



# 7

## SAFETY AND NOISE

The purpose of the Safety and Noise Element is to identify the natural and man-made hazards that exist within the City, and to mitigate their potential impacts through both preventative and responsive measures. This Element addresses air quality, noise sources, geology and seismicity, wildfire hazards, hazardous materials, and health and safety services. It also includes policies on natural hazards mitigation planning, which respond to the Federal Disaster Mitigation Act of 2000 and the Federal Emergency Management Agency’s Final Interim Rule, published in October 2002. Hazards related to drainage and flooding are addressed in the Public Facilities Element.

### 7.1 AIR QUALITY

Two types of air pollutants affect air quality in Concord – criteria air pollutants and toxic air contaminants. The city also faces air quality issues relating to odors and nuisances such as dust and smoke. Urban activities in the city also generate greenhouse gases, which contribute to global climate change.

The major source of air pollutants in Concord is motor vehicle emissions. Heavy commute patterns throughout the San Francisco Bay Area have resulted in poor regional air quality levels. Newer model vehicles are producing “cleaner” auto emissions, and will help to counteract the negative air quality impacts associated with increased vehicle use. Nonetheless, the region is still gaining population and jobs, resulting in longer commutes and more vehicles on the road. Continued efforts must be made to reduce emissions through land use and transportation planning.

Criteria and toxic air contaminants (as described below) are controlled by the Bay Area Air Quality Management District (BAAQMD). The City has a more direct role in regulating odors and nuisances, and the release of particulate matter at construction sites.

## Criteria Air Pollutants

Criteria air pollutants—carbon monoxide, ozone, and particulate matter, including nitrogen dioxide, sulfur dioxide, PM<sub>10</sub>, and lead—are most pervasive in urban environments, and State and national ambient air quality standards have been established for them. The Bay Area’s topographical and wind factors reduce local concentrations of criteria air pollutants in Concord. Motor vehicles are expected to continue to be a major source for regional emissions.

Residential, industrial, and commercial development in Concord contributes to regional emissions. Emissions are also generated through industrial and commercial operations and building energy use. Residents and workers may experience occasional violations of PM<sub>10</sub> (particulates) standards due to construction activities and other local dust sources, and may experience elevated concentrations of carbon monoxide along congested freeway segments and at congested intersections.

The primary role of cities in achieving and maintaining regional air quality is through land use decision-making, which can affect vehicle miles traveled, and through other measures to manage the emission of pollutants. BAAQMD identifies specific Transportation Control Measures (TCMs) that, together with other approaches, may help reduce emissions in Concord, contributing to regional pollution control and greenhouse gas reduction efforts.

## Toxic Air Contaminants

Toxic air contaminants are those pollutants that occur at relatively low concentrations and are associated with carcinogenic or other adverse health effects, but for which no ambient air quality standards have been established. These pollutants are typically carcinogens, mutagens, or reproductive toxins. Diesel particulate matter has been identified as a toxic air contaminant and represents 70 percent of the known potential cancer risk from air toxics in California. Regulation of toxic air contaminants is achieved through Federal and State controls on individual sources. The preferred technique for reducing toxic air emissions is source reduction, and as part of a local control strategy in the Bay Area, all applications for new stationary sources are reviewed to ensure compliance with required emission controls and limits.

The ambient background of toxic air contaminants is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources. The

BAAQMD notes a particular need to reduce exposure to particulates and air toxics related to freeways and major arterials, especially those with high volumes of truck traffic, as well as exposure related to goods movement and distribution centers. Generally, ambient concentrations of toxic air contaminants are similar throughout the urbanized area of the Bay Area. BAAQMD regulates toxic air contaminants from stationary sources through their permit process; mobile sources of toxic air contaminants are regulated indirectly through vehicle emissions standards and through fuel specifications. Cities have a role in reducing public exposure to toxic air contaminants through ensuring sufficient buffer zones around stationary sources and by reducing vehicle trips.

### **Odors and Nuisances**

Odors and nuisances include those emissions which occur infrequently but which have the potential to generate citizen complaints. BAAQMD records indicate certain industrial facilities in Concord occasionally generate citizen complaints. Increased buffering of incompatible uses and control of dust from construction are potential local approaches to controlling odors and nuisances.

### **Air Quality Monitoring Stations**

BAAQMD operates a regional network of air pollution monitoring stations that provide information on ambient concentrations of criteria air pollutants and toxic air contaminants. Two stations are operated within the City limits: number 2018, located at 2975 Treat Boulevard, and number 2032, located at 2477 Arnold Industrial Way. Table 7-1 summarizes air quality data collected from the monitoring station on Treat Blvd.

### **Sensitive Receptors**

Some people are more sensitive than others to air pollutants. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and duration of exposure to air pollutants. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollution. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors which should not be located near sources of noise, such as an airport.

**Table 7-1: Concord Air Pollution Summary (For the year 2003)**

	Max 1-Hr	Max 8-Hr	Max 24-Hr	Nat Days	Cal Days
Ozone	10	--	--	0	5
	--	9	--	1	--
Carbon Monoxide (ppm)	3.2	2.0	--	0	0
Nitrogen Dioxide (ppm)	6	--	--	0	0
Sulfur Dioxide	--	--	--	0	0
PM <sub>10</sub>	--	--	34	0	--
PM <sub>2.5</sub>	--	--	50	--	--

**Explanation of Terms**

*Max 1-Hr / 8-Hr / 24-Hr.* The highest average contaminant concentration over a one-hour period, an eight-hour period (on any given day), or a 24-hour period (from midnight to midnight).

*Nat Days.* The number of days during the year for which the monitoring station recorded contaminant concentrations in excess of the national standard.

*Cal Days.* The number of days during the year for which the station recorded contaminant levels in excess of the California standard.

*PM<sub>10</sub>.* Particulate matter ten microns or smaller in size. (PM<sub>10</sub> is only sampled every sixth day. Actual days over standard can be estimated to be six times the number shown.)

*PM<sub>2.5</sub>.* Particulate matter 2.5 microns or smaller in size. PM<sub>2.5</sub> is a sub-category of PM<sub>10</sub>.

Source: Bay Area Air Quality Management District, 2004

### Greenhouse Gases

On a global level, activities such as motor vehicle use, manufacturing, and power plant operations are generating carbon dioxide, methane, and other “greenhouse” gases faster than the earth’s atmosphere can absorb them. These emissions are expected to lead to global temperature increases in the next century, potentially affecting Concord’s flora and fauna, water supply, and climate. Assembly Bill (AB) 32, approved by the State legislature in 2006, required the California Air Resources Board to develop regulations and programs to reduce the state’s greenhouse gas emissions to 1990 levels by 2020. Subsequently, Senate Bill (SB) 375 was adopted to reduce statewide motor vehicle emissions, in part by improving coordination between land use, transportation and housing decisions.

Like other cities in California, the City of Concord is taking action to address climate change through its land use and transportation policies. This is particularly important on the Concord Reuse Project (CRP) site. The CRP Area Plan presents an unprecedented opportunity to develop a new kind of community—one that is less reliant on automobiles and which yields far lower levels of greenhouse gas emissions per capita than conventional development. The Area Plan for the CRP includes a “Climate Action Plan” which outlines the strategies for achieving this objective. The most basic

elements of this Plan are to concentrate new development around BART; build at densities that support transit use; develop a well-connected bicycle and pedestrian system; provide a balanced mix of employment, services, and housing to minimize trip lengths; and incorporate advanced energy conservation and efficiency measures in the design of new buildings and infrastructure. A separate Climate Action Plan for the City as a whole also is planned.

## 7.2 NOISE

### Noise Characteristics and Measurement

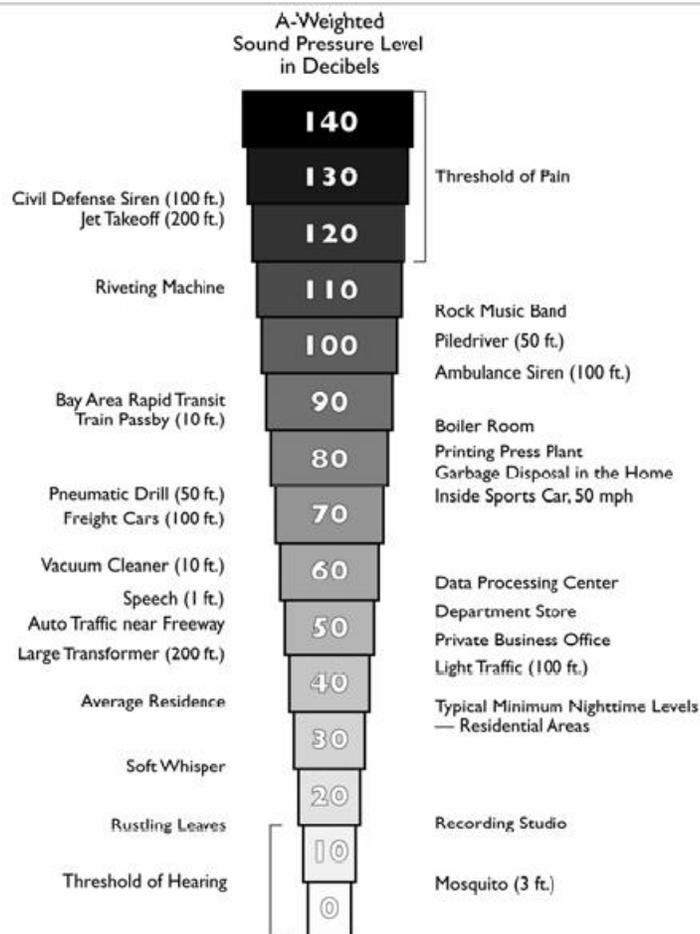
Noises vary widely in their scope, source, and volume, ranging from individual occurrences such as leaf blowers, to the intermittent disturbances of overhead aircraft, to the fairly constant noise generated by traffic on freeways. Noise is primarily a concern with regard to noise-sensitive uses such as residences, schools, churches, and hospitals.

#### Noise Measurement

Noise is commonly defined as undesirable or unwanted sound. Three aspects of community noise are used in assessing the noise environment:

- Level (e.g., magnitude or loudness) of sound. Sound levels are measured and expressed in decibels (dB) with 10 dB roughly equal to the threshold of hearing. Figure 7-1 shows the decibel levels associated with different common sounds.
- Frequency composition or spectrum of the sound. Frequency is a measure of the pressure fluctuations per second, measured in units of hertz (Hz). The characterization of sound level magnitude with respect to frequency is the sound spectrum, often described in octave bands, which divide the audible human frequency range (e.g., from 20 to 20,000 Hz) into ten segments.
- Variation in sound level with time, measured as noise exposure. Most community noise is produced by many distant noise sources that change gradually throughout the day and produce a relatively steady background noise having no identifiable source. Identifiable events of brief duration, such as aircraft flyovers, cause the community noise level to vary from instant to instant. A single number called the equivalent sound level or Leq describes the average noise exposure level over a period of time.

**FIGURE 7-1: TYPICAL SOUND LEVELS**



(n ft.) = Distance in feet between source and listener

Transient noise events may be described by their maximum A weighted noise level (dBA). Hourly Noise Levels are mentioned in Leq values.

### Reporting Noise Levels

Measuring and reporting noise levels involves accounting for variations in sensitivity to noise during the daytime versus nighttime hours. Noise descriptors used for analysis need to factor for human sensitivity to nighttime noise when background noise levels are generally lower than in the daytime and outside noise intrusions are more noticeable. Common descriptors include the Community Noise Equivalent Level (CNEL) and the Day-Night Average Level (DNL, symbol (Ldn)). Both reflect noise exposure over an average day with weighting to reflect the increased sensitivity to noise during the evening and night. The two descriptors are roughly equivalent. The CNEL descriptor is used in relation to major continuous noise sources, such as aircraft or traffic, and is the reference level for the Noise Element.

Knowledge of the following relationships is helpful in understanding how changes in noise and noise exposure are perceived:

- Except under special conditions, a change in sound level of 1 dB cannot be perceived;
- A 3 dB change is considered a just noticeable difference;
- A 5 dB change is required before any noticeable change in community response would be expected. A 5 dB increase is often considered a significant impact; and
- A 10 dB increase is subjectively heard as an approximate doubling in loudness and almost always causes an adverse community response.

### **Noise Generation in Concord**

The major noise source in Concord is related to vehicle traffic. Other noise sources include aircraft and rail transportation. Noise produced by industry has a negligible effect on the City's residential noise environment.

#### **Traffic Noise**

Traffic noise depends primarily on the speed of traffic and the percentage of truck traffic. The primary source of noise from automobiles is high frequency tire noise, which increases with speed. In addition, trucks and older automobiles produce engine and exhaust noise, and trucks also generate wind noise. While tire noise from autos is generally located at ground level, truck noise sources can be located as high as ten to fifteen feet above the roadbed due to tall exhaust stacks and higher engines; sound walls are not effective for mitigating such noise unless they are very tall.

According to common practice, maximum noise levels of 60 dB are considered "normally acceptable" for unshielded residential development. Noise levels from 60 dB to 70 dB fall within the "conditionally unacceptable" range, and those in the 70 dB to 75 dB range are considered "normally unacceptable."

Noise exposure contours for Concord were modeled by Charles Salter Associates by applying the Federal Highway Administration's noise modeling procedure. These noise contours are conservative, meaning that the contours are modeled with minimal noise attenuation by natural barriers, buildings, etc. The noise level measured at a specific location may be lower than what is shown on the noise contour map.

### **Projected Conditions under General Plan Buildout**

Future development within the City's Planning Area will result in increased auto and truck traffic volumes and planned helicopter flights, thus increasing noise levels somewhat in some areas. Future noise contours are illustrated in Figure 7-2. The Figure does not include future noise contours along new through-streets within the Concord Reuse Project Area, nor does it include changes to noise contours outside the CRP Area resulting from traffic generated by CRP development. The environmental review for the CRP included an analysis of future noise conditions and mitigation measures. Noise contours for future through-streets will be mapped as more detailed plans for the Reuse Project are developed.

Noise caused by increases in traffic levels can be counteracted by the implementation of alternate forms of transportation and land use design that factor in noise concerns. Locating noise-sensitive uses away from high-noise areas (e.g., major transportation routes) and buffering noise levels through design and landscaping features will help minimize future noise-related land use conflicts. Policies in this chapter establish review criteria for certain land uses to ensure that future noise levels will not exceed acceptable levels near noise-sensitive land uses.

### **Helicopter Noise**

The John Muir Health, Concord Campus is planning to provide helicopter service for medical emergencies. Two potential sites have been identified on the Center's campus; ultimately, one site will be selected for development by the John Muir Health, Concord Campus. The anticipated flight paths would generally follow Port Chicago Highway and major freeways, although Salvio Street and Clayton Road also may be used for approaches from Highway 242 from the south. Final flight paths would be approved by the California Department of Aeronautics, based on construction clearance considerations, wind directions and minimizing impacts on nearby land use. Helicopter noise contours associated with these two sites are shown in Figure 7-3.

Figure 7-2

**Future Noise Contours**

- - - - - CNEL 60 Contour
- CNEL 65 Contour

**John Muir Health, Concord Campus**

Alternative 1

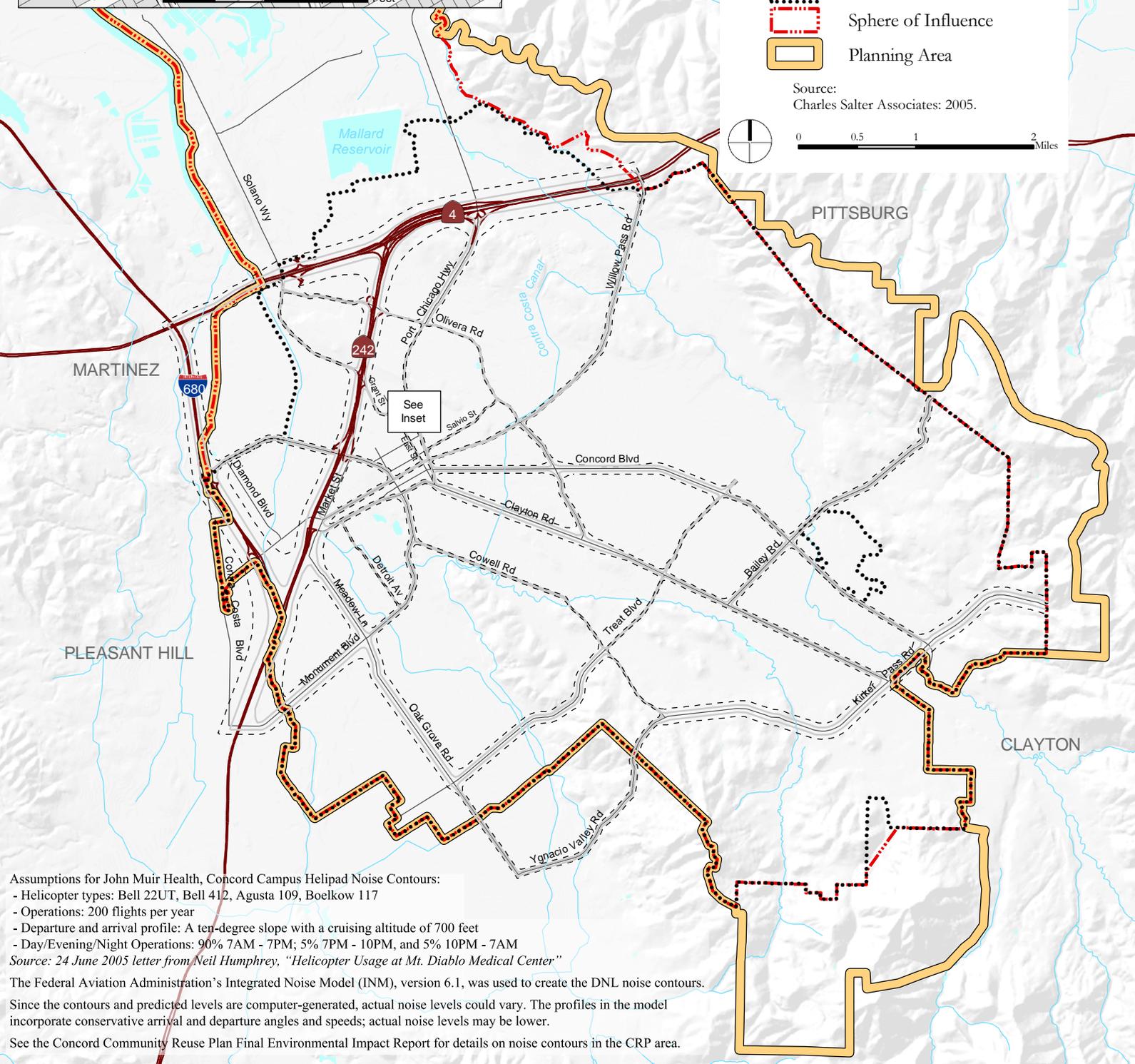
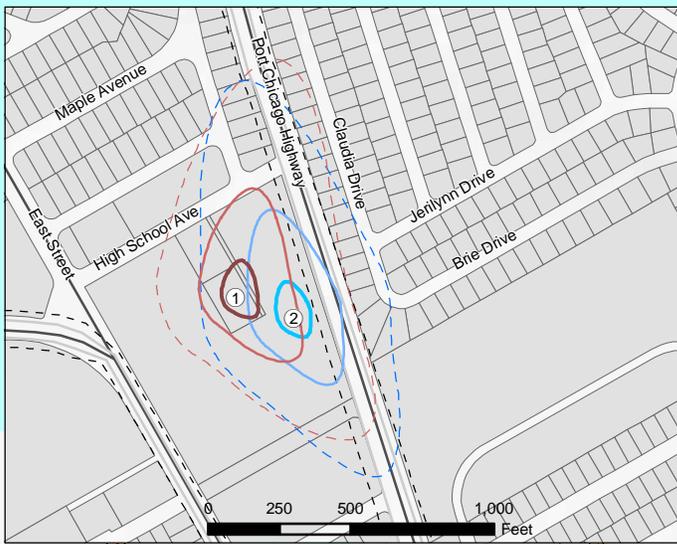
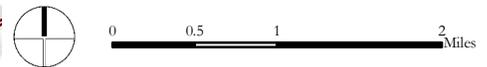
- - - - - CNEL 50 Contour
- CNEL 55 Contour
- CNEL 60 Contour

Alternative 2

- - - - - CNEL 50 Contour
- CNEL 55 Contour
- CNEL 60 Contour

- ⋯ City Limits
- ⋯ Sphere of Influence
- ▭ Planning Area

Source:  
Charles Salter Associates: 2005.



Assumptions for John Muir Health, Concord Campus Helipad Noise Contours:  
 - Helicopter types: Bell 22UT, Bell 412, Agusta 109, Boelkow 117  
 - Operations: 200 flights per year  
 - Departure and arrival profile: A ten-degree slope with a cruising altitude of 700 feet  
 - Day/Evening/Night Operations: 90% 7AM - 7PM; 5% 7PM - 10PM, and 5% 10PM - 7AM  
 Source: 24 June 2005 letter from Neil Humphrey, "Helicopter Usage at Mt. Diablo Medical Center"

The Federal Aviation Administration's Integrated Noise Model (INM), version 6.1, was used to create the DNL noise contours.  
 Since the contours and predicted levels are computer-generated, actual noise levels could vary. The profiles in the model incorporate conservative arrival and departure angles and speeds; actual noise levels may be lower.  
 See the Concord Community Reuse Plan Final Environmental Impact Report for details on noise contours in the CRP area.

### **Buchanan Field Airport Noise**

The City recognizes the importance of Buchanan Field Airport to the community and region, and aims to achieve compatibility between the Airport and neighboring land uses. Contra Costa County, the agency that has jurisdictional authority over the airport, has developed projected noise contours for several different scenarios. Figure 7-3 maps projected noise contours and lists the associated activity assumptions.

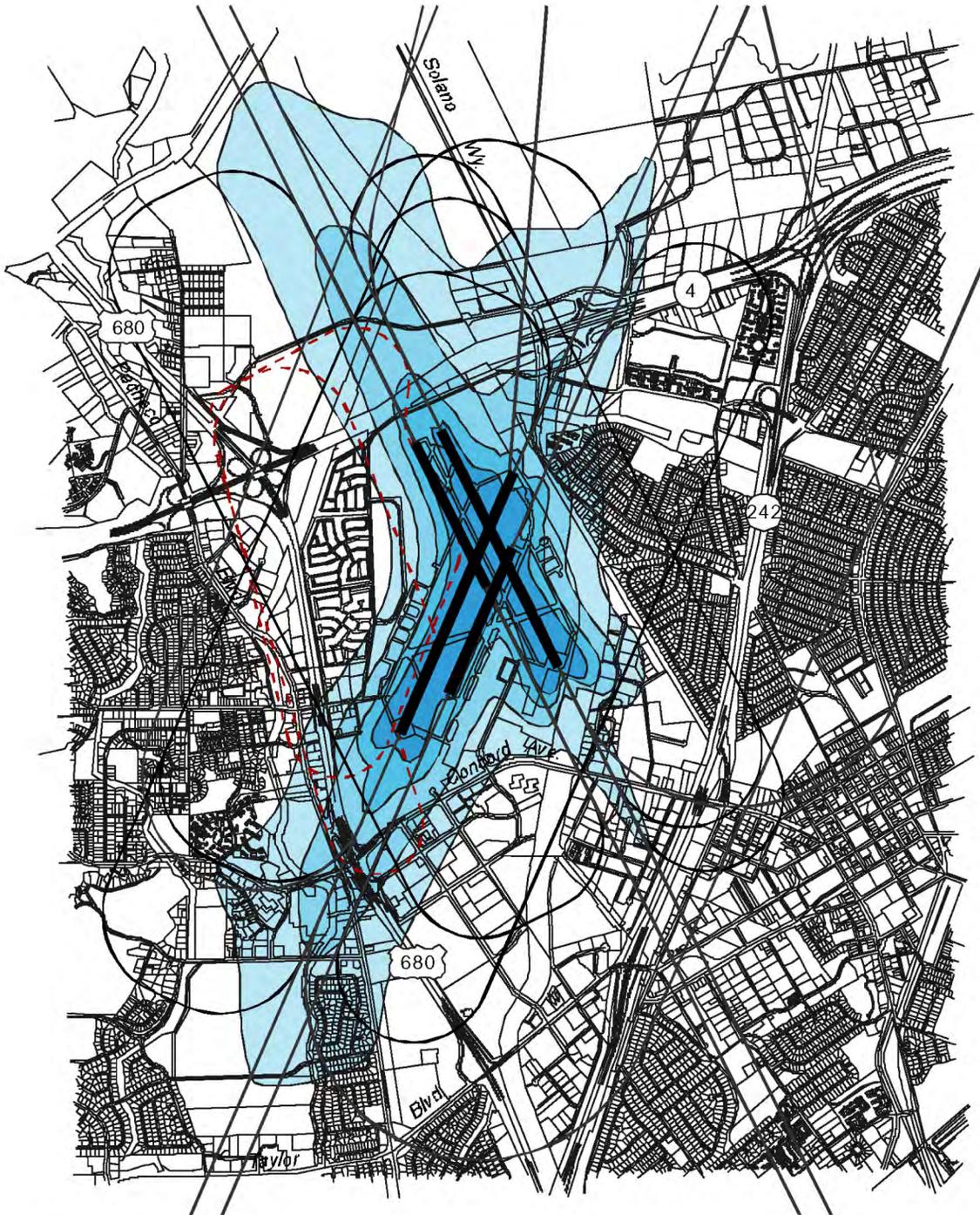
## **7.3 GEOLOGIC AND SEISMIC HAZARDS**

The San Francisco Bay Area contains both active and potentially active faults. Earthquakes pose especially high risks to Concord because of the City's close proximity to active faults with relatively frequent past movements. The Concord Fault is located within the City limits, and the Hayward Fault is located approximately 15 miles west. The Hayward and San Andreas Faults are the two principally active faults in the Bay Area. The San Andreas Fault, located approximately 32 miles west of Concord, is a major structural feature in the region, and forms a boundary between the North American and Pacific Tectonic plates. Other principally active faults in the region include the Green Valley, Rodger's Creek, Calaveras, Clayton, Diablo, and Marsh Creek-Greenville Faults. However, of these, only the Concord Fault is within an identified Alquist-Priolo Earthquake Fault Zone (see below).

### **Fault Rupture Hazard Zones**

Fault rupture is displacement at the earth's surface resulting from fault movement associated with an earthquake. Surface fault rupture is typically observed close to or on the trace of an active fault. The City of Concord is bisected by the active Concord Fault. Areas within Concord that are most likely to experience fault rupture from movement on the Concord Fault are incorporated within the Alquist-Priolo Earthquake Fault Zone. Extending approximately 1,000 to 2,500 feet wide, the Alquist-Priolo Earthquake Fault Zone is established by the California Geological Survey under the Alquist-Priolo Special Studies Zones Act of 1972. Development within this zone is strictly regulated, and requires detailed geologic and seismic evaluations to assess the potential for fault rupture hazard before a construction permit can be issued for most projects. Fault rupture hazards may severely limit potential future development within this zone.

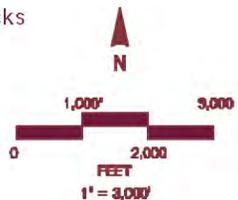
Figure 7-3: Buchanan Field Airport Noise Contours



**Activity Assumptions**

- 214,000 Total Annual Aircraft Operations
- 4,000 Helicopter Operations Included
- No 1970s Era Business Jets

- - - Typical Helicopter Touch & Go Flight Tracks
- Typical Airplane Flight Tracks
- 55-60dBCNEL
- 60-65dBCNEL
- 65-70dBCNEL
- 70+ dBCNEL



## Ground Shaking Susceptibility

Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. Based on proximity to active faults, certain areas may experience shaking on a more frequent basis. Figure 7-4 displays the potential for earthquake intensity based on a combination of geologic materials, proximity to active faults, and frequency of shaking. The areas with the highest anticipated intensity are those underlain by estuarine deposits near the mouth of Pacheco Creek and along the shoreline of Suisun Bay, in close proximity to the active Concord Fault.

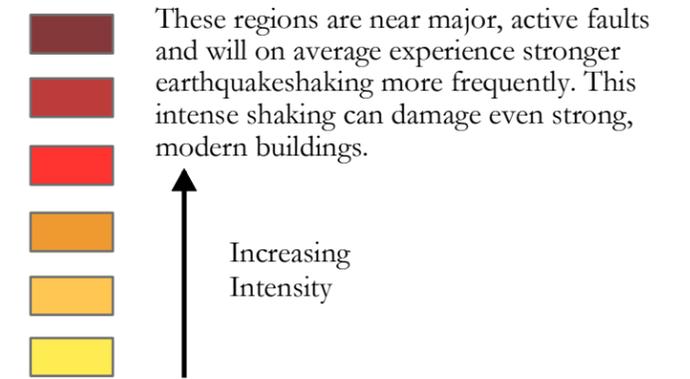
The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Areas that are underlain by bedrock and areas farther away from the active faults tend to experience less ground shaking or ground shaking on a less frequent basis than those underlain by unconsolidated sediments such as artificial fill or unconsolidated alluvial fill. The strongest ground shaking is anticipated to occur as a result of an earthquake on the Concord Fault, due to immediate proximity. Damage in areas immediately bordering the fault and those underlain by estuarine deposits near the mouth of Pacheco Creek and along the shoreline of Suisun Bay could be significant.

## Liquefaction Potential

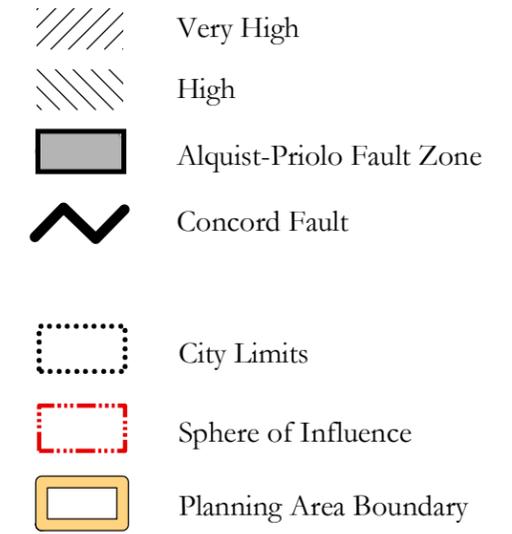
Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluid-like behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction more commonly occurs in looser, saturated materials. Areas susceptible to liquefaction are typically underlain by water-saturated, unconsolidated, loose, granular materials, and in unconsolidated or artificial fill sediments located in reclaimed areas along the margin of Suisun Bay. Regions within Concord that have high to very high levels of liquefaction susceptibility include Clayton Valley and areas along Suisun Bay, Pacheco Creek, and the Hastings and Belloma Sloughs, as depicted on Figure 7-4.

Figure 7-4  
**Geologic and Seismic Hazards**

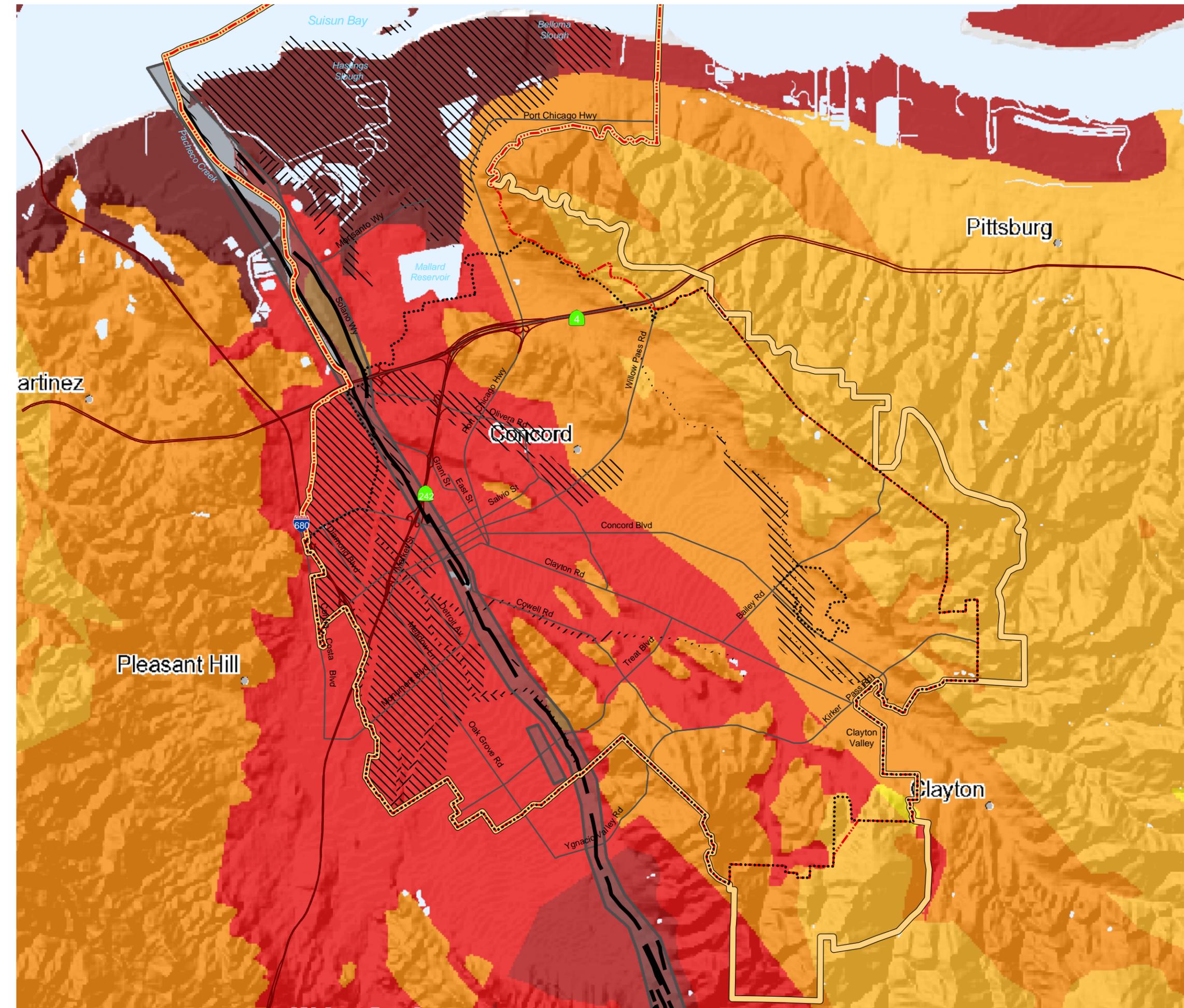
**Earthquake Shaking Potential**



**Liquefaction Potential**



Source:  
 Estimated regions based on underlying geologic material, based on data from the California Association of Bay Area Governments, November 2004. Alquist-Priolo fault zone from the State of California, Department of Conservation, 1993.



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## 7.4 WILDFIRE HAZARDS

Wildland fire hazard potential is largely dependent on the extent and type of vegetation, known as surface fuels, that exists within a region. Fire hazards are typically highest in heavily wooded, undeveloped areas as trees are a greater source of fuel than low-lying brush or grasslands. Suburban or urban areas or rocky barren areas have minimal surface fuels and therefore typically have the lowest fire hazard. In Concord, the majority of the surface fuels are classified as grassy, urban, or barren areas. These areas would be considered a low to moderate fire hazard, as depicted on Figure 7-5. Almost the entire Concord Reuse Project site is considered to have a moderate hazard. The grassy and relatively undeveloped hills in Los Medanos Hills and the Mt. Diablo Foothills are generally considered a moderate fire hazard. On the other hand, urban settings have a higher fire risk than rural areas because of structure density, according to the Association of Bay Area Governments' Natural Hazard Mitigation Plan. As a consequence, the net result may be an increase in overall fire risk.

## 7.5 HAZARDOUS MATERIALS

Areas where historic or on-going activities have resulted in the known or suspected release of hazardous materials to soil and groundwater, as identified by the San Francisco Bay Regional Water Quality Control Board, Environmental Conditions Report for the CNWS, and California Department of Toxic Substances, are depicted on Figure 7-6. Sites with contamination are largely clustered around prior or existing industrial areas of Clayton Road, Concord Avenue, Detroit Avenue, Monument Boulevard, and Willow Pass Road. This potential contamination may be the result of underground storage tank (UST) releases, spills, accidental releases or other activities involving the use of hazardous materials. In general, the areas highlighted are industrial and manufacturing areas, although some represent gas stations, dry cleaners, or other small businesses.

Military activities at the former CNWS are known to have impacted soil and groundwater. Numerous solid waste management units and storage tanks are located in the CNWS, many of which have been recommended for "No Further Action" by the California Department of Toxic Substances Control (DTSC). A 2005 draft Preliminary Assessment for the CNWS identified nine areas of concern, six of which potentially contain Munitions and Explosives of Concern or Munitions Constituents. Subsequent evaluations of hazardous materials were conducted as

Figure 7-5

### Wildfire Hazards

-  Low Fire Hazard
-  Moderate Fire Hazard
-  City Limits
-  Sphere of Influence
-  Planning Area

Source:  
Level of fire hazard severity based on surface  
fuels analysis, California Department of Forestry  
and Fire Protection, 2000.

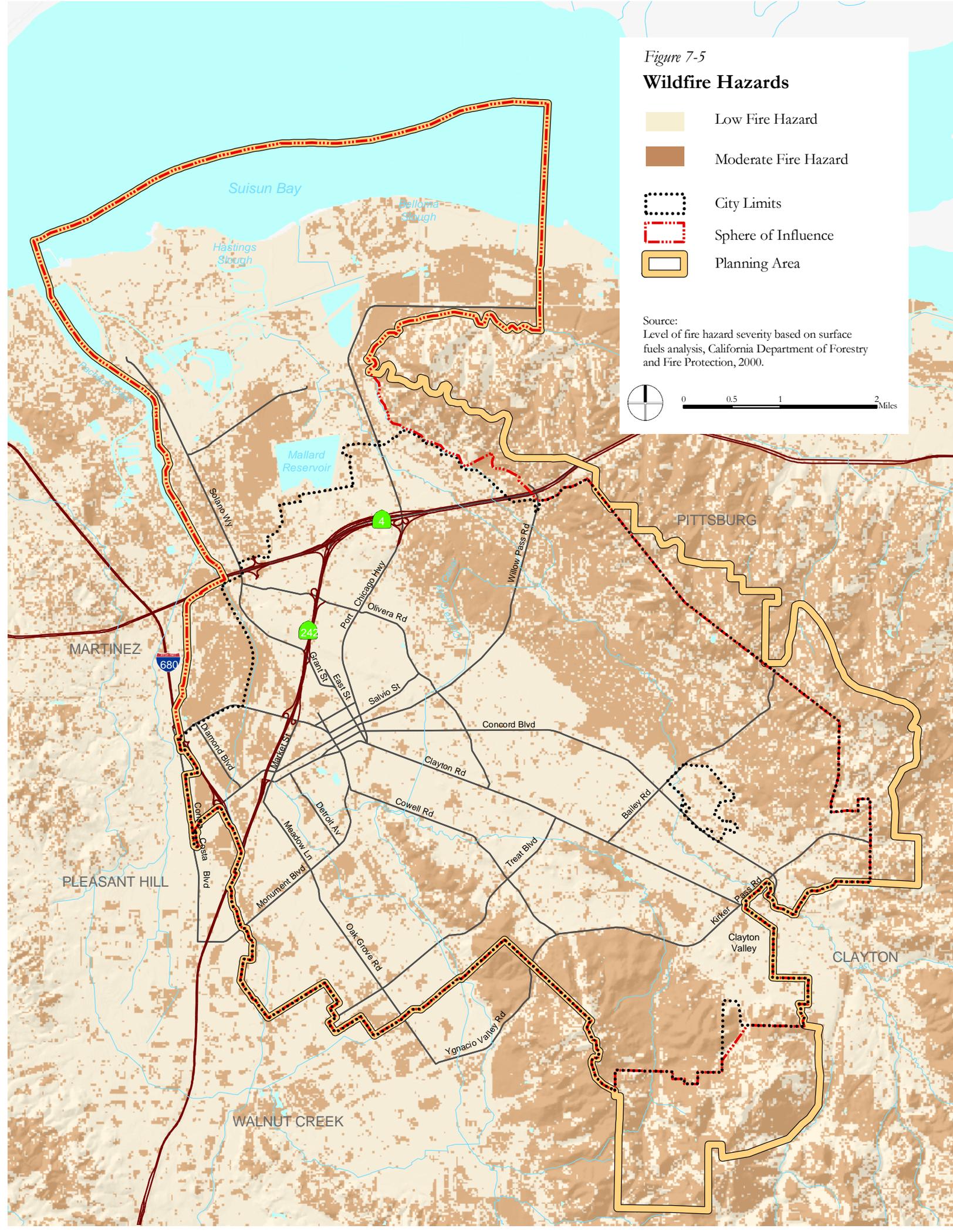
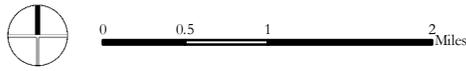


Figure 7-6

### Hazardous Materials

- ◆ Site listed in the Brownfields Reuse Program\*
- ◆ School site listed in the Brownfields Reuse Program\*
- ◆ Site listed in the database of Spills, Leaks, Investigations, and Cleanups (SLIC)\*\*
- ◆ Site listed in the database of Leaking Underground Storage Tanks (UST)\*\*
- Solid Waste Management Units\*\*\*
- Potential MEC Areas of Concern \*\*\*
- CRP Area
- City Limits
- Sphere of Influence
- Planning Area

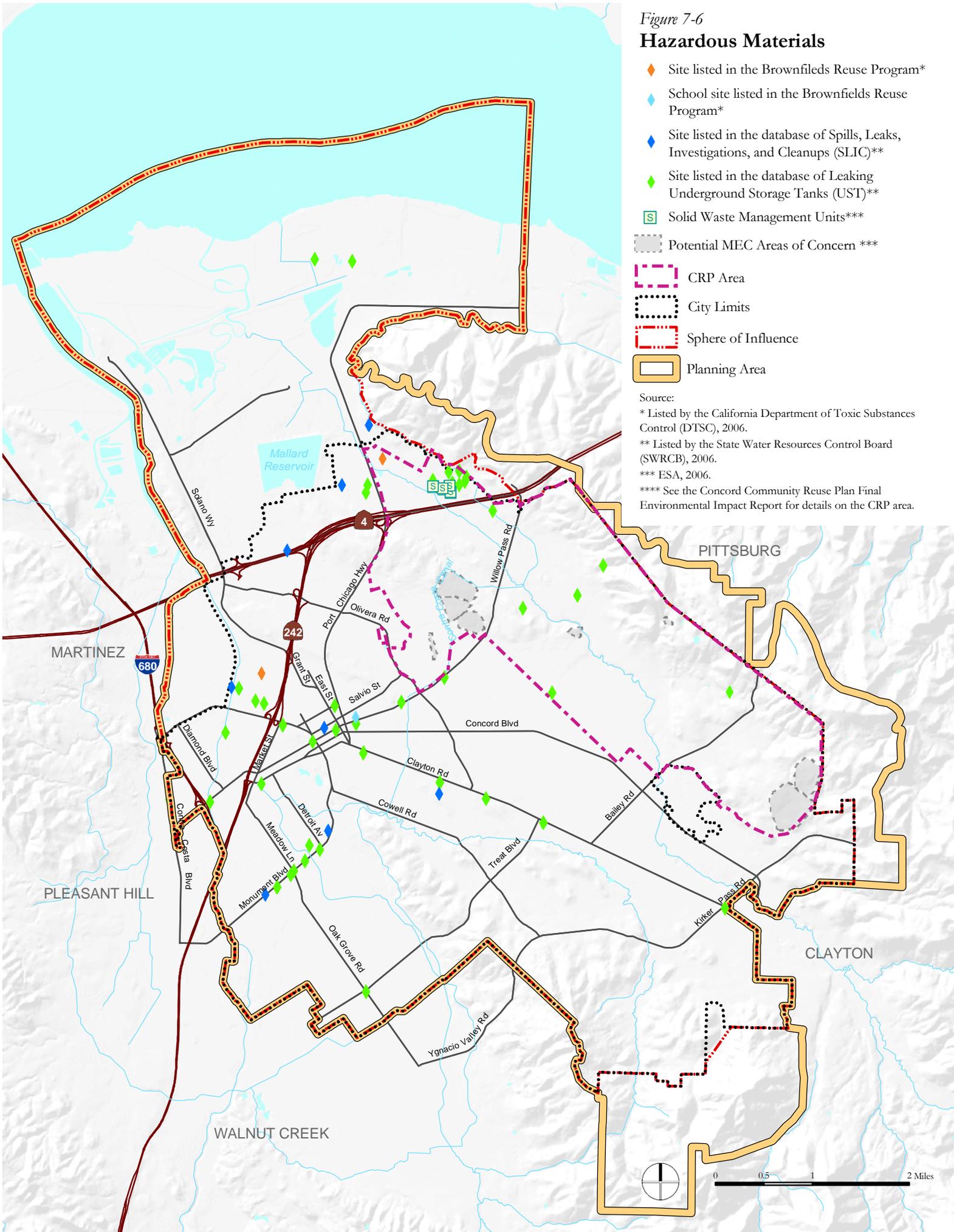
Source:

\* Listed by the California Department of Toxic Substances Control (DTSC), 2006.

\*\* Listed by the State Water Resources Control Board (SWRCB), 2006.

\*\*\* ESA, 2006.

\*\*\*\* See the Concord Community Reuse Plan Final Environmental Impact Report for details on the CRP area.



part of the base reuse planning process. Provisions for remediating hazards prior to development approval were established through this process and will be implemented during the time period covered by the General Plan.

Releases, leaks, or disposal of chemical compounds, such as petroleum hydrocarbons, on or below the ground surface can lead to contamination of underlying soil and groundwater. Disturbance of a previously contaminated area through grading or excavation operations could expose the public to health hazards from physical contact with contaminated materials or hazardous vapors. Improper handling or storage of contaminated soil and groundwater can further expose the public to these hazards, or potentially spread contamination through surface water runoff or air-borne dust. In addition, contaminated groundwater can spread down gradient, potentially contaminating subsurface areas of surrounding properties.

## **7.6 HEALTH AND SAFETY SERVICES**

The Concord Police Department and Contra Costa County Fire Protection District provide police fire, and life safety services in Concord.

### **Police Services**

In 2006, the Concord Police Department had a staff of 161 sworn police officers, which equaled approximately 1.3 officers per 1,000 residents. This service ratio is between the nationally-accepted standard service ratio of 1.25 officers per 1,000 residents and the California standard, which ranges from 1.4 –1.7 per 1,000 residents. In addition to sworn staff, the Police Department operated with an authorized non-sworn strength of 65 full-time employees. The department also provides significant services through employment of non-sworn, part-time employees, whose number fluctuates throughout the year.

The Police Department headquarters building is located at 1350 Galindo Way. The Department provides services based on three community policing districts (the Northern, Southern, and Valley districts). The boundaries of these districts are illustrated on Figure 7-7.

### **Fire & Life Safety Services**

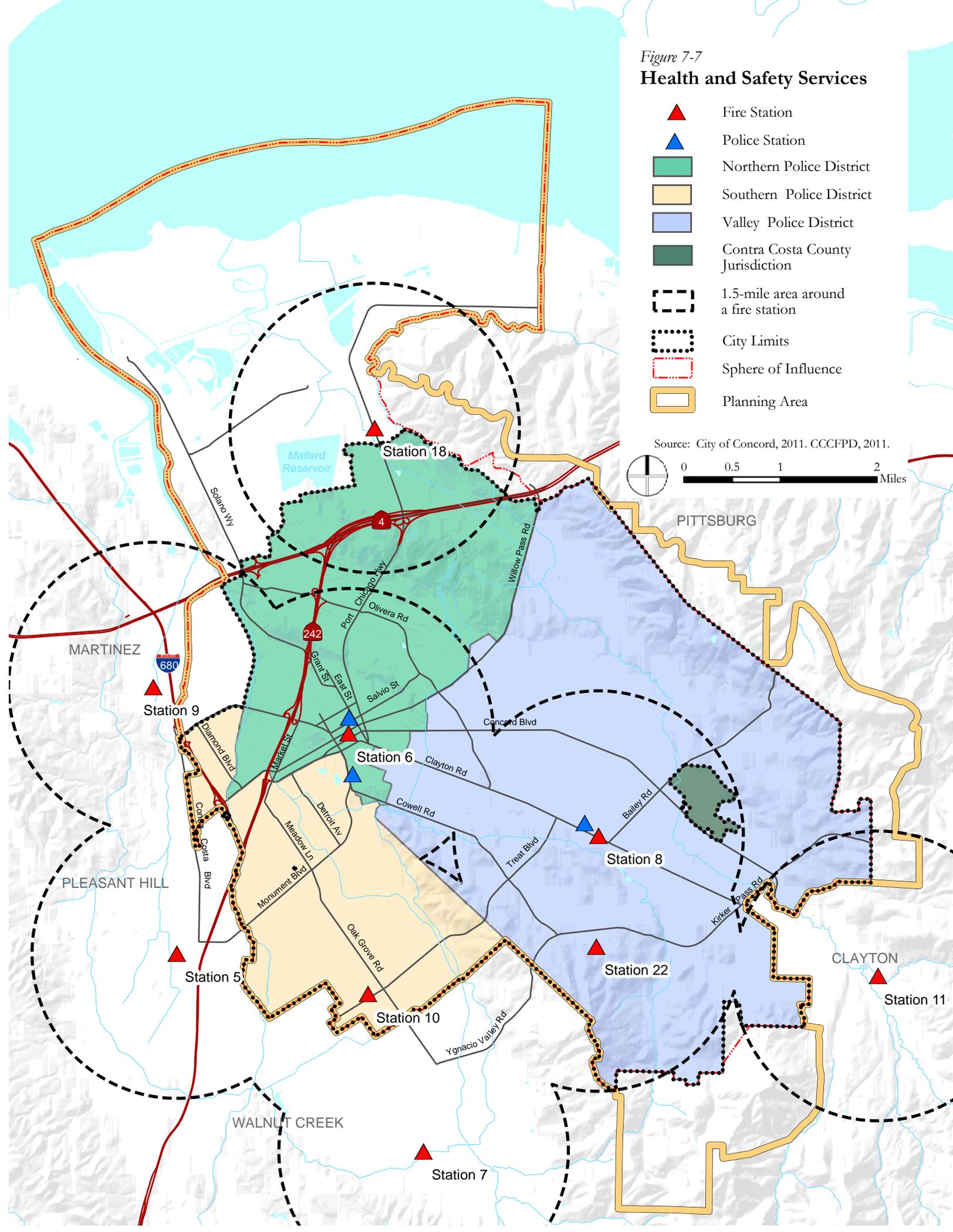
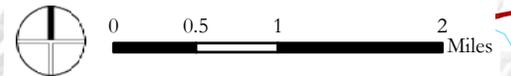
The Contra Costa County Fire Protection District (CCCFPD) provides fire and life safety services within the City of Concord. In addition to services provided by CCCFPD personnel, the District also maintains mutual-aid agreements with the East

Figure 7-7

### Health and Safety Services

-  Fire Station
-  Police Station
-  Northern Police District
-  Southern Police District
-  Valley Police District
-  Contra Costa County Jurisdiction
-  1.5-mile area around a fire station
-  City Limits
-  Sphere of Influence
-  Planning Area

Source: City of Concord, 2011. CCCFPD, 2011.



Diablo Fire Protection District, East Bay Regional Park District, California Department of Forestry, and private industrial companies located within its jurisdiction. These agreements provide the CCCFPD with emergency response assistance on an as-needed basis.

The dispatch time goal for the CCCFPD is to relay a dispatch within 90 seconds of receiving a call for service. Currently, the average time from call to dispatch is 103 seconds. The Insurance Service Office (ISO)—a private organization that surveys fire departments in cities and towns across the United States—awarded the CCCFPD a Class 3 rating (1 being highest and 10 being lowest). This rating considers a community’s fire defense capacity versus fire potential, and then uses the score to set property insurance premiums for homeowners and commercial property owners.

**Facilities**

Eight CCCFPD fire stations currently serve the City of Concord. The location and number of 24-hour personnel at each station as of 2006 are displayed in Table 7-2. The CCCFPD operates a countywide early warning system for industrial fires. Called the Community Warning System (CWS), sirens installed at industrial facilities automatically sound when an incident occurs. The system alerts residents via television and radio announcements

**Table 7-2: Fire Stations Serving Concord**

Station	Location	24-Hour Personnel
Station 5	205 Boyd Road (Pleasant Hill)	3
Station 6	2210 Willow Pass Road	3
Station 8	4647 Clayton Road	3
Station 9	209 Center Avenue (Pacheco)	3
Station 10	2955 Treat Boulevard	3
Station 11	6500 Center Street (Clayton)	3
Station 18	145 Sussex Street (Clyde)	N/A
Station 22	5050 Crystyl Ranch Parkway	3
<b>Total</b>		<b>21</b>

Source: CCCFPD, 2011

## 7.7 NATURAL HAZARD MITIGATION PLANNING

Mitigation planning is an effective method of reducing risk to life and property from natural disasters such as earthquakes or wildfires. The City of Concord undertook a policy initiative to adopt and implement a Local Hazard Mitigation Plan (LHMP), which was adopted by the City Council in July 2005, and updated in March 2012. The Plan ensures that emergency services providers are adequately prepared to respond to a major seismic event on the Concord Fault or other Bay Area earthquake fault.

The LHMP was prepared in coordination with the Association of Bay Area Governments (ABAG) with funding and oversight from FEMA. As part of the LHMP, the City identified critical health care facilities, schools, City buildings, and roadways located in areas anticipated to be subjected to high levels of ground shaking, liquefaction, flooding or wildland fires. In order to address these hazards, the City also identified mitigation strategies such as replacement of aging utility lines, seismic retrofitting of facilities critical to providing emergency services, and ensuring coordination among City, County and State agencies that provide emergency service response, as well as private sector organizations such as local hospitals (City of Concord, 2012). The City has adopted the list of mitigation strategies from the LHMP as the Implementation Appendix for this Safety Element in the areas of infrastructure, health, housing, economy, government, environment and land use.

The LHMP initiative was undertaken in accordance with the federal Disaster Mitigation Act of 2000 (DMA), which requires local agencies to adopt an approved Hazard Mitigation Plan to be eligible for pre-disaster hazard mitigation funding. The DMA establishes a national hazard mitigation program to reduce the loss of life and property, human suffering, economic disruption and disaster assistance costs resulting from natural disasters. The DMA also provides a source of pre-disaster hazard mitigation funding to assist local governments in implementing effective hazard mitigation measures to ensure the continued functionality of critical services and facilities after a natural disaster.

This first part of the City of Concord's two-part LHMP is a Multi-jurisdictional Regional Hazard Mitigation Plan entitled, "Taming Natural Disasters," which was developed in cooperation with other local agencies and the Association of Bay Area Governments. The second part is a Local Annex to the regional plan, with priorities and strategies specific to the City of Concord. The Annex also describes the City's efforts during the development of the LHMP,

including participation in workshops, staff training and public input; the Hazard and Risk assessment process and the result of the hazard assessment; the process for identifying mitigation activities and setting priorities; as well as the process for maintaining and updating the Plan.

A critical component to a successful mitigation planning project, and a requirement of the federal law, is to have a well-defined planning process with opportunities for public involvement. The multi-jurisdictional approach the City undertook emphasizes a thorough and well-documented planning process, using the City's Internet web page and public outreach process to maximize public access to project information. This process was also used to solicit input during the five-year update in 2009-2011.

Both sections of the LHMP have been reviewed and approved by the Federal Emergency Management Agency (FEMA). FEMA requires the completion and adoption of LHMPs as a continuing condition for eligibility to receive FEMA grant assistance, particularly for pre-disaster planning and projects that prevent disasters.

The 2009-2011 update of the LHMP was adopted by the Concord City Council in March 2012. The updated plan continues to include an "Umbrella" Plan which applies to numerous participating agencies, and an "Annex" which is Concord-specific. The 2012 Annex provides a status update on the City's ongoing mitigation projects, including identifying a back-up Emergency Operations Center, funding of road and bridge retrofits, setting up memoranda of understanding for the use of schools as emergency shelters, training of City staff and school district personnel, and translation of outreach material into multiple languages. The Annex also identifies new mitigation projects, such as inventory of soft-story buildings and installation of alert and warning systems.

## 7.8 GOALS, PRINCIPLES, AND POLICIES

### GOAL S-1: AIR QUALITY THAT MEETS STATE AND FEDERAL STANDARDS

#### **Principle S-1.1: Integrate Air Quality Goals into Local Planning and Development Review.**

Policy S-1.1.1: Maintain and upgrade traffic control systems to reduce vehicle idling time, emphasizing commute-route signal synchronization and vehicle emissions reductions.

Policy S-1.1.2: Site projects in locations and/or in a manner that will reduce air pollution exposure of sensitive receptors.

Policy S-1.1.3: Require project applicants to implement all feasible control measures to reduce combustion emissions from construction equipment.

Policy S-1.1.4: Require developers on a case-by-case basis to comply with the Bay Area Air Quality Management District regulations in effect at the time of project approval, including regulations relating to dust, toxic air contaminants (TACs), odors, and other air pollutants or air quality issues.

Policy S-1.1.5: Coordinate with the Bay Area Air Quality Management District (BAAQMD) when addressing air quality issues related to local land use proposals.

*Examples of these issues include control of windblown particulates, mechanical equipment exhaust, and ventilation of parking garages. Micro-scale impacts can often be mitigated by changes in design, hours of operation, or use of filters or other control devices, and the District may have information available on “Best Practices” that can help project applicants.*



Policy S-1.1.6: Provide input and assistance to the BAAQMD’s development and implementation of regional air quality strategies.

*By participating in the regional air quality planning process, the City can ensure that its concerns are heard.*

Policy S-1.1.7: Require new development to comply with all applicable dust control measures promulgated by the BAAQMD for new construction.

*The BAAQMD includes these in its CEQA Guidelines in the section addressing construction emissions.*

Policy S-1.1.8: Explore the feasibility of a new City ordinance that would provide a tobacco smoke-free environment in certain areas of workplace facilities, specific types of housing, hotels, as well as parks and other public gathering places currently not regulated by State and Federal laws or City ordinance.

**Principle S-1.2: Encourage Alternative Modes of Transportation.**

Policy S-1.2.1: Promote pedestrian, bicycle, and transit modes of travel to reduce air pollutant emissions from automobiles.

Policy S-1.2.2: Encourage establishment of Transportation Demand Management (TDM) programs at major employment sites and shopping centers, including provision of preferential carpool parking and car share programs, bicycle lockers, BART shuttles, and jitney service.

Policy S-1.2.3: Support the expansion and improvement of local and regional transit systems and ridesharing programs.

Policy S-1.2.4: Encourage car sharing programs at new high density, mixed use developments, consistent with the Transportation Control Measures in BAAQMD’s Clean Air Plan.

*Examples of areas where car sharing could be implemented include the Concord BART Station and the Concord Reuse Project site.*

Policy S-1.2.5: Work with the school district to implement the Safe Routes to Schools program.

Policy S-1.2.6: Establish preferential parking provisions in the Development Code for car sharing programs.

*The City should require preferential parking for car sharing programs, including reserved parking spaces for car share vehicles in close proximity to building entrances.*



Policy S-1.2.7: Endeavor to replace City gasoline powered vehicles with hybrid or clean-fuel vehicles when vehicle replacement purchases are made.

Policy S-1.2.8: Promote walking and bicycling as a means of improving public health and wellness, as well as a means of improving air quality.

**Principle S-1.3: Support Regional Air Quality Strategies through Land Use Planning and Site Design.**

Policy S-1.3.1: Encourage provisions for compatible live/work arrangements and telecommuting in residential areas.

Policy S-1.3.2: Promote infill development to reduce urbanization of open space and agricultural lands and related increases in automobile travel.

Policy S-1.3.3: Support transit-oriented development to reduce automobile travel.

Policy S-1.3.4: Encourage mixed use development (combining housing and retail/ office uses) to reduce the number and length of vehicle trips, and related air emissions.

*Downtown Concord and the area around the North Concord – Martinez BART Stations both provide opportunities for such development.*

Policy S-1.3.5: Recognize the potential for the Concord Reuse Project to contribute to regional air quality improvements by encouraging transit-oriented development on the site; providing new workplaces, residences, and services in close proximity to one another to minimize trip lengths; and developing viable alternatives to single passenger vehicle travel.

Policy S-1.3.6: Promote the planting and maintenance of trees and other landscaping to absorb carbon dioxide and help reduce air pollution levels.

Policy S-1.3.7: Prohibit the installation of wood-burning fireplaces in new residential development except for EPA-certified wood-burning devices. Seek grant funding for a wood-burning stove “changeout” program to encourage owners of wood-burning stoves in existing residences to replace them with EPA-certified devices, and prepare homeowner information handouts describing low-emission alternatives to wood-burning fireplaces.

*Many homes are equipped with fireplaces, which are a growing source of localized air pollution. Smoke released from fireplaces and wood stoves contains carbon monoxide, nitrogen dioxide, volatile organic compounds, and inhalable particulate matter (PM<sub>10</sub>). The changeout programs have been successful in areas of the State where emissions from wood-burning fireplaces cause significant air pollution. PG&E and the Hearth Products Association have offered incentives in the past in the form of cash rebates to encourage replacement of old wood-burning appliances with more efficient ones*

**Principle S-1.4: Reduce Greenhouse Gas Emissions Consistent with State Objectives.**

Policy S-1.4.1: Prepare and implement climate action plans for the Concord Reuse Project site and for the city as a whole to reduce greenhouse gas emissions associated with future development and existing urban activities.

**GOAL S-2: A LIVABLE NOISE ENVIRONMENT**

**Principle S-2.1: Encourage Land Use Compatibility for Community Noise Environments.**

Policy S-2.1.1: Use the community noise level exposure standards, shown in Figure 7-8, as review criteria for new land uses.

*These standards show noise levels that are “normally acceptable”, “conditionally acceptable”, “normally unacceptable” and “clearly unacceptable” for different types of land use.*

**Figure 7-8: Land Use Compatibility for Community Noise Environments**

	COMMUNITY NOISE EXPOSURE						
	L <sub>dn</sub> or CNEL, dB						
	55	60	65	70	75	80	85
<i>Residential – Low Density Single Family, Duplex, Mobile Homes</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Residential – Multifamily</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Mixed-Use &amp; High Density Residential</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Transient Lodging – Motels, Hotels</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Schools, Libraries, Churches, Hospitals, Nursing Homes</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Auditoriums, Concerts, Halls, Amphitheaters</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Sports Area, Outdoor Spectator Sports</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Playgrounds, Neighborhood Parks</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Golf Courses, Riding Stables, Water Recreation, Cemeteries</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Office Buildings, Businesses Commercial and Professional</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
<i>Industrial, Manufacturing Utilities, Agriculture</i>			Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable

**Legend:**

- Normally Acceptable**      Specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.
- Conditionally Acceptable**      New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- Normally Unacceptable**      New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- Clearly Unacceptable**      New construction or development should generally not be undertaken.

Source: City of Concord, 2005.

Policy S-2.1.2: Require a noise study and mitigation measures for all projects that have noise exposure greater than “normally acceptable” levels.

*The need for mitigation of exterior noise exposure for development shall be evaluated on a case-by-case basis. Within neighborhoods where medium and high density residential development and mixed use development is planned, the City will balance the need for noise mitigation with urban design considerations, and may not require exterior walls along streets where an attractive pedestrian-oriented environment with porches and front stoops is desired.*

Policy S-2.1.3: Consider an increase of four or more dBA to be “significant” if the resulting noise level would exceed that described as “normally acceptable” in Figure 7-8.

*When an increase in noise would result in a “significant” impact to residents or businesses, then mitigation will be required to reduce noise exposure. If the increase is four dBA or more, the change in noise is perceptible and discretionary review is required. If the increase in noise is three dBA or less, then the noise impact is considered insignificant and no mitigation is needed.*

*By setting a specific threshold of significance in the General Plan, this policy will facilitate making a determination of environmental impact, as required by the California Environmental Quality Act. It will help the City judge whether (1) the potential impact of a development project on the noise environment warrants mitigation, or (2) a statement of overriding considerations will be required.*

Policy S-2.1.4: Promote the use of noise attenuation measures to improve the acoustic environment inside residences where existing residential development is located on an arterial street.

Policy S-2.1.5: Conduct periodic noise monitoring and modeling of projected future noise levels in order to develop noise contour diagrams. Such diagrams should show probable future noise levels in the city (see Figure 7-2) and should be used to evaluate the compatibility of various land uses in different locations as well as the need for mitigation measures to reduce noise levels to acceptable levels.

*In addition to Figure 7-2, which is highly generalized, the City will develop and maintain a digital GIS shape file which can be used for more detailed analysis of projected noise conditions. In addition, noise analysis will continue to be required on a project by project basis as future development is proposed and as future planning is conducted on the Concord Reuse Project site.*

**Principle S-2.2: Mitigate Noise Sources.**

Policy S-2.2.1: Provide for the mitigation of noise exposure in areas of the City exposed to noise levels in excess of the “normally acceptable” standards to the extent feasible (see Figure 7-8).

Policy S-2.2.2: Reduce noise intrusion generated by miscellaneous noise sources through conditions of approval to control noise-generating activities.

Policy S-2.2.3: Use the Buchanan Field Airport—Noise Contour Map (see Figure 7-3) for evaluation of noise impacts around Buchanan Field Airport.

*The Buchanan Field Airport Noise Contours will be used in conjunction with the noise contours for car and truck noise during the development review process.*

Policy S-2.2.4: Require new noise sources to use best available control technology (BACT) to minimize noise emissions.

*Noise from mechanical equipment can be reduced with soundproofing materials and sound-deadening insulation; controlling hours of operation also will reduce noise impacts during the morning or evening.*

Policy S-2.2.5: Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means.

*Increasing setbacks, screening, use of soundproofing materials and double-glazing windows, as well as fences and walls, building orientation and design, and landscaping all can help buffer or mask sound.*

### GOAL S-3: A HIGH LEVEL OF LIFE AND PROPERTY PROTECTION

#### **Principle S-3.1: Reduce Damage Due to Seismic Hazards.**

Policy S-3.1.1: Require as part of the development review process a thorough evaluation of geologic-seismic and soils conditions and risks.

Policy S-3.1.2: Require all new development to design structures and buildings pursuant to applicable State and local standards and codes.

*On the Concord Reuse Project site, local codes may be more stringent than State codes in order to achieve the sustainability and greenhouse gas reduction goals established for new development.*

Policy S-3.1.3: Require geologic studies to be conducted for all structures, including those not for human occupancy, located above and below ground whenever a project is located within an Earthquake Fault Zone as identified by the California Geologic Survey.

Policy S-3.1.4: Ensure that the design of roads, pipelines and other public facilities and utilities that cross

the Concord Fault accommodate the effects of tectonic creep.

Policy S-3.1.5: Cooperate with appropriate government agencies and public and private organizations to address seismic hazards.

**Principle S-3.2: Minimize the Effects of Landslides and Ground Failure.**

Policy S-3.2.1: Require all development on hillsides where the grade exceeds 15 percent to submit a hillside development (i.e., grading) plan that demonstrates contoured grading techniques to ensure that buildings, streets, and drives can be accommodated safely with a minimum amount of grading.

Policy S-3.2.2: Restrict development on hillsides with slopes over 30 percent. Where slopes over 30 percent occur within areas shown for development on the General Plan Diagram, they should be set aside as open space where feasible.

*With steeper slopes there is a greater risk of a loss of slope stability and resulting landslides, which may cause loss of life and property.*

Policy S-3.2.3: Require soils and geologic hazards analysis and mitigation as part of development project review.

Policy S-3.2.4: Regulate all development, including remodeling or structural rehabilitation, to assure adequate mitigation of safety hazards on sites having a history or threat of slope instability, erosion, subsidence, ground failure, ground rupture, and/or liquefaction.

Policy S-3.2.5: Control erosion of graded areas with revegetation or other acceptable methods.

Policy S-3.2.6: Ensure that comparable levels of hazard mitigation are required for projects affecting low-income or minority populations, so that these populations are not disproportionately affected by new development.

**GOAL S-4: FLOOD RISK REDUCTION**

**Principle S-4.1: Protect the community from risks to lives and property posed by flooding and stormwater runoff.**

*Assembly Bill (AB) 162, approved in 2007, requires local governments to provide specific flood hazard information in their general plans. Concord has complied with AB 162 by including flood hazard maps in Chapter 8 of this Plan, and by adopting a Flood Plain Management Ordinance that has been approved by FEMA. The City has also documented flood hazards in its Local Hazard Mitigation Plan. Additional flood hazard data is being collected for the Community Reuse Project site.*

**Policy S-4.1.1:** Manage development to ensure compliance with the City’s Flood Management Ordinance and the City’s Stormwater Management and Discharge Control Ordinance.

*This includes construction and site design methods to minimize flood damage in the event of construction within flood hazard areas.*

**Policy S-4.1.2:** Establish engineering design standards for constructing a storm drainage system to protect against loss of life and property and minimize risks of flooding. This system should include a combination of constructed facilities and natural creeks which are managed to reduce flood hazards.

*All constructed drainage facilities must have adequate capacity to contain, with sufficient freeboard, projected runoff from the “design flood”, a 50-year flood for major facilities, a 25-year flood for secondary facilities, and a 10-year flood for minor facilities.*

**Policy S-4.1.3:** Coordinate storm drainage management with appropriate agencies, including the County Flood Control and Water Conservation

District, Regional Water Quality Control Board, Army Corps of Engineers, Department of Fish & Game and with the Contra Costa Water District, in the vicinity of the Contra Costa Canal.

- Policy S-4.1.4: Design storm drainage facilities to meet the Contra Costa County Flood Control and Water Conservation District standards and ensure adequate and safe flow to minimize flooding.
- Policy S-4.1.5: Take the necessary actions to maintain the structural and operational integrity of public facilities during flood events.
- Policy S-4.1.6: Locate new essential public facilities such as hospitals and fire stations out of flood prone areas.
- Policy S-4.1.7: Maintain cooperative working relationships with those agencies with jurisdiction over flood-related issues, including FEMA and the County Flood Control and Water Conservation District.

Additional policies dealing with stormwater runoff can be found in the Public Facilities and Utilities Element.

## GOAL S-5: MITIGATED EXPOSURE TO HAZARDOUS MATERIALS

### Principle S-5.1: Promote Agency Coordination.

- Policy S-5.1.1: Coordinate with the Contra Costa County Department of Environmental Health, the Department of Toxic Substances Control, the Department of Defense, the Environmental Protection Agency, and other appropriate regulatory agencies, on the review of proposals at sites which may have toxic contamination or include hazardous materials use.
- Policy S-5.1.2: Coordinate review of proposed development applications with the appropriate water

provider and/or water quality agency for proposals proximate to water canals, pipelines, or reservoirs that include handling potentially hazardous materials.

*Plans for spill containment should be developed as required to comply with federal and state standards.*

Policy S-5.1.3: Control the transport of hazardous materials to minimize potential hazards to the local population.

Policy S-5.1.4: Prior to reuse of former commercial, industrial, and military sites, require clean-up to a level consistent with State and federal regulatory agency standards.

Policy S-5.1.5: Implement hazardous materials remediation plans for the former Concord Naval Weapons Station (Inland Area) to facilitate the reuse of the site for development and conservation.

*The Area Plan for the Concord Reuse Project identifies property transfer responsibilities related to hazardous material clean-up and the management of future construction and demolition activities on the site. A range of pre-development clean up, monitoring, and site management requirements apply. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires the federal government to retain liability for hazardous materials on the site and to return and remediate any contamination that may be found in the future. This will be specified in the deed of transfer as property on the site is conveyed.”*



**GOAL S-6: A LOW RISK OF FIRE HAZARD FOR DEVELOPED COMMUNITIES NEAR OPEN SPACE**

**Principle S-6.1: Promote Effective Fire Protection Measures for Homes Adjacent to Open Space.**



Policy S-6.1.1: Require all development projects adjacent to wildland open space to incorporate firebreaks, fire resistant landscaping, and/or fire-resistant building materials in order to minimize potential damage.

Policy S-6.1.2: Require agreements for maintenance of firebreaks established in connection with development as a condition of approval in moderate to high fire hazard areas.



**GOAL S-7: COMPREHENSIVE EMERGENCY AND SAFETY SERVICES FOR COMMUNITY PROTECTION**

**Principle S-7.1: Provide the Highest Standard of Police Protection Services.**



Policy S-7.1.1: Evaluate the effects of new development on law enforcement service and take public safety issues into account when reviewing land use proposals.

Policy S-7.1.2: Promote effective, community-oriented law enforcement.

*Current programs include the Downtown Footbeat Program, DARE, Safe Streets Now Program, Neighborhood Watch, and Street Smart. These also demonstrate how community-oriented law enforcement can work.*

Policy S-7.1.3: Establish public and private partnerships and cooperate with other emergency service providers to deliver safe and effective emergency response.

**Principle S-7.2: Facilitate Fire Prevention.**

Policy S-7.2.1: Coordinate plans and activities with the Contra Costa County Fire Protection District (CCCFPD), including siting of fire stations.

Policy S-7.2.2: Require new development to incorporate water systems that meet CCCFPD fire flow

requirements or to provide adequate on-site water storage.

Policy S-7.2.3: Ensure that sufficient access for fire protection services is available in all new development.

Policy S-7.2.4: Reduce the potential for fires in potential high-risk areas, as illustrated in Figure 7-5, through fire-resistant building materials, site design, and water flow capacity.

**GOAL S-8: EFFECTIVE DISASTER PLANNING AND RESPONSE**

**Principle S-8.1: Coordinate With Agencies to Plan Disaster Response.**

Policy S-8.1.1: Maintain an ongoing program for disaster response, including participation in all aspects of emerging, new high-technology solutions.

Policy S-8.1.2: Coordinate disaster response planning with surrounding cities, agencies, and Contra Costa County.

Policy S-8.1.3: Work with critical use facilities (i.e., hospitals, schools, public assembly facilities, transportation services) to assure that they can provide alternate sources of electricity, water, and sewerage in the event that regular utilities are interrupted in a disaster.

Policy S-8.1.4: Implement the City’s Local Hazard Mitigation Plan, consistent with the guidelines of the Federal Emergency Management Agency (FEMA) and the Disaster Act of 2000, and seek funding under FEMA’s Hazard Mitigation Grant Program.

*The LHMP is incorporated by reference into the Concord General Plan.*

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