- "Medium" indicates projects that may be implemented over the next five (5) years.
- "Low" indicated projects that will not be implemented over the next five (5) years unless conditions change (i.e. new program or funding source).

In an effort to prioritize mitigation projects and determine their feasibility, the Planning Team used the STAPLEE criteria. This criterion assesses the social, technical, administrative, political, legal, economic, and environmental feasibility of projects. The methodology used by the Planning Team during this process may be seen in the tables below:

PROJECT NO. 1: STORM DRAIN UPGRADES		
Priority Ranking: Low		
STAPLEE Criteria	Question	Answer
Social	Will the projected be accepted by the City?	Yes.
Social	Will the project adversely impact segments of the City facilities?	No.
Technological	Will the project solve the problem?	Yes.
Technological	Does the City have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	No.
Technological	Does the project address more than one goal or objective?	No.
Administrative	Will the project require additional local staff?	No.
Administrative	Is there an existing authority/agency to undertake the project?	Yes.
Political	Will elected officials support the project?	Yes.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the City afford to implement the project with existing funds?	No.
Economic	Can the City implement the program using existing state or federal grant programs?	No.
Economic	Can the City afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Yes.
Environmental	Does the project positively or negatively impact the environment?	Positive.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	No.

PROJECT NO. 2: UPGRADE EMERGENCY OPERATIONS CENTER (EOC)		
Priority Ranking: High		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes, this project will instill confidence in the community that the City is prepared to respond to all types of hazards.
Social	Will the project adversely impact segments of the population or neighborhoods?	There are no apparent impacts.
Technological	Will the project solve the problem?	This project will prepare the City to respond in the event that a disaster/major emergency occurs.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes, it addresses a variety of hazards that may vary in severity and magnitude.
Technological	Does the project address more than one goal or objective?	Yes, this project addresses many goals of ensuring that the City is prepared to respond to disasters/emergencies.
Administrative	Will the project require additional local staff?	No.
Administrative	Is there an existing authority/agency to undertake the project?	Yes, the City's Fire Department.
Political	Will elected officials support the project?	Yes, this project provides elected officials with the means to develop a system that promotes community safety and welfare.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	A portion of this project can be funded out of the City's operating budget, but its completion may rely on obtaining grant funds to purchase materials and supplies.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Benefits of this project exceed the costs.
Environmental	Does the project positively or negatively impact on the environment?	This project will positively impact the environment because it will maintain a system to respond after disasters/emergencies so as to bring the community back to a state of normalcy.

PROJECT NO. 2: UPGRADE EMERGENCY OPERATIONS CENTER (EOC) CONTINUED		
STAPLEE Criteria	Question	Answer
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes.

PROJECT NO. 3: UPDATE BUILDING CODE		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the projected be accepted by the City?	Yes.
Social	Will the project adversely impact segments of the community facilities?	No.
Technological	Will the project solve the problem?	Yes.
Technological	Does the City have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes.
Technological	Does the project address more than one goal or objective?	Yes.
Administrative	Will the project require additional local staff?	No.
Administrative	Is there an existing authority/agency to undertake the project?	Yes.
Political	Will elected officials support the project?	Yes.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	Yes.
Economic	Can the City afford to implement the project with existing funds?	Yes.
Economic	Can the City implement the program using existing state or federal grant programs?	No.
Economic	Can the City afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Yes.
Environmental	Does the project positively or negatively impact the environment?	Positive.

PROJECT NO. 3: UPDATE BUILDING CODE CONTINUED		
STAPLEE Criteria	Question	Answer
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes, the next update to the Code will be in 2013.

PROJECT NO. 4: UPDATE HAZARD MITIGATION PLAN (HMP)		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes, this project will instill confidence in the community that City Staff is aware of hazards that may affect Montclair.
Social	Will the project adversely impact segments of the population or neighborhoods?	There are no apparent impacts.
Technological	Will the project solve the problem?	Yes, this project will make the community and City Staff aware of hazards that affect Montclair and prepare the City to respond to the effects of these hazards if they occur. It will also give the City an opportunity to implement mitigation projects to reduce the effects of identified hazards.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes, it addresses a wide variety of hazards that may vary in severity and magnitude.
Technological	Does the project address more than one goal or objective?	Yes, this project addresses many goals of ensuring that the City is engaged in mitigation efforts to reduce the effects of hazards.
Administrative	Will the project require additional local staff?	It may require the assistance of a consultant.
Administrative	Is there an existing authority/agency to undertake the project?	Yes, the City's Fire Department and a Hazard Mitigation Planning Team made up of various representatives from the City, community organizations, utilities, and businesses.
Political	Will elected officials support the project?	Yes, this project provides elected officials with the means to develop a system that promotes community safety and welfare.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances?	No.

PROJECT NO. 4: UPDATE HAZARD MITIGATION PLAN (HMP) CONTINUED		
STAPLEE Criteria	Question	Answer
Economic	Can the community afford to implement the project with existing funds?	A portion of this project can be funded out of the City's operating budget, but its completion may rely on obtaining grant funds to hire a consultant.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	The benefits of this project exceed the costs.
Environmental	Does the project positively or negatively impact on the environment?	This project will positively impact the environment because it will implement mitigation projects to reduce the effects of hazards that occur in Montclair.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes, this plan will be maintained on a yearly basis and updated every fives years.

PROJECT NO. 5: CONDUCT COMMUNITY OUTREACH		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the projected be accepted by the community?	Yes, the community shows high respect for inclusion in Disaster Preparedness procedures.
Social	Will the project adversely impact segments of the population or neighborhoods?	Community outreach will benefit all segments of the population or neighborhoods.
Technological	Will the project solve the problem?	Technology will be used in the form of website communications, broadcasting on local television channel, and informational postings
Technological	Does the community have available technologies to implement the program?	Yes, the City's website can accommodate the information, as well as the local network television channel.
Technological	Does this project address multiple hazards?	Yes, this project addresses multiple hazards.
Technological	Does the project address more than one goal or objective?	The project addresses community outreach and mitigation through awareness.
Administrative	Will the project require additional local staff?	No, current staff will be able to complete the community outreach.

PROJECT NO. 5: CONDUCT COMMUNITY OUTREACH CONTINUED		
STAPLEE Criteria	Question	Answer
Administrative	Is there an existing authority/agency to undertake the project?	The City's Fire Department.
Political	Will elected officials support the project?	Yes.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	Yes. There is no additional cost for website updates and minimal cost for televised communication and informational flyers.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Yes. The benefit of up-to-date community information will greatly reduce the costs of mitigation and recovery, and will definitely exceed the minor cost to implement.
Environmental	Does the project positively or negatively impact on the environment?	The project has minimal impact on the environment.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes.

PROJECT NO. 6: STORE HISTORICAL/CRITICAL RECORDS OFF-SITE		
Priority Ranking: High		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes. The community will accept and understand the need for the City to duplicate and store historical records off-site.
Social	Will the project adversely impact segments of the population or neighborhoods?	No. There will not be any adverse affects on segments of the population or neighborhoods with storing historical records off site.
Technological	Will the project solve the problem?	Yes. In the event of a disaster, historical records will be protected since they will be stored off site.
Technological	Does the community have available technologies to implement the program?	Yes. The City and community have the technological resources available to duplicate the historical records. At present the Information Technology Division does a back-up of the City's computer systems on a regular basis.
Technological	Does this project address multiple hazards?	Yes. The duplication of historical records and off-site storage would provide valuable protection in the event of an earthquake, flood, or dam failure.
Technological	Does the project address more than one goal or objective?	Yes. The project does address the goal of protection of the City's assets along with securing an off-site storage location in the event a hazard was to occur.
Administrative	Will the project require additional local staff?	Possible. The duplication of the City's historical records could require additional staff to complete the task.
Administrative	Is there an existing authority/agency to undertake the project?	The City Clerk's Office along with the Information Technology Division will work together on this project.
Political	Will elected officials support the project?	Yes. Elected officials understand the importance of protecting the city's historical records.
Legal	Will the project violate any laws or regulations?	No. No laws or regulations will be violated as a result of the duplication and off-site storage of the city's historical records.
Legal	Will the project require a change in local ordinances or zoning laws?	No. No changes in local ordinances or zoning laws will be required to complete this project.
Economic	Can the community afford to implement the project with existing funds?	Although the cost of the off-site storage of the City's historical records has not been determined, it is reasonable to believe that the cost of this project would be affordable.

PROJECT NO. 6: STORE HISTORICAL/CRITICAL RECORDS OFF-SITE CONTINUED		
STAPLEE Criteria	Question	Answer
Economic	Can the community implement the program using existing state or federal grant programs?	It is unknown at present if there are any state or federal grant programs to assist in funding this project.
Economic	Can the community afford to maintain the project?	Although the cost for storage of historical documents has not been determined, it is reasonable to believe that the project would be affordable to maintain.
Economic	Do the benefits of the project equal or exceed the costs?	Historical records are a valuable asset to the City's daily operations. The benefit of protecting this documentation justifies the cost of the project.
Environmental	Does the project positively or negatively impact on the environment?	The project of duplicating and storing historical records does not have a positive or negative impact on the environment.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes. The project does comply with all local, state, and federal environmental laws and regulations.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes. A new City Clerk will be hired in January 2011 with an increased focus on efforts of improving records management. The new City Clerk along with Information Technology staff can work together to ensure that all historical records are duplicated and stored in a safe and secure off-site location.

PROJECT NO. 7: Update the City's Emergency Operations Plan (EOP)		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes, this project will instill confidence in the community that the City is prepared to respond to all types of hazards.
Social	Will the project adversely impact segments of the population or neighborhoods?	There are no apparent impacts.
Technological	Will the project solve the problem?	This project will prepare the City to respond in the event that a disaster/major emergency occurs.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes, it addresses a variety of hazards that may vary in severity and magnitude.
Technological	Does the project address more than one goal or objective?	Yes, this project addresses many goals of ensuring that the City is prepared to respond to disasters/emergencies.

PROJECT NO. 7: Update the City's Emergency Operations Plan (EOP) CONTINUED		
STAPLEE Criteria	Question	Answer
Administrative	Will the project require additional local staff?	This project may require the assistance of a consultant.
Administrative	Is there an existing authority/agency to undertake the project?	Yes, the City's Fire Department.
Political	Will elected officials support the project?	Yes, this project provides elected officials with the means to develop a system that promotes community safety and welfare.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	Yes.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Benefits of this project exceed the costs.
Environmental	Does the project positively or negatively impact on the environment?	This project will positively impact the environment because it will maintain a system to respond after disasters/emergencies so as to bring the community back to a state of normalcy.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes, this plan will be updated next in 2012.

PROJECT NO. 8: DISASTER/ICS DRILLS		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes, it will instill confidence in the community that City leadership has a plan and is prepared.
Social	Will the project adversely impact segments of the population or neighborhoods?	There are no apparent impacts.
Technological	Will the project solve the problem?	It will identify problems/deficiencies that may need to be corrected in the established emergency response systems.

PROJECT NO. 8: DISASTER/ICS DRILLS CONTINUED		
STAPLEE Criteria	Question	Answer
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes, it addresses a wide variety of hazards that may vary in severity.
Technological	Does the project address more than one goal or objective?	Yes, it addresses a wide variety concerns regarding the systems efficiencies.
Administrative	Will the project require additional local staff?	It would depend on the magnitude of the exercise.
Administrative	Is there an existing authority/agency to undertake the project?	Yes, there is existing state and federal authority for these types of projects.
Political	Will elected officials support the project?	Yes, it provides them with an understanding in how the system will function.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	It would depend on the magnitude of the exercise.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	The benefits would exceed the cost.
Environmental	Does the project positively or negatively impact on the environment?	There should be no abnormal impact to the environment.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes, provided any necessary guidelines are followed.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	There would be no specific completion date, as the disaster/ICS preparedness drills would be on-going.

PROJECT NO. 9: SECURE BOOKSHELVES, RACKS, CABINETS, ETC.		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the projected be accepted by the community?	Yes.
Social	Will the project adversely impact segments of the population or neighborhoods?	No.
Technological	Will the project solve the problem?	Yes.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	No.
Technological	Does the project address more than one goal or objective?	No.
Administrative	Will the project require additional local staff?	No.
Administrative	Is there an existing authority/agency to undertake the project?	No.
Political	Will elected officials support the project?	Yes.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	Yes.
Economic	Can the community implement the program using existing state or federal grant programs?	No.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	Yes.
Environmental	Does the project positively or negatively impact on the environment?	Yes - this will keep the working environment free of debris. It could also reduce hazardous spills depending what items are stored on shelves or in cabinets
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes.

PROJECT NO. 10: DEVELOP A C.E.R.T. PROGRAM		
Priority Ranking: Medium		
STAPLEE Criteria	Question	Answer
Social	Will the projected be accepted by the community?	Yes-The community is requesting additional information and training.
Social	Will the project adversely impact segments of the population or neighborhoods?	No.
Technological	Will the project solve the problem?	The project will improve the ability of the city residents to respond appropriately to assist neighbors during a disaster.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	Yes.
Technological	Does the project address more than one goal or objective?	Yes-Hazard mitigation, Community Awareness.
Administrative	Will the project require additional local staff?	Yes.
Administrative	Is there an existing authority/agency to undertake the project?	Potential Mutual aid Compact with the City of Ontario to allow Montclair residents to fill unfilled spots.
Political	Will elected officials support the project?	Depending on the final cost.
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	Unknown. Will need additional study to determine.
Economic	Can the community implement the program using existing state or federal grant programs?	Possibly
Economic	Can the community afford to maintain the project?	Unknown at this time.
Economic	Do the benefits of the project equal or exceed the costs?	Yes. The Assistance the CERT teams give to the existing city resources will allow more city residents to be assisted at a lower cost to the city, thereby saving lives and city dollars.
Environmental	Does the project positively or negatively impact on the environment?	Negligible impact to the environment.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.

PROJECT NO. 10: DEVELOP A C.E.R.T. PROGRAM CONTINUED		
STAPLEE Criteria	Question	Answer
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes.

PROJECT NO. 11: STUDY WITH CAL-TRANS TO ACCESS FREEWAY OVERPASSES		
Priority Ranking: High		
STAPLEE Criteria	Question	Answer
Social	Will the project be accepted by the community?	Yes, this project will instill confidence in the community that City Staff and Cal-Trans is aware of the state/condition of the overpasses at Monte Vista Avenue and Central Avenue.
Social	Will the project adversely impact segments of the population or neighborhoods?	There are no apparent impacts.
Technological	Will the project solve the problem?	Yes, this project will make the community and City Staff aware of the state/condition of the overpasses at Monte Vista Avenue and Central Avenue and will assist in the development of plan to respond in the event that the overpasses collapse due to an earthquake. It will also give the City and Cal-Trans an opportunity to implement mitigation projects to reduce the effects of an earthquake causing major damage.
Technological	Does the community have available technologies to implement the program?	Yes.
Technological	Does this project address multiple hazards?	This project addresses earthquake hazards that may vary in severity and magnitude.
Technological	Does the project address more than one goal or objective?	Yes, this project addresses two goals/objectives. It will determine if mitigation actions such as retrofitting need to take place to reduce the effects of an earthquake on the overpasses. It will also allow for planning opportunities between the City and Cal-Trans to determine how to respond in the event that the overpasses to collapse.
Administrative	Will the project require additional local staff?	No.
Administrative	Is there an existing authority/agency to undertake the project?	Yes, the City's Fire Department and Building Division.
Political	Will elected officials support the project?	Yes, this project provides elected officials with the means to develop mitigation projects or emergency plans that promote community safety and welfare.

PROJECT NO. 11: STUDY WITH CAL-TRANS TO ACCESS FREEWAY OVERPASSES CONTINUED		
STAPLEE Criteria	Question	Answer
Legal	Will the project violate any laws or regulations?	No.
Legal	Will the project require a change in local ordinances or zoning laws?	No.
Economic	Can the community afford to implement the project with existing funds?	Yes.
Economic	Can the community implement the program using existing state or federal grant programs?	Yes.
Economic	Can the community afford to maintain the project?	Yes.
Economic	Do the benefits of the project equal or exceed the costs?	The benefits of this project exceed the costs.
Environmental	Does the project positively or negatively impact on the environment?	This project will positively impact the environment because it may develop mitigation projects and/or plans to reduce or respond to the effects of an earthquake.
Environmental	Does the project comply will all local, state, and federal environmental laws and regulations?	Yes.
Considering all STAPLEE Criteria	Can the project be completed in within the next 5-year LHMP cycle?	Yes.

6.5 Implementation Strategy

This implementation Strategy focuses on the "high" priority projects that will be the primary focus of implementation over the next five years and the "medium" priority projects that may be implemented during the next five years. The chart below details who the responsible party or lead agency is for implementing the project, the estimated time frame for completion, and a potential funding source.

Project No.	Mitigation Project	Priority Ranking	Lead Agency	Funding Source	Time Frame
2	Upgrade Emergency Operations Center (EOC)	High	Fire Department	City's operating budget and possible grant funds	To be completed in this 5-year cycle.
6	Store Historical/Critical Records Off-Site	High	Information Technology Division and City Clerk's Office	City's operating budget and possible grant funds	To be completed in this 5-year cycle.
11	Overpass Study	High	Fire Dept. and Engineering Division	City's operating budget and possible grant funds	To be completed in this 5-year cycle.
3	Update Building Code	Medium	Building Division	City's operating budget	Next update with be completed in 2014.
4	Updated Hazard Mitigation Plan	Medium	Fire Department and Planning Team	City's operating budget and possible grant funds	This plan will be maintained on a yearly basis and updated again in 2016.
5	Conduct Community Outreach	Medium	Fire Department	City's operating budget	On-going during this 5-year cycle.
7	Update the City's Emergency Operation Plan	Medium	Fire Department	City's operating budget and possible grant funds	Next update will be completed in 2012-13.
8	Disaster/ICS Drills	Medium	Fire Department	City's operating budget and possible grant funds	On-going during this 5-year cycle.
9	Secure Furniture, Cabinets, and Files throughout City Buildings	Medium	Administrative Services and Public Works Departments	City's operating budget and possible grant funds	May be completed in this 5-year cycle if funds/personnel are available.
10	Develop a CERT Program	Medium	Fire Department	City's operating budget and possible grant funds	May be completed in this 5-year cycle if funds/personnel are available.

Section 7 – Plan Maintenance

The purpose of this section is to give a snapshot of the actions that the City intends to implement over the next five years to monitor, evaluate, and update this Plan. This section is intended to be forward-thinking and emphasize future activity. It is necessary to engage in a formal review process so as to ensure that this Plan remains an active and relevant document. This section will give an explanation of how the City intends to incorporate the mitigation strategies present in this Plan into existing City plans and mechanisms. Lastly, this section will describe how the public will continue to be involved in the planning and updating processes.

7.1 Monitoring, Evaluating, and Updating the Mitigation Plan

Continual Development of the Planning Team

The City Manager (or designee) and/or Department Heads, will assign representatives from each City department, including, but not limited to, the current Hazard Mitigation Planning Team members. The City has formed a Hazard Mitigation Planning Team that consists of members from local agencies, organizations, and citizens, and includes the following*:*

- ✓ City of Montclair Public Works/Redevelopment Department
- ✓ City of Montclair Fire Department
- ✓ City of Montclair Police Department
- ✓ City of Montclair Community Development Department
- ✓ City of Montclair Administrative Services Department
- ✓ Monte Vista Water District
- ✓ Ontario-Montclair School District
- ✓ Chaffey Joint Unified School District
- ✓ Montclair Plaza
- ✓ Costco

In order to make this Planning Team as broad and useful as possible, the City may engage other relevant organizations and agencies in hazard mitigation. Listed below are recommendations of agencies that may be added to the Hazard Mitigation Planning Team:

- ✓ An elected official
- ✓ A representative from the Chamber of Commerce
- ✓ An insurance company representative
- ✓ Community Planning Organization representatives
- ✓ A representative from the City Manager's office
- ✓ Representation from professional organizations
- ✓ Representation from utility companies

Annual Review

The City of Montclair Hazard Mitigation Planning Team will be responsible for coordinating the implementation of mitigation projects and undertaking the formal review process of this Plan.

The Planning Team will meet, at a minimum, on a yearly basis to review the Hazard Mitigation Plan. These meetings will provide an opportunity to discuss the progress of the mitigation projects and maintain the partnerships that are essential for the sustainability of the Plan. The Emergency Services Coordinator for the City will be responsible for contacting

the Planning Team members and organizing the meetings.

The Planning Team will review the goals and mitigation projects to determine their relevance to changing situations in the City, as well as changes in State or Federal policy, and to ensure they are addressing current and expected conditions. The Planning Team will also review the risk assessment portion of the plan to determine if this information should be updated or modified, given any new available data. At the annual review meetings, the coordinating agencies responsible for the various mitigation projects will report on their status, the success of various implementation processes, difficulties encountered, success of coordination efforts, and which strategies should be revised.

If necessary changes to the plan are identified during the formal review process, then the Planning Team with designate members of the team to be responsible for making the changes and updating the information. The designated team members will have an appropriate amount of time (determined by the Planning Team) to make the changes to the plan before submitting it to the Planning Team for review. Resolution No. 11-2898 authorizes the Director of Emergency Services, or his/her duly-appointed representative, to make necessary administrative and operational changes to the plan that are in keeping with the intent of the plan as approved. If major revisions are made to the plan, it will be forward to the City Council for review and approval. The Planning Team will also notify all holders of the Hazard Mitigation Plan when changes have been made. Every five years the updated plan will be submitted to San Bernardino County Office of Emergency Services, Cal EMA, and FEMA for review and approval.

In an effort to implement the annual review process, stakeholders engaged in the following activities:

Date	Activity
May 16, 2012	**Hazard Mitigation Plan Annual Review Meeting** Stakeholders met together to review the status of mitigation projects and maintain the partnerships that are essential to the sustainability of the plan. See Attachment 'Z' for the meeting notes.

7.2 Implementation through Existing Programs

The City of Montclair addresses statewide planning goals and legislative requirements through its General Plan, Emergency Operations Plan, Capital Improvement Plans, Commercial and Residential Code, Housing Authority Programs, and City Building and Safety Code. The Hazard Mitigation Plan provides a series of recommendations, many of which are closely related to the goals and objectives of existing planning programs. The City of Montclair will have the opportunity to implement recommended mitigation projects through existing programs and procedures.

Building and Safety Code

The City of Montclair's Community Development Department is responsible for administering the Building and Safety Code. This department will work with other agencies at all levels of government to review, develop, and ensure Building and Safety Codes that are adequate to mitigate or prevent damage by natural hazards. This is to ensure that life-safety criteria are met for new construction.

Capital Improvement Plans

The goals and projects in the Mitigation Plan may be achieved through activities recommended in the City's Capital Improvement Plans (CIP). Various City departments develop CIP plans, and review them on an annual basis. Upon annual review of the CIPs, the Hazard Mitigation Planning Team will work with City departments to ensure the mitigation projects are consistent with CIP planning goals and integrate them where appropriate.

General Plan

This Plan has been adopted into the Safety Element of the City's General Plan in compliance with Assembly Bill No. 2140. These two plans work in conjunction to ensure that the community is protected from any unreasonable risks associated with the hazards identified in Montclair. By incorporating this Plan into the General Plan's Safety Element, the City hopes to attain access to AB 2140 post-disaster assistance.

Emergency Operations Plan

The Emergency Operations Plan is a comprehensive document that identifies potential natural and man-made hazards within the City and how each hazard would be responded to in the event that they should occur. Under the Disaster Mitigation Act of 2000 (DMA 2000), FEMA now requires a Hazard Mitigation Plan (HMP) from local governments and certain special districts, counties, and states within the country who wish to receive federal mitigation funds if they should become available. The Montclair Hazard Mitigation Plan is a new concept plan that identifies ways to mitigate hazards prior to their occurrence to reduce deaths, injuries, and property damage. This plan identifies potential hazards within Montclair, and also gives historical data, economic factors, vulnerability assessments, mitigation costs, and estimated losses resulting from the identified hazards. Hazard Mitigation is now an integral component of the Emergency Operations Plan and is continually updated by the City.

7.3 Continued Public Involvement

The City of Montclair is dedicated to involving the public directly in the review and updates of the Hazard Mitigation Plan. The public will have opportunities to provide feedback about the Plan.

During each annual review process an announcement will be posted on the City's website informing residents how to view the Plan and any proposed changes. This website will also contain an e-mail address and phone number of a Planning Team member to which the public may direct its comments and concerns.

A public meeting will be held at the beginning of each five-year Plan Update Cycle or when deemed necessary by the Planning Team. The meetings will provide the public a forum during which they may express concerns, opinions, or ideas about the Plan. The Planning Team will be responsible for using City resources to publicize the annual public meetings and maintain public involvement through the public access television channel, City website, newspapers, and public notices.

Section 8 – Attachments

A – Planning Team Meeting Roster and Notes – 10/5/10 167-168

B – 2005 Planning Team Signatures 169

C – City of Montclair Fire Department's ISO Rating 170-177

D – Sample of Memorandum to City of Montclair Staff and Letters to Community Members Inviting Them to Participate on the Planning Team 178-179

E – Timeline for Montclair's Hazard Mitigation Plan Update 180

F – Letter of Invitation from San Bernardino County 181

G – Letter of Commitment 182

H – Public Outreach Documents 183-188

I – Planning Team Meeting Roster and Notes – 7/6/10 189-193

J – Points of Discussion and Meeting Roster – 7/27/04 194-195

K – Letter Faxed to School District 196

L – Meeting Roster – 7/6/04 197

M – Meeting Roster and Notes – 6/29/04 198-199

N – Planning Team Meeting Roster and Notes – 8/3/10 200-202

O – Planning Team Meeting Roster and Notes – 9/14/10 203-205

P – Planning Team Meeting Roster and Notes – 8/24/10 206-209

Q – Planning Team Meeting Roster and Notes – 8/11/10 210-212

R – Letter from Cal EMA – Forwarded Plan to FEMA 213

S – Letter from FEMA – Initiating Review of Plan 214

T – Approved Pending Adoption Letter from FEMA 215

U – Formal Adoption Documentation Forwarded to FEMA 216

V – Final Approval Letter from FEMA 217-218

W – 2012 Annual Review Meeting Save the Date 219

X – 2012 Annual Review Meeting Agenda 220

Y – 2012 Annual Review Meeting Roster 221

Z – 2012 Annual Review Meeting Notes 222-230

Attachment 'A'

Hazard Mitigation Plan Update 2010

Planning Team Meeting Roster

Tuesday, October 5, 2010

Name	Organization	Title	Signature
Angelic Bird	Montclair Fire	Secretary/FSC	Angelic Bird
Milissa Cheeley	OMSO	Classified Training Officer	Milissa A Cheeley
GARY CHARLESTON	City of Montclair	Personnel Officer	Gary E. Charleston
Merry Westerlin	City of Montclair	Building Official	Merry Westerlin
Joe Rosales	Montclair	NPDES Coordinator	Joe Rosales
Dale Gillum	MONTCLAIR PLAZA	SECURITY DIRECTOR	Dale L. Gillum

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, OCTOBER 5, 2010

Present: Angelic Bird, City of Montclair Fire Department
Dale Gillum, Montclair Plaza
Gary Charleston, City of Montclair Administrative Services Department
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Merry Westerlin, City of Montclair Community Development Dept.
Milissa Checchi, Ontario-Montclair School District
Robert Avels, City of Montclair Police Department

Absent: Jimmie Gatten, Costco
Jonathan Dizon, Monte Vista Water District
Kathy Standridge, Monte Vista Water District
Sue Churchill, Chaffey Joint Unified School District

The meeting was hosted by the Montclair Fire Department at the Montclair Police Station's Community Room. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for Planning Team members to follow during the meeting.

Section 6 – Mitigation Strategies

The Planning Team discussed the proposed mitigation projects and the status of estimating costs for these projects. A STAPLEE criterion was used by the Planning Team to assist in the prioritization of mitigation projects. After prioritizing the projects, Team members developed an implementation strategy for the "high" prioritized projects that will be the primary focus of implementation over the next five years and the "medium" priority projects that may be implemented during the next five years.

Section 7 – Plan Maintenance

The Planning Team discussed the actions that the City intends to implement over the next five years to monitor, evaluate, and update the Hazard Mitigation Plan. The Planning team will engage in an annual formal review process to ensure that the Hazard Mitigation Plan remains an active and relevant document. *Section 7* of the Plan will give an explanation of how the City intends to incorporate the mitigation strategies into existing City plans and mechanisms, as well as describe how the public will continue to be involved in the planning and updating processes.

Attachment 'B'

Signature: _____ Date: 8/23/04
Name: Mike Donley
Title: Emergency Services Coordinator
Organization: City of Montclair

Signature: NOT AVAILABLE Date: _____
Name: Melinda Flores
Title: Administrative Analyst
Organization: City of Montclair

Signature: _____ Date: 8-24-04
Name: Steve Griggs
Title: Building Official
Organization: City of Montclair

Signature: _____ Date: 8/24/04
Name: Mary Ann Harvey-Melleby
Title: Public Affairs Director
Organization: Monte Vista Water District

Signature: _____ Date: 8/24/04
Name: Dennis McGehee
Title: Environmental Control Spec.
Organization: City of Montclair

Signature: _____ Date: 8/24/04
Name: April Mitts
Title: Administrative Analyst
Organization: City of Montclair

Signature: _____ Date: 8/24/04
Name: Randy Morales
Title: Police Sergeant
Organization: Montclair Police

Signature: _____ Date: 8/23/04
Name: Steve Shull
Title: Division Chief
Organization: Montclair Fire Dept.

Attachment 'C'

THE ISO PUBLIC PROTECTION CLASSIFICATION (PPC) PROGRAM

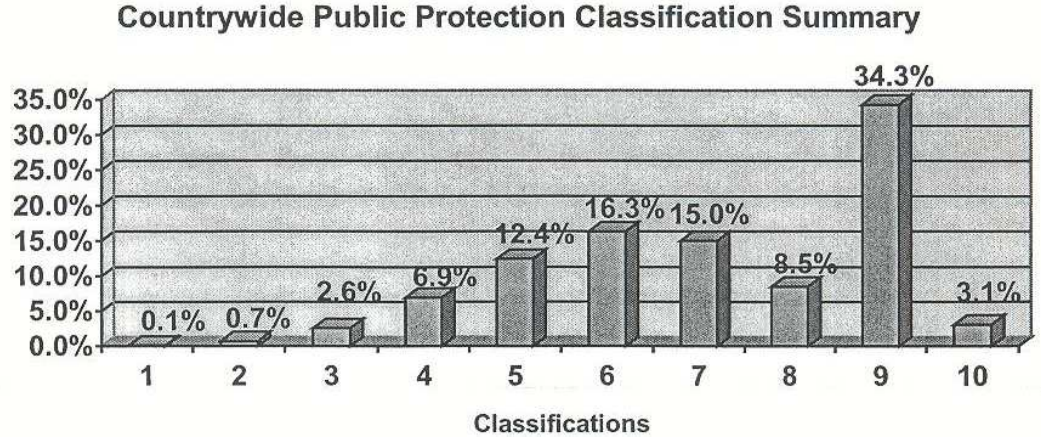
ISO's PPC program evaluates communities according to a uniform set of criteria defined in the Fire Suppression Rating Schedule (FSRS). This criteria incorporates nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association.

Using the FSRS, ISO objectively reviews the fire suppression capabilities of a community and assigns a Public Protection Classification – a number from 1 to 10. Class 1 represents exemplary fire protection, and Class 10 indicates that the area's fire suppression program does not meet minimum recognition criteria.

The FSRS allocates credit by evaluating the following three major features:

- Fire alarm and communication system. This review accounts for 10% of the total classification which centers upon a community's facilities and support for handling and dispatching fire alarms.
- Fire department. This review accounts for 50% of the total classification which focuses upon items such as engine companies, ladder or service companies, distribution of fire stations and fire companies, equipment carried on apparatus, pumping capacity, reserve apparatus, department manning, and training.
- Water supply system. This review accounts for 40% of the total classification highlighting the water supply a community uses for fire suppression, including hydrant size, type, and installation, as well as the inspection frequency and condition of fire hydrants.

When ISO develops a single classification for a community, all of the community's properties receive that classification. In many communities, ISO develops a split classification (for example, 5/9). Generally, the first class, (Class 5 in the example) applies to properties within a defined distance (5-road miles in most states) of a fire station and within 1000 feet of a fire hydrant. The second class (Class 9 in the example) applies to properties beyond 1000 feet of a hydrant but within the defined distance of a fire station. ISO generally assigns Class 10 to properties beyond the defined distance of a fire station.



INSURANCE SERVICES OFFICE, INC.

CLASSIFICATION DETAILS

Graded Area: Montclair FD
County: San Bernardino State: California
Date Surveyed: June, 2002 Total Credit: 74.67 Class: 3 Pop.: 35000

RECEIVING AND HANDLING FIRE ALARMS

This section of the Fire Suppression Rating Schedule reviews the facilities provided for the general public to report fires, and for the operator on duty at the communication center to dispatch fire department companies to the fires.

	Credit	
	Actual	Maxim
1. Credit for Telephone Service (Item 414)		
This item reviews the facilities provided for the public to report fires, including the listing of fire and business numbers in the telephone directory.	2.00	2.00
2. Credit for Operators (Item 422)		
This item reviews the number of operators on-duty at the communication center to handle fire calls.	2.82	3.00
3. Credit for Dispatch Circuits (Item 432)		
This item reviews the dispatch circuit facilities used to transmit alarms to fire department members.	3.50	5.00
4. Total Credit for Receiving and Handling Fire Alarms:	8.32	10.0(
Relative Classification for Receiving and Handling Fire Alarms:	2	

Graded Area:	Montclair FD		
County:	San Bernardino		State: California
Date Surveyed:	June, 2002	Total Credit: 74.67 Class: 3	Pop.: 35000

FIRE DEPARTMENT

This section of the Fire Suppression Rating Schedule reviews the engine and ladder-service companies, equipment carried, response to fires, training and available fire fighters.

	Credit	
	Actual	Maximun
1. Credit for Engine Companies (Item 513)		
This item reviews the number of engine companies and the hose equipment carried.	9.61	10.00
2. Credit for Reserve Pumpers (Item 523)		
This item reviews the number of reserve pumpers, their pump capacity and the hose equipment carried on each.	0.93	1.00
3. Credit for Pump Capacity (Item 532)		
This item reviews the total available pump capacity.	5.00	5.00
4. Credit for Ladder-Service Companies (Item 549)		
This item reviews the number of ladder and service companies and the equipment carried.	1.28	5.00
5. Credit for Reserve Ladder-Service Companies (Item 553)		
This item reviews the number of reserve ladder and service trucks, and the equipment carried.	0.81	1.00

Graded Area:	Montclair FD		
County:	San Bernardino		State: California
Date Surveyed:	June, 2002	Total Credit: 74.67 Class: 3	Pop.: 35000

FIRE DEPARTMENT
(continued

	Credit	
	Actual	Maximun
6. Credit for Distribution (Item 561)		
This item reviews the percent of the built-upon area of the city which has an adequately-equipped, responding first-due engine company within 1.5 miles and an adequately-equipped, responding ladder-service company within 2.5 miles.	2.32	4.00
7. Credit for Company Personnel (Item 571)		
This item reviews the average number of equivalent fire fighters and company officers on duty with existing companies.	7.21	15.00+
8. Credit for Training (Item 581)		
This item reviews the training facilities and their use.	7.38	9.00
9. Total Credit for Fire Department:	34.54	50.00+
Relative Classification for Fire Department:	4	

+ This indicates that credit for manning is open-ended, with no maximum credit for this item.

Graded Area:	Montclair FD		
County:	San Bernardino		State: California
Date Surveyed:	June, 2002	Total Credit: 74.67 Class: 3	Pop.: 35000

WATER SUPPLY

This section of the Fire Suppression Rating Schedule reviews the water supply system that is available for fire suppression in the city.

	Credit	
	Actual	Maximun
1. Credit for the Water System (Item 616)		
This item reviews the supply works, the main capacity and hydrant distribution.	33.38	35.00
2. Credit for Hydrants (Item 621)		
This item reviews the type of hydrants, and method of installation.	1.52	2.00
3. Credit for Inspection and Condition of Hydrants (Item 631)		
This item reviews the frequency of inspections of hydrants and their condition	1.08	3.00
4. Total Credit for Water Supply:	35.98	40.00
Relative Classification for Water Supply:	2	

Grading Sheet For: Montclair FD, California
San Bernardino County

Public Protection Class: 3 Surveyed: June, 2002

Feature	Credit Assigned	Maximum Credit
Receiving and Handling Fire Alarms	8.32%	10.00%
Fire Department	34.54%	50.00%
Water Supply	35.98%	40.00%
*Divergence	-4.17%	
Total Credit	74.67%	100.00%

The Public Protection Class is based on the total percentage credit as follows:

Class	%
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0 to 9.99

*Divergence is a reduction in credit to reflect a difference in the relative credits for Fire Department and Water Supply.

The above classification has been developed for use in property insurance premium calculations.

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City MONTE VISTA WATER DISTRICT
County SAN BERNARDINO State CA Witnessed by _ Fire department Date June 2, 2002

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q=(29.83(C(d^2)p^{0.5}))$ INDIVIDUAL HYDRANTS			TOTAL	PRESSURE PSI STATIC	PRESSURE PSI RESID.	FLOW -AT 20 PSI $Q_R=Q_F(h_R^{0.54}/h_F^{0.54})$ NEEDED **	FLOW -AT 20 PSI AVAIL.	REMARKS
1	Comm	CENTRAL AVE & RICHTON ST	ZONE1	1150			1150	60	56	2250	4000	
1 A	Comm	CENTRAL AVE & RICHTON ST	ZONE1	1150			1150	60	56	7000	4000	
2	Comm	ARROW HWY & MONTE VISTA ST	ZONE1	1330			1330	82	69	3500	3100	
2 A	Comm	ARROW HWY & MONTE VISTA ST	ZONE1	1330			1330	82	69	5000	3100	
2 B	Comm	ARROW HWY & MONTE VISTA ST	ZONE1	1330			1330	82	69	5000	3100	
2 C	Comm	ARROW HWY & MONTE VISTA ST	ZONE1	1330			1330	82	69	5500	3100	
3	Comm	ARROW HWY & CENTRAL AVE	ZONE1	1270			1270	65	62	3000	5500	
3 A	Comm	ARROW HWY & CENTRAL AVE	ZONE1	1270			1270	65	62	4000	5500	
3 B	Comm	ARROW HWY & CENTRAL AVE	ZONE1	1270			1270	65	62	5500	5500	
4	Comm	MONTE VISTA AVE & SAN JOSE ST	ZONE1	1440			1440	120	100	2500	3400	
4 A	Comm	MONTE VISTA AVE & SAN JOSE ST	ZONE1	1440			1440	120	100	4500	3400	
5	Comm	MONTE VISTA AVE & PALO VERDE ST	ZONE1	1590			1590	108	100	3500	5800	
5 A	Comm	MONTE VISTA AVE & PALO VERDE ST	ZONE1	1590			1590	108	100	4000	5800	
5 B	Comm	MONTE VISTA AVE & PALO VERDE ST	ZONE1	1590			1590	108	100	4000	5800	
5 C	Comm	MONTE VISTA AVE & PALO VERDE ST	ZONE1	1590			1590	108	100	4000	5800	
6	Comm	CENTRAL AVE & PALO VERDE ST	ZONE1	1550			1550	104	95	3000	5200	

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE *NOT* INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential.

Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are **not considered in determining the classification of the city when u

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City MONTE VISTA WATER DISTRICT
County SAN BERNARDINO State CA Witnessed by _ Fire department Date June 2, 2002

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q=(29.83(C(d^2)p^{0.5}))$ INDIVIDUAL HYDRANTS			TOTAL	PRESSURE PSI STATIC	PRESSURE PSI RESID.	FLOW -AT 20 PSI $Q_R=Q_F(h_R^{0.54}/h_F^{0.54})$ NEEDED **	FLOW -AT 20 PSI AVAIL.	REMARKS
6 A	Comm	CENTRAL AVE & PALO VERDE ST	ZONE1	1550			1550	104	95	4000	5200	
6 B	Comm	CENTRAL AVE & PALO VERDE ST	ZONE1	1550			1550	104	95	7000	5200	
7	Res	BENITO ST & PRADERA AVE	ZONE-2	1350			1350	92	85	1000	4800	
8	Comm	MONTE VISTA AVE & DENVER ST	ZONE-2	1230			1230	87	80	3000	4200	
9	Comm	CENTRAL AVE & KINGSLEY ST	ZONE-2	1190			1190	95	90	3000	5100	
9 A	Comm	CENTRAL AVE & KINGSLEY ST	ZONE-2	1190			1190	95	90	4000	5100	
10	Comm	HOLT BLVD & SILICON AVE	ZONE-2	1220			1220	72	62	3500	3000	
11	Comm	HOLT BLVD & MONTE VISTA AVE	ZONE-2	1300			1300	72	62	3500	3200	
11 A	Comm	HOLT BLVD & MONTE VISTA AVE	ZONE-2	1300			1300	72	62	4500	3200	
12	Comm	HOLT BLVD & CENTRAL AVE	ZONE-2	1370			1370	93	82	3500	3800	
12 A	Comm	HOLT BLVD & CENTRAL AVE	ZONE-2	1370			1370	93	82	4000	3800	
13	Comm	MISSION BLVD E OF PIPELINE AVE	ZONE 3	1130			1130	73	57	3000	2200	
14	Comm	MISSION BLVD & FREMONT AVE	ZONE 3	1060			1060	65	55	2250	2400	
15	Comm	GRAND AVE & PIPELINE AVE	ZONE 3	1240			1240	75	57	1750	2300	
16	Res	MONTE VISTA AVE & GRAND AVE	ZONE 3	790			790	75	65	1000	2000	

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE *NOT* INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential.

**Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when u

Attachment 'D'

Date: June 22, 2010

To: All Department Heads

From: Angelic Bird, Secretary/Emergency Services Coordinator

Subject: HAZARD MITIGATION PLAN UPDATE

On March 9, 2005, the City of Montclair adopted a Hazard Mitigation Plan as required by the Disaster Mitigation Act of 2000. In accordance with Code of Federal Regulations, Title 44, Section 201.6(c)(4), local jurisdictions are required to update this plan every five years. The update process is essential for ensuring that the mitigation plan remains active and relevant. The City of Montclair will be working together with San Bernardino County Office of Emergency Services (SB County OES) and ICF International Consultants to update this plan.

I will coordinate our City's efforts to update the Hazard Mitigation Plan. Establishing a planning team is one requirement for this update. I am asking for your assistance to assign one representative from your department to participate on the planning team (attached is a list of team members that developed the plan in 2005, if you wish to assign the same representative). The team members will address specific questions pertaining to risk assessment, mitigation strategy, plan maintenance progress, and so on. Attached for your review is a list of important dates regarding the update process.

The planning team will meet on Tuesday afternoons every other week from 3 p.m. to 4 p.m. beginning July 6, 2010, and conclude on September 14, 2010. An initial draft of the local plan will be submitted to ICF International for review on September 20, 2010. The local plan will then be submitted to SB County OES for review on October 11, 2010. The planning team will then meet on an as-needed basis until the plan is approved by FEMA, which is anticipated to be on December 13, 2010.

Thank you very much for your assistance in putting this team together! Your department representative may call me at Extension 542, or e-mail me at abird@cityofmontclair.org, no later than June 30, 2010, to inform me that he/she will be a member of the planning team.

Attachments

June 22, 2010

Jeff Marshburn, Store Manager
Costco
9404 Central Avenue
Montclair, CA 91763

Dear Mr. Marshburn:

SUBJECT: HAZARD MITIGATION PLAN UPDATE

On March 9, 2005, the City of Montclair adopted a Hazard Mitigation Plan as required by the Disaster Mitigation Act of 2000. In accordance with Code of Federal Regulations, Title 44, Section 201.6(c)(4), local jurisdictions are required to update this plan every five years. The update process is essential for ensuring that the mitigation plan remains active and relevant. The City of Montclair will be working together with San Bernardino County Office of Emergency Services (SB County OES) and ICF International Consultants to update this plan.

I will coordinate our City's efforts to update the Hazard Mitigation Plan. Establishing a planning team is one requirement for this plan. Because Costco is listed in this plan as one of the City's assets with high economic importance, I am asking for your assistance to assign one representative from your agency to participate on the planning team. The team members will address specific questions pertaining to risk assessment, mitigation strategy, plan maintenance progress, and so on. Enclosed for your review is a list of important dates regarding the update process.

The planning team will meet on Tuesday afternoons every other week from 3 p.m. to 4 p.m. beginning July 6, 2010, and conclude on September 14, 2010. An initial draft of the local plan will be submitted to ICF International for review on September 20, 2010. The local plan will then be submitted to SB County OES for review on October 11, 2010. The planning team will then meet on an as-needed basis until the plan is approved by FEMA, which is anticipated to be on December 13, 2010.

Thank you very much for your assistance in putting this team together! Your agency representative may call me at (909) 447-3542, or e-mail me at abird@cityofmontclair.org,

Attachment 'E'

Timeline for Montclair Hazard Mitigation Plan Update

June 2010	
June 10	HMP Update Kick-Off Meeting with Operational Area
July 2010	
July 6	Montclair Planning Team Meeting
July 15	Operational Area Stakeholder Meeting
July 29	Operational Area Stakeholder Conference Call
August 2010	
August 3	Montclair Planning Team Meeting
August 11	Montclair Planning Team Meeting
August 12	Operational Area Stakeholder Meeting
August 19	Operational Area Stakeholder Conference Call
August 24	Montclair Planning Team Meeting
August 26	Operational Area Stakeholder Conference Call
September 2010	
September 9	Operational Area Stakeholder Conference Call
September 14	Montclair Planning Team Meeting
September 23	Operational Area Stakeholder Conference Call
October 2010	
October 5	Montclair Planning Team Meeting
October 7	Operational Area Stakeholder Conference Call
October 28	Operational Area Stakeholder Conference Call
December 2010	
December 2	Upload draft of HMP to ICF website portal and Stakeholder Conference Call
December 15	Operational Area Stakeholder Conference Call
December 23	Submitted HMP to SB OES
January 2011	
January 11	Operational Area Stakeholder Conference Call
January 13	HMP was sent to Cal EMA by SB OES
January 27	Operational Area Stakeholder Conference Call
February 2011	
February 17	Operational Area Stakeholder Conference Call
March 2011	
March 9	Received letter from Cal EMA indicating that the HMP was forwarded to FEMA
March 10	Operational Area Stakeholder Conference Call
March 14	Received a letter from FEMA indicating that the HMP was received and their review should be complete within 45 days
April 2011	
April 1	HMP is eligible for final FEMA approval pending adoption by City Council
April 26	Submitted Agenda Report
May 2011	
May 2	Montclair City Council adopted HMP
May 17	City sent letter to FEMA with adoption documentation
May 23	FEMA issued final approval letter

Revised 5/26/11

Attachment 'F'

SAN BERNARDINO COUNTY FIRE DEPARTMENT

OFFICE OF EMERGENCY SERVICES
1743 Miro Way • Rialto, CA 92376
(909) 356-3998 • Fax (909) 356-3965

COUNTY OF SAN BERNARDINO

PAT A. DENNEN
Fire Chief
County Fire Warden

May 25, 2010

SUBJECT: KICK-OFF MEETING FOR THE SAN BERNARDINO COUNTY OPERATIONAL AREA MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN

TO: DISTRIBUTION

As one of 54 confirmed participants in the 2010 Update of the San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan (HMP), you are invited to the HMP Kick-Off meeting on:

Date: **Thursday, June 10, 2010**
Check-In: **9:30 a.m.**
Meeting: **10:00 a.m. to 12:00 Noon**
Location: **City of Ontario Police Department**
2500 S. Archibald Avenue
Ontario, CA 91761

Last month your agency confirmed participation in the 2010 Update, and identified you as a primary or alternate representative. As such, it is imperative for you to attend the HMP Kick-Off Meeting to learn of the process for the 2010 Update. As indicated in our previous correspondence of last month, this project is under a tight deadline. The Project Manager, Andy Petrow, ICF International, will explain the planning process that will occur over the next several months.

Because there is a large amount of information to present, please arrive in time to check in, as the meeting will begin promptly at 10:00 a.m.

We would appreciate an RSVP by close of business on Monday, June 7, 2010, to sbcoa@sbcfire.org or call Miles Wagner at (909) 356-3998. Thank you.

Sincerely,

Denise L. Benson

DENISE L. BENSON, Division Manager
San Bernardino County Fire Department
Office of Emergency Services
Operational Area Lead Agency

Attachment 'G'

April 20, 2010

Denise Benson, Division Manager
San Bernardino County Fire Department
Office of Emergency Services
1743 Miro Way
Rialto, CA 92376

Dear Ms. Benson:

SUBJECT: LETTER OF COMMITMENT AS A PARTICIPATING JURISDICTION IN THE **2010** SAN BERNARDINO COUNTY OPERATIONAL AREA MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLANNING PROJECT

As the Federal Emergency Management Agency's (FEMA) Local Mitigation Plan requirements under 44 CFR §201.6, *Local Mitigation Plans*, specifically identify criteria that allow for multi-jurisdictional mitigation plans and as many issues are better resolved by evaluating hazards more comprehensively by coordinating at the county, city/town, regional, or watershed level, the City of Montclair has agreed to participate in the 2010 San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Planning Project.

Further, as a condition to participate in the mitigation planning, the City of Montclair agrees to meet the local agency obligations for completing mitigation plans identified in 44 CFR §201.6, *Local Mitigation Plans*, and to provide such cooperation as is necessary and in a timely manner to the San Bernardino County Fire Department/Office of Emergency Services to complete the plan in conformance with FEMA requirements. I further understand that a consultant retained by the San Bernardino County Office of Emergency Services will provide guidance in updating the Local Mitigation Plan. Such guidance in the form of crosswalks, templates, and similar documents will provide a framework to follow when the jurisdiction/agency is writing and/or updating the Local Mitigation Plan.

The City of Montclair understands that it must engage in the following planning process, as more fully described in FEMA's Local Multi-Hazard Mitigation Planning Guidance dated July 1, 2008.

Therefore, with a full understanding of the obligations incurred by participating in the FEMA hazard mitigation planning process as a participant in a multi-jurisdictional plan; I, Angelic Bird, commit the City of Montclair to the San Bernardino County Operational Area Multi-Jurisdictional Hazard Mitigation Planning effort.

Executed this 20th day of April, 2010.

Sincerely,

Angelic Bird, Secretary/Emergency Services Coordinator
MONTCLAIR FIRE DEPARTMENT

Attachment 'H'

Website Announcement

2010 City of Montclair Hazard Mitigation Plan Update

As one of 54 confirmed participants in the 2010 San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Planning Project, the City of Montclair is updating its Hazard Mitigation Plan (HMP). This plan was adopted in 2005 and is required to be updated at least every five years to ensure that it remains an active and relevant document. The goal of mitigation is to reduce or eliminate long-term risk to life and property from hazardous events.

This plan addresses the following topics:

- Planning Process – This plan will document the planning and updating processes, including how the plan was prepared and updated, who was involved in the process, and how the public was involved.
- Risk Assessment – Mitigation plans identify natural hazards, estimate the potential frequency and severity of hazards, and assess the potential losses of life and property.
- Mitigation Strategy – Based on the risk assessment, communities develop mitigation goals and objectives, as part of a strategy for mitigating hazard losses. The strategy is a community's approach for implementing mitigation activities that are cost-effective and technically feasible.
- Plan Maintenance – A formal plan maintenance process is implemented to ensure that the mitigation plan remains active and relevant. This process includes a method and schedule for monitoring, evaluating, and updating the plan at least every five (5) years.

In order to develop a more comprehensive approach to reducing the effects of natural hazards, the City of Montclair would like to extend an opportunity to the public to comment on the plan during the updating process. Simply click on the link below to view the City's Hazard Mitigation Plan. Please send your comments in writing to:

E-mail: abird@cityofmontclair.org

or

Mail: Montclair Fire Department
Attn: Hazard Mitigation Plan Update
P.O. Box 2308
Montclair, CA 91763

Click here to view the Montclair Hazard Mitigation Plan.

Insert for Trash and Sewer Bill and
Notice Posted at Montclair Library

City of Montclair

MONTCLAIR

Hazard Mitigation Plan Update

The City of Montclair is updating its Hazard Mitigation Plan. This plan identifies natural hazards that affect Montclair, lists the City's critical facilities and noncritical facilities, assesses the vulnerability of community assets, and develops a mitigation strategy. The goal of mitigation is to reduce or eliminate long-term risk to life and property from hazardous events.

In order to develop a more comprehensive approach to reducing the effects of natural hazards, the City would like to extend an opportunity to the public to comment on the plan during the updating process. To learn more about how to review and comment on the plan, please visit the City of Montclair Fire Department's website at http://www.ci.montclair.ca.us/depts/fire or call (909) 447-3540.

Flooding

Dam Failure

Earthquakes

Public Notice Posted at Montclair City Hall

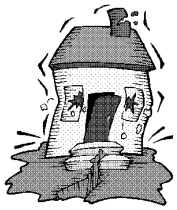
Hazard Mitigation Plan Update

MONTCLAIR

The City of Montclair is updating its Hazard Mitigation Plan. This plan identifies natural hazards that affect Montclair, lists the City's critical facilities and noncritical facilities, assesses the vulnerability of community assets, and develops a mitigation strategy. The goal of mitigation is to reduce or eliminate long-term risk to life and property from hazardous events.

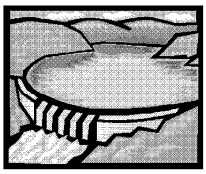
In order to develop a more comprehensive approach to reducing the effects of natural hazards, the City would like to extend an opportunity to the public to comment on the plan during the updating process. To learn more about how to review and comment on the plan, please visit the City of Montclair Fire Department's website at http://www.ci.montclair.ca.us/depts/fire or call (909) 447-3540.

Slide Place on Channel 3 and City Televisions



Earthquakes

Flooding



Dam Failure

City of Montclair
Hazard Mitigation Plan Update

The City of Montclair is updating its Hazard Mitigation Plan. This plan identifies natural hazards that affect Montclair, lists the City's critical facilities and non-critical facilities, assesses the vulnerability of community assets, and develops a mitigation strategy. The goal of mitigation is to reduce or eliminate long-term risk to life and property from hazardous events.

In order to develop a more comprehensive approach to reducing the effects of natural hazards, the City would like to extend an opportunity to the public to comment on the plan during the updating process. To learn more about how to review and comment on the plan, please visit the City of Montclair Fire Department's website at http://www.ci.montclair.ca.us/depts/fire or call (909) 447-3540.

Press Release to the Daily Bulletin with Monte Vista Water District and Chino Basin Water Conservation District

MONTCLAIR AGENCIES REQUESTING COMMENT ON

HAZARD MITIGATION PLANS

FOR IMMEDIATE RELEASE **SEPTEMBER 2, 2010**

MONTCLAIR, CA ……..The city of Montclair, Monte Vista Water District and the Chino Basin Water Conservation District are requesting comments from the public as they update their Local Hazard Mitigation Plans. The plans, first developed in 2005 to comply with federal laws, identify natural hazards that affect local agencies, assess the vulnerability of agency assets and provide mitigation strategies to reduce or eliminate long-term risks to life and property from hazardous events.

The local agencies are collaborating with the County of San Bernardino in the development of a county-wide plan that will eventually be submitted to the California Emergency Management Agency for approval prior to sending the plan to the Federal Emergency Management Agency (FEMA).

To view the 2005 plans and provide comments, contact:

- **City of Montclair:** Angelic Bird at (909) 447-3542 by September 16, 2010 or access the city website at www.ci.montclair.ca.us under the Fire Department section.
- **Monte Vista Water District:** Jonathan Dizon at (909) 624-0035, Ext. 177 by October 1, 2010 or access the District website at www.mvwd.org
- **Chino Basin Water Conservation District:** Juan Zamora at (909) 267-3224 by October 1, 2010.

Update the Disaster Preparedness Section of the City's Website

MONTCLAIR CALIFORNIA

City Plans

Emergency Operations Plan

The City of Montclair's Emergency Operations Plan was approved by the California Emergency Management Agency (Cal EMA) on September 26, 2009. This plan provides guidance for response to the City's most likely and demanding emergency conditions. It places emphasis on those unusual and unique emergency conditions that will require extraordinary response when a natural or man-made disaster occurs. This plan meets the requirements of the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS) for the purpose of emergency management. It is organized into three parts that are listed below:

- Part One (Basic Plan): Overall organizational and operational concepts relative to response and recovery, as well as an overview of potential hazards.
- Part Two (Emergency Organization Functions): Description of the emergency response organization and emergency action checklists.
- Part Three: Supporting and legal documents to the Emergency Operations Plan.

Hazard Mitigation Plan

Under the Disaster Mitigation Act of 2000 (DMA 2000), the Federal Emergency Management Agency (FEMA) requires a Hazard Mitigation Plan (HMP) from local governments and certain special districts, counties, and states within the country that wish to receive federal mitigation funds if they should become available.

The Montclair HMP identifies ways to mitigate hazards prior to their occurrence to reduce deaths, injuries, and property damage. This plan identifies hazards that could potentially affect Montclair and also gives historical data, economic factors, vulnerability assessments, mitigation costs, and estimated losses resulting from the identified hazards.

This plan was approved by FEMA in April 2005. In accordance with Section 201.6(c)(4) of 44 CFR, this plan is to be monitored, evaluated, and updated at least every five years. In an effort to update its HMP, the City of Montclair participated in the 2010 San Bernardino County Operational Area Multi-Jurisdictional Multi-Hazard Mitigation Plan process. The Montclair City Council adopted the updated HMP by Resolution No. 11-2898 on May 2, 2011. The updated plan was approved by FEMA on May 23, 2011.

In order to develop a more comprehensive approach to reducing the effects of natural hazards, the City of Montclair invites the public to review the Hazard Mitigation Plan (PDF) and provide comments. Comments that are submitted will be considered during the next update planned for May 2016. Comments may be submitted in writing to the following address:

Montclair Fire Department
Attn: Emergency Services Coordinator
P.O. Box 2308
Montclair, CA 91763.

Attachment 'I'

Hazard Mitigation Plan Update 2010
Planning Team Meeting Roster
Tuesday, July 6, 2010

Name	Organization	Title	Signature
Angelic Bird	Montclair Fire Dept.	Secretary/ Emerg. Svc Coord.	[signature]
Dale Gillum	MONTCLAIR PLAZA	PUBLIC SAFETY DIRECTOR	[signature]
Jamie Green	Costco Wholesale	Asst manager	[signature]
Melissa Checchi	Ontario Montclair Schl Dist.	Class/Training Dev Spec. - Rems Administrator	[signature]
GARY E. CHARLESTON	City of Montclair	Personnel Officer	[signature]
Mary Westerlin	Building & Safety - City	Building Official	[signature]
Joel Rosales	NPDES ~~[illegible]~~ + Pw	NPDES Coordinator	[signature]

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, JULY 6, 2010

Present: Angelic Bird, City of Montclair Fire Department
Dale Gillum, Montclair Plaza
Gary Charleston, City of Montclair Administrative Services Department
Jimmie Gatten, Costco
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Merry Westerlin, City of Montclair Community Development Dept.
Milissa Checchi, Ontario-Montclair School District

Absent: Jason Reed, City of Montclair Police Department
Jonathan Dizon, Monte Vista Water District

The meeting was hosted by the Montclair Fire Department at Fire Station No. 1. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for participants to follow during the meeting.

Planning Team members took turns introducing themselves to each other by explaining their roles in their respective organizations. Angelic distributed a Planning Team contact list.

Planning Team Meeting Calendar

August 3: **Planning Team Meeting**
3 p.m. – 5 p.m.
Montclair Fire Station No. 1 – 8901 Monte Vista Avenue
Topics to be discussed:

1. Actions Taken Since 2005
2. Risk Assessment - Hazard Identification and Profile

August 17: **Planning Team Meeting**
3 p.m. – 4 p.m.
Montclair Fire Station No. 1 – 8901 Monte Vista Avenue
Topics to be discussed:

1. Risk Assessment
    a. Asset Inventory
    b. Potential Loss Estimation
    c. Community Development Trends

August 31: **Planning Team Meeting**
3 p.m. – 4 p.m.
Montclair Fire Station No. 1 – 8901 Monte Vista Avenue
Topic to be discussed:
1. Mitigation Strategy

September 14: **Planning Team Meeting**
3 p.m. – 4 p.m.
Montclair Fire Station No. 1 – 8901 Monte Vista Avenue
Topic to be discussed:
1. Plan Maintenance

September 20: **Upload draft of local Hazard Mitigation Plan to website portal for review by ICF consultant**

Background Information on Hazard Mitigation Plan (HMP)

Angelic Bird discussed the purpose of the HMP, the planning process that took place in 2005, and the requirements of the 2010 HMP update.

Parties Involved and Timeline

The parties involved in the 2010 HMP update are FEMA, Cal EMA, San Bernardino County Office of Emergency Services, the local Montclair Planning Team, ICF International Consultants, and possibly Emergency Management Services Initiative in the event that Homeland Security Grant funds become available.

Angelic Bird will update the Planning Team on the status of receiving Homeland Security Grant funds for hiring a consultant when information becomes available.

Distributed a timeline of important dates for the planning process.

Website Portal

Angelic Bird explained that ICF International produced a website portal for local jurisdictions to use during the update process. The portal has a page for each jurisdiction and will be composed of a public and private website. The public page will allow the general public with an opportunity to view the HMP and comment on it during the planning process and before adoption. The private website will be password protected and only available to Planning Team members for accessing resource materials and updating the 2010 HMP.

At this time, user names and passwords are not available for all Planning Team members, but once they become available, Angelic Bird will forward them to the Team members via e-mail.

Documents for Update Process

The documents that the Planning Team will be using during the planning process are as follows:

1. 2005 Hazard Mitigation Plan
2. 2005 Crosswalk
3. 2010 Hazard Mitigation Plan
4. 2010 Crosswalk

Team members will work off of an existing Microsoft Word document to update the HMP and track all changes throughout the document. Angelic Bird will be the point of contact to integrate all changes that Team members submit for the 2010 HMP. Team members will submit updates to the plan via e-mail. The team decided to utilize the website portal as a holding place for the most up-to-date revised copy of the HMP.

Tasks at Hand

Angelic Bird presented the tasks at hand for updating the HMP and solicited input from Team members regarding how they would like to proceed with executing these actions. The tasks at hand consist of documenting actions and progress taken since 2005, incorporating new data and actions, conducting public outreach, and adopting the HMP.

Document actions and progress since 2005
The Planning Team will identify completed projects and the process taken to complete them, identify any public outreach conducted, investigate whether or not the HMP was incorporated into any new existing plans, and discuss how the plan was reviewed and maintained.

Incorporate new data and actions
The Planning Team will update basic information (for example, weather, contact information, and demographics), describe the planning process, conduct risk assessment, review and revise the mitigation strategy, and update the plan maintenance process.

Part of conducting risk assessment entails identifying hazards that affect Montclair. Team members inquired on whether or not the plan should only identify natural hazards or if it should identify natural, man-made, and technological hazards. Examples given of man-made and technological hazards were train derailments,

terrorist attacks, plane crashes, bio-terrorism, and flu pandemic. Angelic Bird will contact the consultant from ICF International to inquire about the types of hazards that should be identified in the plan and e-mail this response to all Planning Team members.

Conduct Public Outreach

One requirement of the HMP update is that the general public be notified that the plan is being updated and be given an opportunity to comment on the plan during the planning process. The Planning Team discussed various methods for informing the public such as placing information on the City's and Ontario-Montclair School District's websites, placing an insert in the trash and sewer bill, submitting a slide to be shown on the City's television channel (Cable channel 3), posting a notice in the glass case at City Hall, and putting a notice in the Daily Bulletin similar to those submitted by the City Clerk for public hearings. Team members all agreed that these were good methods to inform the public about the update and will work towards completing them before the next meeting.

Team members inquired about the extent of public involvement in the planning process. Angelic Bird will investigate this topic further and advise Team members of her findings.

Adoption of HMP

Once the plan is approved by FEMA it will be submitted to the City Council for approval and adoption.

Meeting Discussion Topics

Team members discussed the meeting format and how they would like to proceed with the planning process. The Team agreed on a series of meeting topics to guide the update process. (See calendar section above for meeting dates and discussion topics.)

Next Steps

Planning Team members will perform the following actions prior to the next scheduled meeting on August 3, 2010:

1. Review and become familiar with the 2005 HMP and Crosswalk
2. Conduct public outreach
3. Update basic information
4. Document any actions taken since 2005
5. Review identified hazards and their profiles; identify new hazards and update profiles

Attachment 'J'

HAZARD MITIGATION MEETING – 07/27/2004
POINTS FOR DISCUSSION

1. Northridge earthquake stats

Date/Time:	01/17/1994 0431pst
Magnitude:	6.7
Deaths:	57
Economic Loss:	20-40 Billion
Displaced:	20,000

2. Critical facilities info for our city

3. Info on storm drain upgrade

   - Date
   - Project description
   - Cost to City
   - Funds used

4. Topography info needed

5. Should Costco be listed as critical or non-critical facility?

6. What new facilities are awaiting approval or pending changes

Meeting Roster

HAZARD MITIGATION MEETING - JULY 27, 2004

NAME (please print)	TITLE	ORGANIZATION	PHONE
Mike Donley	Emergency Services Coord.	City of Montclair	909.626.1217
APRIL MITTS	ADMINISTRATIVE ANALYST	"	
Dennis M'Gehee	Public Works	"	
RANDY MORALES	POLICE DEPT	"	
STEVE GRIGGS	BUILDING OFFICIAL	"	
Melinda Flores	RDA	"	
Mary Ann Melleby Public Affairs	Monte Vista Water District →		

Attachment 'K'

FAXED

Brent Davis
Ontario-Montclair School District
Homer Briggs Education Service Center
350 West "D" Street
Ontario, CA 91762-3414

Dear Mr. Davis:

SUBJECT: **ONTARIO-MONTCLAIR SCHOOL DISTRICT SCHOOLS**

I am currently developing a Hazard Mitigation Plan for the City of Montclair. This plan is required by the federal government for post hazard funds, should the need arise. For this plan, I would appreciate a list of Ontario-Montclair School District schools within the City of Montclair. Please include the following for each school (estimates are acceptable):

- Structure replacement cost
- Content replacement cost
- Approximate square footage

These totals should be for the entire school campus as opposed to each building on the campus. Should you have any questions, I can be reached at the Montclair Fire Department, (909) 626-1217. Thank you for your attention to this matter.

Sincerely,

Michael E. Donley, Administrative Officer
MONTCLAIR FIRE DEPARTMENT

MED:meb

Attachment 'L'

MEETING ROSTER
HAZARD MITIGATION – JULY 6, 2004

NAME	TITLE	ORGANIZATION	PHONE NO.
Mike Donley	Emergency Svcs. Coord.	MFD	(909) 626-1217
Lisa Jackson	Secretary	MFD	626-1217
Dennis McGehee	ENVIR. Mental Chal Spec.	P.W.	625-9465
Steve Griggs	Building Official	C/D	625-9436
Randy Morales	Police Sgt.	P.D.	621-5873
April Mitts	Admin. Analyst	Admin. Svcs.	445-1809
Melinda Flores	Administrative Analyst	RDA	625-9417

Attachment 'M'

Meeting Roster

HAZARD MITIGATION MEETING - JUNE 29, 2004

NAME (please print)	TITLE	ORGANIZATION	PHONE
Mike Donley	Emergency Services Coord.	City of Montclair	909.626.1217
Dennis McGehee	Environmental Control Specialist	"	(909) 625-9468
LISA JACKSON	SECRETARY	MFD	626-1217
Melinda FLORES	Administrative Analyst	RDA	625-9417
Rudy Gomez	Building		625-9437
RANDY MORALES	ADMINISTRATIVE SGT.	M.P.D.	621-5873
APRIL MITTS	ADMINISTRATIVE ANALYST	ADMIN. SVCS	626-8571

CITY OF MONTCLAIR HAZARD MITIGATION GROUP
MEETING NOTES
JUNE 29, 2004

Present: Emergency Services Coordinator Donley, Administrative Analyst Flores, Senior Building Inspector Gomez, Environmental Control Specialist McGehee, Administrative Analyst Mitts, Administrative Sergeant Morales, and Recording Secretary Jackson.

Mike Donley

1. Discussed the purpose of the meeting and gave background information on why the City of Montclair is required to identify mitigation hazards and establish a mitigation goal. The purpose of mitigation planning is for state, local, and Indian tribal governments to identify the natural hazards that impact them, and to identify actions and activities to reduce an losses from those hazards, and to establish a coordinated process to implement the plan, and take advantage of a wide range of resources.

2. Stated that plans are due by Monday, November 1, 2004. If the plans are not submitted by November 1, and a disaster occurs within our city, we may or may not receive reimbursement.

3. Completion of our plan will require involvement by the entire City, and will require input from various agencies.

4. Reviewed, discussed, and identified mitigation goals and hazards. Distributed an informational handout.

Emergency Services Coordinator Donley concluded the meeting by thanking everyone for their attendance.

Attachment 'N'

Hazard Mitigation Plan Update 2010

Planning Team Meeting Roster

Tuesday, August 3, 2010

Name	Organization	Title	Signature
Angelic Bird	Montclair Fire Dept.	Secretary/ESC	
Jonathan Dizon	MVWD	Eng Tech	
Terry Westerlund	Montclair- Building&Safety	Building Official	
Joe Rasples	PW/Engineering	NPDES Coordinator	
GARY CHARLESTON	City of Montclair	Personnel Officer	
JASON REED	MONTCLAIR PD	LIEUTENANT	
DALE R GILLUM	MONTCLAIR PLAZA	PUBLIC SAFETY DIRECTOR	

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, AUGUST 3, 2010

Present: Angelic Bird, City of Montclair Fire Department
Dale Gillum, Montclair Plaza
Gary Charleston, City of Montclair Administrative Services Department
Jason Reed, City of Montclair Police Department
Jonathan Dizon, Monte Vista Water District
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Merry Westerlin, City of Montclair Community Development Dept.

Absent: Jimmie Gatten, Costco
Milissa Checchi, Ontario-Montclair School District

The meeting was hosted by the Montclair Fire Department at Fire Station No. 1. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for participants to follow during the meeting.

Administrative Items

Angelic Bird informed the Planning Team that the City will be receiving funds from the Fiscal Year 2008 Homeland Security Grant Program to hire a consultant to work on the Hazard Mitigation Plan.

The Team reviewed the *Plan Update Requirements and Guidance* document and new Table of Contents produced by ICF.

The timeline was revised to add another Planning Team meeting on August 11, 2010.

Public Outreach

All public outreach projects discussed at the last meeting have been implemented. There has been no response from the public so far.

Hazard Identification

The Planning Team reviewed new hazard data, researched information about emergencies or disasters that occurred since 2005, and discussed the affects of different hazard types as they pertain to Montclair. After discussing many hazard types, such as

coastal storm, dam failure, drought, earthquake, expansive soils, levee failure, flood, hailstorm, hurricane, severe winter storm, tornado, wildfire, and windstorm, the Planning Team was able to determine that the top three hazards that still affect Montclair are earthquakes, flooding, and dam failure.

Hazard Profiles

The hazard profiles listed in the 2005 Plan were reviewed and updated by the Planning Team. Updated information included any new occurrences of the identified hazards within the last five years. The Team also discussed the probability of earthquakes occurring in the future.

Vulnerability Assessment

The Planning Team discussed the extent, severity, and magnitude of events resulting from earthquakes in Montclair. The Team identified how the City would be impacted in respect to transportation, health services, property, highways, utilities, municipal systems, schools, etc.

Next Steps

Planning Team members will perform the following actions at the next scheduled meeting on August 11, 2010:

1. Vulnerability assessment for flooding and dam failure
2. Probability of future events for flooding and dam failure
3. Prioritize hazards using the new matrix developed by ICF

Attachment 'O'

Hazard Mitigation Plan Update 2010

Planning Team Meeting Roster

Tuesday, September 14, 2010

Name	Organization	Title	Signature
Angelic Bird	City of Montclair	Secretary/ESC	
CARL HEINTZ	EMSI	CONSULTANT	
ROBERT AVILES	MONTCLAIR P.D.	LIEUTENANT	
Jonathan Dixon	MVWD	Engr Tech	
KATHY STANDRIDGE	MVWD	PROJ. ASST	
Joe Rosales	Montclair	NPDES Coordinator	
Melissa Checchi	OMSD	Classified Trans/Rec	
GARY E. CHARLESTON	City of Montclair	Personnel Officer	

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, SEPTEMBER 14, 2010

Present: Angelic Bird, City of Montclair Fire Department
Carl Heintz, Emergency Management Services Initiative
Gary Charleston, City of Montclair Administrative Services Department
Jonathan Dizon, Monte Vista Water District
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Kathy Standridge, Monte Vista Water District
Milissa Checchi, Ontario-Montclair School District
Robert Avels, City of Montclair Police Department

Absent: Dale Gillum, Montclair Plaza
Jimmie Gatten, Costco
Merry Westerlin, City of Montclair Community Development Dept.
Sue Churchill, Chaffey Joint Unified School District

The meeting was held at the Montclair Police Department, Community Room. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for participants to follow during the meeting.

Administrative Items

Angelic Bird introduced Police Lieutenant Robert Avels as the newest member of the Planning Team. He will be taking the place of Police Lieutenant Jason Reed.

Also introduced at this meeting was Carl Heintz, a consultant from Emergency Management Services Initiative. He was hired using funds from the FY2008 Homeland Security Grant to assist the City of Montclair in updating the Hazard Mitigation Plan.

Mitigation Strategies and Projects

Planning Team members reviewed the mitigation strategies and projects proposed in the 2005 Plan. The current status of theses projects was determined. Based on the vulnerability assessment that was conducted earlier in the planning process, the Team discussed if projects proposed in the 2005 Plan should be continued into the next 5-year cycle and also developed new mitigation projects that may be completed within the next 5-year cycle depending on their priority. The Planning Team decided to use the STAPLEE criteria to rank and prioritize the proposed projects. Each Team member was

assigned a project to assess using the STAPLEE criteria. The results of each assessment will be discussing at the next meeting to establish an implementation strategy. Angelic Bird will e-mail the STAPLEE criteria chart to all Team members.

Next Steps

Planning Team members will perform the following actions at the next scheduled meeting on October 5, 2010:

1. Review STAPLEE criteria
2. Develop implementation strategy for mitigation projects
3. Develop a maintenance schedule to update the Hazard Mitigation Plan

Attachment 'P'

Hazard Mitigation Plan Update 2010

Planning Team Meeting Roster

Tuesday, August 24, 2010

Name	Organization	Title	Signature
Angelic Byrd	City of Montclair	Secretary/ESL	
JASON REED	MPD	POLICE LIEUTENANT	
Joe Rosales	Montclair	NPPES Coordinator	
Melissa Checchi	OMSD	Classified Training/Rev	
Jonathan Dixon	MVWD	Eng Tech	
KATHY STANDRIDGE	MVWD	PROJECTS ASST.	
Sue Churchill	CJUHSD	R.E. Mgr.	
Mary Westerfield	City of Montclair	Building Official	

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, AUGUST 24, 2010

Present: Angelic Bird, City of Montclair Fire Department
Jason Reed, City of Montclair Police Department
Jonathan Dizon, Monte Vista Water District
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Kathy Standridge, Monte Vista Water District
Merry Westerlin, City of Montclair Community Development Dept.
Milissa Checchi, Ontario-Montclair School District
Sue Churchill, Chaffey Joint Unified School District

Absent: Dale Gillum, Montclair Plaza
Gary Charleston, City of Montclair Administrative Services Department
Jimmie Gatten, Costco

The meeting was held at the Montclair Police Department, Community Room. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for participants to follow during the meeting.

Administrative Items

Angelic Bird informed the Planning Team that two bids have been received to hire a consultant to work on the Hazard Mitigation Plan. The grant requires that three bids be submitted.

Updated on Items Discussed at the Last Meeting

Jonathan Dizon verified with Army Corps of Engineers that the dam inundation maps created in 1986 are still current.

Fire Division Chief Steve Jackson verified that the health and medical results listed in the 2005 plan for earthquakes, flooding, and dam failure are still relevant.

Prioritize and Rank Hazards

The Planning Team discussed their methodology for ranking and prioritizing hazards in Montclair. The Team used the hazard assessment matrix developed by ICF International to assist in the process of prioritizing hazards.

Critical Facilities

Team members reviewed the critical facilities listed in the 2005 plan and identified any data that needed to be updated. The Team also defined what a critical facility is, noted any new critical facilities in the City, and identified any new structures that are important to the City's infrastructure, but not necessarily critical. All critical facilities and noncritical facilities were divided up among the Planning Team members to update and/or develop facility descriptions.

Milissa Checchi advised that Mission Elementary should be removed from the plan because this school is located in Ontario, CA. Milissa will also verify which schools are identified as shelter sites with the Red Cross.

The title *Municipal Systems* will be changed to *Municipal Facilities*.

One team member inquired as to whether or not cellular sites should be considered critical facilities. ICF International will be contacted to verify this inquiry.

Estimate Potential Losses

The Planning Team discussed the need to update potential loss estimations for the critical and noncritical facilities identified in the 2005 Plan. Potential loss estimations will include facility replacement costs, estimated economic impact, and a description of the economic impact. Depending on the expertise of each Planning Team member the list of critical and noncritical facilities was divided up to collect information on estimated potential losses. Team members were reminded to explain the methodology for arriving at figures and descriptions. Angelic Bird will e-mail the template for estimating potential losses to all Team members.

Development Trends

Director of Public Works and Redevelopment Marilyn Staats will provide updated information on the development trends in Montclair.

Repetitive Loss Properties

ICF International received information from FEMA regarding the repetitive loss properties in San Bernardino County. There are no repetitive loss properties in the City of Montclair.

Next Steps

Planning Team members will perform the following actions at the next scheduled meeting on September 14, 2010:

1. Review mitigation strategies proposed in the 2005 plan and determine the status of projects.
2. Develop new mitigation strategies and projects.

Attachment 'Q'

Hazard Mitigation Plan Update 2010

Planning Team Meeting Roster

Tuesday, August 11, 2010

Name	Organization	Title	Signature
Angelic Bird	Montclair Fire Dept.	Secretary / ESC	Angelic Bird
Joe Rosales	Engineering	UPDES	Joe Rosales
JASON REED	MPD	LIEUTENANT	
GARY CHARLESTON	City of Montclair	Personnel Officer	Gary R. Charleston
Sue Churchill	CJUHSD	Risk Mgr.	Sue Churchill
DALE R. GILLUM	ANDREWS INTERNATIONAL	SECURITY DIRECTOR	Dale R. Gillum
Melissa Checchi	OMSD	Classified Training	Melissa Checchi
Merry Westerlund	Building & Safety	Building Official	Merry Westerlund

CITY OF MONTCLAIR

2010 HAZARD MITIGATION PLAN UPDATE

PLANNING TEAM MEETING NOTES

TUESDAY, AUGUST 11, 2010

Present: Angelic Bird, City of Montclair Fire Department
Dale Gillum, Montclair Plaza
Gary Charleston, City of Montclair Administrative Services Department
Jason Reed, City of Montclair Police Department
Joseph Rosales, City of Montclair Redevelopment/Public Works Dept.
Merry Westerlin, City of Montclair Community Development Dept.
Milissa Checchi, Ontario-Montclair School District
Sue Churchill, Chaffey Joint Unified School District

Absent: Jimmie Gatten, Costco
Jonathan Dizon, Monte Vista Water District

The meeting was hosted by the Montclair Fire Department at the Montclair Police Station's Community Room. Angelic Bird called the meeting to order, thanked everyone for attending, and distributed a handout for participants to follow during the meeting.

Administrative Items

Angelic Bird informed the Planning Team that a Request for Proposal was sent to many consulting firms to bid on updating the Hazard Mitigation Plan. The deadline to submit an estimate is August 26, 2010.

Angelic Bird thanked Jason Reed for providing updated crime statistics to include in the Plan.

To date there has been no response from public outreach.

Vulnerability Assessment for Flooding and Dam Failure

The Planning Team discussed the extent, severity, and magnitude of events resulting from flooding and dam failure in Montclair. The Team identified how the City would be impacted in respect to transportation, medical and health services, public and private property, highways, utilities, municipal systems, etc.

Probability of Future Events for Flooding and Dam Failure

The Planning Team discussed the probability of flooding and dam failure occurring in the future. The Team concluded that it is probable that flooding could occur if there is enough heavy local rainfall and snowfall in the local mountains. Flooding may also occur due to dam failure. Dam failure is probable because of a combination of many causes, such as prolonged periods of rainfall, inadequate spillway capacity, internal erosion, improper maintenance, and earthquakes causing cracks.

Next Steps

Planning Team members will perform the following actions at the next scheduled meeting on August 24, 2010:

1. Prioritize hazards using new matrix developed by ICF
2. Identify/update City assets
3. Calculate potential loss estimations

Attachment 'R'

EDMUND G. BROWN JR.
GOVERNOR

MIKE DAYTON
ACTING SECRETARY

Cal EMA
CALIFORNIA EMERGENCY MANAGEMENT AGENCY

March 9, 2011

Ms. Sally Ziolkowski, Mitigation Division Director
Federal Emergency Management Agency, Region IX
1111 Broadway Street, Suite 1200
Oakland, California 94607

Subject: City of Montclair Multi-Jurisdictional LHMP Update (PDM 10)

Dear Ms. Ziolkowski:

The California Emergency Management Agency (CalEMA) is forwarding the City of Montclair's Local Hazard Mitigation Plan (LHMP) for formal review. Please note that this plan is part of the San Bernardino County LHMP. Enclosed are the plan, the crosswalk and the CD containing the electronic information.

If you have any questions, please contact me at (916) 845-8150, or Victoria LaMar-Haas, Senior Emergency Services Coordinator, Hazard Mitigation Planning Branch, at (916) 845-8531.

Sincerely,

KEN WORMAN
State Hazard Mitigation Officer

Enclosure

c: Angelic Bird, Emergency Services Coordinator, City of Montclair

3650 SCHRIEVER AVENUE • MATHER, CA 95655
HAZARD MITIGATION PLANNING BRANCH
(916) 845-8150 • (916) 845-8386

Attachment 'S'

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

March 14, 2011

Angelic Bird
Secretary/ Emergency Services Coordinator
Montclair Fire Department
8901 Monte Vista Avenue
Montclair, CA 91763

Dear Ms. Bird

This letter acknowledges receipt of the *Hazard Mitigation Plan* on *March 14, 2011* for review. The planning package contained paper and electronic copies of the plan and a completed crosswalk.

We will conduct a detailed review of the plan in accordance with the *Code of Federal Regulations*, Title 44, Part 201, Section 6 (44 CFR 201.6) and will provide feedback upon completion of the review. Our review will be complete within 45 days of receipt of the plan, whenever possible.

If you have any questions regarding the planning or review processes, please contact Juliette Hayes, Community Planner at (510) 627-7211, or by email at juliette.hayes@dhs.gov.

Sincerely,

for Raymond T. Lucas

Sally Ziolkowski, Director
Mitigation Division

cc: Ken Worman, California Emergency Management Agency, Mitigation Planning

Attachment 'T'

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

April 1, 2011

Angelic Bird
Secretary/Emergency Services Coordinator
Montclair Fire Department
8901 Monte Vista Avenue
P.O. Box 2308
Montclair, CA 91763

Dear Ms. Bird:

We have completed our review of the *City of Montclair Hazard Mitigation Plan* and have determined that this plan is eligible for final approval pending its adoption by the City of Montclair City Council.

Formal adoption documentation must be submitted to the Regional office by the Jurisdiction within one calendar year of the date of this letter, or the entire plan must be updated and resubmitted for review. We will approve the plan upon receipt of the documentation of formal adoption.

If you have any questions regarding the planning or review processes, please contact Juliette Hayes, Community Planner at (510) 627-7211, or by email at juliette.hayes@dhs.gov.

Sincerely,

Sally Ziolkowski, Director
Mitigation Division

cc: Ken Worman, California Emergency Management Agency, Mitigation Planning

www.fema.gov

Attachment 'U'

MONTCLAIR

May 17, 2011

Sally Ziolkowski, Director
Federal Emergency Management Agency
Region IX Office
Mitigation Division
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

Dear Ms. Ziolkowski:

SUBJECT: FORMAL ADOPTION DOCUMENTATION FOR THE CITY OF MONTCLAIR'S HAZARD MITIGATION PLAN

On Monday, May 2, 2011, the Montclair City Council adopted the City of Montclair's Hazard Mitigation Plan update. Please find enclosed a certified copy of Resolution No. 11-2898 adopting the plan and an official City Council Agenda/Minute Excerpt from the May 2 City Council meeting.

If you should require additional information or have any questions, please call me at the Montclair Fire Department, (909) 447-3542, Monday through Thursday, between the hours of 7 a.m. and 6 p.m.

Sincerely,

Angelic Bird, Secretary/Emergency Services Coordinator
MONTCLAIR FIRE DEPARTMENT

Enclosures

CITY OF MONTCLAIR Fire Department
8901 Monte Vista Avenue, P.O. Box 2308, Montclair, CA 91763 (909) 447-3540 FAX (909) 621-5261

Attachment 'V'

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

May 23, 2011

Angelic Bird
Secretary/Emergency Services Coordinator
Montclair Fire Department
8901 Monte Vista Avenue
P.O. Box 2308
Montclair, CA 91763

Dear Ms. Bird:

On May 20, 2011 we received documentation that the City of Montclair adopted the *City of Montclair Hazard Mitigation Plan* on May 2, 2011. The plan is now in conformance with Title 44 Code of Federal Regulations (CFR) Part 201.6 *Local Mitigation Plans*.

The City of Montclair can be commended for including a thorough description of the city's vulnerability to identified hazards and completing a Hazard Mitigation Plan to reduce that vulnerability.

The approval of this plan ensures The City of Montclair's continued eligibility for project grants under FEMA's hazard mitigation assistance programs, including Hazard Mitigation Grant Program, Pre-Disaster Mitigation, Flood Mitigation Assistance and Severe Repetitive Loss grant programs. All requests for funding, however, will be evaluated individually according to the specific eligibility, and other requirements of the particular program under which applications are submitted. Approved mitigation plans are eligible for points under the National Flood Insurance Program's Community Rating System (CRS). Additional information regarding the CRS can be found at *www.fema.gov/business/nfip/crs.shtm* or through your local floodplain manager.

FEMA's approval of the *City of Montclair Hazard Mitigation Plan* is for a period of five years, effective starting the date of this letter. Prior to May 20, 2016, the City of Montclair is required to review and revise its plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities, and resubmit it for approval in order to continue to be eligible for mitigation project grant funding. The enclosed crosswalk provides additional recommendations to incorporate into the plan when The City of Montclair undertakes its identified plan maintenance process.

If you have any questions regarding the planning or review processes, please contact Juliette Hayes, Community Planner at (510) 627-7211, or by email at juliette.hayes@dhs.gov.

Sincerely,

for Ray Lucas

Sally Ziolkowski, Director
Mitigation Division

cc: Ken Worman, California Emergency Management Agency, Mitigation Planning

Filename and Path: *S:\Planning DMA 2000\Plan Review\California\Montclair 2011\Correspondence\ Plan APA Letter\ 5/20/2011*

CONCURRENCE:

Ray Lenaburg, Risk Analysis Branch Chief — Date: 5/20/11

Juliette Hayes, Community Planner — Date: 5/20/2011

Attachment 'W'

The City of Montclair's Hazard Mitigation Plan was approved by the Federal Emergency Management Agency on May 23, 2011. Section 7 of the plan requires that the Planning Team meet, at a minimum, on a yearly basis to review the plan. This meeting will provide an opportunity to discuss the progress of mitigation projects and maintain the partnerships that are essential to the sustainability of this plan.

MONTCLAIR

Hazard Mitigation Plan Annual Review

SAVE THE DATE

Meeting Focus:

- Discuss status of mitigation projects
- Review the plan's crosswalk
- Review mitigation goals and implementation strategy
- Determine if the risk assessment portion of the plan needs to be updated

Wednesday, May 16, 2012

3:30 to 4:30 p.m.

Montclair Police Department
EOC/Community Room
4870 Arrow Highway

RSVP to Angelic Bird at
(909) 447-3542 or
abird@cityofmontclair.org
by Monday, May 7, 2012

Attachment 'X'

City of Montclair
Hazard Mitigation Plan Annual Review Meeting

Montclair Police Department, EOC/Community Room
4870 Arrow Highway, Montclair, CA 91763

Wednesday, May 16, 2012
3:30 to 4:30 p.m.

AGENDA

A. Welcome and introductions

B. Review the plan's crosswalk

1. What did we do well?
2. What can we improve?

C. Review the implementation strategy

D. Review mitigation projects and their status

1. Storm drain upgrades
2. Upgrade the Emergency Operations Center (EOC)
3. Update the Building Code
4. Update the Hazard Mitigation Plan
5. Conduct community outreach
6. Store historical/critical records off-site
7. Update the Emergency Operations Plan
8. Disaster/ICS drills
9. Secure furniture, cabinets, and files throughout City buildings
10. Develop a CERT program
11. Overpass study

E. Determine if the risk assessment portion of the plan needs to be updated

City of Montclair's Hazard Mitigation Plan
Annual Review Meeting Roster
Wednesday, May 16, 2012

Name	Organization/Department	Title	Signature
Juan ZAMORA	CHINO BASIN WATER CONSERVATION DIST	WATER CONSERVATION SPEC.	
John Nielsen	I.T. Montclair	I.T. Supervisor	
~~John~~ Joe Rascles	PW Montclair	NPDES Coordinator	
Milissa	OMSD	Classified Training Officer	
Gary Charleston	City of Montclair	Personnel Officer	
Steven Dague	" "	DEP GIS Specialist	
JASON REED	MONTCLAIR PD	LIEUTENANT	
Jerry Westerlin	Montclair - Building Safety	Building Official	
KATHY STANDRIDGE	MVWD	PRA. ASST	
Jonathan Daly	MVWD	Eng Tech	
Mark Hook	Chaffey JT HTSD	Director Risk Manage	
Angelic Bird	Montclair Fire Dept.	Secretary/ESC	

CITY OF MONTCLAIR
HAZARD MITIGATION PLAN
ANNUAL REVIEW MEETING NOTES
WEDNESDAY, MAY 16, 2012

Present: Angelic Bird, City of Montclair Fire Department
Gary Charleston, City of Montclair Administrative Services Department
Jason Reed, City of Montclair Police Department
John Nguyen, City of Montclair Information Technology Division
Jonathan Dizon, Monte Vista Water District
Joseph Rosales, City of Montclair Redevelopment/Public Works Department
Juan Zamora, Chino Basin Water Conservation District
Kathy Standridge, Monte Vista Water District
Merry Westerlin, City of Montclair Community Development Department
Michael Hook, Chaffey Joint Unified School District
Milissa Checchi, Ontario-Montclair School District
Steven Dague, City of Montclair Information Technology Division

The meeting was held at the Montclair Police Department, Community Room/EOC.

The plan maintenance contained in Section 7 of the Hazard Mitigation Plan (HMP) requires that the Planning Team meet at a minimum on a yearly basis to review the plan. The purpose of this meeting was to provide an opportunity to discuss the status of mitigation projects and maintain the partnerships that are essential to the sustainability of the plan.

Angelic Bird began the meeting by thanking everyone for attending and asked participants to do self introductions. An agenda and information packet were distributed for participants to follow during the meeting.

Review of the plan's crosswalk

Participants reviewed and discussed the crosswalk that the California Emergency Management Agency (Cal EMA) and the Federal Emergency Management Agency (FEMA) used to review the plan when it was submitted for approval in 2010. Listed below are comments from the crosswalk that were recognized as positive feedback of the Planning Team's efforts during the update process in 2010 and some areas where FEMA recommended that the plan can be improved:

Positive feedback:

1. Planning Process (Section 3 of the HMP)
    a. The plan identified Planning Team members and explained their roles.
    b. The Planning Team did the following:
        i. Provided an excellent variety of announcements and opportunities to encourage public involvement, especially the press release and flyer.
        ii. Did a good job of documenting how they reviewed and analyzed each section of the plan.
2. Risk Assessment (Section 4 of the HMP)
    a. The plan identified hazards that pose a risk to the City.
    b. Geographic areas in the City that are affected by the hazards were well described.
3. Vulnerability Assessment (Section 4.4 of the HMP)
    a. The plan includes the estimated economic impact that would result from the hazards and descriptions of the economic impact. This is helpful information for developing mitigation action and projects.
    b. Very thorough description of the impact each hazard will have on the City.
4. Identification of Mitigation Actions (Section 6 of the HMP)
    a. Identified a comprehensive range of migration projects that incorporate preparedness and mitigation nicely.
5. Implementation of Mitigation Projects (Section 6 of the HMP)
    a. Provided an excellent and well described prioritization process for mitigation projects.
    b. Did a nice job of identifying completed, deleted, or deferred mitigation projects as a benchmark for the five years since the plan was first adopted.

Areas where the plan can be improved:

1. Risk Assessment (Section 4 of the HMP)

a. Hazard maps are somewhat limited and hard to read. Recommendation is to make larger maps with clear details.

b. Include a statement that the San Antonio Dam Inundation maps from 1986 are still valid per the Army Corps of Engineers.

Those present were pleased with the comments received and will work on implementing the recommendations.

Review of the plan's implementation strategy

Participants reviewed the plan's implementation strategy. This strategy focuses on the "high" priority projects that are intended to be implemented over the next few years, prior to the next update of the plan in 2016. The projects that ranked "medium" may also be implemented during this five-year cycle. It was noted that Project No. 1 - Storm Drain Upgrades is not listed in the implementation strategy because it was ranked as "low."

Status of mitigation projects

1. Project No. 1 - Storm Drain Upgrades:

   Joseph Rosales provided an update on this project. He stated that the upgrades to the storm drain systems on Mills Avenue and Monte Vista Avenue have not yet begun. However, during the past year upgrades were made to the storm drain system on Third Street in an area of the City that was recently annexed. Joseph will e-mail more detailed information to Angelic Bird on the upgrades that were performed for inclusion in the HMP.

2. Project No. 2 - Upgrade the Emergency Operations Center:

   Angelic Bird reported that the following upgrades have been implemented in the Emergency Operations Center (EOC):

   a. Updated the EOC layout diagram,

   b. Installed new section signs for tables and storage closets,

   c. Developed an EOC Activation Handbook,

   d. Developed an EOC Position Assignment Contact List,

   e. Purchased more color coded Incident Command System (ICS) vests,

   f. Stocked EOC with office supplies,

g. Purchased white boards, easels, and easel pads,

h. Made binders for all EOC positions with checklists and forms (in progress),

i. Replenished stocks of expiring MREs (emergency food) and water for EOC responders,

j. Saved EOC forms on flash drives for each section (in progress),

k. Updated status boards,

l. Acquired new map books courtesy of the Building Division.

Steven Dague gave an update on the EOC Digital Tactical Board Project and provided a handout to all participants that showed a snapshot of what the program will look like. This project uses Geographic Information System (GIS) software and will provide the following benefits in the EOC:

a. Ability to map and analyze all types of hazards and visualize their potential impacts on specific geographical locations and populations;

b. Identify and map key tactical and strategic facilities, such as public safety facilities, hospitals, emergency shelters, infrastructure, and suppliers of support items (food, water, equipment, building supplies, etc.);

c. Identify incident locations and modeling of their impacts;

d. Identify routes/areas that have been closed/evacuated and determine transportation routes to avoid closures;

e. Manage damage assessment information;

f. Provide emergency managers with a common operating picture from which sound decision may be made efficiently and effectively;

g. Ability to inventory City resources (vehicles, supplies, and personnel);

h. Display the status of City resources and external resources that have been assigned to emergency incidents.

This project is in its final phase of development and will soon be piloted to the EOC Operations Section Staff for comments.

3. Project No. 3 - Update the Building Code:

Merry Westerlin reported that the 2010 Building Code was adopted in 2011 and that the project description should be modified to read that the 2013 Building Code will be adopted in 2014.

4. Project No. 4 - Update Hazard Mitigation Plan:

   Angelic Bird stated that the goal of this project is to ensure that the HMP remains an active and relevant document. This Annual Review Meeting was in compliance with the maintenance plan contained in Section 7 of the HMP. A complete update is scheduled for 2016.

5. Project No. 5 - Conduct Community Outreach:

   Throughout the last year, City personnel and other community partners have engaged in many activities that promote emergency preparedness and awareness of the hazards that affect Montclair. These community outreach activities include the following events:

   a. Leadership Connection presentation on EOC Operations (2011);

   b. Auxiliary Communication Services (ACS) volunteers (amateur radio group) participated in the Montclair Volunteer Fair (2011);

   c. West End Community Emergency Preparedness Fair (2011);

   d. Montclair Fire Department Open House (2011);

   e. Police Dispatchers gave "9-1-1 for Kids" presentations (2011);

   f. Personnel and students from the City, Ontario-Montclair School District, and the Monte Vista Water Districted participated in the Great California Shake Out and they encouraged community participation (2011);

   g. The Ontario-Montclair School District hosted a Parent Expo where information on emergency preparedness was available (2011);

   h. Building Division personnel gave a presentation at the Montclair Senior Center on earthquake preparedness and mitigating hazards in the home (2011);

   i. Updated the Disaster Preparedness section in the City's website (2012);

   j. Leadership Connection presentation on Fire operations during disasters (2012).

6. Project No. 6 - Store Historical/Critical Records Off-Site:

John Nguyen provided an update on this project. He stated that this project has been identified in the City's budget for Fiscal Year 2012-13. He suggested that all City departments be contacted to identify which City documents will be classified as historical/critical (i.e. essential to maintaining City operations after a disaster has occurred) as the storage space on the offsite server is limited. He explained that the offsite server is located on the east coast of the United States and is in a low hazard area away from any known earthquake faults. Angelic Bird and John Nguyen will work together to coordinate the implementation of this project.

Angelic Bird also commented that over the past year, during the development of this project, staff concluded that it would be most cost effective to modify the project slightly by removing the component that pertains to copying vital records and storing them in hardcopy form in an offsite storage facility. As an alternate, more cost effective method, this project will be modified to read that all historical and critical records will be scanned as electronic documents and stored on an offsite server.

7. Project No. 7 - Update the City's Emergency Operations Plan (EOP):

   Angelic Bird explained that the State recommends for local governments to update their EOPs every three years. The City's plan was last updated and approved in 2009. The City will be participating in the 2012 San Bernardino County EOP Update Project. This project is being coordinated by the San Bernardino County Fire Department, Office of Emergency Services and is funded by the Fiscal Year 2010 Homeland Security Grant Program. The timeline for this revision project is April 2012 to February 2013.

8. Project No. 8 - Disaster/ICS Drills:

   Throughout the year, City personnel and various community partners have participated in the following trainings and exercises to better prepare themselves for their roles during and after disasters, to erase fears about working under SEMS/NIMS while in the EOC or field, and to build confidence:

   a. SEMS/NIMS Executive Training (G612 and ICS-402) (March 7, 2011): City Council and Executive Staff participated in this training that gave an overview of SEMS, NIMS, and ICS. It also explained the Council's role in disaster situations;

   b. Ontario Airport Full-Scale Exercise (April 13, 2011): Exercised the coordinated response of Fire and EMS personnel to a plane crash;

c. Disaster Finance/Cost Recovery Training (April 18-19, 2011): Provided an overview of the process and forms used to collect data during emergency response and reporting information to Cal EMA and FEMA for financial assistance;

d. ACS Radio Cover Drill (May 14, 2011): Tested the amateur radio coverage capability in the City;

e. ICS-300 Training (June 15-16, 2011): City staff participated in this course that gave an overview of intermediate ICS;

f. Shelter Operations Seminar (July 5, 2011): Introduced City staff that have been assigned to work in a shelter with an overview of shelter operations and the City's partnership with the American Red Cross;

g. ACS Radio Cover Drill (August 6, 2011): This was a follow-up drill to the one conducted in May. This drill tested the amateur radio coverage capability in the City using a larger antenna and placing it in a different location;

h. SEMS EOC Section Training (October 10, 2011): Provided an overview of ICS section responsibilities in the EOC;

i. City-wide Shake Out Drop, Cover, and Hold On Drill (October 20, 2011);

j. Shake Out Tabletop Exercise (October 20, 2011): This exercise focused on the City's EOC Activation Handbook and the use of NIMS/SEMS principles to develop event objectives and conduct an Action Planning Meeting;

k. 2011 Statewide Medical and Health Training Exercise at the Montclair Hospital Medical Center (November 17, 2011): This exercise focused on a water contamination in San Bernardino County that affected the City;

l. Emergency Management 101 for Schools (March 30, 2012): This training provided an overview of the four phases of emergency management for schools;

m. Ontario Airport Tabletop Exercise (April 11, 2012);

n. SEMS EOC Planning/Intelligence Section Training (May 2012): This training provides an overview of the responsibilities of the Planning/Intelligence Section and best practices for Action Planning;

o. 2012 San Bernardino County Operational Area City/Town Golden Guardian Tabletop Exercise (May 29, 2012): This exercise focuses on EOC management, information sharing, and resource management;

p. FEMA Independent Study Program (year-round): City and school district personnel take the on-line NIMS courses in accordance with the guidelines contained in the NIMS Training Program (September 2011).

9. Project No. 9 - Secure Furniture, Cabinets, and Files throughout City Buildings:

   Gary Charleston reported that the City will have a consultant conduct a safety inspection in June 2012. The consultant will inspect all City facilities and make recommendations on measures to be implemented to improve employee safety.

10. Project No. 10 - Develop a CERT Program:

    Angelic Bird reported that no progress was made on this project because of limited staff and financial resources.

11. Project No. 11 - Overpass Study:

    Angelic Bird reported that no progress has been made on this project, but it should be addressed later this year.

Determine if the risk assessment portion of plan requires updating

Participants reviewed the hazards that were identified in the HMP and concluded that the hazard information contained in the HMP is still current and relevant. Portions of the risk assessment that will be updated are the hazard maps and a statement verifying the validity for the dam inundation maps. Further research will also be conducted to investigate how FEMA's HAZUS program may prove to be beneficial in updating the risk assessment portion of the HMP in conjunction with the City's GIS software.

Updates on other local agencies' Hazard Mitigation Plans

1. Monte Vista Water District:

   Jonathan Dizon reported the following items regarding the Water District's HMP and status of mitigation projects:

   a. HMP was approved by Cal EMA and FEMA,

   b. Adoption of Ordinance No. 43 for the reduction of water usage,

   c. Implemented a budget and tier based allocation of water,

   d. Seismic retrofits were performed on reservoirs,

   e. Well No. 34 is operational and providing a new source of water,

f. Implemented the Pipeline Replacement Program,

g. Integrated the use of recycled water within the City.

2. Chino Basin Water Conservation District:

Juan Zamora reported that the Conservation District's HMP was approved by Cal EMA and FEMA.