Local Hazard Mitigation Plan Annex
City of Pleasant Hill

Introduction

The City of Pleasant Hill is a medium sized city in Contra Costa County, California. The City has a 2005 population of 33,638, based on the California Department of Finance estimates. The City's General Fund adopted budget for 2006/2007 projected $19,904,203 in Revenue. The City employs 140 people. The City provides local police services, zoning and building regulation, storm drain services, and roadway services. Fire services, sanitary sewer services, water services, recreation and park services, transit (bus, rail) services, and school services are provided by special districts.

The Planning Process

Pleasant Hill has a Safety and Noise Element in its General Plan. The General Plan was last updated in July 2003. It includes discussions on hazards involving fire, earthquake, flooding, landslide, hazardous materials, air quality, and noise. The City routinely enforces the requirements of the California Environmental Quality Act (CEQA). Since 1988, the City has required mitigation for identified natural hazards. Using these pre-existing programs as a starting point, the City has identifying gaps that may lead to disaster vulnerabilities and will work on ways to reduce these risks through mitigation.

Many of the activities conducted by the City were incorporated into the planning process for the multi-jurisdictional plan. The City participated in ABAG workshops and meetings. In addition, the City has provided written and oral comments on the Multi-Jurisdictional Plan. Finally, the City provided information on facilities that are viewed as "critical" to ABAG.

Key City staff members met to identify and prioritize mitigation strategies appropriate for the City. Staff involved in these meetings included the Director of Public Works and Community Development, Building Official, Engineering and Police Staff. General priorities were identified. The Draft Local Hazard Mitigation Plan was posted on the City web site and distributed to the special districts. District personnel and the public were provided an opportunity to review it and submit comments. The resolution adopting the plan, annex and Strategies was placed on the City Council's March 19th agenda for its consideration. Upon its adoption, these documents will become an implementation appendix to the Safety and Noise Element of the General Plan.

Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact this community, except for surface faulting and tsunamis. The California Geological Survey has not identified any surface faulting rupture sites in the City. Tsunami is not a hazard due to the elevation of the City and the location of the City relative to the ocean and the bay estuary.

The City has undertaken a number of general hazard mapping activities since the first Safety and Noise Element was prepared, all of these maps, except one map identifying areas more prone to land sliding, are less detailed and are not as current as those shown of the ABAG website at **http://quake.abag.ca.gov/mitigation/**.

Historical information on 25 declared disaster events that occurred between 1950 and 2006 in Contra Costa County is available at:
http://quake.abag.ca.gov/mitigation/disaster-history.html

ABAG maps of the below listed hazards are attached in the appendix. Data sheets are available at the engineering Division counter.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at **http://quake.abag.ca.gov/mitigation/pickdbh2.html**. Our findings of the 4508 urban acres in the City are as follows:

- Earthquake faulting- No known active faults run through the City so rupture of a fault is not a direct concern.
- Earthquake shaking- No areas in the City are in the very violent (highest) category of shaking. All 4508 acres of the City are subject to very strong and violent categories of shaking resulting from the Concord Fault (Western Concord area) earthquake. The western portion of the City may experience violent shaking for a Mt. Diablo Fault (Southern Walnut Creek and Eastern Alamo area) earthquake. The Hayward and the Calaveras faults are located along the western side of the Oakland Hills.
- Earthquake induced landslides- The California Geological Survey has not completed mapping of this hazard in the City of Pleasant Hill. Because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related landslide hazards.
- Existing Landslides- 1615 acres of the City are shown on ABAG's Existing Landslide map.
- Debris-Flow Source Areas- The hillsides adjacent to Morello Avenue, Paso Nogal Road, Alhambra Avenue, Reliez Valley Road and Taylor Boulevard are shown to exist on ABAG's Debris-Flow Source Area map.

- Earthquake liquefaction- 1,485 acres are in areas of moderate, high, or very high liquefaction susceptibility.
- Tsunami- Tsunamis are not believed to be a hazard in the City of Pleasant Hill. The mapping of tsunami hazard has not been completed at this time.
- Flooding- 101 acres are in the 100 year flood plain, while an additional 235 acres are in other flood prone areas. The FEMA's Flood Insurance Rate Map of the City of Pleasant Hill was revised in 2003. The Army Corps of Engineer's mapping of the new flood areas has not yet been completed.
- Wildfires- 20 acres are subject to high wildfire threat (because of the urban nature of the City). But 2034acres are in wildland-urban interface threat areas.
- Dam Inundation - 197 acres are subject to dam inundation.
- Drought - All 4508 acres are subject to drought, no map.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at **http://quake.abag.ca.gov/mitigation/pickdbh2.html**. Our findings of the 110 miles of roadway and 116 miles of pipelines in the City are as follows:

- Earthquake faulting- No known active faults run through the City so rupture of a fault is not a direct concern.
- Earthquake shaking- No roadways or pipelines are in the highest (very violent) category of shaking potential. 97 miles of roadway and 116 miles of pipeline are in the high or violent shaking potential, Concord-Green Valley faults.
- Earthquake induced landslides- The California Geological Survey has not completed mapping of this hazard in the City of Pleasant Hill. Because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related landslide hazards.
- Earthquake liquefaction- 42 miles of roadways and 38 miles of pipeline are in moderate, high or very high categories of liquefaction potential.
- Tsunami- Tsunamis are not believed to be a hazard in the City of Pleasant Hill. The mapping of tsunami hazard has not been completed at this time.
- Flooding- 3 miles of roads and 3 miles of pipeline are in FEMA's 100-year floodplain, while an additional 8 miles of road and 7 miles of pipelines in other flood prone areas. The Flood Insurance Rate Map of the City of Pleasant Hill was revised in 2003.
- Landslides- 33 miles of roads and 34 miles of pipelines in areas of existing landslides
- Wildfires- No roads or pipelines are subject to wildfire threat (because of the urban nature of the City). But 52 miles of roads and 51 miles of pipelines are in wildland-urban interface threat areas.
- Dam Inundation - There are 5 miles of roads and 5 miles of pipelines in the City subject to dam inundation.
- Drought - All 124 miles of roads and 116 miles of pipelines in the City are subject to drought.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at **http://quake.abag.ca.gov/mitigation/pickcrit.html**. Of the critical facilities in the City,

- Earthquake faulting- No active faults run through the City so rupture of a fault is not a direct concern.
- Earthquake shaking- 5 healthcare facilities, 13 schools, 3 city-owned facilities, and 20 bridges are in the moderate and high categories of shaking potential. No facilities are located in the highest risk category.
- Earthquake induced landslides- The California Geological Survey has not completed mapping of this hazard in the city of Pleasant Hill. Because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related landslide hazards.
- Earthquake liquefaction- 3 healthcare facilities, 5 schools, 3 city-owned facilities, and 7 bridges are in high or very high categories of liquefaction susceptibility. 2 healthcare facilities, 8 schools, no city-owned facility, and 13 bridges are in low or very low categories of liquefaction susceptibility.
- Tsunami- Tsunamis are not believed to be a hazard in the City of Pleasant Hill. The mapping of tsunami hazard has not been completed at this time.
- Flooding- 15 bridges are located within FEMA's 100-year flood plain. Bridges are considered to be at higher risk of damage within the flood-prone areas. The Flood Insurance Rate Map of the City of Pleasant Hill was revised in 2003.
- Landslides- 5 critical health care facility, 13 schools, 3 city-owned facilities and 20 bridges are located in areas of few, very few or no existing landslides
- Wildfires- 5 critical health care facility, 13 schools, 4 city-owned facilities and 20 bridges are located in areas of low, very low or moderate wildfire threat. But no critical health care facility, 4 schools, no city-owned facility and 3 bridges are in wildland-urban interface threat areas.
- Dam Inundation - There is 1 school in an area in the City subject to dam inundation.
- Drought - Drought will not affect city buildings directly. The City does not operate a potable water-supply distribution system.

There were 2 repetitive loss properties in the City based upon information at **http://quake.abag.ca.gov/mitigation/pickflood.html**.

The City plans to work with ABAG to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft story apartments located in the City.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

As these impacts are not fully developed, and are a work in progress, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that tsunamis are less of a potential hazard in

the City of Pleasant Hill than flooding, landslides (including unstable earth), and earthquakes (particularly shaking).

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

Mitigation Activities and Priorities

As a participant in the ABAG Multi-Jurisdictional Planning process, the City of Pleasant Hill staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of the engineering staff from the Public Works and Community Development, the Chief Building Official, and staff from the Police Department. In addition, representatives of several special districts, including Contra Costa County Fire Protection District, East Bay Municipal Utility District, Contra Costa Water District, Central Contra Costa Sanitary District, and City of Martinez Sewer District attended. Members of the School District and the Recreation and Park District were invited to this meeting but were not able to attend. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in assessing the strageties. We are not trying to create a disaster proof region, but a disaster resistant one. In addition, several of the strategies are existing City programs.

The draft priorities were provided to the City Council on March 19, 2007 for review and adoption. The public was provided an opportunity at the meeting to comment of the DRAFT priorities. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the City's *Safety and Noise Element or Multi-Hazard Functional Plan.*

In addition, the City examined the hazard exposure information to City-owned critical facilities supplied by ABAG as well as the Risk Assessments available on ABAG's website specific to the City of Pleasant Hill.

Many of the strategies are incorporated in the City's General Plan and its existing development plan and project review process, building code and fire code enforcement programs. The only strategy identified as having a "high" priority without an identified funding agency is ENVI-a-5 - "Streambed management plan." Several strategies are identified as "not yet considered." Some of these strategies may be assigned a "high" priority in the future and may result in applications to FEMA or other sources for mitigation funding. The City has determined that no City owned facilities require seismic

retrofit work. Therefore, the City does not plan to apply for a Pre-Disaster Mitigation Grant for building retrofit work. There appears to be a need to improve coordination and training with the various special districts. There is a need to improve City records and programs with regard to private at-risk facilities. The City will continue discussions with the various special districts to consider applying for Pre-Disaster Mitigation Grants and identifying potential City, State and Federal funding sources.

The Plan Maintenance and Update Process

The City of Pleasant Hill is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City Planning chief will contact ABAG every four years after this plan is approved to ensure that ABAG plans undertake the plan update process. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The Department of Public Works and Community Development will ensure that ***monitoring*** of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City's department heads at least once a year. At that meeting, the department heads will focus on ***evaluating*** the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The ***public*** will continue to be involved whenever the plan is updated and, as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. All comments will be reviewed and considered for integration into the plan.