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EXECUTIVE SUMMARY

Plan Mission

The mission of the City of Montebello Hazard Mitigation Plan is to substantially and permanently reduce the community's vulnerability to natural and technological hazards. The plan is intended to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the natural environment. This can be achieved by increasing public awareness, documenting resources for risk reduction and loss-prevention, and identifying activities to guide the community towards the development of a safer, more sustainable community.

Plan Organization

The Montebello plan is developed and organized within the rules and regulations established under the 44 CFR 201.6. The plan contains a Mitigation Action Matrix, a discussion on the purpose and methodology used to develop the plan, a profile on Montebello, as well as, the Hazard Identification and Vulnerability Assessment of 3 natural hazards and 5 technological hazards. In addition, the plan offers a thorough discussion of the community's current capability to implement the goals, objectives and strategies identified herein. This plan is intended to improve the ability of Montebello to handle disasters and will document valuable local knowledge on the most efficient and effective ways to reduce loss.

Plan Financing

The City of Montebello Hazard Mitigation Plan has been 100% financed by the City through the use of general funds.

Plan Participation

The City of Montebello Hazard Mitigation Plan is developed as the result of an ongoing collaborative effort between the full range of public and private stakeholders in the Montebello community, neighboring jurisdictions and the County of Los Angeles. Concerns, capabilities, interests and historical data were gathered through interviews with stakeholders from the community, and, ongoing planning committee work sessions. Additionally, through ongoing phone outreach, invitation for involvement and public feedback during a public comment period, opportunity was provided for public participation. Any comments, questions, and discussions resulting from these activities were given strong consideration in the development of this plan.

The Montebello Mitigation Planning Committee (MMPC) was created during the planning process and is prepared to stay in place during the future years to guide and implement the mitigation projects. This committee and plan development was guided and assisted by consultants from James Lee Witt Associates.

The Mitigation Planning Committee is comprised of the:

- Montebello Fire Department,
- Montebello Public Works (Buildings, Streets and Engineering Divisions)
- Montebello Police Department,
- Montebello Finance Department,
- Montebello Economic Development Department
- Montebello Planning Department,

- Beverly Hospital
- Los Angeles County Area E Disaster Management Coordinator,
- Southern California Edison Company,
- Union Pacific Railroad,
- BNSF Railroad,
- South Montebello Irrigation District,
- Montebello Land & Water,
- San Gabriel Valley Water Company, and
- Southern Bell Company (SBC)

Hazards Identified

The criteria provided by FEMA for the development of the Hazard Mitigation Plan identified 11 natural hazards and states that, at a minimum, Montebello must address: Earthquake, Urban Flooding, Urban Wildland Interface, Wildfires, Winter storms/Extreme Cold, Severe Thunderstorms/Tornadoes, Hurricanes/Coastal Storms, Floods, Riverine/Coastal Erosion, Drought/Heat Wave, Landslides/Sinkholes, Tsunami Events, Volcanoes, and Dam/Levee Failure. Through the planning process it was determined by historical record analysis, historical events, concerns and interested and expressed opinions by the stakeholders involved in the planning process that the community would best be served by addressing three critical hazards.

Based on a collection of historical experience, available data and collaborative viewpoints the following hazards as being most prevalent and posing the most potential risk to the City of Montebello:

- Earthquakes
- Flooding
- Wildland/Urban Interface Fires

Additionally, the committee and supporting stakeholders felt it best to begin the process of addressing technological and human-caused hazards at this point, as these are the hazards that draw the most concern by those in the planning process. These hazards are reflected in this plan. All hazards will be further developed in the planning process.

Plan Goals

In an effort to ensure the mission of the City of Montebello Hazard Mitigation Plan is met, the participants in the development of this plan defined and established a list of goals which are directly relevant to meeting the mission of the plan. The following is a list of the goals identified by the participants of this plan:

- Protect Life, Property and the Environment,
- Increase Public Awareness and,
- Ensure Economic Stability

Mitigation Goal, Objective, and Strategy Organization

This plan has established a set of goals to assist the community in fulfilling the established purpose of this plan. In an effort to ensure the goals in this plan are met, each goal is broken down into a series of objectives which are further broken down into a series of strategies. Each strategy identifies the hazard(s) addressed by said strategy, the type of strategy,

responsible party/organization, monitoring and evaluation indicators, potential funding sources and a target completion date.

Plan Implementation

Adoption

Pursuant to the authority of Government Code Section 36805, the Montebello City Council has the legislative capacity to adopt policies, ordinances and amendments. Based on that authority, the Montebello City Council adopted the City of Montebello Hazard Mitigation Plan on October 27, 2004.

Monitoring, Evaluation, Update, and Revision

The Hazard Mitigation Plan for the City of Montebello will be evaluated by the Fire Chief/Emergency Management Director and by the Montebello Mitigation Planning Committee biannually to assess how effectively implemented mitigation strategies have been. Monitoring and evaluation involves the ongoing process of compiling information on the outcomes that result from implementing the hazard mitigation strategies contained in this plan or is a measure of success the planning area has seen through the implementation of each strategy. It also provides the planning area with an opportunity to make necessary revisions as local conditions change. Changes in development, technology or the capability of the planning area to implement the strategies adopted in the plan could necessitate the need for revisions in the plan itself.

There are many issues that the monitoring and evaluation process should include:

- The adequacy of the planning areas resources to implement the strategies as adopted;
- Any redundancy among strategies that can be eliminated to free-up resources;
- Whether adequate funding is available for implementation of the strategies as adopted;
- Any technical, legal or coordination problems associated with implementation and;
- Whether mitigation actions are being implemented according to the prioritization scope

However, the primary issue that monitoring and evaluation should address is whether the vulnerability of the planning area has decreased as a result of the strategies adopted in the plan. Where vulnerability has decreased, the MMPC will determine why and consider implementing successful mitigation strategies in other locations. Where vulnerability has remained constant or increased, the MMPC will identify whether additional measures might be more successful or whether revisions should be made to existing measures.

As previously noted, changes in development, technology or the capability of the planning area to implement the strategies adopted in the plan could alter the ability of the planning area to implement the mitigation strategies identified and adopted in their plan or could necessitate the need for new strategies to be identified. As a result, update and revision is a necessary part of the Hazard Mitigation planning process. While monitoring and evaluation are ongoing processes, update and revision should occur at regularly scheduled intervals. The

Fire Chief/Emergency Management Director and by the MMPC will be responsible for updates and revisions to the City of Montebello Hazard Mitigation Plan every two years and following every Presidentially-Declared Disaster to assess how effective implemented mitigation strategies have been.

Additionally, this Plan will be incorporated into the City's General Plan as an appendix entitled the *Safety Element*. Formal changes to the Appendices of the General Plan, such as this Plan, will be submitted at the time of the General Plan review, and that time period has yet to be determined, due to the fact that the General Plan is currently under revision.

Revisions of the *Safety Element* will be spearheaded by the MMPC, but will also involve participation of all relevant City departments.

Implementation Through Existing Programs

Montebello addresses planning goals and legislative requirements through its City General/Land Use Plan, Emergency Operations Plan, Zoning Ordinance, and the Uniform Building Codes. The Hazard Mitigation Plan provides a series of goals, objectives, and strategies that are closely related to the goals and objectives of these existing planning programs. Montebello will have the opportunity to implement adopted mitigation strategies through existing programs and procedures.

Continued Public Involvement

The City of Montebello is dedicated to the continued involvement of the public during the bi-annual review and the 5 year update, as well as, in the interim. Montebello has established strategies herein which will provide opportunity for continued public involvement. These strategies include a copy of the adopted plan to be placed at the City Hall for public review. In addition, a copy of the plan and any proposed revisions will be displayed on the City website and a phone number for the public to direct questions or comments regarding the plan to Emergency Management personnel.

Mitigation Strategy Matrix

The strategies identified herein are organized within the following matrix. The matrix identifies each strategy into one of 5 categories: new policy, amended policy, continued policy, new project and continued project. In addition to the categorization of each strategy, the matrix also identifies the type of strategy, target completion date, lead organization, potential funding sources, monitoring and evaluation indicators, and the hazard(s) addressed.

Type of Strategy

There are 3 strategy types and each strategy will be classified as one of the three types.

- Preventative – activities that are intended to keep vulnerability from increasing.
- Property Protection – measures that protect existing structures by modifying buildings to withstand hazardous events, removing structures from hazardous locations, or adopting policy that specifically addresses hazard issues in relation to current property.
- Public Information – activities that are used to advise citizens, business owners, potential property buyers, and visitors about hazards, hazardous areas, and mitigation techniques they can use to protect themselves and their property.

Target Completion Date

A target completion date is established to provide a timeline for completion of the strategies identified herein. The target completion date is the date established for the project to be fully complete. Many strategies, especially those that will take multiple years to complete, will require the project manager to establish an individual timeline where benchmarks can be used to monitor the progression of the strategy. The target completion dates are established on a quarterly basis within a five-year period.

Lead Organization

The lead organization will organize the implementation of the strategy, seek out appropriate funding, oversee strategy implementation, and be a liaison between the community and any other organization participating in the project. In addition, the lead organization will report back to the MMPC regarding the progress of the strategy implementation.

Potential Funding Source

It is a well known fact that many small communities lack the resources to implement strategies which will assist in reducing the community's vulnerability to hazards. Thus, this plan identifies potential funding sources for each strategy identified herein. The funding sources are those sources that are currently available to communities and may change from year to year. As a result, the lead organization for each strategy should always research funding sources not listed in this document.

Monitoring and Evaluation Indicators

Monitoring and evaluation indicators are benchmarks that will allow the MMPC to determine if a strategy has been completely implemented. Additionally, they will identify if a strategy is achieving the goal it was intended for. If it is found that the strategy is not successful in the community it may need to be altered or discontinued.

Conclusion

Montebello is fully aware that this plan is a living document that will grow along with the City through the MMPC, and the efforts made by the community. Additionally, they will continue to make a concentrated effort to, not only focus on the mitigation efforts within the City, but will strive to be inclusive of their neighboring jurisdictions and community based organizations.

INTRODUCTION

Hazard Mitigation

Hazard Mitigation as defined by the Disaster Mitigation Act of 2000, is “any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.” Mitigation is an ongoing effort to lessen the impact that disasters have on people and property. In practice, mitigation can take many forms and include many actions, which happen locally. Local governments must recognize hazards and initiate mitigation action including:

- Enact and enforce building codes, zoning ordinances, and other measures to enhance their legal capability in an effort to protect life and property.
- Make the public aware of hazards that present risks to people and property and measures they can take to reduce their risk and possible losses.
- Comply with Federal and other regulations that are designed to reduce disaster costs as well as preserve and protect natural, historical, and cultural resources.

Planning is the key to making mitigation a proactive process, and pre-disaster planning is an essential element in building an effective mitigation program. Mitigation plans emphasize actions taken before a disaster happens to reduce or prevent future damages. Preparing a plan to reduce the impact of a disaster before it occurs can provide a community with a number of benefits:

Saves lives and property

Because every community exists in a distinct natural, economic and social environment, the local hazard mitigation plan must reflect the unique needs, conditions and concerns of Montebello—not a boilerplate that is used in another other community. Mitigation plans are designed to correspond with other community goals in order to provide a plan which best suits the overall needs of that community.

The plan must consider the local geography, demography, community size, economy, land uses, current community goals, and the hazards by which it is defined. Montebello’s efforts must reflect the needs of the entire community, in order to safeguard all population groups within the community, all sectors, and take into consideration what vision the community has for the future.

Achieves Multiple Objectives

Mitigation plans can cover numerous hazards. By conducting a concurrent assessment of community vulnerability and capability to deal with various hazards, communities are able to prioritize needs and develop appropriate solutions to current and potential problems.

This evaluation provides a comprehensive strategy to contend with the multiple facets of hazard preparation, response and recovery. Montebello’s plan must fit into the work being taken currently by the community, and fit into the culture of those who will undertake the strategies to make it successful.

Saves Money

The community will experience cost savings by not having to provide emergency services, rescue operations, or recovery measures to areas that are dangerous to people in the event of a hazard. They will also avoid costly repairs or replacement of buildings and infrastructure that would have been preventive mitigation measures not been taken.

Saving money is of particular importance to Montebello. This plan will reflect the strong emphasis placed on this point by the community leaders and business and industry involved in its creation. Careful selection of projects underlies the plan; creative financing of projects will be paramount to fulfilling its implementation strategy.

Facilitates post-disaster funding

Many disaster assistance agencies and programs, including FEMA, require pre-disaster mitigation plans as a condition for both mitigation funding and for disaster relief funding. Such plans must include a thorough evaluation of potential hazards and community readiness for potential disasters. Programs that require such a plan include the Hazard Mitigation Grant Program (HMGP), which is authorized by Section 404 of the Stafford Act and the Flood Mitigation Assistance Program (FMA) both of which are overseen by FEMA and run by the state.

The Stafford Act, which authorizes HMGP funding, requires that communities include the following components in their mitigation plan:

44 CFR 206.405

(a) General. In order to fulfill the requirement to evaluate natural hazards within the designated area and to take appropriate action to mitigate such hazards, the State shall prepare and implement a hazard mitigation plan or plan update. At a minimum the plan shall contain the following:

- An evaluation of the natural hazards in the designated area;
- A description and analysis of the state and local hazard mitigation policies, programs and capabilities to mitigate the hazards in the area;
- Hazard mitigation goals and objectives and proposed strategies, programs and actions to reduce or avoid long-term vulnerability to hazards;
- A method of implementing, monitoring, evaluating and updating the mitigation plan. Such evaluation is to occur at least a 5-year basis to ensure that implementation occurs as planned, and to ensure that the plan remains current.

This plan reflects the requirements of the FEMA/OES regulations. It will also attempt to proactively support these initial and future mitigation planning efforts by looking beyond FEMA/OES funding, developing relationships with funding sources from private sector and other partnerships, and searching for alternative government resource support.

Hazard Mitigation and Sustainable Development

When structures are built in inappropriate or dangerous areas they can significantly alter the natural integrity of the area and place life and property at risk. In an effort to deter development in hazardous areas a new initiative, sustainable development, has become an integral part of mitigation planning.

Sustainability is development that maintains or enhances economic prosperity and community well being while respecting, protecting and restoring the natural environment upon which people and economics depend.

Local governments, in concert with their stakeholders throughout the community and region, can build sustainable communities by concentrating on housing, business, infrastructure and critical facilities, and the environment. Sustainable development practices allow communities to continue to develop and grow while also maintaining the social and environmental factors that make the communities attractive places to live, visit, and do business in. Communities throughout California have proactively embraced the concepts and practices of sustainable development for a number of years.

Communities throughout the country have been embracing key issues for promoting sustainability through mitigation—Montebello joins that advocacy as well. Some of the key sustainable philosophies that impact the development of this plan are:

- *Protect and strengthen buildings through design and building codes*
- *Integrate business and community risk assessments into business management practices*
- *Integrate response and recovery plans for business and local government*
- *Improve the capability of small business to effectively recover from natural disasters*
- *Promote improved hazard resistant design and construction practices for new, replaced or repaired infrastructure*
- *Promote land use planning practices to encourage new infrastructure in appropriate areas*
- *Promote rehabilitation of existing critical facilities that are most vulnerable to natural hazards*
- *Relocate and prohibit unsafe land use activities*
- *Acquire environmentally sensitive areas in order to minimize development*

Creating a disaster resilient community is a fluid process. Once a community has completed visioning, design and implementation of sustainable development goals, these same principles are integrated into everyday community development decisions. Through this local mitigation planning process, initiated in response to the DMA 2000, the City is working to ensure that fewer citizens, businesses, and buildings and infrastructure become victims of disasters that are prevalent to Southern California.

Through this holistic, collaborative initiative, a new approach is being taken to bring commonly understood mitigation technologies and practices to safeguard all elements of the community, and particularly those most at risk to short and long term disaster impact; in particular are marginalized communities, including the elderly, poor, disabled, English as a Second Language, and those who live in older housing stock susceptible to earthquakes.

Everyone involved in the Montebello planning effort believes that this plan is a beginning platform into which will be build many efforts that build towards the community's sustainability. The strategy herein is truly considered a *living document*—it will not be stagnant, and will be utilized as a tool for community development—a key in integrating mitigation and sustainability. This plan will grow as the community changes, as new stakeholders are brought to the planning process, as funding sources are discovered and new—and often unexpected—issues (such as terrorism) arise that beg attention.

Community Participation Process

The plan, with its strategies, goals, and objectives, was developed through a multi-step process. Outreach to stakeholders initially took place through a community workshop. City officials, staff, residents/property owners, business and industry, critical facility administrators (e.g. hospitals, water), county emergency management personnel and planning staff, local schools, community based organizations, and surrounding community representatives were all invited to participate. This half-day session was attended by over 40 public and private stakeholders from Montebello, neighboring jurisdictions, and the County of Los Angeles. Participatory facilitation was used to air concerns and build consensus regarding high priority hazards, vulnerabilities and other key issues.

Growing out of the community workshop, the Montebello Mitigation Planning Committee (MMPC) was formed. The purpose of this standing public-private sector committee is to lead the community outreach, ongoing planning efforts and development of the Mitigation Plan. Ongoing work sessions were—and are continuing to be—held by the MMPC. Staff from City Departments and the County of Los Angeles also supported the MMPC efforts by researching and accessing documents, records, codes and plans, and developing GIS maps. Representatives of the consulting firm James Lee Witt Associates supported the community's planning efforts through meeting facilitation, concept development and document preparation.

Once the plan was drafted, it was posted on the Montebello website for public comment. Copies were made available at the main library, City Hall and Fire Department. Once public input was received, and integrated into the plan, the plan was submitted for adoption by City Council, called into special session for the purpose of plan adoption.

Emphasis was continually placed on the fact that the plan is a living document, the planning process, ongoing, and that public input would be welcomed and encouraged continually over the next few years, as the plan is build upon and planning process becomes increasingly understood by the community.

After the community workshop, and prior to each planning session, subsequent phone calls were made to encourage all who had expressed interest, and/or attended the initial workshop. The MMPC Chair made continual phone calls and personal visits to city representatives, community organizations, and business and industry to encourage participation in the committee, work sessions and strategy development. Expansion of this outreach is planned for the next year, particularly as the mitigation projects begin (or continue) and the other partners are desired to make the projects the most successful possible.

The biggest outreach challenge facing the MMPC was bringing sustained community-based organizations (CBO) to the mitigation planning efforts. While involvement from organizations such as the American Red Cross was initiated, conflicting events, staff changes and financial concerns prevented active participation. While business and industry became ready and active partners, the CBO's proved reticent. This sector was designated for aggressive future outreach, in addition to schools and the religious community—two particularly powerful partners for the small community of Montebello, where high profile *champions* have historically been known to be success at engaging the many neighborhoods and organizations.

Industry is a critical player in Montebello and its surrounding communities. While industry that is active in the City and other neighboring jurisdictions, was involved with the MMPC, this cross-boundary sector will also be targeted for increased future involvement in MMPC planning efforts.

Strategy Development

As per the standard mitigation analysis process, a hazard identification and vulnerability assessment, along with a community capability assessment was undertaken. As part of the community capability assessment, actions taken by the community—both public and private—towards reducing their vulnerability, were identified.

It is important to note that much still remains to be learned regarding the many industrial players in the Montebello area, as this is an important sector that impact Montebello's sustainability, through the tax base and supplier of jobs. Additionally, involvement by industry will be particularly important in the months to come as the planning begins to address the technological and human-caused hazards, initiated but not focused on in the initial mitigation plan due to FEMA's requirements for addressing natural hazards.

Based on the information drawn from the analysis of existing records and consensus information from stakeholders, the local mitigation strategy was developed. Goals and objectives identified, followed by specific mitigation actions. A major consideration in developing these actions was what was institutionally in place already that could be built upon for successful implementation. This was important because of the funding challenges facing the city, and the role of the private sector in the planning process.

In the planning sessions, members of the MMPC provided input, ideas and voiced concerns regarding the actions that were identified. The actions, how they would be implemented, and funding sources were discussed, debated, and voted upon by committee members. Once drafted, the plan was agreed upon by the MMPC and put out for public comment. The draft plan was posted on Montebello's web site with an invitation for public input. Additionally flyers were distributed to the public encouraging input as there is no local print media to provide notification support.

First primary resources were identified. These include: Federal Emergency Management Agency, Emergency Management Incident Reports from the Fire Department and the county government, the Montebello Zoning Ordinance, Subdivision Ordinance, Flood Damage Prevention Ordinance, Buildings and Construction Ordinance, the Montebello Emergency Operations Plan, the Montebello General Plan and the Los Angeles County

2003 and 2004 Annual Report. In addition to these primary documents, interviews were held with the Fire Chief, Jim Cox; Fire Inspector, Justin Bright, Emergency Services Assistant, Christopher Cox, Economic Development Analyst, Francine Lam, City Planners Matt Mogensen and Lovell Williams, Building Inspectors, Bob Lembke and Ron Bustamante, City Engineer, Elvin Jiang, Los Angeles County Area E Disaster Management Coordinator, Fan Abel, Police Sergeant, Brad Keller, Brian Sinclair of South Montebello Irrigation District, Ron Chen, Montebello Risk Management Department, Kelly Shivertaker, Southern California Edison Company, Cecilia Willy, SBC and Chief of Groundwater Section, CA Department of Water Resources, Southern Dist., Bob Pierotti.

Secondary resources were also identified and used in the planning process. These include: articles Los Angeles Times, the City of Montebello website, GIS data (mapping) and products, the State of California Draft Hazard Mitigation Plan, Los Angeles County Emergency Management Damage Reports, and other texts identified in the References section of this plan.

In addition to the research conducted using primary and secondary resources, the planning process included the development of the Mitigation Planning Committee, previously identified in the Executive Summary of this plan. This committee held several meetings in an effort to successfully complete the identified planning process. The meeting dates and general discussion topics are addressed more specifically in the mitigation planning process discussion.

The mitigation planning process is in general a 10-step process where each step is designed to be supported by the previous step, and in turn provides support for the next.

Hazard Identification and Analysis:

- This step was conducted by gathering data (from July 2004 through August 2004) on the hazards that occurred in the planning area. This information was gathered from local, state, and federal agencies and organizations, as well as, from newspaper and other media accounts, state and local weather records, conversations, interviews and meetings with key informants within the planning area.
- Two Mitigation Planning meetings were held during this process: (July 19, 2004; and September 16, 2004). During these meetings attendees had the opportunity to share and discuss the general information on previous hazards and comment on them in a more specific manner. These meetings also provided a forum for discussion on the background information that was needed to gain a general understanding of the geography, geology, recreation, natural resources and water resources for Montebello.

Area Vulnerability Assessment:

- This step was conducted through a review of a local base map, urban/wildland fire maps, flood-prone areas map, as well as, others. A more detailed analysis was

conducted through inventory development with such documents as the US Census, tax records, community drive-throughs, as well as, conversations, interviews and meetings with key informants within the planning area. Two Mitigation Planning meetings were held during this process: (September 23, 2004 and September 29, 2004). During these meetings attendees had the opportunity to review the specific information on previous hazards accumulated and commented on during previous meetings. In addition, attendees were provided the opportunity to review all GIS products and to review areas of vulnerability in association with specific hazards. Attendees provided comments and changes to be made on both sections.

Community Capability Assessment:

- To conduct this step a review of all documents governing the development of the planning area was completed. This step identified the community's current legal, institutional, political, and technical capability in carrying out mitigation activities. Most importantly it determined the mitigation efforts already taken by the community.

Acceptability Assessment:

- This step was conducted by reviewing all the information discovered within the first three steps and determining whether the community should move forward with the planning process. Once written, the draft plan was posted at the Montebello Public Library, at a local Senior Citizen's Center and at City Hall for citizens to have an opportunity to provide comments on its completion.

Community Goal Assessment:

- This step was conducted through a review of the governing documents of the planning area, as well as, conversations, interviews and meetings with key informants within the planning area. This step identified what goals are already established and adopted for the planning area and whether or not they promote or deter mitigation activities. Another Mitigation Planning meeting was held on October 21, 2004. In this meeting a review of the entire document was conducted. The attendees reviewed all comments provided by the Montebello community and the MMPC. Alterations were made to previous sections of the plan based on some of the comments and base mitigation strategies were identified.

Mitigation Strategy Development:

- Here all the information developed in previous steps was taken into consideration. At this time, two mitigation planning work sessions was conducted (September 23 & 29, 2004) where key personnel of the community, representatives of the business community, and the like provided insight and information as to the future needs of the community (see Appendix B for Work

session invitations, attendance, and minutes). They assisted in determining appropriate goals and strategies in an effort to reduce the City's vulnerability to hazards identified in previous steps.

Establish Procedures for Monitoring, Evaluating, and Reporting on Progress:

- This step involved a series of tasks that assisted in setting procedures for ongoing monitoring and evaluation after the plan has been completed and implementation has begun.

Establish Procedures for Revisions and Updates:

- Here steps for establishing procedures to see that every five years (or following a Presidentially Declared Disaster) an evaluation report results in revisions and updates of the plan, when warranted.

Adoption:

- The plan went through a public hearing process between October 15, 2004 and October 20, 2004 and was heard and adopted on October 27, 2004, by the City Council, according to the community's enabling legislation and established legal procedures (see Appendix C for Public Comment Announcement and Appendix D for City Council Adoption Resolution).

Compliance Review:

- Following adoption, the plan was reviewed by the FEMA and the State of California, Disaster Assistance Division, Hazard Mitigation Section, to ensure the plan's compliance with state and federal guidelines (see Appendix D for State Compliance Letter).

SECTION 1: COMMUNITY PROFILE

History

The colorful history of Montebello dates back to the days of the Franciscan Missionaries, Fathers Angel Somera and Pedro Cambon, who, on September 9, 1771, established the original San Gabriel Mission near where San Gabriel Boulevard now crosses the Rio Hondo River.

The Mission was the third in a chain of 21 to be established under the direction of Father Junipero Serra. The Mission managed to flourish under hardships, but heavy rains eventually drove the founding fathers to its permanent location in San Gabriel in 1776.

The City of Montebello originally consisted of parts of Rancho San Antonio, Rancho La Merced, and Rancho Paso de Bartolo. Here on the banks of the Rio Hondo, the last armed conflict was staged with Mexico for possession of California at the Battle of the Rio San Gabriel on January 8, 1847. The old Juan Matias Sanchez Adobe remains standing just north of the intersection of La Merced and Lincoln Avenue, the heart of the old La Merced Rancho. The old adobe has just recently been restored to its original splendor.

Following the Civil War, an Italian by the name of Alessandro Repetto built his ranch house on the hill overlooking his land, about a half-mile north of where Garfield Avenue crosses the Pomona Freeway. Repetto never married and, when he died in 1885, his brother Antonio sold his inheritance to Harris Newmark, Kaspar Cohn, John A. Bicknell, Stephen M. White, and I.W. Hellman, a group of business men well known in Los Angeles financial circles, for \$60,000, about \$12 per acre.

It was out of the Newmark and Cohn shares of the purchase, consisting of 1,200 acres, that Montebello had its beginning in May 1899. The original town site of forty acres was bounded by First Street on the east, Fifth Street on the west, Cleveland on the north, and Los Angeles Avenue on the south. It was originally given the name of Newmark, after the Newmark family. The remainder of the tract was divided into five-acre plots. This area was named Montebello, meaning beautiful hills in Italian, at the suggestion of a gentleman named William Mulholland. It was Mulholland who developed our water system, which was incorporated as the Montebello Land and Water Company in 1900.

Originally an agricultural community, Montebello boasted having the ideal climate, productive soil, and an abundance of water. From the turn of the century and through the 1920's, the area was famed for its production of flowers, vegetables, berries, and fruits. In 1912 the Montebello Woman's Club sponsored Montebello's first flower show in the high school auditorium.

The discovery of oil by Standard Oil Company on the Anita Baldwin property in 1917 brought about a revolutionary change to Montebello. The agricultural hills soon became a major contributor to oil production. By 1920, Montebello oil fields were producing one-eighth of our state's crude oil. On October 19, 1920, Montebello was incorporated as the 35th of the present cities in Los Angeles County (see *Los Angeles County Map*-Appendix E).

Geography

Montebello is located near the center of the Los Angeles metropolitan complex and is 8.3 square miles (see *Basemap of City of Montebello*-Appendix E). The industrial heart of the Western United States swings out 40 miles to the west and 50 miles to the east, providing communication, transportation, technology, finance and labor as well as being its own best consumer market.

Montebello is ringed by freeways and has become a center for the trucking and specialty vehicle industry. Wheels, engines, underbodies, refrigerated trucks, campers and truck trailers are all manufactured in Montebello. The over-the-road trucking industry has found Montebello a convenient home as well as the service, maintenance and custom fabrication industries (i.e., Royal Paper Box Company and ValSpar).

When frequent or daily distribution of goods is important, Montebello's central geography and abundant freeway access can, by itself, be a deciding issue. Bakeries, meat companies, consumer paper distributors, sales organizations, beer and soft drink distributors, warehouses, petroleum distributors, and lumber and building materials suppliers, all find Montebello's location near the "hub of the wheel" critical to their operations.

Southern California is the center for trade and exchange with both the Asian/Pacific region along with their *nearest* foreign neighbor, Mexico.

It is not surprising then to find that Montebello has two Sister Cities; one is Ashiya, Japan and the other is Ensenada, Mexico. Through cultural exchange, the sharing of resources and political cooperation, the City of Montebello has helped establish a thriving community for businesses tied to these regions.

It is also true that a substantial percentage of the resident population in the City of Montebello are Mexican/American and Asian/American which provides a strong sense of local culture for the small community.

Montebello is 20 driving minutes from the largest deep water port in the Western United States. The city is fewer than 45 driving minutes from each of the three major airports serving Southern California. The largest concentration of railroad yards and freight handling equipment outside of Chicago is located within 10 minutes of Montebello. Downtown Los Angeles, the banking and financial capitol of the Western U.S., is within a 15-minute drive.

Climate

Montebello is 15 miles inland from the Pacific Ocean. The Marine layer is common early in the day before giving way to a sunny afternoon. The average high/low in July is 88.6/64.3 degrees Fahrenheit. The city may experience frost a few mornings out of the year. The average high/low in January is 69.4/47.9 degrees Fahrenheit. Montebello receives an average of 16.69 inches of precipitation per year. The Geographic Coordinates are 34.014412 degrees North latitude, 118.114501 degrees east longitude.

Geology

Montebello is located in the Los Angeles Basin. The topography in the north part of Montebello is different than the central and south parts of Montebello. The north part of the city consists of hills rising to an elevation of 400 feet above sea level while the central and south parts are flat at an elevation of 65 feet above sea level. The east side of Montebello has the Rio Hondo River passing through. It is fed by the runoff from the San Gabriel Mountains 15 miles to the north.

Soils

Soil classes of Mollisols, Alfisols, and Entisols all occur in the region. Mollisols are restricted to the steep slopes, high in base content, and lack accumulations of clay. The Entisols are low in organic matter and lack depth. The Alfisols have clay accumulations and sometimes a carbonate-cemented horizon.

Water Resources

The City of Montebello Water System, which is serviced by Cal Water, consists of two completely separate water systems. The portion of the water system located in the south industrial area of the City is supplied water from a single well pump located at the end of Bluff Road. The existing well pump (well #1) is able to meet the normal system demands. This industrial area is further supported by a 2 million gallon reservoir and multiple booster pumps. As back up to the well water supply there is a connection on Church Road north of Telegraph Road with Central Basin / Metropolitan Water District (MWD) that operates automatically in the event of a major emergency or power failure.

In the north portion of the water system the only water supplied to the customers comes from the Central Basin / MWD connection. The water received from the MWD connection located on Westmoreland is stored in the two reservoirs that exist in this portion of the system. The (2) two reservoirs (Hillside & Towncenter) have a combined total storage capacity of 6.5 million gallons. Booster pumps and gravity are used to maintain system pressure and supply to this mostly residential area.

The data presented below is derived from 2003 actual totals.

Water System Facts:

Water Supply Information	
Number of Production Wells	1
Total Annual Production	511.7 MG
Production from Wells	101.6 MG
Production Purchased from Central Basin / MWD	410.1 MG

Water Use

Total Connections	1615
Residential	1229
Business	267
Other	119
Average Daily Demand per Connection	868 gallons

Facilities

Length of Main	28.7 Miles
Storage Tanks	3
Total Storage	8.5 MG

Natural Resources

The Montebello Oilfield property is owned by Plains Exploration & Production Company (PXP) and covers approximately 480 acres bounded on the east by San Gabriel Boulevard, on the north and west by Montebello Boulevard, and along the southerly boundary by Lincoln Avenue and existing home subdivisions. The landform is essentially an east-west trending hill with moderately steep slopes and canyons. Elevations range from approximately 220 to 595 feet above sea level.

Discovered in the early 1920's by Chevron's predecessor company, Standard Oil Company of California, the field still has daily production of approximately 2300 barrels of crude oil and 700 MCF (thousand cubic feet) of natural gas from approximately 120 active wells. The field is operated as a waterflood unit, meaning the approximate 2 million barrels of water produced each month with the oil is recycled through injection wells to maintain reservoir pressure. (There are 42 gallons in a barrel).

Associated facilities include a tank battery, gas treatment plant and field office. Following separation and basic treatment, the oil is shipped via underground pipeline to a refinery and the natural gas is delivered by pipeline to a major gas gathering system. The property is currently zoned Agricultural/Residential with an Oilfield overlay, and the City's current General Plan calls for up to 2500 residents to be built on this site.

Recreation

The closeness of the largely ethnic community supports a focus on family and the interaction of family in local facilities, such the City Park, community centers and schools.

Additionally, the community enjoys opportunities for support festivals to celebrate heritage and culture. The City of Montebello hosts *Fun Fest*, formally called *The Heritage Festival*, annually for three days during the Month of October. The festival consists of live musical entertainment, food vendors and more. The event takes place at City Park, 1301 W. Whittier Blvd.

The *Puerto Rican Festival* also takes place at City Park to celebrate Puerto Rican culture. This three-day event occurs during the month of June. A parade, live music, and Carnival are some of the activities for the celebration. The festival is hosted by a Puerto Rican organization.

Education

Characterized by a rigorous curriculum with a variety of academic programs, strong parent involvement and quality teachers, the Montebello Unified School District is recognized locally and statewide for its efforts to ensure success for all students.

The District, with a total enrollment of more than 35,000 K—12 students and 30,000 adult

learners in eighteen elementary schools, six intermediate schools, four high schools and four adult schools, is one of the largest in Los Angeles County. It is located just 15 minutes from downtown Los Angeles and serves a diverse student population from the cities of Bell Gardens, Commerce, Montebello, and portions of Downey, Los Angeles, Monterey Park, Pico Rivera, Rosemead and South San Gabriel.

Population Trends

In 2000, the U.S. Census counted 62,150 persons residing in Montebello with a growth percentage of 4.25% from the 1990 census. According to the Community and Economic Development Department, the City has a 2004 population estimation of 64,840 persons and a 2009 projection of 68,142 persons as indicated in Table 1.1.

Table 1.1

Montebello 1990-2000 Population Change			
Age Composition	1990	2000	Change 1990-2000
TOTAL	59,564	62,150	2,586
0-4 Years	4,986	5,059	73
5-9 Years	4,294	5,330	1,036
10-14 Years	4,214	4,716	502
15-17 Years	2,673	2,671	-2
18-20 Years	2,908	2,614	-294
21-24 Years	4,997	3,847	-1,150
25-34 Years	10,890	10,304	-586
35-44 Years	7,556	8,548	992
45-49 Years	2,786	3,560	774
50-54 Years	2,530	3,057	527
55-59 Years	2,482	2,500	18
60-64 Years	2,651	2,209	-442
65-74 Years	4,169	4,170	1
75-84 Years	2,265	2,730	465
85 & Over	663	835	172

Source: U.S Census Bureau, Census 1990 and 2000

Residential Development

The number of housing structures in Montebello has risen slightly during the 10-year period between 1990 and 2000, as shown in Table 1.2. In the decade between 1990 and 2000 the number of housing units increased by 217 total units with the largest difference being seen in the 1-unit-attached category, however during that same time period the 2-4 unit and 10-19 unit categories all saw a decrease in the number of units.

Table 1.2

Montebello Residential Structure Trends 1990-2000			
	1990	2000	Change 1990-2000
Total	19,193	19,410	217

1-Unit-Detached	9,234	9,354	120
1-Unit-Attached	1,383	1,573	190
2 Units	567	523	-44
3 or 4 Units	2,361	2,339	-22
5 to 9 Units	1,265	1,339	74
10 to 19 Units	1,246	1,131	-115
20 or More Units	2,754	2,918	164
Mobile Home or Trailer Units	207	229	22
Other	176	4	-172

Source: U.S. Census Bureau, Census 1990 and 2000

There are five zones totaling 2957.6 acres identified in the *Zoning Map of Montebello, CA* (Appendix E) whose primary purpose is residential development.

R-A	Residential Agricultural zone
R-1	One-family residential zone
R-2	Two-family residential zone
R-3	Multiple-family residential zone
R-4	High-density residential zone

The Residential Agricultural Zone (R-A) is established as a zone to provide for single-family residential development and the proper use of those lands best suited for agricultural purposes.

The One-Family Residential Zone (R-1) is established as a zone to encourage and promote a suitable living environment by providing for the development of adequate homes, yards and other residential facilities and to protect and stabilize desirable characteristics of residential neighborhoods.

The Two-Family Residential Zone (R-2) is established as a zone to provide a suitable living environment for those persons and families seeking to reside in low-density multiple-family dwelling units. The R-2 zone also provides a transition between single-family and medium and high density residential areas.

The Multi-Family Residential Zone (R-3) is established as a zone to provide a suitable living environment for those wishing to live in multiple dwelling units. The intent is to promote desirable residential characteristics for medium density living and to stabilize and protect existing medium density areas by the establishment of those requirements and facilities conducive to the proper development.

The High-Density Residential Zone is established as a zone to provide a suitable living environment for those wishing to live in multiple dwelling units, particularly high-density structures. The intent is to promote desirable residential characteristics for medium-density living and to stabilize and protect existing medium-density areas by establishment of those requirements and facilities conducive to proper development.

Commerce and Industry

There currently exist 1,246 identified commercial and industrial properties in Montebello.

Four Commercial and two Industrial zones are identified in the *Zoning Map of Montebello, CA* (Appendix E). The primary purpose of these zones is commercial development. The acreage for all commercial zones total 406.9 and the acreage for both industrial zones total 823.3.

C-R	Commercial restricted zone
C-1	Neighborhood commercial zone
C-2	General commercial zone
C-M	Heavy commercial--limited industrial zone
M-1	Light manufacturing zone
M-2	Heavy manufacturing zone

The Commercial Restricted Zone (C-R) is established as a zone to provide areas for professional offices and related uses close to residential areas. According to the Montebello Zoning Ordinance, the specific intent of this zone permits the development of light traffic generating uses to be located on heavily traveled street or highway frontages.

The Neighborhood Commercial Zone (C-1) is established as a zone to provide areas for certain commercial and professional office uses adjacent to and serving the surrounding residential neighborhoods.

The General Commercial Zone (C-2) is established as a zone to provide for business centers in areas where a wide range of retail sales and service establishments are needed to accommodate the surrounding community.

The Heavy Commercial – Limited Use Zone (C-M) is established as a zone to provide for all commercial activities and some limited industrial uses. According to the Montebello Zoning Ordinance, the specific intent of this zone is to provide for commercial uses which are not conducive to a central business district.

The Light Manufacturing Zone (M-1) is established as a zone to provide areas for the establishment of light industrial plants and related activities, and to promote the concentration of such uses in a manner which will foster mutually beneficial relationships within the area, as well as with the areas of the city zoned for heavy industrial development. The regulation of uses necessary to provide the proper environment for the efficient and desirable use of light industrial land, to ensure the availability of adequate infrastructure to serve the permitted uses, to provide the proper safeguards to protect nearby residential, commercial and public uses, to provide an aesthetically pleasant district conducive to good industrial relations, and to attract and encourage the location of desirable light industrial uses.

The Heavy Manufacturing Zone (M-2) is established as a zone to preserve the lands of the city appropriate for heavy industrial uses, to promote uniform and orderly industrial development, to create and protect property values, to foster an efficient, and aesthetically pleasant industrial district with infrastructure adequate to the types of uses permitted, to attract and encourage the location of desirable industrial plants, to provide an industrial environment which will be conducive to good employee relations, and to provide proper safeguards and appropriate transition for surrounding land uses.

Critical Facility and Community Infrastructure

Critical facilities have been defined by the MMPC to be those facilities that are necessary to the day-to-day operation of the City, and should they go down, or should their services be interrupted, their inoperability would hinder the continued operation of the City.

Many critical facilities such as the Police Department, Fire Department, Public Works Department and the City Hall also provide extensive recovery assistance following disasters.

The following is specific information on the critical facilities that are identified as critical facilities and infrastructure in Montebello.

City Hall

City Hall is one of City owned governmental buildings located within the City limits of Montebello. City Hall is where all the communities' critical records are kept and having access to these records is pertinent in successful disaster recovery. As a result, City Hall becomes a critical facility in regards to disaster recovery. City Hall is located at 1600 West Beverly Boulevard and houses the administrative offices for the City of Montebello. There are 60 employees located in the City Hall. According to insurance records, the current value of the department including the building and contents is \$3,980,338.00.

Roads

Roads are considered critical infrastructure as they provide a means of evacuation during a disaster. In Montebello, Garfield Avenue, Montebello Boulevard, Greenwood Avenue, Beverly Boulevard, Whittier Boulevard and Washington Boulevard are the primary roads providing this service. The City of Montebello maintains 150 miles of road which calculates to an estimated value of \$14M dollars (see Table 2.2).

Schools

There are 6 schools within the City of Montebello that are designated as critical facilities. The American Red Cross has existing agreements with the Montebello Unified School District to use these schools for Evacuation Sites and/or Shelters in the event of a disaster (see Table 1.3).

Table 1.3

Schools that are Shelter Locations/Critical Facilities	
SCHOOLS	ADDRESS
Eastmont Intermediate	400 N. Bradshaw Avenue
Montebello Intermediate	1600 W. Whittier Blvd.
La Merced Intermediate	215 Avenida De La Merced

Montebello High School	2100 W. Cleveland Avenue
Schurr High School	820 Wilcox Avenue
Vail High School	1230 South Vail Avenue

Hospital

There is one hospital in Montebello and it's designated as a critical facility. Since 1949, Beverly Hospital has provided medical care to the residents of Montebello and surrounding communities such as Pico Rivera, Monterey Park, Rosemead, El Monte, Whittier and East Los Angeles. Licensed for 223 beds, the hospital has grown to keep pace with the changing needs of patients and the rapidly advancing technology of health care. The medical staff of over 300 physicians is supported by a team of health care professionals, sophisticated diagnostic and treatment services and spacious patient care units. Beverly Hospital is accredited by the Joint Commission on Accreditation of Healthcare Organizations. Additionally, in conjunction with the Montebello Fire Department, there are three EMS companies located within the City that service to the hospital.

Police

The police department is also listed as a critical facility. The department provides immediate emergency response for the City and is a primary force in disaster recovery operations. The Police Department for the City of Montebello is located at 1600 West Beverly Boulevard. The department consists of 90 sworn officers and 30 full-time civilian employees. In addition to patrol, the department maintains a force of 23 reserve officers, 5 part-time civilian employees, and 20 police explorer scouts. In addition to patrol, the department consists of adult and juvenile investigations, narcotics and vice, traffic, enforcement, identifications, and planning and research. The Crime Prevention Bureau provides for building security inspections, the Neighborhood watch Program and administering the City's alarm ordinance. The department services all areas within the municipal boundaries and provides mutual aid (if needed) to the immediate surrounding cities of Pico Rivera, East Los Angeles and Commerce. According to insurance records, the current value of the department including the building and contents is \$8,039,763.00 (see Table 2.2).

Fire

There are three stations that serve Montebello and all are considered critical facilities. The primary station (Station #1) is located at 600 North Montebello Boulevard, Station #2 is located at 1166 South Greenwood Avenue and Station #3 is located at 2950 Via Acosta Street. The Fire Department, as a whole, employs 60 full-time employees and 35 volunteers. Currently the department services all areas within the municipal boundaries and has a memorandum of agreement with Montebello, and Los Angeles County. According to insurance records, the current value of the department including the building and contents is \$3,013,425.00 (see Table 2.2). In addition, the Fire Department owns vehicles, which have a total value of \$3,011,332 (see Table 1.4).

Table 1.4

Vehicles Owned by the Montebello Fire Department		
YEAR	VEHICLE	VALUE
2003	A.L.F. Pumper	\$218,666.00
2003	A.L.F. Pumper	\$374,000.00

2003	A.L.F. Pumper	\$218,666.00
2004	West Mark Type III	\$210,000.00
2002	Freightliner Type II	\$150,000.00
2003	A.L.F./LTI TDA	\$526,000.00
2002	A.L.F./LTI TDA	\$300,000.00
1990	Chevy. Air/Light Unit	\$100,000.00
1997	Ford P/M Squad	\$ 15,000.00
2000	P/M Squad	\$ 15,000.00
1988	Chevy. P/M Squad	\$ 5,000.00
2000	Ford F-450 Stake Bed	\$ 20,000.00
1990	E-One Tractor (USAR)	\$ 5,000.00
1978	Hackney Trailer (USAR)	\$100,000.00
1999	Chevy. Suburban (Command)	\$ 30,000.00
1992	Chevy. P/U (Search Dog)	\$ 5,000.00
1999	HME OES Pumper	\$100,000.00
1999	ATF Mobile Command	\$200,000.00
1987	E-One Pumper	\$ 40,000.00
1987	E-One Pumper	\$ 40,000.00
1988	Chevy. Suburban (Search Dog)	\$ 3,000.00
1923	Seagrave Pumper	\$ 30,000.00
1984	GMC Tractor	\$ 2,000.00
2000	Competitive Trailer (Flatbed)	\$ 1,000.00
1998	Santek Trailer (Swift Water)	\$ 5,000.00
1998	Santek Trailer (Disaster Prep)	\$ 5,000.00
1988	Fruehauf Trailer (Training)	\$ 5,000.00
1979	Ford Tractor	\$ 3,000.00
Staff Units		
2003	Ford Expedition	\$ 45,000.00
2003	Crown Victoria (EOC)	\$ 20,000.00
1999	Crown Victoria (Inspector)	\$ 13,000.00
2003	Crown Victoria (Johnson)	\$ 13,000.00
2003	Crown Victoria (Bright)	\$ 13,000.00
2002	Crown Victoria (Chris)	\$ 13,000.00
2002	Chevy. Suburban (FPB)	\$ 45,000.00
1999	Ford Expedition	\$ 40,000.00
1989	Ford Van (Communications)	\$ 10,000.00
1987	GMC. Van (Communications)	\$ 10,000.00
2002	Ford Crown Victoria (EOC)	\$ 20,000.00
1988	Chevy. Caprice	\$ 3,000.00
2003	Ford F-350 4X4 (Strike Team)	\$ 40,000.00
TOTAL VALUE		\$3,011,332.00

Public Works Department

The Public Works Department is located at 1600 West Beverly Boulevard. The department employs 6 full-time persons and oversees land acquisitions, the City of Montebello Water System (serviced by Cal Water), maps and plans, and Capital Improvement Projects. The department prepares specifications for improvements to storm drains, parks, and traffic signals, streets, alleys, and sewers, and administers public works, and improvement contracts. They also ensure that all streets and sidewalks are in good repair. The Department has a total vehicle value of \$98,035 (see Table 1.5).

Table 1.5

Vehicles Owned by the Public Works Department		
YEAR	VEHICLE	VALUE
1989	Chevy Caprice	\$ 900.00
1987	GMC Truck	\$ 3,235.00
1987	GMC Truck	\$ 5,000.00
1988	GMC Dump Truck	\$ 5,400.00
1989	GMC Dump Truck	\$ 10,000.00
2001	Chevy 3500	\$ 20,000.00
2002	Chevy P/U	\$ 6,000.00
1992	GMC Utility	\$ 7,000.00
1991	GMC Sierra	\$ 2,000.00
2000	P/M Squad	\$ 15,000.00
1967	CAT 950 Loader	\$ 3,500.00
1986	Bomag	\$ 1,500.00
1987	Lear S EGL Trailer	\$ 1,000.00
1990	John Deere	\$ 1,700.00
1991	Ingersol Rand	\$ 1,000.00
1987	GMC	\$ 4,000.00
1991	GMC	\$ 4,800.00
1996	Chevy	\$ 5,000.00
1989	Ford	\$ 2,900.00
1989	GMC S-15 Utility	\$ 2,700.00
1992	Chevy Astro Cargo Van	\$ 2,400.00
1997	Chevy P/U	\$ 8,000.00
TOTAL VALUE		\$ 98,035.00

Water Departments

The City of Montebello has five water districts that service the City. They are South Montebello Irrigation District, Montebello Land and Water, San Gabriel Valley Water Company, California Water Service Company and City of Montebello Water Department. Please see *Montebello Water Districts Map* (Appendix E) for service breakdown.

Montebello Development Trends

The role of economic development is critical for the sustainability of Montebello. Due to the small size of the community, each decision becomes critical, as does the planning process for maintaining the safety of economic livelihood, persons, and property. Much attention is being given to the future development plans and how they will support a disaster-resistant community (e.g. institution of new fire codes to safeguard the building stock). The role of development will focused on in the mitigation planning process during the years to come.

As shown in the *Community Redevelopment Map* (Appendix E), there are currently three redevelopment project areas in the City of Montebello: the Montebello Hills Redevelopment Project the Montebello Economic Revitalization Project, and the South Montebello Industrial Redevelopment Project, which encompass specific projects that are in various stages of planning, development and implementation. The specific projects are:

- Project:** Whittier Blvd Revitalization Project
- Type:** Streetscape improvements

- Dates:** Start construction March 2005.
- Project:** Sav-On / Telacu Mixed Use Project
Type: 40,000 sq. ft. retail / 55 units housing
Dates: Start construction in January 2005, 2 phases. Completion in July 2006.
- Project:** Washington Square Project
Type: 25,000 sq. ft. retail
Dates: Date to be determined.
- Project:** PXP Development Project
Type: 500 acre master planned community
Dates: Draft plan Jan. 2005. Start construction 2007/2008.

PXP is currently planning to secure entitlements through the City of Montebello to eventually develop the property into a residential community of approximately 1800-2500 homes with a commercial/mixed use facility along the south side of Montebello Boulevard, across from Montebello Town Square. The timing of actual development with grading and takedown of all or part of the oilfield is uncertain at this point in time, depending on the price of crude oil and processing time for subdivision mapping and regulatory approvals, but it is possible that initial development operations could start taking place as early as the last half of 2007 or first half of 2008.

These development plans include provisions for set-aside of over 200 acres of Open Space to be placed in a permanent reserve for preservation of native Coastal Sage Scrub habitat and its resident California Gnatcatcher population.

- Project:** Walgreens Project
Type: 16,000 sq. ft. drugstore
Dates: Project is under construction. Completion date is October 15, 2004.
- Project:** Don Chente Project
Type: 4,000 sq. ft. restaurant
Dates: Start construction on October 2004. Completion date is February 2005.
- Project:** La Tourette Project - Mixed-use
Type: 10,000 sq. ft. retail / 55 units residential
Dates: Project is in planning stages. Start construction in summer 2005.
- Project:** Minasian Project
Type: 20 unit single family subdivisions
Dates: Project is under construction. Completion date is January 2005.

Water Service

The San Gabriel Valley Water District will begin construction on a new water pipeline, two 1.5 MG reservoirs and a booster station to increase water service reliability within the City of Montebello. The target completion date of this project is scheduled for December 2005.

New District Building Public Safety & Training Room

The South Montebello Irrigation Water District (District) has submitted a permit application to the City Council to begin construction on their new buildings. The first phase of the project is to complete their maintenance facility, the second phase is to complete their Administrative building and the third phase scheduled for the 4th quarter of 2009 will be to complete City of Montebello Public Safety & Training Community Room. The District's plan is to offer the room to the City for use when any disaster mitigation or preparedness training is being given by the local public safety departments. A key component of the mitigation plan will be the development of the community room for the use by the MMPC educational events. This alliance will also further promote the collaboration development between public and private stakeholders of Montebello.

DRAFT

SECTION 2: HAZARD VULNERABILITY ANALYSIS

Overview

This section builds the foundation for a continuing analysis of the hazards and vulnerabilities facing the City of Montebello (*see Hazard Mitigation Map-Appendix E*). Past events are recorded and analyzed, based on primary and secondary research. The research includes, but is not limited to, reports from local, state, and national agencies, as well as, media accounts, state and local weather records, and data gathered from the County of Los Angeles. Of great importance to this small tight-knit community are the available data compiled and community concerns, especially drawn from active dialogue—from and between—key city agency officials, local business and industry, and residents in the City of Montebello. From these sources, comes an analysis that addresses hazard impacts and the potential impact of damage from future hazards.

The profiling and ranking of Montebello’s hazards and risks was based on a collection of historical experience, available data and collaborative viewpoints. Not meant to be a scientific approach, the community drew deeply from bringing together the stakeholders—especially key stakeholders from business and industry who could draw from their mitigation and contingency planning experience and previous data gathering—and develop a hazard ranking based on frequency of occurrence and degree of impact. This holistic “first step” approach in what is expected to be a long-term, interactive planning process in Montebello. It serves the community best at this time, due to the both the City’s limited disaster experience and its current financial deficit.

Science and Social Science: A Holistic Approach to Risk Assessment

The community involvement played—and will continue to play—an important part in the hazard vulnerability profiling, especially in pursuing the analysis of structural vulnerabilities, land use and economic development. A major factor in Montebello’s hazard ranking was the consensus drawn from the participants of a widely attended forum, held specifically for hazard and risk assessment. Stakeholders representing diverse public and private sectors of Montebello, the County and surrounding communities, worked together to identify and rank the hazards, vulnerabilities, and document ongoing concerns.

Since the community has only experienced limited, isolated disaster events, and little documentation, the merging of the hard data with anecdotal information related to disaster risk, and bringing this forth to initiate engagement of the community with their hazard/risk concerns has been of paramount importance. This Plan attempts to strike a balance of *humanity* and *technology*; essentially, the science (hard data) has been merged with the social science (the range of Montebello community’s collective memories, experiences and concerns).

This hazard identification and ranking process was evaluated along with the information in the Plan’s community profile section to determine the Montebello’s vulnerabilities. The resulting assessment of the expected potential frequency of events and likely extent of damages, combined with community projects, concerns, and commitments to hazard reduction established the process by which the MMPC developed, agreed upon and prioritized mitigation actions.

Identified Hazards

The criteria provided by FEMA for the development of the Hazard Mitigation Plan identifies the following eleven natural hazards for assessment; Winter storms/Extreme Cold, Severe Thunderstorms/Tornadoes, Hurricanes/Coastal Storms, Floods, Riverine/Coastal Erosion, Drought/Heat Wave, Landslides/Sinkholes, Earthquakes, Tsunami Events, Volcanoes, Wildfires, and Dam/Levee Failure. Most of the hazards established under the minimum criteria were not identified as relevant to Montebello, based on analysis of:

- 1) City records of historical hazard events
- 2) Damage assessments from events identified by City department staff
- 3) County agency data
- 4) Priority ranking and concerns determined by stakeholder consensus in the stakeholder hazards and vulnerability assessment analysis completed at the community stakeholder workshop.

The summarization of the stakeholder workshop consensus is included in the Plan Appendix. The three hazards identified as *critical* are 1) earthquake, 2) flood, and 3) wildland urban interface fire. These three natural hazards establish the primary focus of this Plan. Additional natural hazard events that reflect little or no documentation of historic events, local damages, or received no indications of expressed concerns by stakeholders, will be briefly included in the spirit of multi-hazard planning, and will expanded upon during the course of the next five years.

To support an expanded multi-hazard (natural, technological, and human-caused) strategy, this Plan sets into place a skeletal framework addressing the non-prioritized hazards and vulnerabilities. A selection of the hazards not identified as *critical* have been overviewed in this Risk Assessment section for two purposes—the building of *living document* and increased stakeholder education throughout the planning process.

Additional Hazards

Of significance is the unanimous concern, strongly voiced by Montebello stakeholders, regarding critical technological and human-caused hazards—hazards not required under the DMA 2000 minimum criteria. It is intent of the Montebello Mitigation Planning Committee to address the key minimum natural hazards, reflect an understanding of the other natural hazards that have been experienced in the region, and begin the process of addressing the technological and human-caused risks for the 2004 plan submittal.

It is the stated intent of the MMPC, and supporting stakeholders involved in the research and planning process, to significantly expand on these initial planning efforts to build up the assessment and mitigation strategies for non-natural hazards. This will be a key consideration during the review and planning process over the next five years, especially once Montebello's General Plan, currently under revision, has been passed with this Plan as part of it, and the MMPC has gained prominence in the community and neighboring jurisdictions.

Therefore, this Plan divides the hazards into the two main categories: *Natural Hazards* which include Earthquakes, Flooding, Wildfires/Urban Wildland Interface as the critical hazards, and introduces the *non-critical* hazards of Landslides/Mudslides, Erosion, Groundwater Contamination, Drought, and Windstorms, for future multi-hazard development; and *Technological and Human-Caused Hazards*, that includes Hazardous Materials Events, Terrorism, and Dam/Levee Failures.

Vulnerability Assessment

Interspersed throughout the critical hazard profiles are the vulnerabilities to the hazards. This assessment identifies the specific locations within Montebello that are deemed to be those facing the greatest risk to the high priority hazard events of earthquake, flood and fire. These locations are defined by assessment of:

- City records of historical hazard events
- Damage assessments from events identified by City department staff
- County agency data
- Priority ranking and concerns determined by stakeholder consensus (hazards and vulnerability assessment analysis, completed at the community stakeholder workshop).

Visual documentations of the locations have been initiated by digital photography and mapping using a Geographical Information System (GIS). More GIS maps of the community’s risk locations, building stock and land formations are expected throughout the long-term planning process.

Below is a written matrix listing Montebello’s existing building stock of residential, commercial building and critical facilities. Initial estimates of dollar value of the properties are also included. Of additional interest, during the continued development of this Plan, are assessments of Montebello’s future building stock and its value. This Plan’s matrix will serve as a framework within which will be built the projected building stock and value assessment. This activity will take place once the land use and development trends are adequately assessed.

Table 2.1

City of Montebello Area Vulnerability Assessment Worksheet - A						
Current Conditions				Potential Future Conditions		
Type of Development	Number of Existing Private Buildings	Current Value	Current Number of People	Projected Number of Private Buildings	Projected Value	Projected Number of People
Residential	11,426	no break down provided	62,150	1,800-2,500	\$0	0
Commercial & Industrial	1,246	no break down provided	0	0	\$0	0
Other	0	\$0	0	0	\$0	0
Subtotal	12,672	\$3,420,475,449	62,150	0	\$0	0

Table 2.2

City of Montebello Vulnerability Assessment						
Worksheet - B						
Current Conditions				Potential Future Conditions		
Public Buildings and Critical Facilities						
Type of Development	Number of Existing Private Buildings	Current Value	Current Number of People	Projected Number of Private Buildings	Projected Value	Projected Number of People
Public Works Department	2	\$0.00	53	0	\$0.00	0
Hospital	1	\$20,298,284.00	850	0	\$0.00	0
Schools	28	\$0.00	0	0	\$0.00	0
Infrastructure	150 miles	\$14,000,000.00	0	0	\$0.00	0
Police Station	2	\$7,137,461.00	121	0	\$0.00	0
Fire Station	3	\$2,364,338.00	55	0	\$0.00	0
Hazard Materials Facilities	2	\$3,138,396.00	115	0	\$0.00	0
Government Offices	3	\$7,425,462.00	209	0	\$0.00	0
Emergency Shelter	2	\$1,982,098.00	0	0	\$0.00	0
Subtotal	43	\$56,346,039.00	1,403	0	\$0.00	0
Total (Worksheet A+B)	12,715	\$112,692,078.00	63,553	0	\$0.00	0

Natural Hazards

Natural processes such as floods, earthquakes, tsunamis, and the like are an enduring condition around the human environment. Natural hazards become disasters when they intersect with the human environment and in California, particularly, natural disasters have left a profound imprint causing devastating loss of life, property, economy and community. While most processes present little danger to human well being, some develop into hazardous situations that place life, property, economy, and community at higher risk.

Earthquakes

Earthquakes are geologic events that involve movement or shaking of the earth's crust. Earthquakes are usually caused by the release of stresses accumulated as a result of the

rupture of rocks along opposing fault planes in the earth's outer crust. These fault planes are typically found along borders of the earth's 10 tectonic plates.

The areas of greatest tectonic instability occur at the perimeters of the slowly moving plates, as these locations are subjected to the greatest strains from plates traveling in opposite directions and at different speeds. Deformation along plate boundaries causes strain in the rock and the consequent buildup of stored energy. When the built-up stress exceeds the rocks' strength, a rupture occurs. The rock on both sides of the fracture is snapped, releasing the stored energy and producing seismic waves, generating an earthquake.

Earthquakes are measured in terms of their magnitude and intensity. Magnitude is measured using the Richter Scale, an open-ended logarithmic scale that describes the energy release of an earthquake through a measure of shock wave amplitude. Each unit increase in magnitude on the Richter Scale corresponds to a 10-fold increase in wave amplitude. Intensity is most commonly measured using the Modified Mercalli Intensity (MMI) Scale. It is a 12-level scale based on direct and indirect measurements of seismic effects. A detailed description of the Modified Mercalli Scale of Earthquake Intensity (and its correspondence to the Richter Scale) is given in Table 2.3.

Table 2.3

Modified Mercalli Scale of Earthquake Intensity			
Intensity	Description of Effects	Maximum Acceleration (mm/sec)	Corresponding Richter Scale
Instrumental	Detected only on seismographs	<10	
Feeble	Some people feel it	<25	<4.2
Slight	Felt by people resting; like a truck rumbling by	<50	
Moderate	Felt by people walking	<100	
Slightly Strong	Sleepers awake; church bells ring	<250	<4.8
Strong	Trees sway; suspended objects swing, objects fall off shelves	<500	<5.4
Very Strong	Mild alarm; walls crack; plaster falls	<1000	<6.1
Destructive	Moving cars uncontrollable; masonry fractures, poorly constructed buildings damaged	<2500	
Ruinous	Some houses collapse; ground cracks; pipes break open	<5000	<6.9
Disastrous	Ground cracks profusely; many buildings destroyed; liquefaction and landslides widespread	<7500	<7.3
Very Disastrous	Most buildings and bridges collapse; roads, railways, pipes and cables destroyed; general triggering of other hazards	<9800	<8.1
Catastrophic	Total destruction; trees fall; ground rises and falls in waves	>9800	>8.1

Source: FEMA, 1997.

GENERAL SITUATION

Historical and geological records show that California has a long history of seismic events. Southern California is probably best known for the San Andreas Fault, a 400-mile long fault running from the Mexican border to a point offshore, west of San Francisco. USGS estimates that geologic studies have shown earthquakes on the southern San Andreas Fault have occurred over the past 1,400 to 1,500 years, coming at about 130 year intervals. Since the last large event occurred in 1857, that section of the fault is considered a likely location for an earthquake within the next few decades.

But San Andreas is only one of dozens of known earthquake faults that criss-cross Southern California. Some of the better-known faults include the Newport-Inglewood, Whittier, Chatsworth, Elsinore, Hollywood, Los Alamitos, and Palos Verdes faults (see *Southern California Earthquake Fault Map*-Appendix E). Beyond the known faults, there are a potentially large number of “blind” faults that underlie the surface of Southern California. One such blind fault was involved in the Whittier Narrows earthquake in October 1987.

Although the most famous of the faults, the San Andreas, is capable of producing an earthquake with a magnitude of 8+ on the Richter scale, some of the “lesser” faults have the potential to inflict greater damage on the urban core of the Los Angeles Basin. Seismologists believe that a 6.0 earthquake on the Newport-Inglewood would result in far more death and destruction than a “great” quake on the San Andreas, because the San Andreas is relatively remote from the urban centers of Southern California (see *Area E Earthquake Hazard Map*-Appendix E).

Southern California Earthquake Events

Since seismologists started recording and measuring earthquakes, there have been tens of thousands of recorded earthquakes in Southern California, most with a magnitude below three. No community in Southern California is beyond the reach of a damaging earthquake.

To better understand the earthquake hazard, the scientific community has looked at historical records and accelerated research on those faults that are the sources of the earthquakes occurring in the Southern California region. Historical earthquake records can generally be divided into records of the pre-instrumental period and the instrumental period. In the absence of instrumentation, the detection of earthquakes is based on observations and felt reports, and are dependent upon population density and distribution.

Since California was sparsely populated in the 1800s, the detection of pre-instrumental earthquakes is relatively difficult. However, two very large earthquakes, the Fort Tejon in 1857 (7.9) and the Owens Valley in 1872 (7.6) are evidence of the tremendously damaging potential of earthquakes in Southern California. In more recent times, two 7.3 earthquakes struck Southern California, in Kern County (1952) and in Landers (1992). The damage from these four large earthquakes was limited because they occurred in areas which were sparsely populated at the time they happened. The seismic risk is much more severe today than in the past because the population at risk is in the millions, rather than a few hundred or a few thousand persons.

The table below describes the historical earthquake events that have affected Southern California.

Table 2.4

Southern California Region Earthquakes with a Magnitude 5.0 or Greater			
1769	Los Angeles Basin	1916	Tejon Pass Region
1800	San Diego Region	1918	San Jacinto
1812	Wrightwood	1923	San Bernardino Region
1812	Santa Barbara Channel	1925	Santa Barbara
1827	Los Angeles Region	1933	Long Beach
1855	Los Angeles Region	1941	Carpenteria
1857	Great Fort Tejon Earthquake	1952	Kern County
1858	San Bernardino Region	1954	W. of Wheeler Ridge
1862	San Diego Region	1971	San Fernando
1892	San Jacinto or Elsinore Fault	1973	Point Mugu
1893	Pico Canyon	1986	North Palm Springs
1894	Lytle Creek Region	1987	Whittier Narrows
1894	E. of San Diego	1992	Landers
1899	Lytle Creek Region	1992	Big Bear
1899	San Jacinto and Hemet	1994	Northridge
1907	San Bernardino Region	1999	Hector Mine
1910	Glen Ivy Hot Springs		
Source: http://geology.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fpasadena.wr.usgs.gov%2Finfo%2Fcahist_eqs.html			

Examples of Regional Faults and their Earthquakes

Newport-Inglewood Fault

Nearest Communities: Culver City, Inglewood, Gardena, Compton, Signal Hill, Long Beach, Seal Beach, Huntington Beach, Newport Beach, Costa Mesa

Most Recent Major Rupture: March 10, 1933, M6.4 (but no surface rupture)

Interval Between Major Ruptures: unknown

Probable Magnitudes: M6.0 - 7.4

This represents a worst-case earthquake that could affect the urban areas of Central - South Eastern Los Angeles County.

Palos Verdes Fault Zone

Nearby Communities: San Pedro, Palos Verdes Estates, Torrance, Redondo Beach

Most Recent Surface Rupture: Holocene, offshore; Late Quaternary, onshore

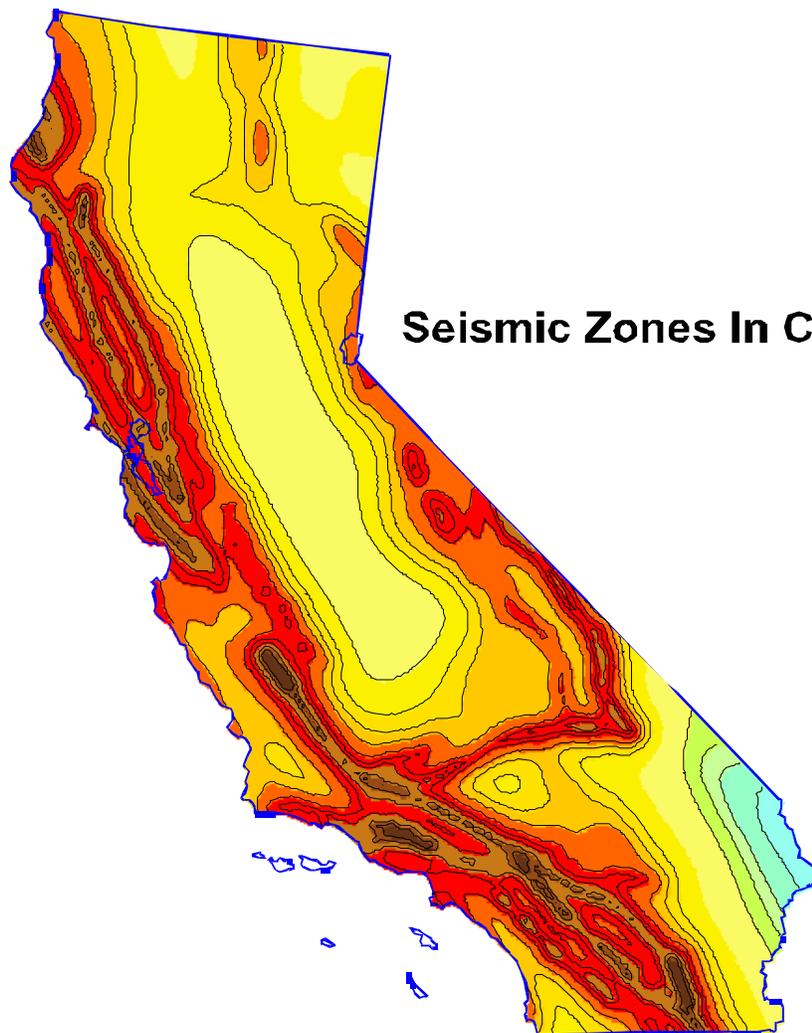
Interval Between Major Ruptures: unknown

Probable Magnitudes: M6.0 - 7.0 (or greater?); fault geometries may allow only partial rupture at any one time

Depending on which segments, or combination of segments rupture, the damage to the South Bay could be moderate to severe.

Earthquake Hazard Assessment

For decades, partnerships have flourished between the USGS, Cal Tech, the California Geological Survey and universities to share research and educational efforts with Californians. Tremendous earthquake mapping and mitigation efforts have been made in



Seismic Zones In California

Darker Shaded Areas indicate Greater Potential Shaking

Source: USGS Website

California in the past two decades, and public awareness has risen remarkably during this time. Major federal, state, and local government agencies and private organizations support earthquake risk reduction, and have made significant contributions in reducing the adverse impacts of earthquakes. Despite the progress, the majority of California communities remain unprepared because there is a general lack of understanding regarding earthquake hazards among Californians.

In California, many agencies are focused on seismic safety issues: the State's Seismic Safety Commission, the Applied Technology Council, Governor's Office of Emergency Services, United States Geological Survey, Cal Tech, the California Geological Survey as well as a number of universities and private foundations.

These organizations, in partnership with other state and federal agencies, have undertaken a rigorous program in California to identify seismic hazards and risks including active fault identification, bedrock shaking, tsunami inundation zones, ground motion amplification, liquefaction, and earthquake induced landslides.

Earthquake Related Hazards

Ground shaking, landslides, liquefaction, and amplification are the specific hazards associated with earthquakes. The severity of these hazards depends on several factors, including soil and slope conditions, proximity to the fault, earthquake magnitude, and the type of earthquake.

Ground Shaking

Ground shaking is the motion felt on the earth's surface caused by seismic waves generated by the earthquake. It is the primary cause of earthquake damage. The strength of ground shaking depends on the magnitude of the earthquake, the type of fault, and distance from the epicenter (where the earthquake originates). Buildings on poorly consolidated and thick soils will typically see more damage than buildings on consolidated soils and bedrock.

Earthquake Induced Landslides

Earthquake induced landslides are secondary earthquake hazards that occur from ground shaking. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond and recover from an earthquake. Many communities in Southern California have a high likelihood of encountering such risks, especially in areas with steep slopes.

Liquefaction

Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. Many communities in Southern California are built on ancient river bottoms and have sandy soil. In some cases this ground may be subject to liquefaction, depending on the depth of the water table.

Amplification

Soils and soft sedimentary rocks near the earth's surface can modify ground shaking caused by earthquakes. One of these modifications is amplification. Amplification increases the magnitude of the seismic waves generated by the earthquake. The amount of amplification

is influenced by the thickness of geologic materials and their physical properties. Buildings and structures built on soft and unconsolidated soils can face greater risk. Amplification can also occur in areas with deep sediment filled basins and on ridge tops.

Vulnerabilities

The effects of earthquakes span a large area, and large earthquakes occurring in many parts of the Southern California region would probably be felt throughout the region. However, the degree to which the earthquakes are felt, and the damages associated with them may vary. At risk from earthquake damage are large stocks of old buildings and bridges; many high tech and hazardous materials facilities; extensive sewer, water, and natural gas pipelines; earth dams; petroleum pipelines; and other critical facilities and private property located in the county. The relative or secondary earthquake hazards, which are liquefaction, ground shaking, amplification, and earthquake-induced landslides, can be just as devastating as the earthquake.

The California Geological Survey has identified areas most vulnerable to liquefaction. Liquefaction occurs when ground-shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures.

Southern California has many active landslide areas, and a large earthquake could trigger accelerated movement in these slide areas, in addition to jarring loose other unknown areas of landslide risk.

Vulnerabilities and Risk

Damages for a large earthquake almost anywhere in Southern California are likely to run into the billions of dollars. Although building codes are some of the most stringent in the world, ten's of thousands of older existing buildings were built under much less rigid codes. California has laws affecting un-reinforced masonry buildings (URM's) and although many building owners have retrofitted their buildings, hundreds of pre-1933 buildings still have not been brought up to current standards.

Dams

There are a total of 103 dams in Los Angeles County, owned by 23 agencies or organizations, ranging from the Federal government to Home Owner Associations. These dams hold billions of gallons of water in reservoirs. Releases of water from the major reservoirs are designed to protect Southern California from floodwaters and to store domestic water. Seismic activity can compromise the dam structures, and the resultant flooding could cause catastrophic flooding. Following the 1971 Sylmar earthquake the Lower Van Norman Dam showed signs of structural compromise, and tens of thousands of persons had to be evacuated until the dam could be drained. The dam has never been refilled.

Buildings

The built environment is susceptible to damage from earthquakes. Buildings that collapse can trap and bury people. Lives are at risk and the cost to clean up the damages is great. In most California communities, including Montebello many buildings were built before 1993

when building codes were not as strict. In addition, retrofitting is not required except under certain conditions and can be expensive. Therefore, the number of buildings at risk remains high.

Infrastructure and Communication

Residents in Montebello commute frequently by automobiles and public transportation such as buses and light rail. An earthquake can greatly damage bridges and roads, hampering emergency response efforts and the normal movement of people and goods. Damaged infrastructure strongly affects the economy of the community because it disconnects people from work, school, food, and leisure, and separates businesses from their customers and suppliers,

Bridge Damage

Even modern bridges can sustain damage during earthquakes, leaving them unsafe for use. Some bridges have failed completely due to strong ground motion. Bridges are a vital transportation link - with even minor damages making some areas inaccessible. Because bridges vary in size, materials, location and design, any given earthquake will affect them differently. Bridges built before the mid-1970's have a significantly higher risk of suffering structural damage during a moderate to large earthquake compared with those built after 1980 when design improvements were made.

Much of the interstate highway system was built in the mid to late 1960's. The bridges in the City of Montebello are state, county or privately owned (including railroad bridges). Cal Trans has retrofitted most bridges on the freeway systems, however there are still some county maintained bridges that are not retrofitted. The FHWA requires that bridges on the National Bridge Inventory be inspected every 2 years. CalTrans checks when the bridges are inspected because they administer the Federal funds for bridge projects.

Damage to Lifelines

Lifelines are the connections between communities and outside services. They include water and gas lines, transportation systems, electricity, and communication networks. Ground shaking and amplification can cause pipes to break open, power lines to fall, roads and railways to crack or move, and radio and telephone communication to cease. Disruption to transportation makes it especially difficult to bring in supplies or services. Lifelines need to be usable after earthquake to allow for rescue, recovery, and rebuilding efforts and to relay important information to the public.

Disruption of Critical Services

Critical facilities include police stations, fire stations, hospitals, shelters, and other facilities that provide important services to the community. These facilities and their services need to be functional after an earthquake event. Many critical facilities are housed in older buildings that are not up to current seismic codes.

Businesses

Seismic activity can cause great loss to businesses, both large-scale corporations and small retail shops. When a company is forced to stop production for just a day, the economic loss can be tremendous, especially when its market is at a national or global level. Seismic activity

can create economic loss that presents a burden to large and small shop owners who may have difficulty recovering from their losses.

Forty percent of businesses do not reopen after a disaster and another twenty-five percent fail within one year according to the Federal Emergency Management Agency (FEMA). Similar statistics from the United States Small Business Administration indicate that over ninety percent of businesses fail within two years after being struck by a disaster.

Individual Preparedness

Because the potential for earthquake occurrences and earthquake related property damage is an issue to be addressed in Montebello, increasing individual preparedness is a significant need. Strapping down heavy furniture, water heaters, and expensive personal property, as well as being earthquake insured, and anchoring buildings to foundations are just a few steps individuals can take to prepare for an earthquake.

Death and Injury

Death and injury can occur both inside and outside of buildings due to collapsed buildings falling equipment, furniture, debris, and structural materials. Downed power lines and broken water and gas lines can also endanger human life,

Fire

Downed power lines or broken gas mains can trigger fires. When fire stations suffer building or lifeline damage, quick response to extinguish fires is less likely. Furthermore, major incidents will demand a larger share of resources, and initially smaller fires and problems will receive little or insufficient resources in the initial hours after a major earthquake event. Loss of electricity may cause a loss of water pressure in some communities, further hampering fire fighting ability.

Debris

After damage to a variety of structures, much time is spent cleaning up brick, glass, wood, steel or concrete building elements, office and home contents, and other materials. Developing a strong debris management strategy is essential in post-disaster recovery. Occurrence of a disaster does not exempt the City of Montebello from compliance with AB 939 regulations.

Generally, these codes seek to discourage development in areas that could be prone to flooding, landslide, wildfire and / or seismic hazards; and where development is permitted, that the applicable construction standards are met. Developers in hazard-prone areas may be required to retain a qualified professional engineer to evaluate level of risk on the site and recommend appropriate mitigation measures.

The City of Montebello strongly adheres to the Building Code that sets the minimum design and construction standards for new buildings, and which requires that new buildings be built at a higher seismic standard.

It also requires that site-specific seismic hazard investigations be performed for new essential facilities, major structures, hazardous facilities, and special occupancy structures such as schools, hospitals, and emergency response facilities.

Businesses/Private Sector

Natural hazards have a devastating impact on businesses. In fact, of all businesses which close following a disaster, more than forty-three percent never reopen, and an additional twenty-nine percent close for good within the next two years. The Institute of Business and Home Safety has developed “Open for Business”, which is a disaster planning toolkit to help guide businesses in preparing for and dealing with the adverse affects natural hazards. The kit integrates protection from natural disasters into the company's risk reduction measures to safeguard employees, customers, and the investment itself. The guide helps businesses secure human and physical resources during disasters, and helps to develop strategies to maintain business continuity before, during, and after a disaster occurs.

Hospitals

“The Alfred E. Alquist Hospital Seismic Safety Act (“Hospital Act”) was enacted in 1973 in response to the moderate Magnitude 6.6 Sylmar Earthquake in 1971 when four major hospital campuses were severely damaged and evacuated. Two hospital buildings collapsed killing forty seven people. Three others were killed in another hospital that nearly collapsed.

In approving the Act, the Legislature noted that:

Hospitals, that house patients who have less than the capacity of normally healthy persons to protect themselves, and that must be reasonably capable of providing services to the public after a disaster, shall be designed and constructed to resist, insofar as practical, the forces generated by earthquakes, gravity and winds. (Health and Safety Code Section 129680)

When the Hospital Act was passed in 1973, the State anticipated that, based on the regular and timely replacement of aging hospital facilities, the majority of hospital buildings would be in compliance with the Act’s standards within 25 years. However, hospital buildings were not, and are not, being replaced at that anticipated rate. In fact, the great majority of the State’s urgent care facilities are now more than 40 years old.

The moderate Magnitude 6.7 Northridge Earthquake in 1994 caused \$3 billion in hospital-related damage and evacuations. Twelve hospital buildings constructed before the Act were cited (red tagged) as unsafe for occupancy after the earthquake. Those hospitals that had been built in accordance with the 1973 Hospital Act were very successful in resisting structural damage. However, nonstructural damage (for example, plumbing and ceiling systems) was still extensive in those post-1973 buildings

Senate Bill 1953 (“SB 1953”), enacted in 1994 after the Northridge Earthquake, expanded the scope of the 1973 Hospital Act. Under SB 1953, all hospitals are required, as of January 1, 2008, to survive earthquakes without collapsing or posing the threat of significant loss of life. The 1994 Act further mandates that all existing hospitals be seismically evaluated, and retrofitted, if needed, by 2030, so that they are in substantial compliance with the Act (which requires that the hospital buildings be reasonably capable of providing services to the public after disasters). SB 1953 applies to all urgent care facilities (including those built prior to the 1973 Hospital Act) and affects approximately 2,500 buildings on 475 campuses.

SB 1953 directed the Office of Statewide Health Planning and Development (“OSHPD”), in consultation with the Hospital Building Safety Board, to develop emergency regulations

including “...earthquake performance categories with subgradations for risk to life, structural soundness, building contents, and nonstructural systems that are critical to providing basic services to hospital inpatients and the public after a disaster.” (Health and Safety Code Section 130005)

The Seismic Safety Commission Evaluation of the State’s Hospital Seismic Safety Policies

In 2001, recognizing the continuing need to assess the adequacy of policies, and the application of advances in technical knowledge and understanding, the California Seismic Safety Commission created an Ad Hoc Committee to re-examine the compliance with the Alquist Hospital Seismic Safety Act. The formation of the Committee was also prompted by the recent evaluations of hospital buildings reported to OSHPD that revealed that a large percentage (40%) of California’s operating hospitals are in the highest category of collapse risk.”ⁱ

California Earthquake Mitigation Legislation

California is painfully aware of the threats it faces from earthquakes. Dating back to the 19th century, Californians have been killed, injured, and lost property as a result of earthquakes. As the State’s population continues to grow, and urban areas become even more densely built up, the risk will continue to increase. For decades the Legislature has passed laws to strengthen the built environment and protect the citizens. Table 2.5 provides a sampling of some of the 200 plus laws in the State’s codes.

Table 2.5

Partial List of the Over 200 California Laws on Earthquake Safety	
Government Code Section 8870-8870.95	Creates Seismic Safety Commission.
Government Code Section 8876.1-8876.10	Established the California Center for Earthquake Engineering Research.
Public Resources Code Section 2800-2804.6	Authorized a prototype earthquake prediction system along the central San Andreas fault near the City of Parkfield.
Public Resources Code Section 2810-2815	Continued the Southern California Earthquake Preparedness Project and the Bay Area Regional Earthquake Preparedness Project.
Health and Safety Code Section 16100-16110	The Seismic Safety Commission and State Architect, will develop a state policy on acceptable levels of earthquake risk for new and existing state-owned buildings.
Government Code Section 8871-8871.5	Established the California Earthquake Hazards Reduction Act of 1986.
Health and Safety Code Section 130000-130025	Defined earthquake performance standards for hospitals.
Public Resources Code Section 2805-2808	Established the California Earthquake Education Project.
Government Code Section 8899.10-8899.16	Established the Earthquake Research Evaluation Conference.

Public Resources Code Section 2621-2630 2621.	Established the Alquist-Priolo Earthquake Fault Zoning Act.
Government Code Section 8878.50-8878.52 8878.50.	Created the Earthquake Safety and Public Buildings Rehabilitation Bond Act of 1990.
Education Code Section 35295-35297 35295.	Established emergency procedure systems in kindergarten through grade 12 in all the public or private schools.
Health and Safety Code Section 19160-19169	Established standards for seismic retrofitting of unreinforced masonry buildings.
Health and Safety Code Section 1596.80-1596.879	Required all child day care facilities to include an Earthquake Preparedness Checklist as an attachment to their disaster plan.
Source: http://www.leginfo.ca.gov/calaw.html	

Earthquake Education

Earthquake research and education activities are conducted at several major universities in the Southern California region, including Cal Tech, USC, UCLA, UCSB, UCI, and UCSB. The local clearinghouse for earthquake information is the Southern California Earthquake Center located at the University of Southern California, Los Angeles, CA 90089, Telephone: (213) 740-5843, Fax: (213) 740-0011, Email: SCEinfo@usc.edu, Website: <http://www.seec.org>. The Southern California Earthquake Center (SCEC) is a community of scientists and specialists who actively coordinate research on earthquake hazards at nine core institutions, and communicate earthquake information to the public. SCEC is a National Science Foundation (NSF) Science and Technology Center and is co-funded by the United States Geological Survey (USGS).

In addition, Los Angeles County along with other Southern California counties, sponsors the Emergency Survival Program (ESP), an educational program for learning how to prepare for earthquakes and other disasters. Many school districts have very active emergency preparedness programs that include earthquake drills and periodic disaster response team exercises.

SPECIFIC SITUATION

A major earthquake occurring in the City of Montebello has the potential to cause many deaths and casualties, property damage, fires and hazardous material spills and other hazards. The effects could be aggravated by after shocks and by the secondary affects of fire, hazardous material/chemical accidents and possible failure of waterways and dams.

The shaking from a major earthquake has the potential to cause serious to catastrophic damage to buildings, including hospitals, businesses, schools, public service agencies, and other buildings critical to public and private use. The vulnerabilities of Montebello's building stock to an earthquake is of concern and will need to be addressed in the strategy plan.

Older buildings, including un-reinforced masonry structures, are particularly vulnerable to damage from earthquakes. Montebello's commercial building stock is heavily comprised of URMs, stucco, and concrete tilt up. Residences are a combination of soft story apartment buildings (parking underneath) and a great number of single-family residences that are built

with cripple wall and slab on grade. Code compliance has historically been of importance to the building inspectors, and will be addressed in the planning process.

A major earthquake can also cause serious damage to dams, railways, airports, major highways and bridges, utilities, telephone systems, and other critical facilities. The damage can cause hazardous materials releases and extensive fires.

Evacuations of areas downwind from hazardous material releases may be essential to save lives. This would result in family separation and interruption of business that heavily impact the economics of the community, particularly for Montebello's small ethnic business communities, as well as the larger manufacturing sections of the City.

The negative economic impact on Montebello due to a major earthquake could be considerable, with a loss of employment and of the local tax base. A major earthquake could cause serious damage and/or outage of critical data processing facilities in the Los Angeles area, and have an impact on Montebello. The loss of such facilities could curtail or seriously disrupt the operations of banks, insurance companies and other elements of the financial community, which could affect the ability of the City's government, business and the population to make payments and purchases.

The damage to water systems could cause water pollution or water shortages. Two of the three major aqueducts serving Southern California are expected to be out of service from three to six months following a major event; only the Colorado River Aqueduct is expected to remain in service. Ruptures could occur along the water pipelines in the County; damage to reservoir outlets could take weeks to repair. The majority of water wells are expected to be disabled by loss of electricity and the lack of backup power sources. In addition, shear forces could render a third of the wells inoperative for an indefinite period. Representatives from the Water infrastructure play a large role in the MMPC, and are taking an active interest in further addressing the risk issues in Montebello during the long term planning process.

Individual Incident Specifics

- October 1, 1987: Whittier-Narrows Earthquake:
This incident occurred at 7:42 am and registered at 5.9 on the Richter scale. The epicenter was 20km east of Los Angeles in the City of Whittier. It resulted in eight fatalities and \$358 million dollars in property damage. Severe damage occurred in communities east of Los Angeles and near the epicenter.

Damage impact to Montebello was nine small commercial/retail URM buildings, including a liquor store and bakery. The buildings are located in one specific centralized location, on Whittier Boulevard, between Montebello Boulevard and Fourth. Since the earthquake the buildings have been fully retrofitted.

- June 12, 1989: This incident occurred at 9:57 am and registered at 4.6 on the Richter scale. There were no deaths or appreciable damage to the City of Montebello.

Wildfire/Wildland Urban Interface Fire

For thousands of years, fires have been a natural part of the ecosystem in Southern California. However, wildfires present a substantial hazard to life and property in communities built within or adjacent to hillsides and mountainous areas. There is a huge potential for losses due to wildland/urban interface fires in Southern California. According to the California Division of Forestry (CDF), there were over seven thousand reportable fires in California in 2003, with over one million acres burned.ⁱⁱ According to CDF statistics, in the October, 2003 Firestorms, over 4,800 homes were destroyed and 22 lives were lost.

GENERAL SITUATION

There are three categories of interface fires: the classic wildland/urban interface exists where well-defined urban and suburban development presses up against open expanses of wildland areas; the mixed wildland/urban interface is characterized by isolated homes, subdivisions and small communities situated predominantly in wildland settings; and the occluded wildland/urban interface exists where islands of wildland vegetation occur inside a largely urbanized area.

Certain conditions must be present for significant interface fires to occur. The most common conditions include: hot, dry and windy weather; the inability of fire protection forces to contain or suppress the fire; the occurrence of multiple fires that overwhelm committed resources; and a large fuel load (dense vegetation). Once a fire has started, several conditions influence its behavior, including fuel topography, weather, drought and development.

Southern California has two distinct areas of risk for wildland fire. The foothills and lower mountain areas are most often covered with scrub brush or chaparral. The higher elevations of mountains also have heavily forested terrain. The lower elevations covered with chaparral create one type of exposure.

One challenge Southern California faces regarding the wildfire hazard is from the increasing number of houses being built on the urban/wildland interface. Every year the growing population has expanded further and further into the hills and mountains, including forestlands. The increased "interface" between urban/suburban areas and the open spaces created by this expansion has produced a significant increase in threats to life and property from fires and has pushed existing fire protection systems beyond original or current design and capability. Property owners in the interface are not aware of the problems and threats they face. Therefore, many owners have done very little to manage or offset fire hazards or risks on their own property. Furthermore, human activities increase the incidence of fire ignition and potential damage.

The type of fuel also influences wildfire. Chaparral is a primary fuel of Southern California wildfires. Chaparral habitat ranges in elevation from near sea level to over 5,000' in Southern California. Chaparral communities experience long dry summers and receive most of their annual precipitation from winter rains. Although chaparral is often considered as a single species, there are two distinct types; hard chaparral and soft chaparral. Within these two types are dozens of different plants, each with its own particular characteristics.

SPECIFIC SITUATION

As referenced in the *Fire Hazards Map* and in the *Hazard Vulnerability Map* (Appendix E), the City has a several wildland/urban interface areas that could have the potential for disaster. These are primarily where some elements of the fuel exist close to the roadways or residential areas. The following factors were taken into account when identifying the risk level of Montebello:

- Topographic location, characteristics and fuels
- Site/building construction and design
- Site/region fuel profile (landscaping)
- Defensible space
- Accessibility
- Fire protection response
- Water availability

Four specific areas are identified and listed below:

1. Lincoln Avenue (picture below);



2. PXP Hills (Chevron {pictures below});



3. Bluff Road
4. Grant Rea Park

While the current urban wild-land interface areas are limited in scope, future development of the housing development will impact this risk for Montebello. It is expected that this issue will develop into a more critical need in the upcoming years, and will find a high level of criticality as this development begins to break ground.

Individual Incident Specifics

No events have been documented to date.

DRAFT

Flooding/Urban Flooding

Flooding occurs in floodplains when prolonged rainfall over a short period causes rivers or streams to overflow. Flash floods, specifically, occur within six hours of a rain event, after a dam or levee failure or following a sudden release of water held by a debris jam. In addition, development in the flood hazard area can increase the overall height and speed of flooding bringing it to areas that were not originally susceptible.

As land is converted from fields or woodlands to roads 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 streams at a much faster rate in urban areas. Adding these elements to the hydrological systems can result in floodwaters that rise very rapidly and peak with violent force.

Flood Terminology

Floodplain

A floodplain is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. This area, if left undisturbed, acts to store excess flood water. The floodplain is made up of two sections: the floodway and the flood fringe.

100-Year Flood

The 100-year flooding event is the flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years. The 100-year floodplain is the area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood. Map xxx illustrates the 100-year floodplain in the City of ????

Floodway

The floodway is one of two main sections that make up the floodplain. Floodways are defined for regulatory purposes. Unlike floodplains, floodways do not reflect a recognizable geologic feature. For NFIP purposes, floodways are defined as the channel of a river or stream, and the overbank areas adjacent to the channel. The floodway carries the bulk of the flood water downstream and is usually the area where water velocities and forces are the greatest. NFIP regulations require that the floodway be kept open and free from development or other structures that would obstruct or divert flood flows onto other properties.

The NFIP floodway definition is "the channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Flood Fringe

The flood fringe refers to the outer portions of the floodplain, beginning at the edge of the floodway and continuing outward.

Development

Development is generally referred to as any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations located within the area of special flood hazard. The definition of development for floodplain purposes is generally broader and includes more activities than the definition of development used in other sections of local land use ordinances.

Base Flood Elevation (BFE)

The term "Base Flood Elevation" refers to the elevation (normally measured in feet above sea level) that the base flood is expected to reach. Base flood elevations can be set at levels other than the 100-year flood. Some communities choose to use higher frequency flood events as their base flood elevation for certain activities, while using lower frequency events for others. For example, for the purpose of storm water management, a 25-year flood event might serve as the base flood elevation; while the 500-year flood event may serve as base flood elevation for the tie down of mobile homes. The regulations of the NFIP focus on development in the 100-year floodplain.

Characteristics of Flooding

Riverine Flooding

Riverine flooding is the overbank flooding of rivers and streams. The natural processes of riverine flooding add sediment and nutrients to fertile floodplain areas. Flooding in large river systems typically results from large-scale weather systems that generate prolonged rainfall over a wide geographic area, causing flooding in hundreds of smaller streams, which then drain into the major rivers.

Shallow area flooding is a special type of riverine flooding. FEMA defines shallow flood hazards as areas that are inundated by the 100-year flood with flood depths of only one to three feet. These areas are generally flooded by low velocity sheet flows of water.

Urban Flooding

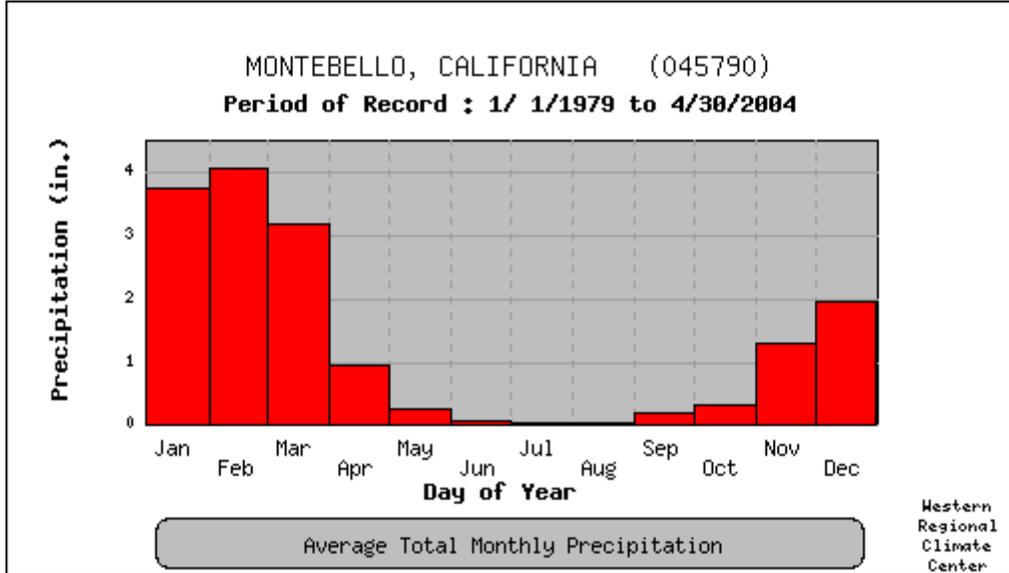
As land is converted from fields or woodlands to roads and parking lots, it loses its ability to absorb rainfall. Urbanization of a watershed changes the hydrologic systems of the basin. Heavy rainfall collects and flows faster on impervious concrete and asphalt surfaces. The water moves from the clouds, to the ground, and into streams 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.

SPECIFIC SITUATION

The City of Montebello is designated by the National Flood Insurance Program as a zone "C", or City of minimal flood hazard as illustrated and in *Area E Flood Plain Map* (Appendix E).

The annual amount of rainfall is illustrated in Precipitation Graph, Table 2.6.

Table 2.6



The Flood Insurance Administration indicates that four specific flood hazard areas exist in the City of Montebello:

1. West side of Grant Rea Park along the Rio Hondo Channel;
2. Garfield Avenue between Via Paseo and Beverly Boulevard (picture below);



3. East side of Rio Hondo Channel from Beverly Terrace to Mines Avenue;
4. Mines Avenue from Maple Avenue to Greenwood (residential)

Localized Urban Flooding

Portions of the City of Montebello have experienced urban flooding, also sometimes referred to as *ponding*, due to debris accumulation on storm drains and in flood control channels and basins, over burdened pumping stations and aged drainage systems. Low-lying areas of the City are particularly susceptible to urban flooding.

Flood control channels and basins are at risk of overflowing their banks during times of heavy rainfall and reservoir water release, specifically the Rio Hondo Flood Control Channel which runs north to south through the length of City and the San Gabriel River basin, which runs along the east side of the City. The Los Angeles County Department of Public Works and the Army Corp of Engineers are responsible for notifying the jurisdiction at the onset of planned water releases.

The following areas are considered at risk due to urban flooding:

1. Underpass at Garfield Avenue and the train tracks (roadway)
 - This roadway is shared with the City of Commerce.
2. Wilcox Avenue at the entrance to Albertsons Parking Lot (mixed)
3. Park Avenue at the Southern Pacific Railroad (residential)
4. Flotilla Street – Metro Link Station (commercial)
5. Los Angeles Street (residential)

6. Roosevelt (mixed-residential & commercial)

These flood areas are considered very localized. While they are not expected to threaten or endanger the lives of persons in the surrounding areas, the existence of the flood areas impact access, a select number of individual homes and property. The flood hazard also impacts business, as several of the locations are mixed use or specifically for business. While contingency planning is discussed in Montebello, assessing the risk points out the need for increased diligence for engaging the business community on the risk reduction measure.

Additionally, the building stock of all of the areas at risk would benefit from increased use of flood-proofing tactics, such as dry and wet flood proofing, elevation of appliances, storm drains, and regular debris clearance and gutter maintenance. Support to individuals impacted by the economic losses for loss of business due to access restrictions by customers or vendors is also a consideration, as in the assessments it appears that this information is not necessarily readily available to those most affected. Additionally, hazard zones, such as the underpass at Garfield does not have appropriate signage providing warning of a flood zone, therefore putting the drivers passing under at greater risk of vehicle damage, or potential life safety issues. Also, additionally issues of health hazards could present themselves to residential dwellings and businesses in the affected areas if proper flood clean-up actions are not conducted immediately.

Individual Incident Specifics

Flood loss statistics from the National Flood Insurance Plan indicate that between January 1, 1978 to December 31, 2003, Montebello claimed two property losses that received insurance payment of \$3,935.32.

Claims have been made to the city for flood damage in a few spots throughout the city:

- The Catholic Church at 820 N. Garfield made a claim for flood damage to their school classrooms. The city responded by funding new storm drains.
- Residents north of Grant Rea Park made claims to the city for flood damage to their homes. The city responded by building a drainage system.
- Residents adjacent to the railroad tracks near Vail Avenue have filed flood damage claims. Water flows from the railroad property through the sound wall and into the low-lying residents.
- Montebello has plans to build a drainage system to tie into the county's storm drain. The city is willing to spend the money to build the system but it is not willing to maintain the system since the flooding originates on the railroad's property. The city will meet with the Union Pacific Railroad representative to discuss the maintenance issue.

Additional information is being sought on those losses to further support the planning effort.

Future Multi-Hazard Plan Development

In addition to the addressing of the critical hazards chosen for focus in this 2004 Plan submittal to the City Council and the State and Federal agencies, an initial skeletal

framework for other hazards that may impact Montebello is also included. This framework is expected to be developed during the on-going planning process of the MMPC and other stakeholders. The additional hazards to be addressed are:

Erosion

Groundwater Contamination

Numerous sources of pollution pose a threat to the safety of groundwater aquifers, including business operations that use chemicals, fuels or pesticides and storage facilities containing pollutants, and saltwater intrusion caused by storm surge, which can lead to flooding.

Landslides/Mudslides

Drought

Drought is defined by FEMA (1997) as being a water shortage caused by a deficiency of rainfall. During severe droughts, agricultural crops do not mature, wildlife and livestock are undermined, land values decline, and unemployment increases. Droughts can cause a shortage of water for human and industrial consumption, hydroelectric power, recreation and navigation. Water quality may decline and the number of wildfires may increase. There are four types of droughts (FEMA, 1997):

- Meteorological Drought – This is a reduction of precipitation over time. This definition is regionally based. In the United States, this is indicated by less than 2.5 mm of rainfall in 48 hours, which is the first indication of drought.
- Agricultural Drought – This happens when soil moisture cannot meet the demands of a crop. This type of drought happens after a meteorological drought but before a hydrological drought.
- Hydrological Drought – This refers to reduction in surface and subsurface water supplies. This is measured through stream flow and lake, reservoir, and ground water levels.
- Socioeconomic Drought – This occurs when water shortages affect people, either in terms of water supply or economic impacts (i.e. loss of crops so price increases).

It is difficult to determine when a drought is approaching because of slowly accumulating effects and because there is no commonly accepted approach for measuring drought risk. However, there are several indices that can be helpful in determining the risk. The Palmer Drought Severity Index is especially well known. This index is used to measure drought impact on agriculture and water supplies. However, the National Drought Mitigation Center is using a newer index, the Standardized Precipitation Index, to monitor moisture supply conditions. Distinguishing traits of this index are that it identifies emerging drought months sooner than the Palmer Index and that it is computed on various time scales.

Windstorms

Severe windstorms pose a significant risk to life and property in the Los Angeles County region by creating conditions that disrupt essential systems such as public utilities, telecommunications, and transportation routes. High winds can and do occasionally cause tornado-like damage to local homes and businesses. Severe windstorms can present a very destabilizing effect on the dry brush that covers local hillsides and urban wildland interface areas. High winds can have destructive impacts, especially to trees, power lines, and utility services.

Santa Ana Winds and Tornado-Like Wind Activity: based on local history, most incidents of high wind in the County of Los Angeles are the result of the Santa Ana wind conditions. While high impact wind incidents are not frequent in the area, significant Santa Ana Wind events and sporadic tornado activity have been known to negatively impact the local community.

DRAFT

Technological and Human-Caused Hazards

All hazards do not fall in the natural hazard category but can still have a negative impact on life, property, economy and community. Some hazards originating from within the human environment and resulting from man-made conditions such as dam failures, nuclear events, and hazardous materials events are classified as technological hazards. Technological hazards can affect localized areas, are frequently unpredictable and can cause property damage, loss of life, economy and community.

While these are not required in the Local Hazard Mitigation Plan under the DMA 2000, it is of great interest to the Montebello MMPC and supporting stakeholders to begin the process of integrating the technological and human-caused hazards into the planning process; therefore, this section of the Plan identifies the hazards of greatest concern and provides an initial risk assessment for the community of Montebello.

Hazardous Materials Events (HAZMAT Events)

HAZMAT Events can include incidents caused by everything from hazardous waste, hazardous materials storage to hazardous materials transport. These incidents could include explosions, hazardous material spills, or hazardous material leaks. These events may cause immediate injury or long-term harm through the release of toxins into the environment.

GENERAL SITUATION

Hazardous materials are any substance or combination of substances that, because of quantity, concentration, or characteristics, may cause or significantly contribute to an increase in death or serious injury, or pose substantial hazards to humans and/or the environment. The production and use of these hazardous materials is a part of our society over which local governments have little control.

Releases of explosive, caustic and flammable materials have caused injuries and deaths and necessitated large-scale evacuations. Toxic chemicals in gaseous and liquid form have caused injuries among emergency response personnel as well as passersby. When toxic materials have entered either surface, ground or reservoir water supplies, serious health effects have resulted. Releases of hazardous chemicals can be especially damaging when they occur in highly populated areas or along transportation routes used simultaneously by commuters and hazardous materials haulers.

Circumstances such as the prevailing wind and geographic features in the vicinity of emergency incidents are relevant factors that may greatly increase the hazardous chemical dangers. Incidents may occur at fixed facilities where, most likely, the occupants have filed site-specific emergency response contingency and evacuation plans; however, incidents may also occur at any place along any land, water or air transportation routes, and (in event of vessel mishaps, aircraft accidents, misuse of agricultural chemicals and illegal dumping) may occur in unpredictable areas, relatively inaccessible by ground transportation.

SPECIFIC SITUATION

The City of Montebello has prepared a Safety Element to the General Plan that provides an encompassing overview of the City's industrial locations and the potential involvement of

hazardous material incidents. Coupling the database of potentially hazardous locations with other elements of the plan provides an analysis and planning tool that should prove most beneficial for future mitigation planning activities.

The increasing volume and variety of hazardous materials that are generated, stored, or transported within the City of Montebello is a problem of great concern to public officials and the community. A major hazmat accident and/or spill could endanger the health and safety of untold numbers of men, women and children who may be within a mile of the accident scene.

A number of freight trains crisscross through the City hauling various types of hazardous and explosive materials including chlorine gas and LPG natural gas. Several fixed site industrial firms require potentially hazardous materials to operate their businesses. In addition there are numerous underground pipelines that carry flammable and hazardous liquids. Finally, commercial airliners over-fly the City en route to the Los Angeles International Airport that significantly increases the potential disaster threat.

Individual Incident Specifics

- The City of Montebello was affected by an incident in the City of Commerce in May of 1986. A majority of the residents had to be evacuated from the City because of a chlorine gas cloud. The threat of a major hazardous material incident in Montebello exists from four different sources: commercial vehicle, rail and air transportation; pipeline; fixed facility; and clandestine dumping.

HazMat Transportation

The greatest probability of a major hazmat incident is from a transportation accident. Interstate 710, the Long Beach Freeway, runs north-south just two miles from the eastern perimeter of the City. Heavy truck traffic travels to and from the Long Beach Harbor each day. There is also heavy truck traffic on the Santa Ana Freeway, Interstate 5, which is on our southern border. Washington Boulevard is a major east west route through the City and handles major trucking traffic. It is safe to say that one or more of every 10 commercial vehicles is carrying hazardous materials. Moreover, hazardous material incidents frequently occur on the heaviest traveled streets and at major intersections and freeway interchanges.

There are two railroad train lines transversing east west through the southern portion of the City. The Southern Pacific Railroad generally follows Olympic Boulevard through the center of the City and the Santa Fe Railroad runs east west along Sycamore Avenue at the southern portion of the City. Although the odds of occurrence are less for a railroad hazmat incident, the severity is greater because of the numerous rail tanker cars involved and the potential for chemicals and explosive substances being mixed together.

The second most likely serious hazmat threat exists from an accidental spill and/or incident at one of the estimated 100 known facilities that manufacture, warehouse, and process toxic chemicals and/or generate hazardous waste materials within or next to City boundaries. Although there are numerous facilities involved with hazardous materials they are less of a threat due to required plant contingency and evacuation plans. Also, the Waters Bill (AB 2185), effective January 1, 1987, strengthens previous emergency plans by levying heavy

fining violators who fail to supply plans and requiring industrial firms to disclose the types of chemicals being manufactured, used, and stocked (right to know law).

Pipelines

There are three major underground petroleum pipelines located in Montebello. One supplies product to the Chevron USA terminal on Vail Avenue, another supplies natural gas to the Southern California Gas Company's facility located at Howard Street and Jefferson Boulevard, and the last runs along the Santa Fe rail lines.

Clandestine Dumping

Clandestine dumping is the criminal act of disposing of toxic materials and hazardous waste on public or private property. As the costs and restrictions increase for legitimate hazardous waste disposal sites, it can be anticipated that illegal dumping of hazardous materials will increase proportionately.

Terrorism

GENERAL SITUATION

Los Angeles County has a diverse population of 9.3 million persons. The County and its cities are also home to many business and government agencies, transportation infrastructure, and cultural facilities that are vulnerable to terrorist attack. Terrorism remains a continuing threat throughout the world and within the United States. A variety of political, social, religious, cultural and economic factors underlie terrorist activities. Terrorists occasionally target civilian targets to spread their message or communicate dissatisfaction with the status quo. The media interest generated by terrorist attacks makes this a high visibility threat.

Recent trends toward large-scale incidents generating significant casualties make preparedness and the mechanisms for effective response essential. In addition to large-scale attacks, a full range of assault styles must be considered. Contemporary terrorist activity runs the gamut from simple letter bombings, through assassinations with small arms, up to and including major car bombings.

Bombings and arson remain significant sources of terrorist activity. Related threats include bomb threats that disrupt the normal operations of transit systems and government or corporate facilities. Venues likely to suffer the impact of terrorism include aviation targets, mass transit targets, and government facilities. Entertainment and cultural facilities may also be targeted. Conventional political motivations for terrorism continue, however issues involving weapons proliferation, organized crime and narcotic trafficking are seen as having increasing influence. The potential for nuclear, biological, or chemical (NBC) terrorism employed by sub-national actors also is a potential concern.

Recent events make NBC emergencies a plausible scenario necessitating detailed contingency planning and preparation of emergency responders to protect the civilian populace in major urban centers such as Los Angeles County. Among the events heightening the threat level is the Sarin attack on the Tokyo subway, followed by an attempted cyanide assault on the subway six weeks later. The presence of cyanide residue in

the debris of the World Trade Center bombing in New York heightens domestic concern. Biological incidents of note include the synthesis of Ricin by an anti-government, tax protest group whose members were convicted for violating the Biological Weapons Anti-Terrorism Act. Nuclear terrorism occurred in Moscow when Chechen insurgents claimed to have placed radiological waste in Moscow parks to further their cause.

SPECIFIC SITUATION

The Federal Bureau of Investigation (FBI) is the lead federal agency with responsibility for crisis management (efforts geared toward preventing, interdicting and responding to the criminal aspects of terrorism) at all terrorist acts within the United States. The FBI closely coordinates this activity with local law enforcement through the Los Angeles Task Force on Terrorism (LATFOT) that includes representatives from the Los Angeles Sheriff's and Police Departments.

Los Angeles County established the Operational Area Terrorism Working Group (TWG) in response to the heightened threat of terrorism and national security emergencies. The TWG is charged with developing and guiding terrorism response planning, and to develop training for first responders in NBC warfare. The TWG is a multi-agency, multi-jurisdictional group that includes representatives from local law enforcement, fire, the County Department of Health Services and emergency management as well as state and federal agencies. During non-emergency periods the TWG is a planning committee. During terrorist emergencies the collective brain trust of the TWG will serve in an advisory capacity to support strategic and tactical planning.

Los Angeles County also developed a Terrorism Early Warning (TEW) group that assesses potential threats to determine if they are credible. The TEW is also a multi-agency, multi-jurisdictional group and is in constant contact with key federal agencies such as the FBI. TEW shares its findings with key county decision-makers and local law enforcement agencies.

Efforts to resolve life safety threats to the public, including firefighting, rescue operations, and treatment of persons wounded by terrorist activity are known as consequence management. These efforts are the primary responsibility of local government and require close coordination between law enforcement, the fire service, health care and medical providers.

During non-emergency periods consequence management planning is carried out through the TWG. During response to terrorism acts these efforts are coordinated through the CEOC and are addressed in the interagency Los Angeles County Operational Area Terrorism Response Plan. The Sheriff's Emergency Operations Bureau (EOB) has responsibility for marshaling interagency consequence management efforts.

Mitigation planning efforts for Montebello must include working with surrounding jurisdictions to address terrorism planning efforts.

Transportation

According to FEMA (1997) there are three types of nuclear accidents (critical accidents, loss-of coolant accidents, and loss of containment accidents) all of which could release a significant level of radioactivity or have the potential for exposure of workers or the general public to radiation.

Air

GENERAL SITUATION

A major air crash that occurs in a heavily populated residential area can result in considerable loss of life and property. The impact of a disabled aircraft as it strikes the ground creates the likely potential for multiple explosions, resulting in intense fires. The resulting explosions and fires have the potential to cause injuries, fatalities and the destruction of property at and adjacent to the impact point.

The day and time when the crash occurs may have a profound affect on the number of dead and injured. Emergency medical care, food and temporary shelter may be required for injured or displaced persons. Damage assessment and disaster relief efforts associated with an air crash incident will require support from other local governments, private organizations and from the state and federal governments.

SPECIFIC SITUATION

The skies above Montebello are heavily occupied by aircraft originating and departing from a number of airports located in Southern California. The airports nearest to Montebello which handle the greatest amount of air traffic are as follows:

- Los Angeles International Airport (LAX)
- Long Beach Airport
- John Wayne Airport
- Ontario
- Burbank Airport

Railroad

GENERAL SITUATION

A major train derailment that occurs in a heavily populated industrial area can result in considerable loss of life and property. As a train leaves its track, there is no longer any control as to the direction it will travel. Potential hazards could be overturned rail cars, direct impact into an industrial building or entering into normal street traffic.

Each of these hazards encompass many threats, such as a hazardous materials incident, fire, severe damage to either adjacent buildings or vehicles and loss of life of those in either adjacent buildings or vehicles and pedestrians.

SPECIFIC SITUATION

The City of Montebello is served by three railroads: Union Pacific, Southern Pacific and Santa Fe. Amtrak, a National rail service with passenger service twice a day, passes through the southern part of the City, en route from Los Angeles to San Diego and back.

Engaging these companies in the MMPC will continue to be a priority. Their participation has proven vital to date. Mitigation planning efforts will also need to continue outreach to surrounding jurisdictions and stakeholders on these issues.

Trucking

GENERAL SITUATION

A major truck incident that occurs in a heavily populated industrial area or residential area can result in considerable loss of life and property. When a truck is involved in an accident, there is no longer control as to the direction the truck will travel. Potential hazards could be overturned tank trailers, direct impact either into a residence or industrial building, or entering into the normal flow of traffic.

Each of these hazards encompass many threats, such as hazardous materials incident, fire, severe damage to either adjacent buildings or vehicles, and loss of life of pedestrians or those in either the adjacent buildings or vehicles.

SPECIFIC SITUATION

The City of Montebello is located within the southeast section of Los Angeles County. It is served by two major freeways, several major north-south truck routes and contains ten major truck terminal operations located at the southern end of the City. The City also houses a major gas company loading terminal. Two major east-west routes serve the City.

Involving these stakeholders in the planning efforts is a high priority.

Commuter Rail/Metro

GENERAL SITUATION

The Metro Rail system is part of a multimodal transportation system developed by the Los Angeles County Transportation Authority (LACTA). The line is operated by the Metropolitan Transportation Authority (MTA).

The Metro Rail system consists of:

Rail transit lines

Metro Blue Line - operates in and through the cities of Los Angeles, Compton, Montebello and Long Beach. Estimated ridership—28,000-35,000 on a typical workday, growing to 50,000 by the year 2000.

Metro Red Line - the train will run underground from downtown Los Angeles west along the Wilshire Corridor and eventually continue into the North Hollywood area. It is still currently under construction and only a small portion is open.

Metro Green Line - operates in and through the cities of Norwalk, Downey, South Gate, Paramount, Los Angeles, Hawthorne, Inglewood and El Segundo.

Metrolink - Commuter train network which connects long-distance commuters from outlying communities to Union Station in downtown Los Angeles.

The LACTA considers the following accidents/incidents as being major:

- Death.
- Collision of a train with a maintenance vehicle or alighting personnel from a train that requires medical attention.
- Mainline or yard derailments.
- Any accident/incident that requires evacuation of personnel.
- Fire or explosion on a train or Metro Rail Line facility or construction site.
- Collision between trains.
- Collision between trains and track or wayside equipment.
- Accident/incident involving a runaway train resulting in damage or injury.
- Accident/incident involving Mainline Interlockings.
- Chemical spills or uncontrolled release of a compressed gas or hazardous materials.
- Industrial injuries occurring at a Metro Rail Line Facility or construction site.

Although the Metro Blue Line was designed to withstand the effects of an earthquake, damage to the line may still occur. Additionally, an earthquake may trigger secondary events which can impact the transit system's ability to safely conduct revenue services. In the event of a major earthquake on the Newport-Inglewood Fault (magnitude 7.0 or greater), it is expected that the entire Metro Blue Line can expect to sustain significant damage and will probably close. Segments of the line are also subject to liquefaction.

Segments of the line from Long Beach to Del Amo Passenger Station and from Artesia Passenger Station to Slauson Passenger Station as well as segments of the line between Del Amo and Artesia Passenger Stations and from Slauson to the 7th and Flower Station are expected to sustain serious damage. Liquefaction is expected in Long Beach from First Street to Hill Street and from Imperial Highway to 103rd Street in Los Angeles.

There are also off-system hazards which may impact the system, including facilities that store or process hazardous materials, high voltage lines, petroleum pipelines and natural gas mains,

SPECIFIC SITUATION

The Metro Blue Line runs through the City of Montebello. Identifying the support facilities located within or near the City is a priority.

Dam/Levee Failures

According to the FEMA (1997) publication, *Multiple Hazard Identification and Risk Assessment*, a dam is a “barrier constructed across a watercourse for the purpose of storage, control, or diversion of water.” Dam failures can occur as a result of natural events, human actions or a combination of both. The most common cause of failure is rainfall. Collapsed or damaged dams can lead to downstream flooding and subsequent damages or loss of life. The Community Rating System (CRS), a program of the National Flood Insurance Program

NFIP, offers reduced flood insurance premium credit points if state dam safety programs meet the established criteria of a model state dam safety program.

GENERAL SITUATION

Dam inundation is defined as the flooding that occurs as the result of structural failure of a dam. Structural failure may be caused by seismic activity. Seismic activity may also cause inundation by the action of a seismically induced wave that overtops the dam without also causing dam failure. This action is referred to as a *seiche*. Landslides flowing into a reservoir are also a source of potential dam failure or overtopping.

SPECIFIC SITUATION

The two major dams that could potentially impact Montebello in the event of a dam failure are Whittier Narrows Dam and Garvey Reservoir. Neither of these dams is located in the City, and failure of the dams during a catastrophic event, such as a severe earthquake, is considered a very unlikely event. Due to the method of construction of these dams, they have historically performed well in earthquakes; and failure is not expected to occur.

Whittier Narrows Dam

Description and Location: Whittier Narrows Dam is owned and operated by the Los Angeles District, Corps of Engineers. It is located in Los Angeles County on the San Gabriel and Rio Hondo Rivers approximately three miles south of the City of El Monte, 3 miles northwest of the City of Whittier, and approximately 7.5 miles downstream of the Santa Fe flood control channel. It is normally empty except during or immediately after periods of significant runoff.

Areas of Inundation: Should a breach in the dam occur, the water released would flow in a southerly direction toward the City of Long Beach. In the City of Montebello, the eastern boundary along Grant Rea Park lies within the dam's flood plain/inundation path. Grant Rea Park is located approximately a quarter of a mile downstream of the Whittier Narrows Dam. In the event of a dam failure, the flood wave would reach Montebello minutes later at a depth of many feet. The flood wave would continue to move through Montebello, inundating Grant Rea Park and the horse stable area section of the City.

Garvey Reservoir

Description and Location: Garvey Reservoir was constructed and owned by the Metropolitan Water District of Southern California. It is located approximately two miles southeast of the intersection of Garfield Avenue and Graves Avenue in the City of Monterey Park.

Areas of Inundation: Should a breach in the reservoir occur, the water release could flow in two directions. The first flow would proceed in a northerly direction alongside Alhambra Avenue on the west and Orange Avenue on the east to Garvey Avenue, and east through natural land contours into the Whittier Narrows Dam. The second flow would proceed in a southerly direction through the natural land contours between Fulton Avenue on the west and Orange Avenue on the east. This flow would proceed to the Pomona Freeway to Findlay Avenue on the west and Garfield Avenue on the east. This flow would still proceed south to the City of Commerce through an area

between Findlay Avenue on the west and Garfield Avenue on the east. Once in the City of Commerce, the flow spreads out alongside Ferguson Drive west to Telegraph Road and Tubeway Avenue on the east. Again, this flow passes through a natural contour and again spreads west to Eastern Avenue and east to Garfield Avenue. The flow stays within these boundaries and flows south until it reaches the Rio Hondo River. The City of Montebello lies within the reservoir's inundation path. Montebello is located approximately 1.5 miles downstream of the Garvey Reservoir. In the event of a reservoir failure, the flood wave would reach Montebello approximately 45 minutes later at a depth of about 4 feet. The flood wave would continue to move through Montebello, inundating the north section of the City first, and would follow Garfield Avenue to the south. The inundated area affected by a breach of the Garvey Reservoir appears to focus on commercial, industrial, schools, and residential properties.

Civil Unrest

GENERAL SITUATION

The spontaneous disruption of normal, orderly conduct and activities in urban areas, or outbreak of rioting or violence that is of a large nature is referred to as civil unrest. Civil unrest can be spurred by specific events, such as large sporting events or criminal trials, or can be the result of long-term disfavor with authority. Civil unrest is usually noted by the fact that normal on-duty police and safety forces cannot adequately deal with the situation until additional resources can be acquired.

SPECIFIC SITUATION

The City of Montebello has faced civil unrest in various forms since the Watts Riots of 1964. The 1992 Rodney King verdicts caused the most widespread rioting in recent history, with losses of property in the millions. The City of Montebello is bordered on three sides by other southeast cities and on the other by the City of East Los Angeles. Transportation routes used for normal traffic movements (streets, freeways, rail, etc.) are vulnerable and can also facilitate the movement of potential rioters. The entire City, consisting of residential, industrial and commercial properties, is vulnerable to the short and long-term effects of civil unrest and needs to consider this hazard in the mitigation planning process.

The potential for political, economic or social tensions once again erupting into mass civil unrest must not be discounted. Should another civil disorder situation develop law enforcement agencies need to rapidly assess the situation and deploy an appropriate level of personnel to manage the situation.

SECTION 3: COMMUNITY CAPABILITY ASSESSMENT

The capability assessment helped analyze the City’s current capability to mitigate the threats hazards pose. To conduct and thorough assessment of the City’s capability an examination of the City’s legal, institutional, technological, political, and fiscal capability was conducted (see Table 3.1).

First an assessment of the City’s legal capability was conducted. During this step all local governing documents (i.e. Zoning Ordinance, Land Use Plan, Sub-Division Ordinance, Building Codes and the like) were reviewed (see reference section for specifics on documents reviewed during this process). That review identified existing policies, practices, programs, regulations, and activities currently in place and determined if they promote or hinder the mitigation process.

Subsequently, the institutional capability of the City was examined with a review of the various local departments, agencies, and organizations were conducted. This step helped identify if adequate personnel is available to assist in the implementation of the mitigation strategies determined necessary to reduce the vulnerability of the City.

Following the institutional capability assessment a political capability assessment was conducted. In this process the local governing body was examined to determine if they were organized, responsive to the needs of the community, educated about the hazards prevalent tot heir area, if they understood, supported, and promoted the mitigation process.

Additionally, the technological capability of the City was examined. In this process a review of the City’s current technology was conducted. This was accomplished by examining if the City has primary and secondary phone systems, internet and/or a City sponsored website, and if they have a geographic information system and trained staff to use said system. In addition, a review of the individual departments was conducted to determine if they had the appropriate equipment to conduct their day to day activities and assist in the implementation of the mitigation process.

Finally, the fiscal capability of the community was assessed. Here the ability of the community to financially afford the implementation of the mitigations strategies herein was determined. In addition, the ability of the City to research and seek alternated sources of funding was examined as well as the ability of the City to integrate funding sources.

Table 3.1

State Requirements	Montebello Implementation
<p>Mandatory Building Code. The State requires all communities to enforce a state mandated building code. The building code applies to new buildings and additions, renovations and remodeling of existing buildings. The effectiveness of designs based on the code to resist earthquakes has improved incrementally over the years. The</p>	<p>Montebello enforces the state building code with additional local seismic, flood and fire safety provisions through their Montebello Municipal Code, Uniform Building Code.</p>

<p>code is not applied retroactively, meaning that building owners do not have to retrofit existing buildings to improve earthquake, fire or flood resistance unless the work proposed exceeds previously defined thresholds. Certain types of buildings designed to early codes have characteristics making them vulnerable to unacceptable levels of life threatening collapse in earthquakes as intense as those that could threaten Montebello.</p>	
<p>Essential Services Buildings. State law requires that new essential services buildings, such as police, fire, and emergency operation and communications centers, meet a higher standard safety standard than other buildings. The standards include back-up utilities and design and construction checks by inspectors following state guidelines.</p>	<p>The Police Department, all three fire stations and the EOC at the Corporate Yard all have been built or retrofitted to meet essential services requirements.</p>
<p>Safety Element and General Planning Requirement. State law requires all cities and counties to prepare adopt and keep current a general plan. Part of the plan is the “Safety Element” which defines the community approach to disaster preparedness and mitigation.</p>	<p>Montebello’s General Plan is very outdated. The City is in the process of updating the General Plan, including the Safety Element with a target completion date of Fall 2005. With the completion of their mitigation plan, the Safety Element will have a mitigation approach and significant policy and action recommendations. This mitigation plan will build directly into the General Plan.</p>
<p>Environmental Review. The California Environmental Quality Act requires that government entities consider the environmental consequences of discretionary decisions having a substantial environmental impact. CEQA guidelines require evaluation of the effect of hazards on development and the resulting consequences for the environment. On occasion, certain emergency safety projects are exempted from the CEQA process.</p>	<p>The City of Montebello complies with all state requirements.</p>
<p>Fault Zones. The Alquist-Priolo Earthquake Fault State requirements prohibit construction of public schools and buildings within the designated fault zones. Houses with three or fewer units are exempt from these provisions. Real estate law requires disclosure of the fault zone at the time of sale and that zone maps be available for</p>	<p>Generally, Los Angeles County is prone to major earthquakes from seismic faults, including the San Andreas Fault, the Newport-Inglewood Fault, and dozens of other faults throughout the County. The City of Montebello is directly affected by the Whittier fault and complies with all state requirements.</p>

<p>review by the public.</p>	
<p>Seismic Hazards Maps. The California Geologic Survey mapped seismic zones where earthquake-induced landslides and liquefaction are likely. The State requires site-specific investigations for new building in these zones.</p>	<p>The City enforces state requirements by requiring site-specific investigations and feasible mitigation measures.</p>
<p>Hospital Seismic Safety Act. The Office of Statewide Health Planning and Development (OSHPD) regulates hospital construction and renovation. The state required hospital owners to evaluate existing buildings. By 2008, all hospital buildings considered collapse hazards are to be removed from service and by 2030 all acute hospital facilities are expected to meet rigorous safety standards.</p>	<p>There is one non-profit hospital in Montebello, Beverly Hospital, which is affiliated with Southern California Health Care System. The hospital is currently 1/3 of the way through the 2nd phase of the renovations and will be in full compliance by 2008.</p>
<p>Unreinforced Masonry Building Law. The state required all jurisdictions to identify unreinforced masonry (URM) buildings, to notify owners regarding the expected performance of these buildings, and to adopt a plan to deal with the threat.</p>	<p>Montebello does not have a specific count on the number of URM buildings within the City and they do not have designated a mandatory retrofit ordinance. They retrofit the URMs on a case by case basis, however, one of their mitigation strategies outlined in Table 4.1 will address the mandatory ordinance issue.</p>
<p>Disclosure of Earthquake Risk. Four state laws work in tandem with state real estate requirements mandating full disclosure of information pertinent to building purchase decisions. Owners of homes built before 1960 and certain commercial buildings are required to provide information on seismic vulnerability. Sellers must also disclose if the parcel is located in a mapped fault zone or seismic hazard area.</p>	<p>Local compliance on this state law is carefully observed.</p>
<p>Inundation Maps. Owners of dams and reservoirs are required to maintain their facilities according to standards of the Division of the Safety of Dams, and to file maps depicting areas that might be flooded if the reservoir suffered a catastrophic failure.</p>	<p>Montebello has maps on file in the Public Works Department and will be incorporated into the newly updated General Plan.</p>
<p>Emergency Response Plan. The State</p>	<p>The City complies with all state requirements</p>

<p>requires that all jurisdictions practice the Standardized Emergency Management System (SEMS), a uniform approach to disaster response based on the fire service’s Incident Command System (ICS).</p>	<p>and has supplemented many of its published plans for better local use.</p>
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LEGAL CAPABILITY

General Authority

Enabling legislation in California delegates’ legal authority to local governments to implement regulatory measures. The basis for much of this authority is the police and fire departments power designed to protect public health, safety and welfare. This authority enables local officials to enact and enforce ordinances and to define and abate nuisances. As hazard mitigation is a form of protecting public health, safety and welfare, it falls under the general regulatory powers of local governments. Enabling legislation also extends to building codes and inspections, land use, acquisition, and floodway regulation.

Building Codes and Inspections

Building codes and inspections provide local governments with the means to maintain City structures that are resilient to natural hazards. The City of Montebello adopted the Uniform Building Code in 1997. The Uniform Building Code prescribes minimum standards for building construction which ensures structures are built to standards that are seismically sound (through the Seismic Safety Code), fire resistant (sprinklers-through the Uniform Fire Code) and developed within flood-proofing measures (through the Flood Damage Prevention Code). State-enabling legislation authorizes local governments to carry out building inspections to ensure local structures adhere to the minimum state building standards. For example, in California, each earthquake is followed by revisions and improvements in the Building Codes.

- The 1933 Long Beach resulted in the Field Act, affecting school construction.
- The 1971 Sylmar earthquake brought another set of increased structural standards. Similar re-evaluations occurred after the 1989 Loma Prieta and 1994 Northridge earthquakes. These code changes have resulted in stronger and more earthquake resistant structures.
- The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard.
- The Seismic Hazards Mapping Act was passed in 1990 to address non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The State Department of Conservation operates the Seismic Mapping Program for California.

Montebello Building officials have the primary role of enforcement of the Uniform Building Code structural regulations for the City of Montebello, however the Fire Department also has inspectors that perform new building permit, fire and general public safety inspections. Both departments are staffed with highly trained personnel who are charged with the diligent enforcement of the Uniform Building Codes both at the plan approval stage and the site inspection stage. Montebello is dedicated to the high standards of building provided through the Uniform Building Code and requires that the same codes and the same enforcement procedures apply during routine permitting procedures, as well as, following a disaster.

Land Use Planning

Through land use regulatory powers granted by the state, local governments can control the location, density, type and timing of land use and development in the community. Provisions of the land use plans are implemented through regulatory tools that include zoning and subdivision ordinances, and taxation. This plan includes mitigation measures to address Seismic, Fire and Public Safety. The plan is scheduled to be revised in 2005 to update and refine community policies and issues, and to describe existing uses of land and future desired growth patterns. This revision will assist in the promotion of hazard mitigation through the development of new and continuation of old land use policies that will reduce the City's vulnerability to different hazards.

Zoning

Within its zoning authority, a local government is authorized to divide the planning area into zones (see *Zoning Map of Montebello*, Appendix E). For each type of zone, as defined in a written code and by zoning maps, the local government may “classify, designate, regulate and restrict the use of buildings, land and structures, to permit the most compatible use of land within the city, consistent with the needs of residential, commercial and industrial developments, and the promotion of the public health, safety, welfare and general prosperity of the city and its residents.” (*Montebello Municipal Code (MMC), Zoning, 9210.2*).

Subdivision Ordinance

The City of Montebello is authorized under *MMC, Subdivisions, 9270* to establish procedures and standards for the development and subdivision of land within the territorial jurisdiction of Montebello. In addition, under *MMC, Standards for Subdivisions, 2174A* the ordinance provides restrictions on the subdivision of land in identified hazard area, for instance:

- All preliminary subdivision proposals shall identify the flood hazard area;
- All subdivision proposals shall be consistent with the need to minimize flood damage and;
- All subdivisions shall provide adequate drainage to reduce exposure to flood hazards, among others;

The Subdivision Ordinance authorizes the Planning Commission to use all available resources to ensure that lots/lands are suitable for development.

Taxation

Taxation can be a powerful mitigation tool by providing local governments with a way to guide development. Tax abatements may be used to encourage landowners and developers

to integrate mitigation measures into the process of building new developments and retrofitting existing properties in the floodplain. These tools can be especially effective at encouraging the mitigation of existing structures.

Floodway/Floodplain Ordinance

Floodplain management is the operation of a community program of corrective and preventative measures for reducing flood damage. These measures take a variety of forms and generally include zoning, subdivision, or building requirements, and special-purpose floodplain ordinances. The City of Montebello last updated their Flood Damage Prevention Ordinance in March 1998. The purpose of this ordinance is to promote public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas. The Flood Damage Prevention Ordinance is successful at regulating the floodway and minimizing the losses due to flood conditions and is specifically tied into the Uniform Building Codes used by the City.

The City Engineer is the administrator of the floodway provisions and has the authority to implement and enforce the provisions by granting or denying development permits that encroaches upon lands that are designated as flood hazard areas. For instance, under the *MMPC, Floodways, 2074* the City Engineer reviews all new construction, substantial improvement, and other proposed new development and ensures that they comply with all other applicable flood hazard reduction provisions.

Los Angeles County Drainage Area Project

Another mitigation measure that the City has taken to reduce their flood hazard areas is by being a part of the Los Angeles County Drainage Area Project (LACDA-9/2000-2/2002), a federally-sponsored flood-control project, along with a number of neighboring jurisdictions.

LACDA includes the lower Los Angeles River, the Rio Hondo River, and Compton Creek. The project addresses flooding problems that have resulted from the rapid urbanization in the county since the drainage system was constructed in the 1930s and '40s. Although the system provided adequate protection for more than 40 years, increases in population and industry had diminished its effectiveness in the river basin. A flood that has a one percent chance of occurring in any one year (technically referred to as a 100-year flood) would have inundated an 82-square-mile area which has a population of about a half million people in 14 communities. Such a flood would have caused about \$2.3 billion in damage. The project was originally estimated to cost \$364 million. The final cost is likely to be around \$216 million.

Seismic Ordinance

Under the *MMPC, Buildings and Construction, Seismic Safety Code, 8251*, the City of Montebello has established minimum standards for structural seismic resistance for the purpose of reducing risk of life loss or injury and to promote public safety and welfare by reducing the risk of death or injury that may result from the effects of earthquakes on unreinforced masonry bearing wall buildings constructed before 1934.

INSTITUTIONAL CAPABILITY

Montebello is comprised of a highly responsive, highly trained staff who are capable in implementing the strategies identified herein. In addition, they are capable of promoting the mitigation process and educating the public about the hazards prevalent to their area and the mitigation process necessary to mitigate those hazards. The City's core local government is comprised of:

- **Mayor**
- **City Hall**
 - City Council
 - City Clerk
 - City Treasurer
 - City Attorney
 - Planning Commission
 - City Administrator
- **Public Works Department**
 - Streets Department
- **Engineering Department**
- **Building Department**
- **Community Development Department**
 - Economic Development Division
 - Community Redevelopment Division
 - Planning Division
 - Code Enforcement Division
- **Administrative Services Department**
 - Finance Division
 - Risk Management Division
- **Transportation Department**
 - Utility Operations
- **Police Department**
 - Police Grants Division
 - Police Support Services Division
- **Fire Department**
 - Fire Suppression Division
 - Fire Inspection
 - Fire Prevention
 - Emergency Services

In an emergency, governmental response is an extraordinary extension of responsibility and action, coupled with normal day-to-day activity. Normal governmental duties will be maintained, with emergency operations carried out by those agencies assigned specific emergency functions. The Standardized Emergency Management System (SEMS) has been adopted by the City of Montebello for managing response to multi-agency and multi-jurisdiction emergencies and to facilitate communications and coordination between all levels of the system and among all responding agencies. Chapter 1 of Division 2 of Title 19 of the California Code of Regulations establishes the standard response structure and basic protocols to be used in emergency response and recovery.

POLITICAL CAPABILITY

Opposition to mitigation measures is not evident in Montebello. In fact, Montebello has taken a proactive approach to mitigation through the development of governing documents which promote the mitigation process.

The Montebello political structure, in cooperation with the County government is well organized and responsive to community needs. The governing board is educated and remains up-to-date on the hazards that threaten Montebello and on the most recent mitigative actions that can be taken to reduce the vulnerability of the City to said hazards. Citizens actively participate in public hearings, board meetings, and workshops relevant to the continued safe growth and development of the City. Therefore, the City (the governing board, staff, and citizen population) appears willing to promote the economic efficiency and social utility of the mitigation measures contained in this plan.

TECHNICAL CAPABILITY

Montebello is secured with basic technology needed to mitigate and respond to natural disasters.

- The City is equipped with telephone and fax lines and a fully equipped satellite office in case of disaster.
- All primary City personnel are equipped with cellular phones, which can act as a backup to land lines in case service is lost.
- The City is connected to the Internet, which is a valuable source of information on approaching hazards, as well as, mitigation measures. The City sponsors a website at <http://www.cityofmontebello.com> where there is a link to the Montebello Office of Emergency Services.
- The Police Department provides a minimal amount of GIS mapping for the City and contracts with Digital Maps for further GIS capabilities.

FISCAL CAPABILITY

Montebello is not unique in the trials and tribulations felt by small governments to retain the staff and resources necessary to accomplish the strategies necessary to mitigate the hazards in their area. However, Montebello realizes that there are a number of diverse funding sources available to communities to assist in the fiscal responsibility required to implement local hazard mitigation plans, including both government and private programs (see Appendix F for details).

While federal and state programs carry out the bulk of disaster relief programs that provide funds for mitigation, local governments are encouraged to open the search field as widely as possible, and include alternative funding sources to supplement the local hazard mitigation budget. Montebello is staffed with persons educated in the project planning area which includes fiscal planning and the identification of multiple funding sources to ensure the success of said project. In addition the City realizes that before effective mitigation strategies can be applied, stable funding sources and effective incentives must be established on a per project basis to encourage participation by the private and public sectors.

ANALYSIS CONCLUSION

Many of the City's goals are specific in nature and address a specific hazard. It is suggested that the City continue this path and make the goals in this plan specific in nature and ensure that they too address specific hazards.

The City of Montebello is a proactive community in terms of mitigation. The Zoning and Subdivision Ordinances provide detailed land use and building policies that address many aspects of mitigation planning, as does the Flood Damage Prevention Ordinance, Seismic Ordinance, and the Uniform Building Code. The Emergency Operations plan provides detailed descriptions of duties and responsibilities in the event of a disaster and identifies the level of community/county coordination necessary for a successful recovery.

Because the City of Montebello has taken a proactive approach to mitigation in the past by identifying community goals and strategies that are specific to certain hazards, have continuously kept their governing ordinances and regulations up to date and because they have expressed the need for mitigation measures through the development of this Community-Based Hazard Mitigation Plan, implementation of the identified mitigation strategies should be high.

DRAFT

SECTION 4: MITIGATION STRATEGIES

This section contains the community mitigation strategy, as developed by the MMPC and Montebello's community stakeholders, to build a more disaster-resistant Montebello. The goals, objectives and activities have been crafted to successfully:

- Build upon the mitigation work already accomplished by the community's public and private sectors;
- Reflect the needs and concerns of the City, its public and private stakeholders, and surrounding jurisdictions;
- Respect values/intentions of local projects and/or programs currently underway or are envisioned to begin in the near future;
- Adhere to the stakeholder priorities and fiscal realities.

Process and Prioritization

Group consensus, self-chosen leadership and available resources played critical role in not only identifying the action plan, but also in prioritizing the project and building the timeframe. The community stakeholders explored the available options and discussed the approaches available to them for creating a "living" plan and how they could develop one that was workable through a sustained, long-term mitigation planning process that would keep stakeholders involved over the years to come. Creating early success stories and establishing a platform for bringing in new interested parties led to many of the actions put into the strategy.

A key priority was established for building public-private partnerships through action plan projects and outreach. Stakeholder discussions and research pointed to the reality that yet to be discovered opportunities might potentially affect the scheduling and partnering as developed in the matrix.

An example of this is the desire to pursue corporate support on specific actions deemed of value by the MMPC, but could not currently be committed to without further investigation. The committee chose to address these types of activities in different manners; some actions are to be placed in the matrix (e.g. SBC billing inserts) and others are to be explored privately by the representative and then brought back to the group for inclusion in the plan. As several members of the group represent more information-sensitive infrastructure planning, this approach was deemed to work best.

Additionally, a second tier of projects identified for action by the MMPC have not yet been placed into the matrix as they have yet to be prioritized, scheduled and considered for full possible funding opportunities (e.g. Fire Department educational activities). These items have been included in this document; they are expected to be finalized in full during future MMPC discussions once the initial document is approved by FEMA/State OES.

Public awareness and community education was also strongly identified as a priority—the strategy addresses all hazards, elicits extensive opportunities for bringing together the

community, and can be undertaken in a manner that does not require heavy financing. The types of formal and informal, traditional and non-traditional strategies that can be used to achieve public awareness are unlimited, and can be used to break through many cultural barriers that lead to increased risk behavior.

Montebello is a community that crosses every economic class and has a great number of individuals who might be considered target high-risk populations. These population include—but are not limited to—low income, non-English speaking or English as a Secondary Language, elderly, disabled, single parent households, and individuals living in building stock particularly vulnerable to earthquakes, floods and other hazards.

Helping guide Montebello’s strategic outreach approach is the work done by State OES and FEMA through their Mitigation Education and Marketing (MEAM) Program:

Mitigation Education And Marketing (MEAM) Program

The objectives of the MEAM Program are to: 1) implement outreach campaigns to increase awareness of hazard mitigation, available funding, and hazard mitigation planning; 2) incorporate the fundamental concepts of disaster resistant communities; 3) promote and implement a community based focus for hazard mitigation; 4) develop audio, visual and printed materials that provide incentives to implement hazard mitigation measures; 5) establish key private/public sector partnerships to implement ongoing mitigation activities; and 6) develop a library of success stories that demonstrate the benefits of hazard mitigation.

Source: Emergency Management in California, Governor’s Office of Emergency Services, October 2003

Another high priority is the sustainability of Montebello’s economy. Economic issues of the community drew a great deal of focus from the stakeholders involved in the planning process. Concerns centered around issues such as the high number of small “mom and pop” stores in the strong ethnic neighborhoods that could be highly vulnerable to hazard events, and industry with its strong dependencies on connections with communities outside of Montebello. Addressing these economic realities, and finding ways to reduce economic vulnerabilities and increasing interoperability of the critical infrastructure that supports Montebello’s business, will help build a more disaster resistant economy.

Woven throughout all discussions was the priority of engaging the community—both public and private—for implementation of the action plan.

Resource Support

Technical, fiscal and human resource support from those outside the MMPC is of great interest, particularly as Montebello is a small community, made of many relationships and connections. While fiscal issues guide some action prioritizations, the technical and human resources guide others. Of importance to the MMPC and stakeholders is the involvement of funders, champions and other types of supporter to the community that could be targeted for partnership or direct outlay of cash or services for the Mitigation Action Plan. The following key corporations and individuals operating or providing leadership support are identified for potential Action Plan partnerships:

- Royal Paper Box
- Costco
- Montebello Town Center
- Minson Corporation
- Beverly Hospital
- Poncho Juarez (Calvary Chapel)
- Radio Shack
- George Hensel

Mission Statement

To ensure the City of Montebello has in place projects, policies, and procedures that ensure the safety of residents, businesses and economic stability from natural and human-caused hazards.

Goals & Objectives

Building upon the stakeholders meeting, and two MMPC meetings, consensus vote drafting the following goals and objectives for the plan:

Mitigation Goal

Protect Life, Property & the Environment

Mitigation Objectives for Goal 1

1. a. Ensure building code compliancy
1. b. Protect power & water supply infrastructure
1. c. Ensure reliability/interoperability of voice & data communication

Mitigation Goal 2

Increase public awareness / policies

Mitigation Objectives for Goal 2

2. a. Educate public on safeguarding life and property.
2. b. Expand use of existing information channels.
2. c. Target high-risk populations

Mitigation Goal 3

Ensure Economic Stability

Mitigation Objectives for Goal 3

3. a. Increase inter-jurisdictional partnerships

3. b. Build collaborative network between public and private entities.
3. c. Develop partnership activities and events to support public education
3. d. Increase engagement of private sector in sustained planning efforts.

Action Plan Organization

The format for developing and visually displaying the action items was discussed and agreed upon by the MMPC. The Five Year Action Plan is formatted as a matrix. The format is concise, assists with English as a Second language (ESL) challenges and is particularly useful for distribution throughout the community. The Action Plan Matrix identifies the following components:

1. Mitigation action or project
2. Goals and objectives addressed
3. Type of strategy
4. New, Continuation or Amendment
5. Target completion date
6. Lead organization/party (or parties) responsible for implementation
7. Potential funding resource
8. Monitoring & evaluation indicators
9. Hazards addressed

Action Plan Matrix

On next page

Future Projects

Below the *Montebello Five Year Action Matrix* is a matrix that lists future projects that the City would like to accomplish.

**Table 4.1
City of Montebello
5-Year Action Plan Matrix**

Mitigation Projects	Goals & Objectives Met	Type of Strategy	New, Continuation or Amendment	Target Completion Date	Lead Organization	Potential Funding Sources	Monitoring & Evaluation Indicators	Hazards Identified and Addressed in Plan		
								Earthquake	Floods	Wildland Fires
Educate the general public on all-hazards mitigation & response (through phone directory, website and billing inserts) in English and Spanish	2a, 3a & 3c	Public Information	New Program	1 st quarter in 2005 - ongoing	SBC Directory Services	Federal and State Funds	Structural/nonstructural educational campaign implemented, info placed in outlets; track traffic on website, requests for support	√	√	√
Develop and promote relationship/interagency partnership to identify deficiencies of early warning systems	1c, 3a & 3b	Public Information, Preventive & Property Protection	New Partnerships	2 nd quarter in 2005 - ongoing	SBC/Public Safety	Internal Funds	Partnerships have been formally established; program/protocol in place to identify deficiencies; action items developed/implemented for mitigation	√	√	√
Study Urban Flood Areas and Investigate/Determine if failure of streets are soil or pavement related	1b	Preventive, Property Protection	New Study	3 rd quarter in 2005	Engineering & Streets Departments	State & Federal Grants, Caltrans and U.S. DOT	Study analysis conducted, report written, repair measures established, mitigation efforts initiated		√	

City of Montebello, California Community-Based Mitigation Plan

Interdepartmental personnel training for earthquake seismic construction and retrofit	1a, 2a, 2c, 3a & 3c	Preventive, Property Protection	New Training Program	4 th quarter in 2005	Building Department/Fire Department	Internal Funds	Interdepartmental training program established and training has been performed	√		
Develop seismic inspection program for residential (and eventually commercial buildings) with pre-1960 foundations	1a, 2a, 3b & 3c	Public Information, Preventive & Property Protection	Amendment	2 nd quarter in 2006 - ongoing	Building Department/Fire Department	Internal Funds	Inspection program established; homes identified; actions taken for encouraging structural mitigation	√		
Identify Residential Structures not in compliance with Post-1993 building codes (through systematic inspections and surveys)	1a, 2a, 3b & 3c	Preventive, Property Protection	Amendment	2 nd quarter in 2006 - ongoing	Building Department/Fire Department	General Funds, Gov't Grant Funds	Inspection program established, homes identified and inspected, and feedback surveys developed and distributed	√		
Adopt Municipal Code to enforce seismic upgrades for existing buildings receiving inspections or permits and to ensure seismic codes are in the plans of new buildings & infrastructure	1a, 2a, 2c, 3a & 3c	Preventive, Property Protection	New Resolution	4 th quarter in 2006	Building Department/Fire Department	Internal Funds	Code written, approved by City Council, implementation initiated	√		
Build Montebello Community Training Room for City and MMPC use	1b, 2a-c & 3a-d	Public Information, Preventive	New and Continuous Training Programs	4 th quarter in 2009	South Montebello Irrigation District	Corporate Revenues, Federal & State Grants	Construction on target for completion; facility actively used for MMPC activities	√	√	√

**Table 4.2
City of Montebello, CA
Future Projects Matrix**

Goals/Objectives	Implementation Measures	Type of Strategy	New, Continuation or Amendment	Target Completion Date	Responsible Party/Org.	Potential Funding Sources	Monitoring & Evaluation Indicators	Hazards Identified and Addressed in Plan		
								Earthquake	Floods	Wildland Fires
Improve Public Awareness										
Educate the public about the implementation of hazard mitigation plan	Distribute literature outlining goals and objectives relevant to public participation in the implementation of the plan.	Public Information	New Document	July 10, 2005 and continuous	Fire, Building, Public works and all related City depts...	Internal funds	Hold community meetings to evaluate in put	√	√	√
Educate public on importance of their participation of mitigation plan.	Establish a formal role for the public to participate in the monitoring, evaluation and implementation of mitigation actions.	Public participation	New program	February 25, 2005	All City depts.	Internal funds	Public input and or attendance to local meetings	√	√	√
Educate public about how to prepare for natural hazards relevant to location of their residence	Develop a “how to” mitigation display booth to be used at special events. Booth would contain pictures and information on preparation for flooding, earthquake preparedness and wildfire prevention.	Public information booth	New Event	August 23, 2005	Fire and Building dept.	Internal funds	Evaluate if information and hand outs are being distributed	√	√	√

City of Montebello, California Community-Based Mitigation Plan

Educate public about emergency sheltering and evacuation procedures	Hold public education seminars at all local public facilities, schools and fire stations	Pub-ed displays and classes	New events	September 9, 2005	Fire Dept.	Internal funds	Request feed back from public on effectiveness of classes	√	√	√
Promote business mitigation awareness of hazards and opportunities for mitigation	Through annual and new business inspections with identification of hazards and public education.	Code enforcement	Continuation	September 27, 2004	Fire Dept.	Internal Funds	Annual inspection statistics	√	√	√
Engage the private sector to contribute.	Get local businesses to participate with resources.	Partnerships	Continuation	September 27, 2004	All City Depts.	Business contributions	Available business resource	√	√	√
Distribute information on the National Flood Insurance Program to local businesses in or near flood areas	Distribute information at annual inspections and make available at all city depts. For business owners.	Public information	New information	July 23, 2006	Fire dept, Finance and Economic Development dept.	Internal funding	Distribution with renewal of business lic.		√	
Provide schools with seasonal disaster preparedness literature for students to take home to their families.	Fire and police Depts. Can implement distribution through pub-ed demonstrations in local Montebello schools	Public information	New Program	June 6, 2006	Fire and Police	Internal/contributions from local businesses.	Feed back from public	√	√	√
Design and post disaster preparedness and related links on Fire dept web site	Post disaster preparedness info on dept. web site	Public info	New information	July 17, 2007	Fire dept	Internal funding	Public feed back e-mail section on web site.	√	√	√
Minimize financial impact post earthquake	Encourage purchase of earthquake insurance	public encouragement	New information	September 28, 2006	All City depts.	Partnership funding	Survey and feed back from local insurance companies.	√		
Prevent the ignition and spread of wild fires within the borders of Montebello	Maintain update and enforce all adopted relevant fire codes.	Prevention	Continuation	September 27, 2004	Fire dept.	Internal funding	Annual statistics and annual inspections			√
Prevent the build up of ignitable fire load/brush	Implement and maintain weed abatement program	Prevention	Continuation	September 27, 2004	Fire dept.	3 rd party billing	Annual and spot inspections.			√
Educate the public on importance of the abatement of brush around their homes.	Implement public education program targeting the build up of combustible brush abatement.	Prevention/education	New program	September 27, 2008	Fire dept.	Internal funding	Reduction in brush fires in the Montebello area			√

City of Montebello, California Community-Based Mitigation Plan

Prevent brush exposure fires to residential development	Conduct inspections to Maintain 50ft fire brake around all residential structures throughout Montebello.	Prevention	Continuation	September 27, 2004	Fire dept.	Internal funding	Reduction in structure loss due to wildfires			√
Prevent structural damage to structures in event of an earthquake	When structural integrity issues are identified during annual inspection process refer to building dept.	Prevention	Continuation	September 27, 2004	Fire/Building dept.	Internal funding	Re-inspections will result in compliance of seismic upgrades	√		
Prevent urban flooding from contamination of city drainage channels.	Prevention of flooding through maintenance of city drains. When identified by inspection notify public works dept. of obstructed drain.	Prevention	Continuation	September 27, 2004	Fire/public works dept.	Internal funding	Lack of flooding in the previously effected areas		√	
Prevent fires/additional damage due to earthquakes	Implement a water heater inspection program to secure all gas operated water heaters.	Prevention	Continuation	September 27, 2004	Fire/Building dept.	Internal funding	Reduction of fires post earthquake	√		
Evaluate facilities that are subject to earthquake damage and design retrofit schedule to mitigate hazard.	Encourage seismic strength of critical facilities in the city to identify vulnerabilities for mitigation of schools, public infrastructure, and critical facilities to meet current seismic standards	Prevention	New/existing	September 28, 2004	Fire/Building dept.	Internal funding	Record keeping of updated structures	√		
Protect electrical utilities from seismic damage	Support/encourage electrical utilities to use underground construction methods where possible to reduce power outages from earthquakes	Prevention	New methods	September 28, 2004	Fire/Building	Internal funding	Plan check process/visual effects	√		
Propagate wide spread mitigation with both public and private sectors	Aid both the private and public sectors in understanding the risks they may be exposed to and finding mitigation strategies to reduce those risks.	Prevention	New information	June 15, 2006	All City dept.	Internal and partnership funding	Public feed back and input.	√	√	√

Emergency Services

City of Montebello, California Community-Based Mitigation Plan

Improve interagency response methods and procedures.	Conduct annual disaster exercises with local law enforcement, emergency managers, city officials, red cross and other disaster response agencies	Emergency training	New/continued training	March 2, 2007	Fire, police and all required City depts.	Internal funding	The ability to effectively operate with local agencies	√	√	√
Develop disaster response drill preplans and procedures improved annually	Incorporate the training goals and objectives used by Fire, Police, Public Works, Department of Health Services and other support personnel into selected disaster response teams. This will promote the unified command relationship that will serve as the incident management blueprint for all disaster response for Montebello.	Incident training and management evaluation.	New methods of training	July 10, 2006	Fire, Police, DHS, Pub-works and related depts.	Internal funding/General fund	Training evaluation committee	√	√	√
Improve ability and preparedness of emergency responders and the public.	Strengthen emergency services preparedness and response by linking emergency services with natural hazard mitigation programs and enhancing public education programs simultaneously.	Training and education of preparedness	New relationships	April 12, 2006	Fire, Police and affiliated agencies/depts.	Internal funding	Document training opportunities and compare to previous results.	√	√	√
Increase training, personnel and equipment through alternative funding sources.	Identify and pursue funding opportunities to develop and implement local disaster response capabilities as identified in mitigation plan.	Develop and maintain grant research and submittal committee	New/continuous	January 25, 2006	Fire Dept.	Internal/Partnership resources	Tract funding resources and availability	√	√	√
Increase independent response capability, to specifically address wildfire incidents within Montebello and ability to aid agencies requesting assistance.	Enhance response capability of Montebello Fire and Advance life support services personnel and equipment to effectively mitigate wildfire incidents	Training, recruit funding, obtain additional apparatus.	New/Continuous	September 29, 2004	Fire Dept.	Internal/partnership/grant funding.	Dept. staffing equipment response ability.			√
Maximize effectiveness of emergency responders by mitigating hazards	Minimize suffering and disruption caused by natural disasters by developing effective	Training, education, building partnerships, recruit funding and design plans for	New method	December 10, 2008	Fire, Police, Building, pub-works and local businesses.	Internal funding/partnerships/grant funding	Ability to respond, recover and Identify hazards before,	√	√	√

City of Montebello, California Community-Based Mitigation Plan

	plans, community outreach, education and partnerships, practicing response capabilities and Mitigating Hazards.	future.					during and after disasters take place.			
Evaluate/identify and provide shelter resource needs and growth development.	Identify and prioritize needs for additional shelter supplies to include but not limited to additional cots, blankets first aid supplies and shelter kits. WORK WITH AMERICAN RED CROSS BOARD OF EDUCATION AND CHURCHES TOWARDS UPGRADING ALL SHELTER RESOURCES.	Assign dept. personnel to evaluate shelter needs	New method	July 16, 2007	Fire, Red Cross and shelter locations.	.Partnership/Red Cross Funding.	Dept. personnel evaluation reports	√	√	√
Property Protection										
Protect life and property in event of a major earthquake.	Through earthquake preparedness, and development and exercising of emergency operations plans, and building/fire code monitoring and enforcement.	Hazard mitigation implementation /annual inspection process	New program	June18, 2005	Fire, Building and EOC.	Internal funding	Structure loss statistics post incident.	√		
Protect new residential structures built within urban-wild land interface development area.	Through the adoption of local municipal fire codes to implement residential sprinkler ordinance in urban wild land interface development(PXP hill)	Code adoption and implementation.	New/continuous	September 29, 2004	Fire and Building depts.	Builder/Developer	Reduction in structure exposure fires.			√

SECTION 5: IMPLEMENTATION, MONITORING AND UPDATING PLAN

Coordinating Body

Lead by the Montebello Fire Department, the Montebello Mitigation Planning Committee (MMPC) will serve as the administrative body for implementation of this plan. The MMPC will serve as the key advising body—representing the community-at-large, a multi-department city team, and the critical private sector/voluntary organizational interface—to the City Council on disaster-related issues. Progress in meeting plan activities and objectives will be reviewed during the council’s regular meetings. MMPC members and Project Leads will track the progress of the plan throughout the year.

Implementing and Tracking Actions

Implementation steps, schedules and budgets will be created in greater detail as the plan gets rolled out. The implementation of all of these actions is dependent on the additional stakeholders, local champions and the opening up of internal and outside funding sources. The Plan, and its projects and activities will continue to include the focus on building a high visibility in the community.

This Plan will be integrated into existing programs already having a successful track record in the community. The strategy projects that will focus on the high priority of public awareness will be inserted into departmental work plans of the lead public department every each year, and will be targeted for inclusion on organizational work plans for the stakeholders representing the private sector.

Evaluation

The evaluation criteria identified with each project will be used to track the actions. Each project activity in the strategy will be reviewed individually, discussing progress made and problems encountered.

The review will also address the scheduling of the projects to do a “reality check” on the feasibility of the planned schedule and activities. If a concern is aired, or an unexpected issue surfaces, meetings or work sessions will be held to problem-solve issues, concerns or delays for any projects that lag behind schedule. This approach will be the main approach building greater consensus amongst the partners, and for keeping the planning process alive and inclusive.

Public Participation

The public will continue to be involved in the mitigation planning and the revision process. A great focus of the action items themselves are geared towards public engagement. Participation is expected to further develop during the project activities; the educational focus of the plan is expected to encourage increased public awareness which—in additional to increased outreach—will lead to increased involvement of a greater portion of Montebello’s high risk communities.

Public comment will be sought, and encouraged, for each review process of the Mitigation Plan, and as it pertains to its role as an element in the appendix of the General Plan.

Updating the plan

Montebello's Plan will be meaningful if it is implemented and kept as a living document—which means it is updated to reflect the changes of the community and the stakeholder involvement, interests and resources. Montebello is working to develop effective processes for implementing, tracking and updating its disaster mitigation activities.

This Plan will be incorporated into the City's General Plan as an appendix entitled the *Safety Element*. Formal changes to the Appendices of the General Plan, such as this Plan, will be submitted at the time of the General Plan review, and that time period has yet to be determined, due to the fact that the General Plan is currently under revision.

Revisions of the *Safety Element* will be spearheaded by the MMPC, but will also involve participation of all relevant City departments. The MMPC will conduct a review of the Plan for action changes, priority shifts and resource allocations every two years. A thorough review of all loss estimates, objectives and other elements of this Plan will be conducted as deemed appropriate at the time of the reviews.

DRAFT

Prepared for

The City of Montebello, California

Prepared by

Montebello Fire Department

In association with

James Lee Witt Associates, LLC.

With Technical Assistance from

The City of Montebello

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Bob Lembke, Buildings Department

Elvin Jiang, Engineering Department

Brian Sinclair, South Montebello Irrigation District

David Karraker, California Water Service Co.

Cecilia Willy, SBC

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Fan Abel, Area E Disaster Management Coordinator

Los Angeles County

Reviewed by

Norma A. Lopez-Reid, Mayor

William Molinari, Mayor Pro-Tem

Richard Torres, City Administrator

Robert J. King, City Clerk

Bob Bagwell, Councilman

Ed Vasquez, Councilman

Mary Anne Saucedo, Councilwoman



Local Hazard Mitigation Plan
Kick-off Meeting Agenda
Quiet Cannon, Conference Room
Monday, July 19, 2004
10:00 AM – 2:00 PM

Welcome and Introductions	Group
Project Overview	JLWA
Project Briefing	JLWA
Working Lunch	
Stakeholder Discussion/Hazard Vulnerability Exercise	JLWA/Group
Wrap Up and Next Steps	JLWA

**City of Montebello
Local Hazard Mitigation Plan
Stakeholder Meeting Notes
July 19, 2004**

Represented at meeting were:

- Five Water Districts
- Police and Fire Departments
- Montebello Unified School District
- City Planner
- Public Works
- Utilities
- LA County OEM
- Non-Profits (American Red Cross)
- Montebello Bus Lines

Hazard Concerns & Vulnerabilities

Earthquakes

1. Coordination
 - a. Mutual Aid
 - b. Coordinating Resources
 - c. Multi-Agency Collaboration on Response/Oath Requirement
 - d. Multi-Agency Access to City Maps & Data
 - e. City to report their damages to the Operational Area through the Emergency Management Information System
 - f. Resource requests requested through the Operational Area
 - g. Montebello Bus Lines-Maintain Service
 - h. Scarce Resources
 - i. Status Info-City to County to City
 - j. Assistance to Cities-Disaster Recovery Issues
2. Water
 - a. Water Disruption
 - b. Broken Water Mains
 - c. Leaks
 - d. Water Quality
 - e. Maintain Water Supply/Pressure
 - f. Reservoir Damage
 - g. Fire Flow
3. Recovery
 - a. First Response Inspection/Damage Assessment

- b. Safety of buildings or structures following event (housing kids)
 - c. Building Damage-Is it safe to occupy?
 - d. Debris Cleanup
 - e. Check Facilities
- 4. Individual Assistance
 - a. Help Community
 - b. Where do students go if their classroom is destroyed?
 - c. Customer Safety
 - d. Supplies
- 5. Infrastructure
 - a. Roads, Bridges & Maintenance
 - b. Road Closures
 - c. Traffic Signals
- 6. Utilities
 - a. Loss of Power
 - b. Power Outage
- 7. Chem-Bio
 - a. Chevron Oil Tank Farm (Refined Fuels)
 - b. SCE High-Tension Power Lines
- 8. Mitigation
 - a. Open Space (How much?)
 - b. Building Density, Height, etc.
 - c. Lighting/Building Design
 - d. Location of Important Building
- 9. Public Safety
 - a. Fire Safety
 - b. Emergency Medical Services
 - c. Search and Rescue
- 10. Communication
 - a. Remote Access Capability
 - b. External Communication to facilitate reporting
 - c. Maintain Radio Site, Dispatch Center Ops
 - d. Maintain Radio/Data
 - e. Bus Lines-Maintain communication with Bus Drivers, Customers & City Dispatch

11. **Vulnerabilities**
 - a. Communication
 - b. Human Resources
 - c. Equipment/Supplies
 - d. Retrofit (lack of)
 - e. Public Education
 - f. Back Up Facilities
 - g. Business Continuity
 - h. Gas & Water Storage

Terrorism

1. Coordination

- a. Communication of location of threat, # of injured or dead, shelter set-up, etc. to the operational area
- b. Reporting to Cities & County
- c. Coordination with responding agencies-Who's in charge?
- d. Dispensing Pharmaceutical Antidotes
- e. Medical Assistance
- f. Relying on Federal/State Intel & Reaction Groups
- g. Intelligence Gathering

2. Prevention

- a. Securing Facilities (Lock-Down)
- b. Preventative Measure (Target Hardening)
- c. Will the action damage buildings or other structures and if so, what will be needed to protect the public?
- d. Protect underground gas storage facility
- e. Radio Site, Voice/Data Security

3. Infrastructure

- a. Debris Cleanup
- b. Street Lighting/Power for Traffic
- c. Road Closures
- d. Destruction/Damage

4. Public Safety

- a. Mutual Aid
- b. Who's the suspect? Regarding arrest
- c. Scene Containment
- d. Type of weapon (CBNRE)

5. Water

- a. Contamination
- b. Disruption in service
- c. Water Quality
- d. Bio/Chem put in water

6. **Vulnerabilities**

- a. Communication & Notification
- b. Hardening/Protection of Facilities (Security Enhancements)
- c. Public Education
- d. Human Resources

Transportation (Plane, Rail, etc.)

1. Public Safety
 - a. Scene Containment
 - b. Media Containment
 - c. Crime/Crash Scene Preservation
 - d. Mutual Aid
 - e. Rerouting of Closed Roads
 - f. Search & Rescue Victims
 - g. Road Closure
 - h. Mental Health Issues
 - i. Train Wreck: HazMat or Chemical Spill-What is threat of materials?; Where is evacuation area?

2. Recovery
 - a. Damage Assessments/Loss Estimations
 - b. Traffic Safety
 - c. HazMat Cleanup
 - d. Repair High Traffic Roadways
 - e. Disruption of Service (how to deal with)
 - f. Transportation is needed to deliver supplies to school sites and transport children to school and home. If trucks/busses & roadways are lost, the School District would be shutdown.

3. Coordination
 - a. Mutual Aid
 - b. Communicating Disaster Status, need for resources, loss of life or injuries to the operational areas.
 - c. Metrorail-transfer customer to bus system.

4. Communications
 - a. Need for Crash Site Communications

5. **Vulnerabilities**
 - a. Rail Crossings & Derailments
 - b. Coordination
 - c. Human Resources
 - d. Business Continuity
 - e. Reconstruction

Fire

1. Public Safety/Response/Coordination
 - a. Traffic Control
 - b. Establishment of perimeter/Scene Control
 - c. Evacuations
 - d. First Response Assessment
 - e. Rapid relocation of communication systems
 - f. Road Closures
 - g. Access to active fire areas in order to expedite repair of facilities & restoration of electric services
 - h. MBL: provide buses for evacuation and maintain services needs
 - i. Interagency coordination: What maps/data are needed?
 - j. Communicating Disaster Status, need for resources, loss of life or injuries, shelter setup, burned homes, etc. to the operational areas.

2. Water
 - a. Fire Flow
 - b. Loss of Pressure
 - c. Identification of which pump serves any given hydrant in order to trace back a failure.
 - d. Water Department (Computer control system) or SCADA system.

3. Utilities/HazMat
 - a. Gas company natural gas reservoir
 - b. Land uses that store fuels, toxins or other hazardous chemicals.
 - c. Protect gas facilities
 - d. Chevron oil tank farm
 - e. Indoor Air Quality issues
 - f. Power Outages.

4. Recovery
 - a. Structural safety of buildings
 - b. Relief for Disaster Victims (Food, Clothes, Shelter)
 - c. Debris Cleanup
 - d. Building proximity
 - e. Type of business next to fire site (gas station, homes, etc.)
 - f. Contact owner of property so it can be secured from the public.

5. **Vulnerabilities**

- a. Communication & Notification
- b. Code & Ordinance Development
- c. Human Resources/Personnel
- d. Public Education
- e. Interdisciplinary Coordination

Hazardous Materials

1. Coordination & Notification
 - a. Coordination with Fire
 - b. MBL: Reroute/Maintain service to the City
 - c. Reports/Communications from City-County & back
 - d. Coordination of notification and evacuation with neighboring cities and/or major employers
 - e. Communicating Disaster Status, need for resources, damages, evacuations, loss of life or injuries to the operational areas
 - f. Contamination & Safe Areas
 - g. Where to evacuate community/city personnel if impacted?
 - h. Rapid dissemination of information-what type of materials, etc?
 - i. Interagency: What maps/data are needed by whom?
2. Public Safety/Response
 - a. Establishment of perimeter
 - b. Traffic Control
 - c. First Response Assessment (area affected, victims)
 - d. Road Closures
 - e. Public Safety: If inside a building, how is the building to be sealed off and the public protected?
 - f. Spills involving fuels, chemical, Chlorine or Ammonia Gas, etc?
3. Recovery/Cleanup
 - a. Debris Cleanup and proper disposal
 - b. Compliance with CEQA
 - c. Groundwater Contamination
 - d. Compliance with AQMD
 - e. Soil problem during street reconstruction
4. Schools
 - a. Staging or shelter areas for students/staff in schools
5. Communication
 - a. Alternate location for communication/dispatch
6. **Vulnerabilities**
 - a. Communication & Notification
 - b. Public Education
 - c. Infrastructure (ChemBio Tanks, Rail, Facilities, Containers)

- d. Human Resources/Personnel
- e. Code/Ordinance Development & Enforcement

Floods (Mudslides/Landslides)

1. Public Safety/Response/Coordination
 - a. Coordinate responding agency & resources
 - b. Mutual Aid Communication
 - c. Containment of Scene (Traffic & Crowd control)
 - d. Property Protection (Looting)
 - e. Evacuations
 - f. Safe Community Facilities
 - g. Water Quality

2. Infrastructure
 - a. Road Closures
 - b. Road Erosion, Wash-out
 - c. Plan to stabilize hillside with retaining wall
 - d. Landslide has the potential to damage or destroy facilities
 - e. Damage to Communication Equipment

3. Recovery
 - a. Inspection & evaluation of structural damage
 - b. Debris Cleanup

4. **Vulnerabilities**
 - a. Debris Clearance & Erosion Control
 - b. Communication & Notification
 - c. Backup Systems & Facilities (Business Continuity)
 - d. Human Resources/Personnel
 - e. Safety Zones
 - f. Infrastructure
 - g. Public Education

**City of Montebello
Local Hazard Mitigation Planning Committee**

City of Montebello Departments:

Administrative Services, Division of Finance
Administrative Services, Division of Risk Management
City Administrator
Community Development, Division of Code Enforcement
Community Development, Division of Community Redevelopment
Community Development, Division of Economic Development
Community Development, Division of Planning
Fire, Emergency Services Division
Fire, Prevention Division
Fire, Fire Suppression/Code Enforcement Division
Police
Public Works, Building Services Department
Public Works, Engineering Department
Public Work, Streets Department
Transportation
Transportation, Utility Operations

Other Governmental Agencies:

Los Angeles County Office of
Emergency Management

Educational Organizations:

Montebello Unified School District

Water Districts:

California Water Supply
Montebello Land & Water
San Gabriel Valley Water Company
South Montebello Irrigation District

Community Organizations/Private Agencies/Business & Industry:

American Red Cross
Beverly Hospital
BNSF Railroad
Digital Maps
SBC Communications, Inc.
Southern California Edison Co.
Union Pacific Railroad



Montebello Mitigation Planning
Committee (MMPC) Agenda
Montebello City Hall, Council Chambers
Thursday, September 16, 2004
9:00 AM – 12:00 PM

Welcome and Introductions	Group
Brief DMA 2000 Overview	JLWA
Define Role and Commitment of MMPC <ul style="list-style-type: none">▪ Questions?	JLWA Group
Purpose of Meeting: <ul style="list-style-type: none">▪ Provide Update▪ Review Draft Vulnerability Analysis▪ Identify Mission, Goals & Objectives▪ Review Action Plan Timeline	JLWA
Activities to Date: <ul style="list-style-type: none">▪ JLWA brought on to support planning process▪ Conducted initial meeting with Fire Dept.▪ Held Stakeholder's meeting to begin identification of hazards and key vulnerabilities and to kick-off planning process▪ Montebello Mitigation Planning Committee (MMPC) formed▪ MMPC questionnaire developed and sent in early August. Christopher provided feedback – <u>more feedback is needed</u>▪ Drafted<ul style="list-style-type: none">○ Community Profile○ Vulnerabilities Assessment (Partial)○ Community Capability Assessment (Partial)▪ Began search for missing data<ul style="list-style-type: none">○ Vulnerabilities (impacts to buildings, infrastructure, critical facilities, etc)○ Capability Assessment▪ Completed Gap Analysis of information and sent to Christopher	JLWA
Mitigation Strategy <ul style="list-style-type: none">○ Establish Mission, Goals & Objectives	Group
Discuss Action Plan	Group

MONTEBELLO MITIGATION PLANNING COMMITTEE
(MMPC) Minutes
Montebello City Hall, Council Chambers
Thursday, September 16, 2004
9 AM – 12 PM

September 17, 2004

Present: Fan Abel, Area E Disaster Management Area Coordinator
Ken Bradbury, Montebello Land & Water
Christopher Cox, Emergency Services Assistant
Lennette Dease, JLWA
Suzanne Frew, JLWA
David Karraker, California Water Supply
Brad Keller, Montebello Police Sergeant
Francine Lam, Montebello Economic Development
Patricia Ortega, Montebello Fire Prevention
Brian Sinclair, So. Montebello Irrigation District
Brad Weltte, Safety Manager BNSF Railroad
Cecilia Willy, SBC

Absent: Elvin Jiang, Montebello Public Works /Engineering
Kelly Shivertaker, Edison Co
Steve Stautzenbach, Digital Maps (GIS)
Cecilia Tapia, Red Cross

Montebello Mitigation Plan Committee (MMPC)

9-16-04 – Introduction of Susanne Frew and Lennette Dease, of James Lee Witt Associates, Inc, (JLWA) who have been contracted by the City of Montebello to assist the MMPC on hazard vulnerability assessment and with the Hazard Mitigation Plan.

Discussion of the following;

Timeline and the information needed to implement a planning process that is required by the federal government, and is due before 11/1/04.

Questionnaire will be sent out to all MMPC members on 9-17-04, to be completed and returned to MMPC Lead Christopher Cox, at Fire Station 2, 1166 S Greenwood Avenue, Montebello, CA 90640 for next work session (9-23-04).

Better understanding of what the water departments can do for the planning committee other than providing emergency plans.

Resource of information and knowledge from every agency/department / company is an important part of the process of the Hazard Mitigation Plan.

MMPC meetings should be viewed as a “Volunteer Service Committee/ Work Session” and a commitment to this planning committee is crucial.

Representation of Public Works, Engineering, Building, and Planning Departments is vital in completing the necessary information for the Hazard Mitigation Plan.

Review Draft Vulnerability Analysis

Earthquake
Wildfires
Flooding / Urban Flooding
Landsides/ Mudslides
Groundwater Contamination
Building (s) –Earthquake retrofitting
Infrastructure damage to underground pipelines, reservoirs, pump stations, wells.
Human Caused /Technological Hazards

Items to have for next meeting

ACTION 2: Friday 9/17 – Wednesday 9/22

Each MMPC representative discusses with own agency/dept/company and identifies their selected of the following for submittal back to MMPC:

a – action/projects to meet objectives

b - identify how actions/project will reduce vulnerability on 1) existing buildings, and 2) new buildings

This can be completed in a table format.

(Example of table in a separate attachment: 5-year Action Matrix)



Montebello Mitigation Planning
Committee (MMPC) Agenda
Montebello City Hall, Training Room
Thursday, September 23, 2004
9:00 AM – 12:00 PM

Welcome and Introductions

Group

Overview of 9/16 Work Session

JLWA

Confirm Committee Membership

JLWA

- Review Action Plan Timeline

Discussion of Mitigation Strategy

JLWA/Chris

- Overview of Hazards & Threats
- Mission, Goals & Objectives (get consensus)
- MMPC member present mitigation action items
- Prioritization of action items in matrix

Confirm finalization of Action Item Matrix (date)

MONTEBELLO MITIGATION PLANNING COMMITTEE
(MMPC) Minutes
Montebello City Hall,
Thursday, September 23, 2004
9:24 AM – 12:24 PM

September 24, 2004

Present:

Justin Bright, Montebello Fire Department	Francine Lam, Montebello Economic Development
Christopher Cox, Emergency Services Assistant	Bob Lembke, Montebello Building Department
Chris Digs, San Gabriel Valley Water Co.	Monet Loubet, Montebello Economic Development
Lennette Dease, JLWA	Abigail Luczon, Montebello Police Department
Suzanne Frew, JLWA	Patricia Ortega, Montebello Fire Prevention
Richard Gonzalez, Union Pacific Railroad	Kelly Shivertaker, Southern California Edison Co
Elvin Jiang, Montebello Public Works /Engineering	Pat Steinhauser, Beverly Hospital
Brad Keller, Montebello Police Sergeant	Cecilia Willy, SBC

Absent:

Fan Abel, Area E Disaster Management Area Coordinator	
Ken Bradbury, Montebello Land & Water	Cecilia Tapia, Red Cross
David Karraker, California Water Supply	Brad Weltte, Safety Manager BNSF Railroad
Brian Sinclair, Southern Montebello Irrigation District	
Steve Stautzenbach, Digital Maps (GIS)	

Montebello Mitigation Plan Committee (MMPC)

9-23-04 – Revised Mission Statement as follows:

To ensure the City of Montebello has in place projects policies and procedures that ensure the safety of residents, businesses and economic stability from natural and human-caused hazards.

Discussion of the following;

Goals and Objectives

1. Protect Life, Property and Environment
 - a. Protect water and power supply infrastructure
 - b. Ensure reliability/ interoperability of voice and data communication

2. Increase public awareness
 - a. Educate public on safeguarding life and property (earthquake, fire & floods)
 - b. Expand use of existing information channels.
 - c. Target high risk populations

3. Ensure Economic Stability
 - a. Increase inter-jurisdictional partnerships

- b. Build collaborative network between public and private entities
- c. Develop partnership activities and events to support public education
- d. Increase engagement of private sector in sustained planning efforts

Identify Hazards/ Key Areas to Protect

- 1. City Hall
- 2. Fire/ Police Department Buildings
- 3. EOC/ Corporate Yard
- 4. Transit
- 5. Hospital
- 6. Schools

Earthquakes

- 1. Bridges Ingress/ Egress
 - a. Beverly Blvd & Rio Hondo River
 - b. Whittier Blvd & Rio Hondo River
 - c. Telegraph Rd / Washington Blvd
 - d. Bluff Rd & Railroad
- 2. Pre 1933 Construction (Building Codes & Structure)
 - a. Residential (Water Heaters/ Gas: How to turn on /off)
 - b. Plaza Hotel
 - c. Beverly Towers
- 3. Chevron Tank Farm
- 4. All Utility Companies (Telecommunications)
- 5. Water and Power
 - a. Metropolitan Water District (2 million gallon supply line and power to move water)

Urban Flooding

- 1. Garfield to City of Commerce (Bridge)
- 2. Flotilla Street –Metrolink Station–Commercial
- 3. Los Angeles Street- Residential
- 4. Roosevelt –mixed (residential & commercial)
- 5. Telegraph Rd –Commercial
- 6. Greenwood Ave / Mines Ave – Residential
- 7. Wilcox Ave (Albertsons Parking Lot) mixed
- 8. Park Avenue- Residential
- 9. Grant Rea Park
- 10. Rio Hondo River (MFD Swift Water Rescue)
(Static body of water)

Fires

- 1. Lincoln Avenue
- 2. Urban wildfire interface (city & natural elements)

3. PXP Hills (Chevron)
4. Gas Company
5. Bluff Road
6. Grant Rea Park

Critical Areas/ Essential Facilities

1. City Hall
2. Fire/ Police Dispatch
3. EOC-Corporate Yard
4. All Utilities /Tele-communications
5. Beverly Hospital
6. Road & Bridges
7. Schools/ Shelters

Top Businesses & Local Champions

1. Royal Paper Box
2. Costco
3. Montebello Town Center
4. Minson Corporation
5. Beverly Hospital
6. Poncho Juarez (Calvary Chapel)
7. Radio Shack
8. George Hensel

6 Categories of Mitigation

1. Prevention
2. Property Protection]
3. Public Education Awareness
4. Natural Resource Protection
5. Emergency Services
6. Structural Project

Action Items to Address Top Hazards

1. Address of hazard (earthquake, fire, flood)
2. Address of key vulnerabilities
3. Address of critical facilities

Fire Sprinkler System

1. Enforce sprinkler ordinance for add-on construction or new and existing buildings
2. Fire Lead
3. Implement fuel modification, non-combustible roofing, erosion control on the development
4. Training /Fire

5-Year Plan-Action Items to Address Top Hazards

1. Action
2. Goals Objective addressed
3. Hazard Address
4. Lead Agency
5. Estimated Cost/ Resource of Funding (financial, technical/ human)

Examples

1. Identify and Prioritize Mitigation Actions
2. 5-year Action Plan Matrix (draft)
3. Information needed to build capability assessment

Each Department / Agency is to prepare their own action item matrix, and bring to the next work session.

What mitigations actions have been done to address critical areas?

- A. Existing /in place now
- B. Proposed/ Agency / Corporation / Business
- C. Outstanding Needs

Next Work Session 9/29/04

9 A.M.- 12 P.M.

Montebello City Hall East Training Room



Montebello Mitigation Planning
Committee (MMPC) Agenda
Montebello City Hall, Training Room
Wednesday, September 29, 2004
9:00 AM – 12:00 PM

Welcome and Introductions

Group

Overview of 9/23 Work Session

JLWA

Discussion of Mitigation Strategy

JLWA/Chris

- MMPC member present mitigation action items
- Prioritization of action items in matrix

Confirm finalization of Action Item Matrix (date)

MONTEBELLO MITIGATION PLANNING COMMITTEE
(MMPC) Minutes
Montebello City Hall,
Thursday, September 29, 2004
9:24 AM – 12:24 PM

September 30, 2004

Present:

Justin Bright, Montebello Fire Department	Elvin Jiang, Montebello Public Works /Engineering
Bob Lembke, Montebello Building Department	Louie Lozano, Business Manager Finance Department
Christopher Cox, Emergency Services Assistant	Abigail Luczon, Montebello Police Department
Lennette Dease, JLWA	Patricia Ortega, Montebello Fire Prevention
Suzanne Frew, JLWA	Brian Sinclair, South Montebello Irrigation District
David Herrera, South Montebello Irrigation District	Cecilia Willy, SBC

Absent:

Fan Abel, Area E Disaster Management Area Coordinator	
Ken Bradbury, Montebello Land & Water.	Francine Lam, Montebello Economic Development
Chris Digs, San Gabriel Valley Water Co	Monet Loubet, Montebello Economic Development
Richard Gonzalez, Union Pacific Railroad	Kelly Shivertaker, Southern California Edison Co
David Karraker, California Water Supply	Pat Steinhauser, Beverly Hospital
Brad Keller, Montebello Police Sergeant	Brad Weltte, Safety Manager BNSF Railroad

Montebello Mitigation Plan Committee (MMPC)

9-29-04- Lennette Dease (JLWA) advised committee that at next work session we should have mitigation plan down on paper.

Susan Frew (JLWA) suggested that this committee keep in mind high profile businesses, organizations, citizen's etc., who might want to get involved in safe guarding the city. (i.e. Albertson's parking lot on Wilcox Avenue flooding).

Discussion of the following;

Goals and Objectives

- 1. Protect Life, Property and the Environment**
 - a. Ensure code compliancy
 - b. Protect power & water supply
 - c. Ensure reliability/interoperability of voice & data communication

- 2. Increase public awareness**
 - a. Educate public on safeguarding life and property
 - b. Expand use of existing information channels.
 - c. Target high risk populations

3. Ensure Economic Stability

- a. Increase inter-jurisdictional partnerships
- b. Build collaborative network between public and private entities
- c. Develop partnership activities and events to support public education
- d. Increase engagement of private sector in sustained planning efforts

Identify Hazards/ Key Areas to Protect

1. City Hall
2. Fire/ Police Department Buildings
3. EOC/ Corporate Yard
4. Transit
5. Hospital
6. Schools/Shelter sites
7. Senior Citizen's Center
8. Kathy Hensel Gymnasium

Earthquakes

1. Bridges Ingress/ Egress
 - a. Beverly Blvd & Rio Hondo River
 - b. Whittier Blvd & Rio Hondo River
 - c. Telegraph Rd / Washington Blvd
 - d. Bluff Rd & Railroad
2. Pre 1933 Construction (Building Codes & Structure)
 - a. Residential (Water Heaters/ Gas: How to turn on /off)
 - b. Plaza Hotel
 - c. Beverly Towers
3. Chevron Tank Farm
4. All Utility Companies
5. Water and Power
 - a. Metropolitan Water District (2 million gallon supply line and power to move water)

Urban Flooding

1. Flotilla Street –Metro-link Station–Commercial
 - a. On going program with Union Pacific Railroad
2. Los Angeles Street- Residential
 - a. On going/ on hold due to non-funding available
3. Roosevelt –mixed (residential & commercial)
4. Telegraph Rd –Commercial
5. Greenwood Ave / Mines Ave – Residential
6. Wilcox Ave (Albertsons Parking Lot) mixed
7. Park Avenue- Residential
8. Grant Rea Park

9. Rio Hondo River (MFD Swift Water Rescue)
(Static body of water)

Fires

1. Lincoln Avenue
2. Urban wildfire interface (city & natural elements)
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Top Businesses & Local Champions

1. Royal Paper Box
2. Costco
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4. Minson Corporation
5. Beverly Hospital
6. Poncho Juarez (Calvary Chapel)
7. Radio Shack
8. George Hensel

5-Year Plan-Action Items to Address Top Hazards

1. Action
2. Goals Objective addressed
3. Hazard Address
4. Lead Agency
5. Estimated Cost/ Resource of Funding (financial, technical/ human)

FIRE

Lead Agency-Fire Department

Action-Ongoing

1. Education Program for hazard mitigation awareness for earthquake, fire and floods.
2. Fire Service Day- annually 4th quarter fiscal year
3. Fire Prevention Week – annually 2nd quarter fiscal year
4. Business Expo- annually –4th quarter
5. Target high risk population, Residents next to PXP undeveloped property and flood areas. All residents regarding earthquakes.
6. City of Montebello Web site inform
7. Public information channel to inform
8. Newspaper to inform

9. Corporation sponsorship
10. Volunteers to assist
11. Weed Abatement Program-increase brush clearance/inspection program
12. Tele-minder (work in progress) –General Fund
13. Develop and promote relationship/ inter-agency/ partnership to identify deficiencies of early warning systems. Example- notify residents for evacuations.

Hazard type

- 1 Multi-hazard (earthquake, floods, wildfire)

Goals met

- 1-a, 1-c, 2, a, b &c/ 3-a, b, & c

Resources

1. General Fund
2. Internal funds
3. Emergency Management Training Assistance
4. Corporate sponsorship
5. Community volunteers

SBC

Lead

1. SBC Director of Services

Action

1. Educate public on all-hazards preparedness - on going
2. Web site to inform
3. Annual publishing in phone directory
4. Work with outreach and MMPC awareness for existing materials
5. Billing inserts-TBD
6. Target information in English and Spanish.

Goals/Objective

1. 2-a / 3-a /3-c

Hazard type

- Multi-hazard

Resource

- 1.Federal and state funding

Building Department

Lead Agency-Building, Fire and Planning Departments

Action

1. Identify all structures that are not code compliant post 1993.
2. Adopt municipal code to enforce seismic upgrades for buildings receiving inspections or permits from the city.
3. Inter-department training for earthquake seismic construction and retrofit.

Goals met

- .1-a, 2-a & 3-a 3-c

Hazard type: Earthquake

Resource

1. General fund
2. Grant funding

Engineering Department

Lead agency- Engineering Department/ Street Department

Action

1. Study of flood areas
2. Investigation of failure of soil or pavement

Goals /Objectives

1. 1-a, 2-a, 3-b & 3-c

Hazard type: Floods

Resource

1. Federal and State grants, Cal Trans, USDOT

SMID

Lead Agency- South Montebello Irrigation District

1. New building for housing administrative staff and vehicles (Phase 2). Available to the community, organizations and for public education purposes. (Phase3, 4th Quarter'09)

Goals/Objective

- 1-b, 2-a, b, & c / 3-a, b, c, d

Resource

1. Corporate revenues

2. Federal / State grants

Next Work Session

10/6/04

9 A.M.- 12 P.M.

Montebello City Hall East Training Room

October 15, 2004

FOR IMMEDIATE RELEASE

CONTACT: Christopher Cox
Emergency Services Assistant
(323) 887-4507

Hazard Mitigation Plan Draft Available for Review

The Montebello Mitigation Planning Committee, comprised of community stakeholders from city departments, business and industry, academia, non-profit organizations and other public stakeholders has developed a draft Local Hazard Mitigation Plan. The Plan addresses the communities' hazards, vulnerabilities, capabilities, and interests and builds a five-year Action Plan for making Montebello a more disaster-resistant community.

The members of the Montebello community and its surrounding jurisdictions are invited to comment on the draft plan and may do so by completing the Local Hazard Mitigation Survey. Printed drafts of the plan and comment surveys are available at City Hall, the Montebello Public Library and the Senior Citizen's Center. Please complete and submit surveys with comments on or before October 20, 2004 at the mentioned locations. Once all comments are heard and integrated into the draft plan, a finalized plan will be submitted to the City Council on October 27, 2004 for review, approval and adoption. After adoption, the plan will be forwarded to State and Federal agencies for approval.

###

Original signed by: _____
Jim Cox
Fire Chief

Title

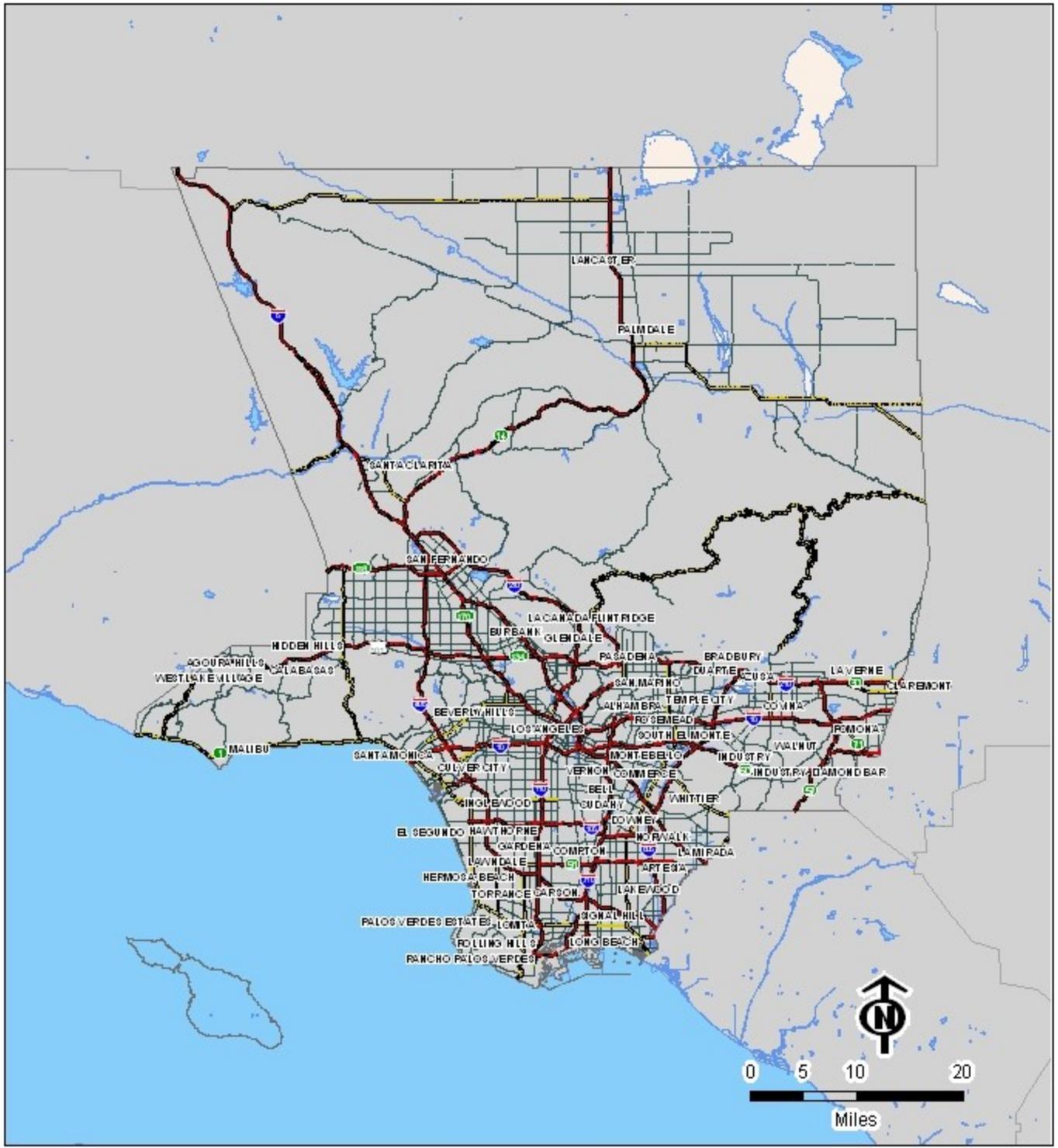
County of Los Angeles



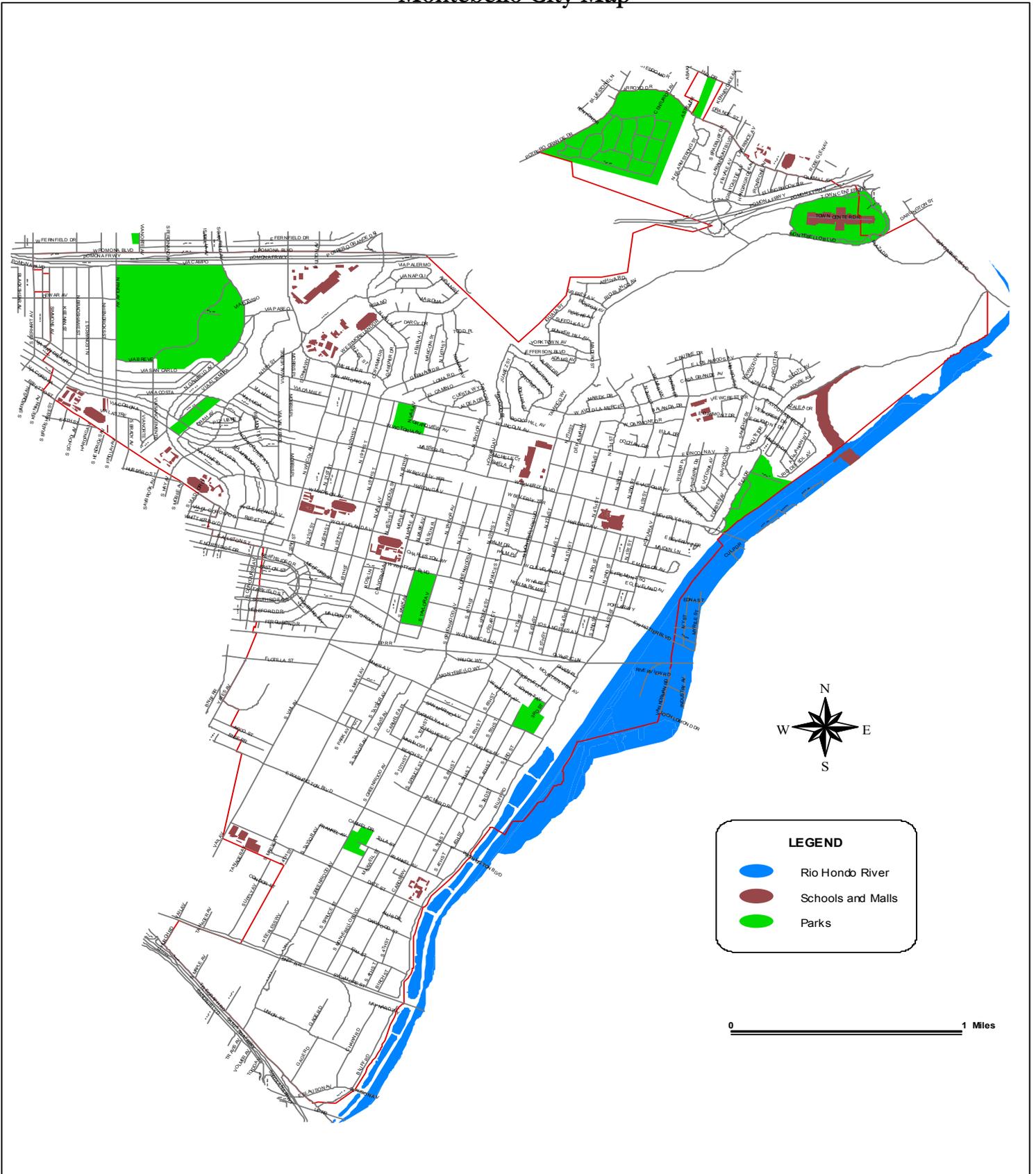
- Primary Street
- Highway
- Freeway
- Water
- Intermittent Lake, Marsh
- Dry Lake, Beach
- County Boundary

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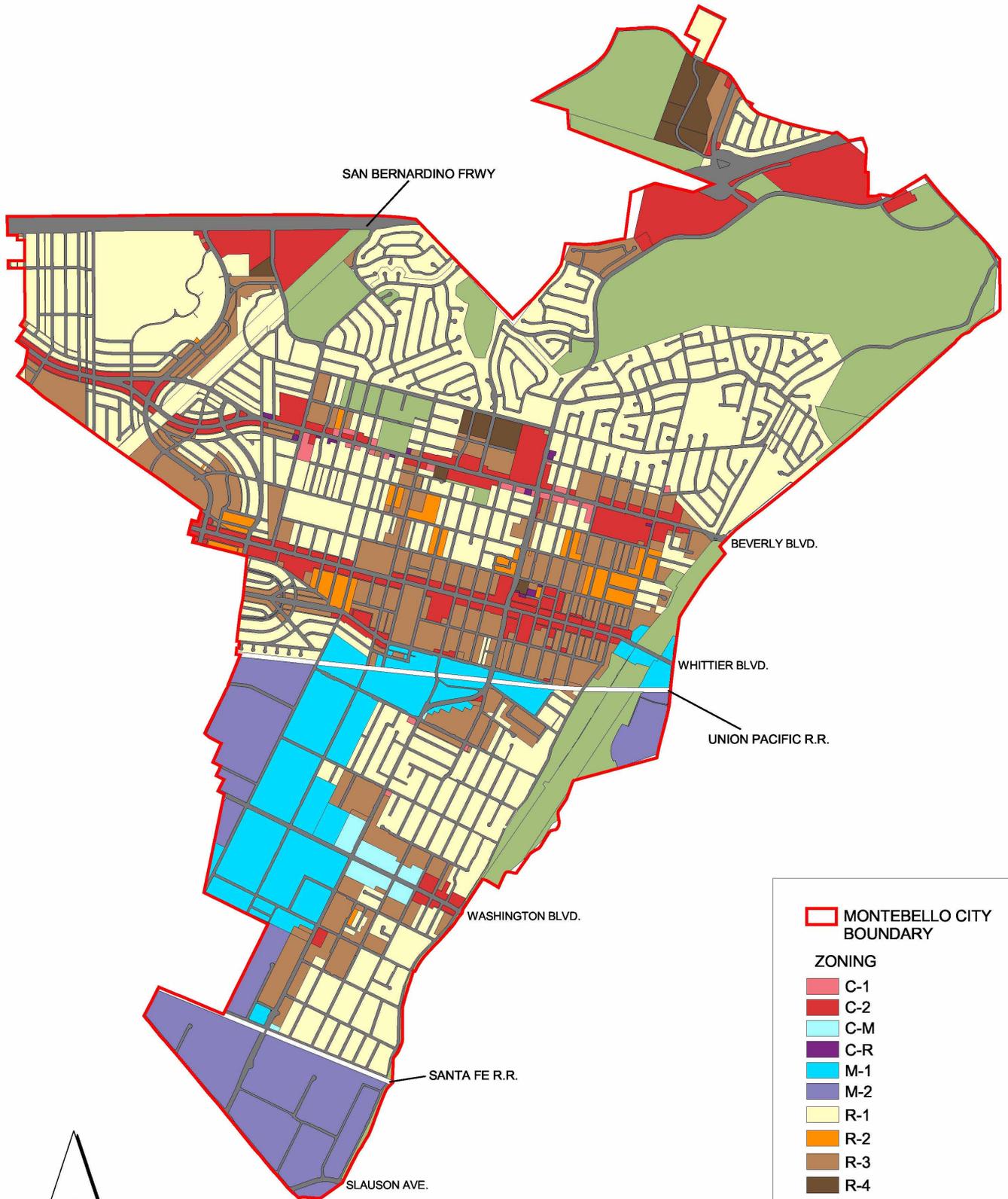
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Montebello City Map



MONTEBELLO, CALIFORNIA ZONING



MONTEBELLO CITY BOUNDARY

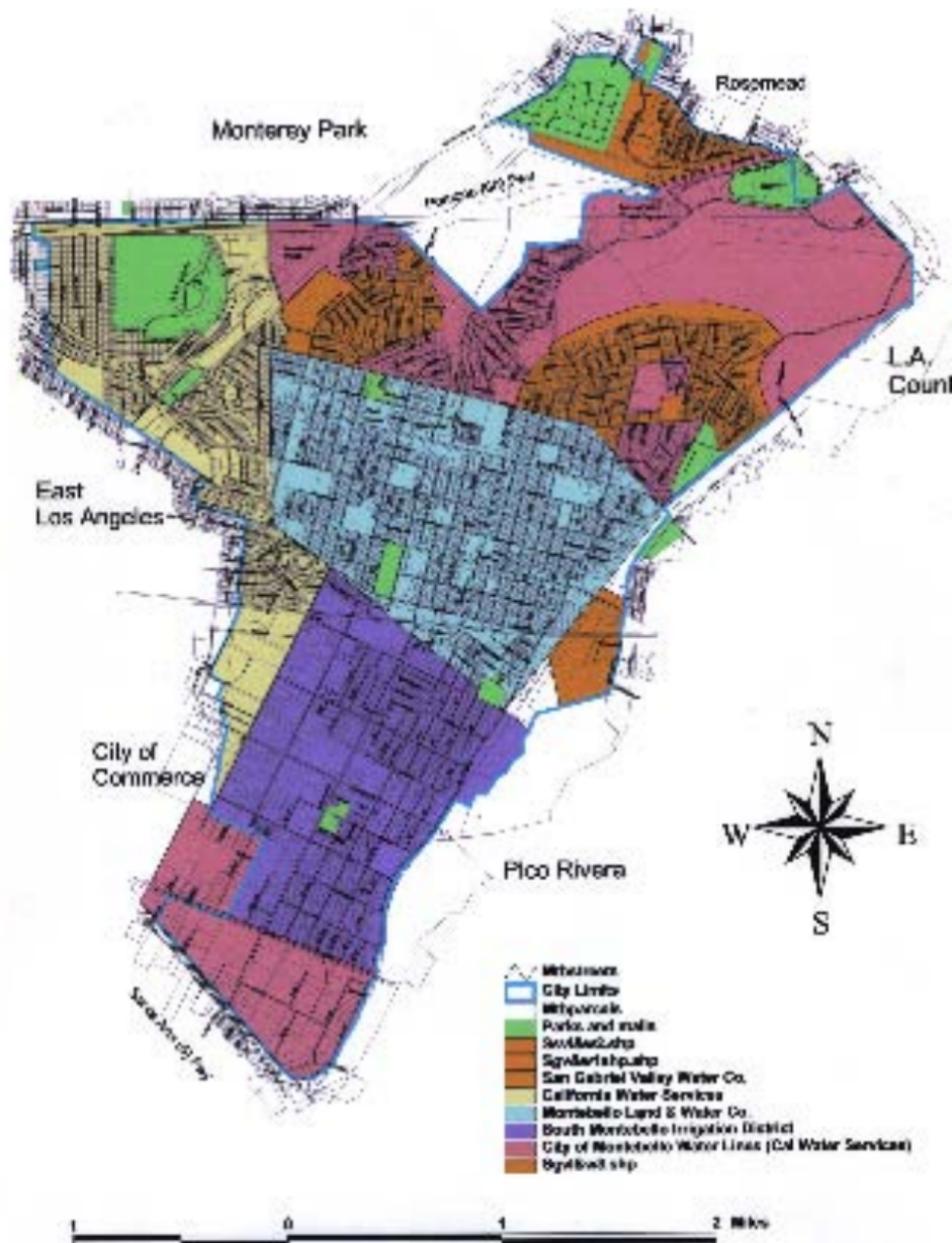
ZONING

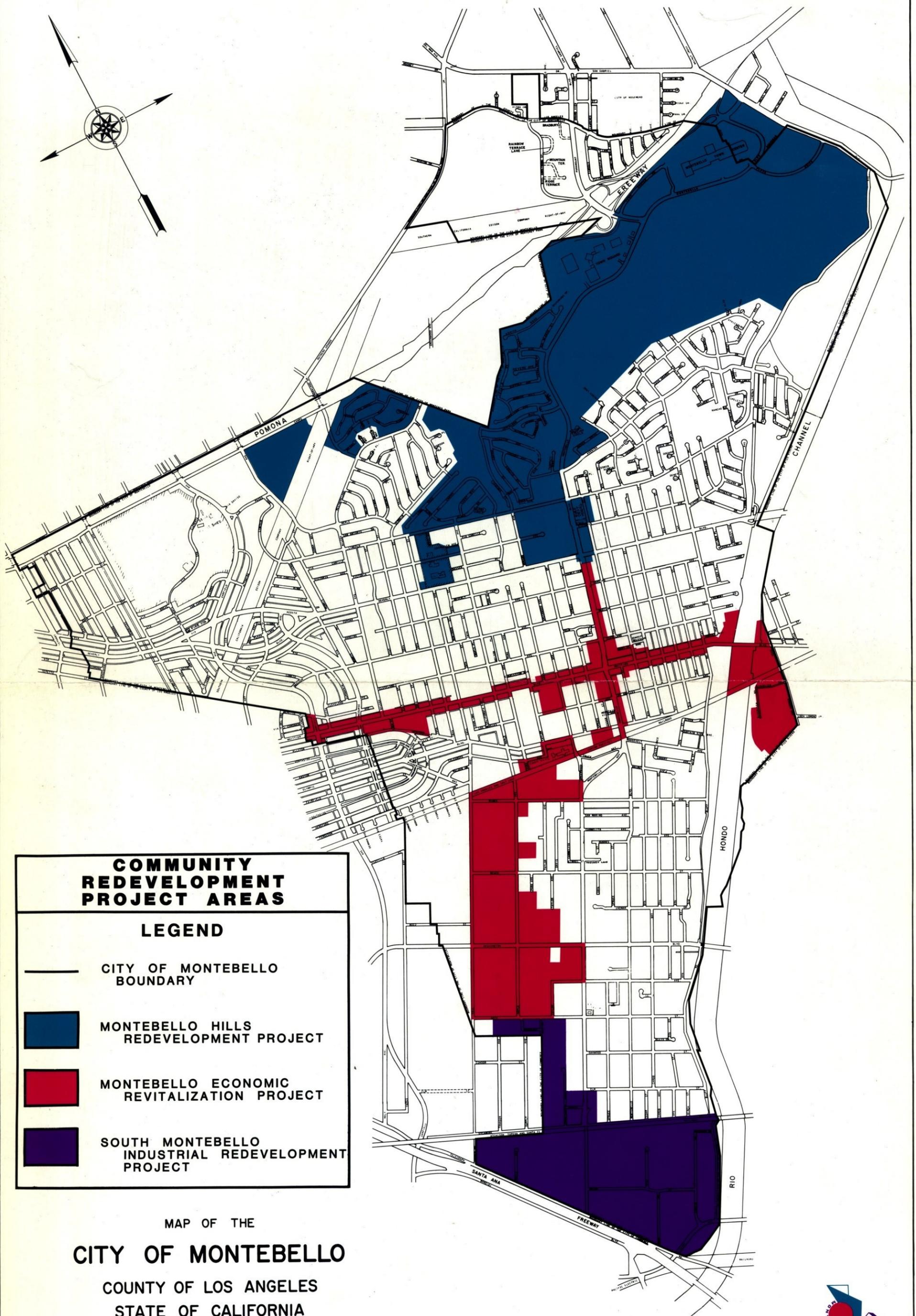
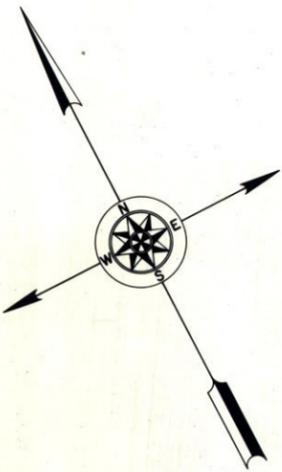
- C-1
- C-2
- C-M
- C-R
- M-1
- M-2
- R-1
- R-2
- R-3
- R-4
- R-A
- ROAD



1000 0 1000 2000 3000 Feet

MONTEBELLO WATER DISTRICTS





COMMUNITY REDEVELOPMENT PROJECT AREAS

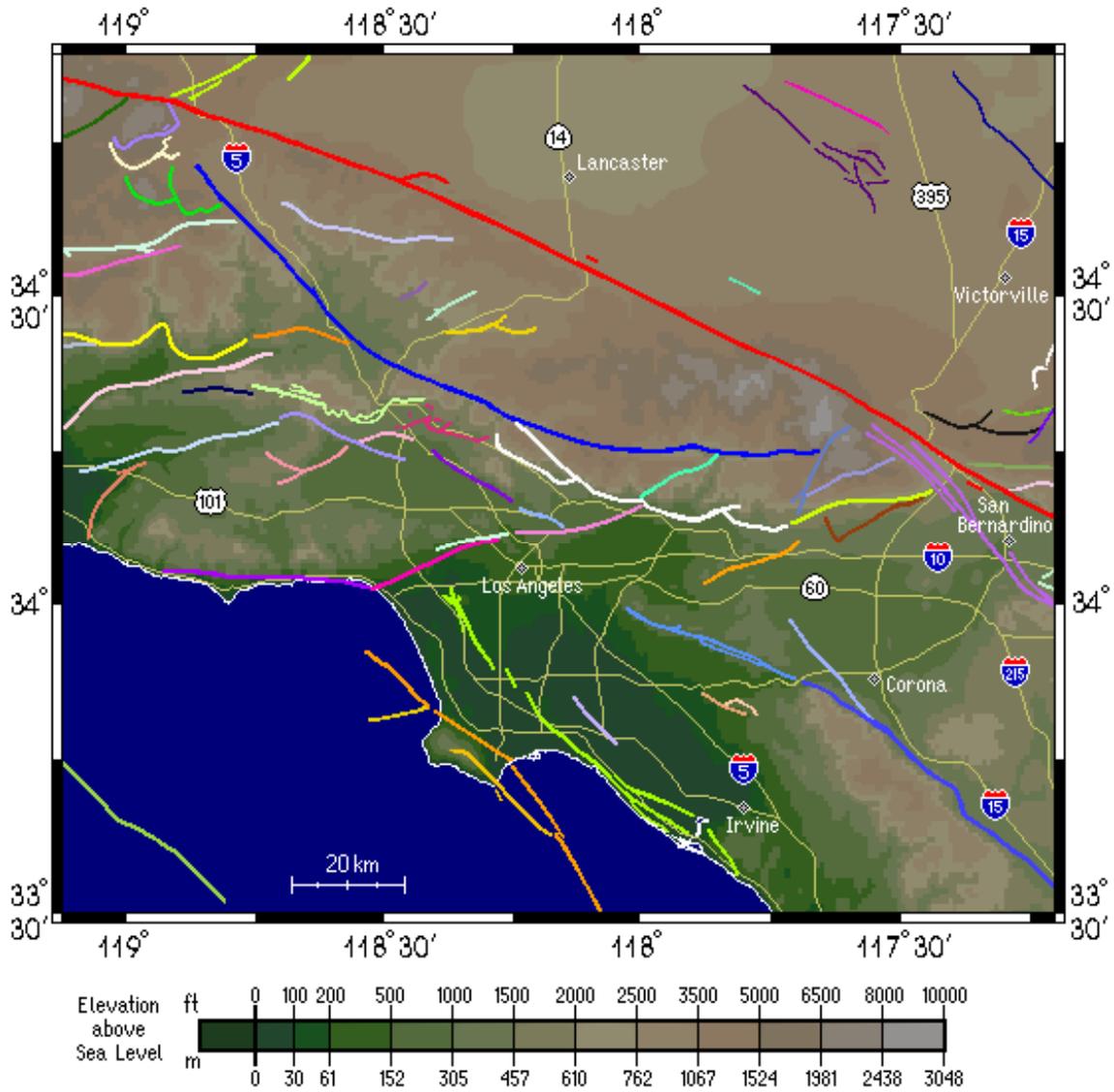
LEGEND

-  CITY OF MONTEBELLO BOUNDARY
-  MONTEBELLO HILLS REDEVELOPMENT PROJECT
-  MONTEBELLO ECONOMIC REVITALIZATION PROJECT
-  SOUTH MONTEBELLO INDUSTRIAL REDEVELOPMENT PROJECT

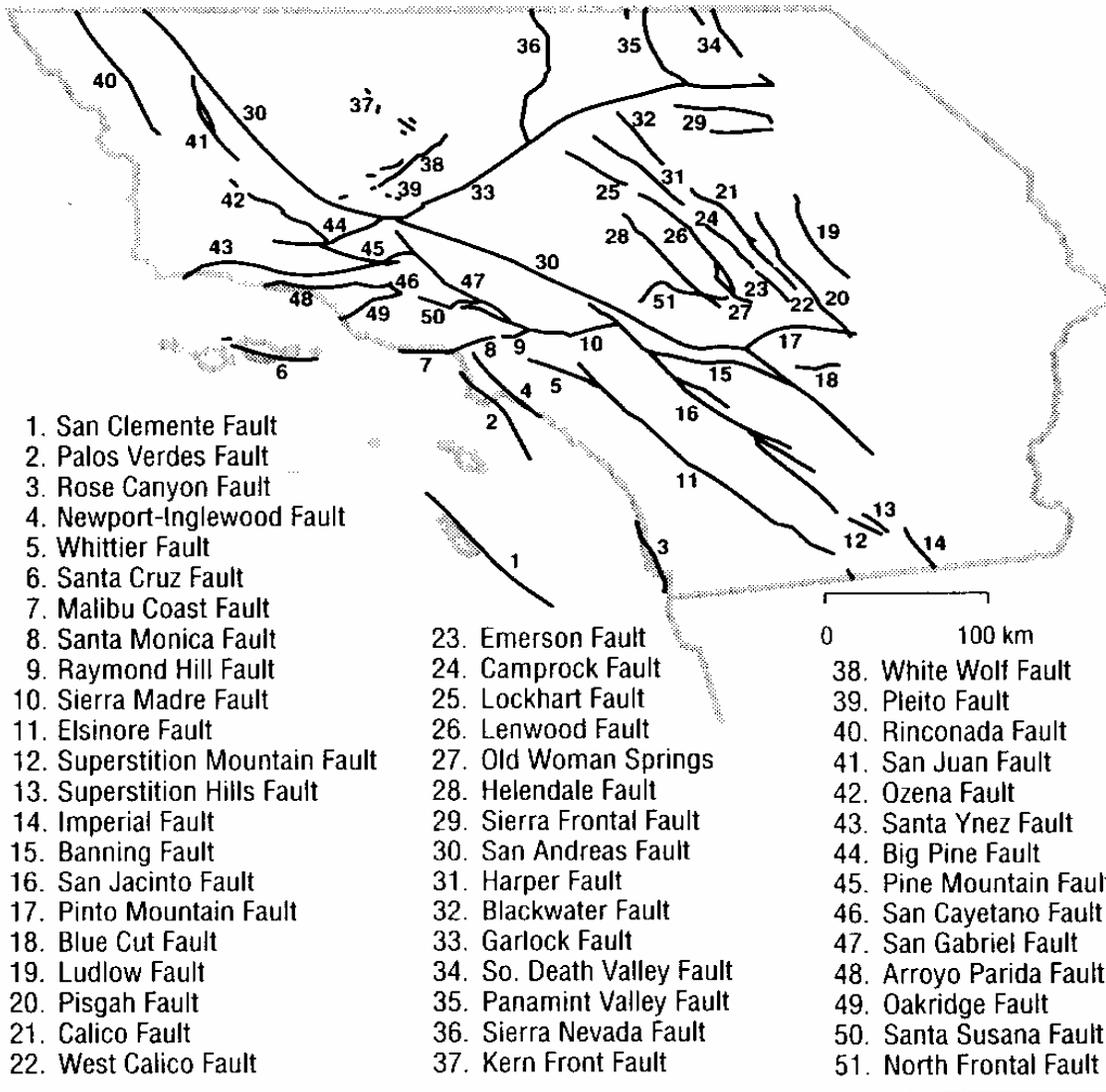
MAP OF THE
CITY OF MONTEBELLO
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA



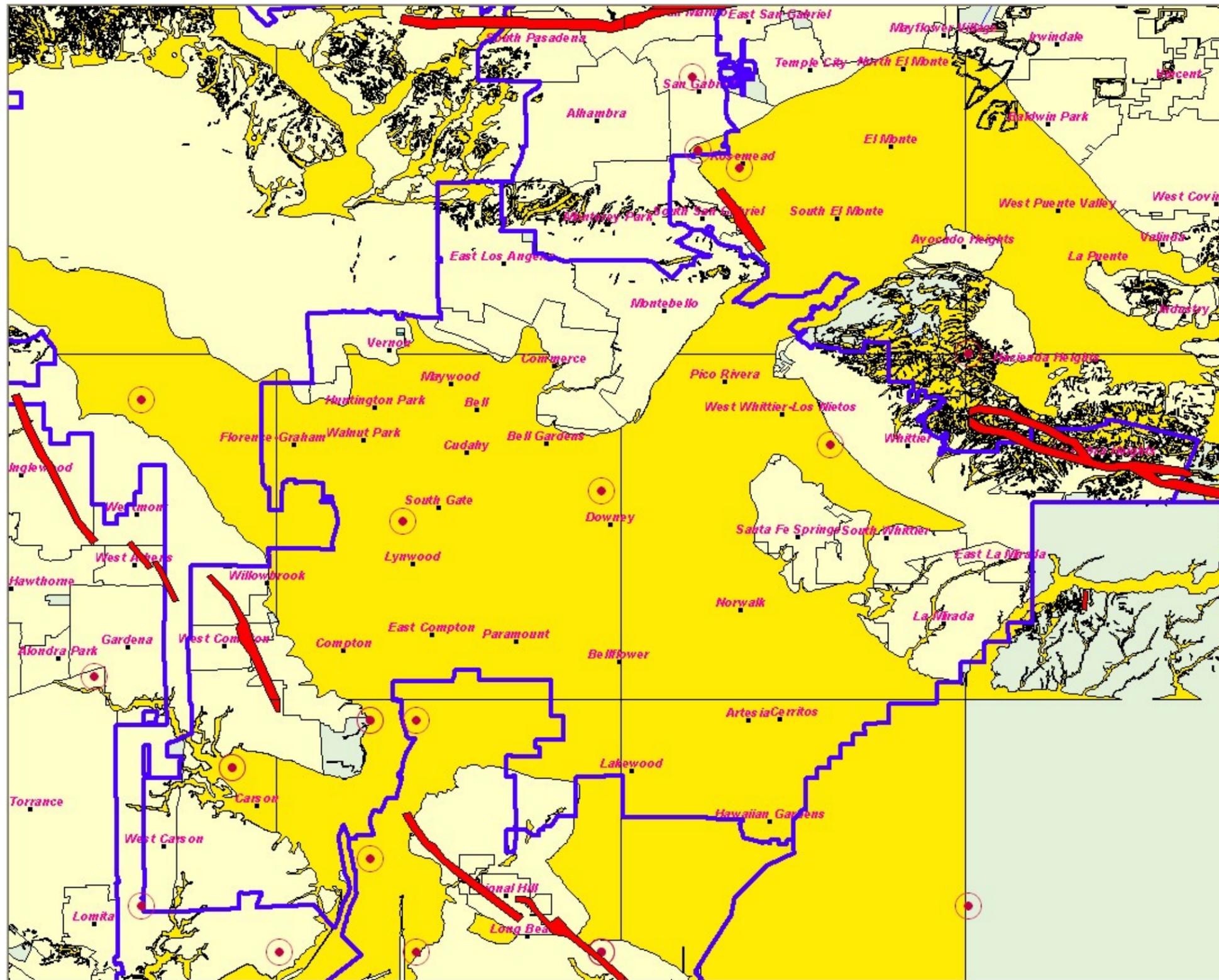
Southern California Earthquake Fault Maps



MAJOR ACTIVE SURFACE FAULTS IN SOUTHERN CALIFORNIA

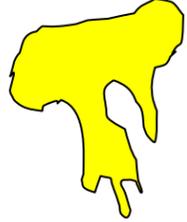
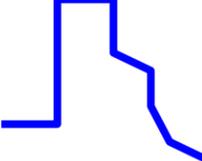


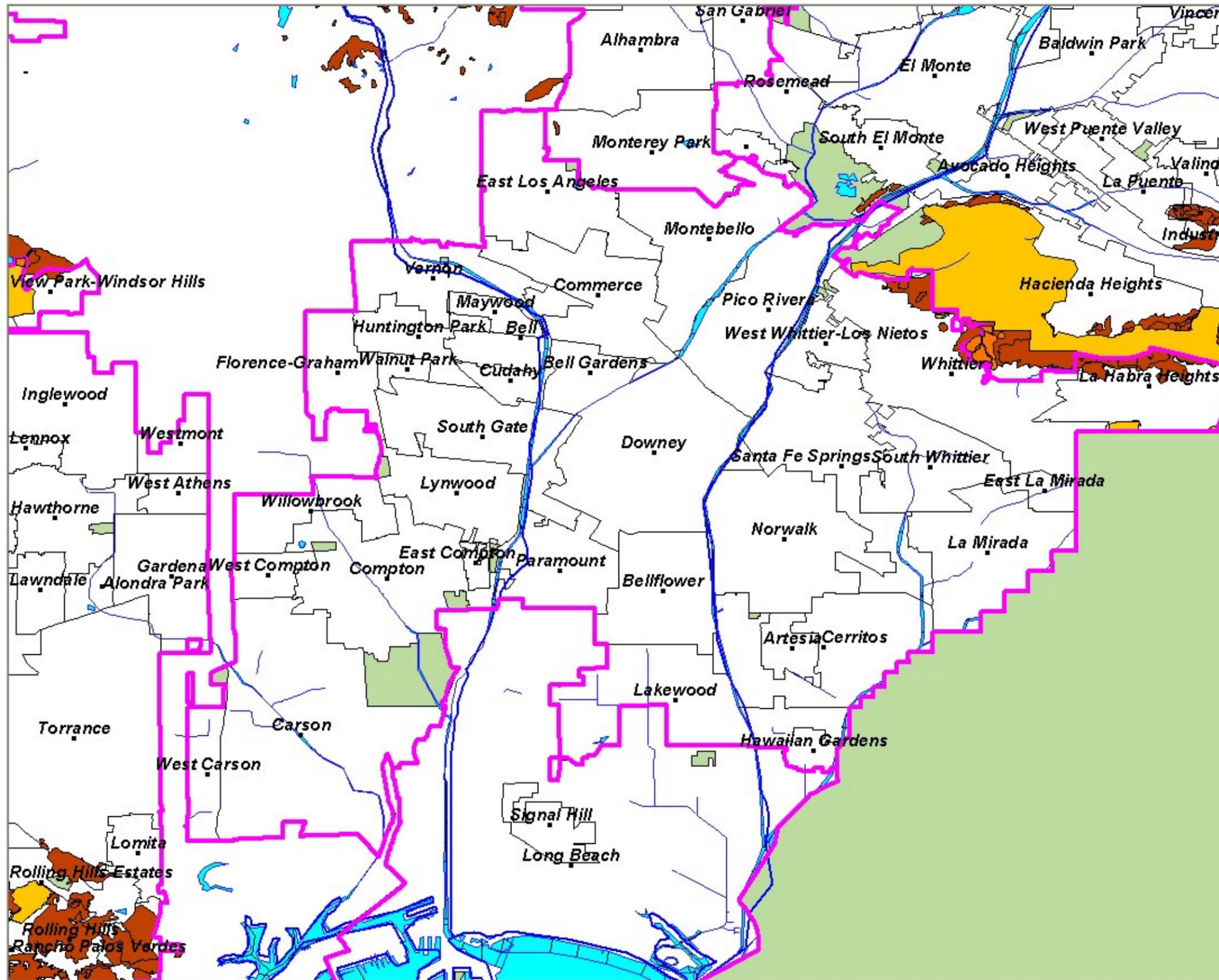
Source: Adapted from the map of major active Southern California surface faults published in "Seismic Hazards in Southern California: Probable Earthquakes, 1994-2024," Southern California Earthquake Center.



Los Angeles County
Disaster Management Area E
Earthquake Hazards

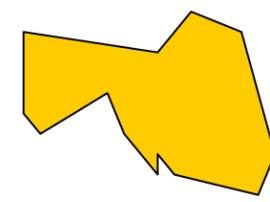
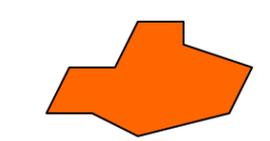
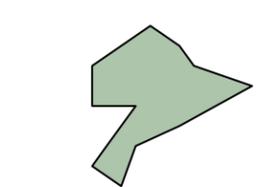
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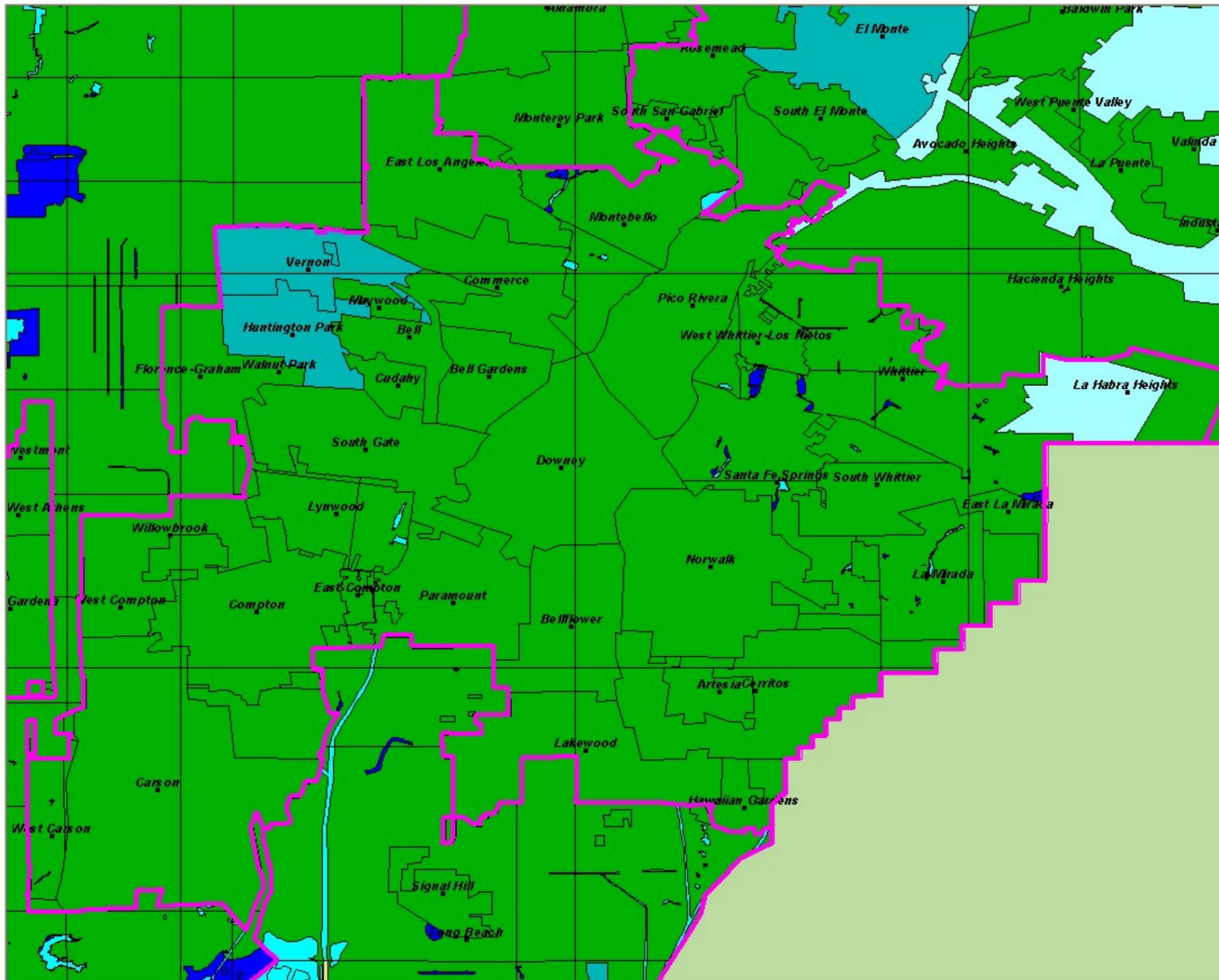
-  Historic Epicenter
-  Historic Major Fault Areas
-  Areas Vulnerable to Damage from Shaking
-  Disaster Management Area Boundaries



Los Angeles County
Disaster Management Area E
Fire Hazards

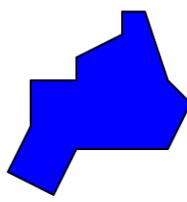
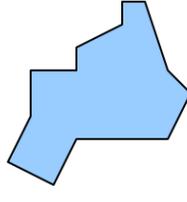
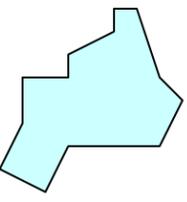
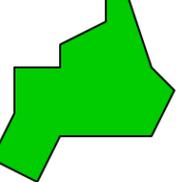
Legend

- 
Wild Land/Urban Interface Areas High Fire Risk
- 
Wild Land Extreme Fire Risk
- 
Proscribed burn areas, Manmade Fire Prevention Projects
- 
Unincorporated Urban Interface areas



Los Angeles County
Disaster Management Area E
FEMA Flood Plains

Legend

- 
50 Year Flood Plain
- 
100 Year Flood Plain
- 
500 Year Flood Plain
- 
1000 Year Flood Plain

APPENDIX F: POTENTIAL FUNDING SOURCES FOR MITIGATION ACTIVITIES

LOCAL RESOURCES

- **Capital Improvements Projects**
- **Community Empowerment Groups**
- **Donations**
- **Economic Development Funds**
- **Formation of separate benefit assessment districts**
- **Insurance**
- **Private Not-for-Profit**
- **Public/Private Partnerships**
- **School Bonds**
- **Volunteer Organizations**

STATE AND FEDERAL RESOURCES

When local resources are inadequate, the city can seek additional assistance from the state and federal governments. Many of these programs are categorized as either pre-disaster, post-disaster, and disaster-applicable. Pre-disaster programs exist without a disaster declaration and support pre-disaster mitigation activity. Post-disaster programs generally require a Presidential disaster declaration to become applicable. Disaster applicable programs are available for non-emergency purposes but may be redirected after a disaster declaration.

Assistance to Firefighters Grant Program

Through the Federal Emergency Management Agency, this program provides four grant categories to assist state, local, and tribal Fire Departments with funding necessary for training, equipment purchase, vehicle acquisition, public awareness, code enforcement, arson prevention, and the like.

Contact: FEMA, 866-274-0960, 301-447-1608, or <http://www.usfa.fema.gov/grants>

Building Seismic Safety Council (BSSC)

The Building Seismic Safety Council (BSSC) develops and promotes building earthquake risk mitigation regulatory provisions for the nation; www.bssconline.org/.

California Department of Transportation (CalTrans)

CalTrans is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries. Alone and in partnership with Amtrak, CalTrans is also involved in the support of intercity passenger rail service in California.

California Division of Forestry & Fire Protection; <http://www.fire.ca.gov/php/index.php>

Federal Emergency Management Agency (FEMA)

FEMA provides maps of flood hazard areas, various publications related to flood mitigation, funding for flood mitigation projects, and technical assistance, FEMA also operates the National Flood Insurance Program. FEMA is directly responsible for providing fire

suppression assistance grants and, in certain cases, major disaster assistance and hazard mitigation grants in response to fires. The role of FEMA in the wildland /urban interface is to encourage comprehensive disaster preparedness plans and programs, increase the capability of state and local governments and provide for a greater understanding of FEMA programs at the federal, state and local levels.

Federal Wildland Fire Policy, Wildland/Urban Interface Protection

This is a report describing federal policy and interface fire. Areas of needed improvement are identified and addressed through recommended goals and actions.
<http://www.fs.fed.us/land/wdfire7c.htm>

Fire Suppression Assistance Grants

Fire Suppression Assistance Grants may be provided to a state with an approved hazard mitigation plan for the suppression of a forest or grassland fire that threatens to become a major disaster on public or private lands. These grants are provided to protect life and improved property and encourage the development and implementation of viable multi-hazard mitigation measures and provide training to clarify FEMA's programs. The grant may include funds for equipment, supplies and personnel. A Fire Suppression Assistance Grant is the form of assistance most often provided by FEMA to a state for a fire. The grants are cost-shared with states. FEMA's US Fire Administration (USFA) provides public education materials addressing wildland/urban interface issues and the USFA's National Fire Academy provides training programs.

Flood Insurance

The Federal Emergency Management Agency, Federal Insurance Administration provides the opportunity to purchase flood insurance under the Emergency Program of the National Flood Insurance Program (NFIP).

Contact: NFIP, 1-888-CALL-FLOOD ext. 445, <http://www.fema.gov/nfip>

Flood Mitigation Assistance Program (FMA)

With the goal of reducing repetitive losses to the National Flood Insurance Program, this program provides funding for cost-effective actions to reduce or eliminate flood damages.
<http://www.oes.ca.gov/>

Hazard Mitigation Grant Program

Funding from this FEMA program is available to areas affected by a presidentially-declared disaster. The program (75% federal, 25% state) funds mitigation measures through the post-disaster planning process; <http://www.oes.ca.gov/>

Institute for Business & Home Safety

The Institute for Business & Home Safety (IBHS) is a nonprofit association that engages in communication, education, engineering and research. The Institute works to reduce deaths, injuries, property damage, economic losses and human suffering caused by natural disasters;
<http://www.ibhs.org/>.

Los Angeles County Fire Department; <http://www.lacofd.org/default.htm>

Los Angeles County Public Works Department

The Los Angeles County Department of Public Works protects property and promotes public safety through Flood Control, Water Conservation, Road Maintenance, Bridges, Buses and Bicycle Trails, Building and Safety, Land Development, Waterworks, Sewers, Engineering, Capital Projects and Airports.

National Fire Protection Association (NFPA)

This is the principal federal agency involved in the National Wildland/Urban Interface Fire Protection Initiative. NFPA has information on the Initiatives programs and documents.

National Interagency Fire Center (NIFC)

The NIFC in Boise, Idaho is the nation's support center for wildland firefighting. Seven federal agencies work together to coordinate and support wildland fire and disaster operations. These agencies include the Bureau of Indian Affairs, Bureau of Land Management, Forest Service, Fish and Wildlife Service, National Park Service, National Weather Service and Office of Aircraft; <http://www.nifc.gov/>

National Wildland/Urban Interface Fire Protection Program

Federal agencies can use the National Wildland/Urban Interface Fire Protection Program to focus on wildland/urban interface fire protection issues and actions. The Western Governors' Association (WGA) can act as a catalyst to involve state agencies, as well as local and private stakeholders, with the objective of developing an implementation plan to achieve a uniform, integrated national approach to hazard and risk assessment and fire prevention and protection in the wildland/urban interface. The program helps states develop viable and comprehensive wildland fire mitigation plans and performance-based partnerships.

Physical Disaster Loans

The Small Business Administration (SBA) offers loans to victims of declared physical disasters for uninsured losses. The loan limit on these funds may be increased by twenty percent to provide for mitigation measures.

Contact: SBA, 1-800-827-5722, <http://www.sba.gov/>

Property Improvement Loan Insurance

The U.S. Department of Housing and Urban Development (HUD) insures lenders against loss on loans for alterations, repairs and improvements to existing structures and new construction of nonresidential structures.

Contact: HUD, (202) 708-1112, <http://www.hud.gov/>

Public Assistance Program

This FEMA program provides federal funding to communities in the immediate aftermath of a disaster. Grants focus on recovery, repair, and restoration of state and local facilities and non-profit organizations.

Contact: FEMA, <http://www.fema.gov/r-n-r/pa/index.htm>

Snagging and Clearing for Flood Control

The Office of the Chief of Engineers, Department of the Army, Department of Defense provides this service in order to reduce flood control.

Contact: <http://www.usace.army.mil>

Southern California Earthquake Center (SCEC)

The Southern California Earthquake Center (SCEC) gathers new information about earthquakes in Southern California, integrates this information into a comprehensive and predictive understanding of earthquake phenomena, and communicates this understanding to end-users and the general public in order to increase earthquake awareness, reduce economic losses, and save lives.

United States Fire Administration (USFA) of the Federal Emergency Management Agency (FEMA)

As an entity of the Federal Emergency Management Agency, the mission of the USFA is to reduce life and economic losses due to fire and related emergencies through leadership, advocacy, coordination and support; <http://www.fema.gov/hazards/fires/wildfires.shtm> - Wildfire Mitigation; <http://www.usfa.fema.gov/index.htm> - U.S. Fire Administration

U.S. Forest Service

The U. S. Forest Service (USFS) is involved in a fuel-loading program implemented to assess fuels and reduce hazardous buildup on forest lands. The USFS is a cooperating agency and, while it has little to no jurisdiction in the lower valleys, it has an interest in preventing fires in the interface, as fires often burn up the hills and into the higher elevation US forest lands.

United States Geological Survey

The USGS provides reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life; <http://www.usgs.gov/>

Western States Seismic Policy Council (WSSPC)

WSSPC is a regional earthquake consortium funded mainly by FEMA. Its website is a great resource, with information clearly categorized - from policy to engineering to education; <http://www.wsspc.org/home.html/>.

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