This section provides information on safety hazards in the City of Chico, analyzes the proposed General Plan Update's potential to create hazards to the public health or the environment related to hazardous materials, substances, or waste, and identifies other potential hazards that may impact public safety. Impacts associated with the following hazards are addressed in the applicable section of this Draft Environmental Impact Report (Draft EIR or DEIR), as listed below:

- Rail safety, including at-grade crossings – Section 4.5, Traffic and Circulation
- Air quality hazards – Section 4.6, Air Quality
- Noise hazards – Section 4.7, Noise
- Geologic and seismic hazards, including soil contamination associated with septic tanks – Section 4.8, Geology and Soils
- Flooding and water quality hazards, including hazards from groundwater plumes and dam inundation – Section 4.9, Hydrology and Water Quality

In addition, it should be noted that the provision of fire protection services and solid waste services are discussed further in Section 4.12, Public Services and Utilities.

4.4.1 EXISTING SETTING

HAZARDOUS MATERIALS AND WASTE DEFINED

According to 22 California Code of Regulations (CCR) § 66261.20, the term hazardous substance refers to both hazardous materials and hazardous wastes and both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity. A hazardous material is defined by 22 CCR § 66261.10 as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

Public health is potentially at risk whenever hazardous materials are or will be used. It is necessary to differentiate between the hazard of these materials and the acceptability of the risk they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, and to the inherent toxicity of a material (DTSC, 2009a).

Factors that can influence health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (22 CCR § 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific 22 CCR criteria. While hazardous substances are regulated by multiple agencies, as described under the heading Regulatory Framework below, cleanup requirements of hazardous wastes are determined on a case-by-case basis according to the agency with lead jurisdiction over the project.

HAZARDOUS AND CONTAMINATED SITES

Hazardous materials consist of substances that by their nature, lack of containment, and reactivity have the capability for inflicting harm. Hazardous materials can be toxic, corrosive, flammable, explosive, reactive, an irritant, or a strong sensitizer and include certain infectious agents, radiological materials, oxides, oil, used oil, petroleum products, and industrial solid waste substances. They are used in almost every manufacturing operation and by retailers, service industries, and homeowners. Hazardous material incidents are one of the most common technological threats to public health and the environment. Incidents may occur as the result of natural disasters, human error, or accident. Hazardous material incidents typically take three forms (Butte County, 2007):

- **Fixed facility incidents** – It is reasonably possible to identify and prepare for a fixed site incident, because laws require those facilities to notify state and local authorities about what is being used or produced there.

- **Transportation incidents** – Transportation incidents are more difficult to prepare for because it is impossible to know what materials could be involved until an accident actually happens.

- **Pipeline incidents** – Pipelines carry natural gas and petroleum. Breakages in pipelines carry differing amounts of danger, depending on where and how the break occurs and what is in the pipe.

Areas of Known Hazardous Contamination

Cortese List

The State of California Hazardous Waste and Substances Site List (also known as the Cortese List) is a planning document used by state and local agencies and by private developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to annually update the Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list.

DTSC's EnviroStor database provides DTSC's component of Cortese List data by identifying state response sites, federal Superfund sites, school cleanup sites, and voluntary cleanup sites. The EnviroStor database identifies sites that have known contamination or sites for which further investigation is warranted. It also identifies facilities that are authorized to treat, store, dispose, or transfer hazardous waste (DTSC, 2009b).

The EnviroStor database identifies 28 hazardous material sites in the Planning Area known to handle and store hazardous materials or associated with a hazardous material-related release or occurrence. The terms *release* and *occurrence* include any means by which a substance could harm the environment by spilling, leaking, discharging, dumping, injecting, or escaping. These sites are listed in **Table 4.4-1** and shown in **Figure 4.4-1**.

TABLE 4.4-1
KNOWN HAZARDOUS MATERIAL SITES IN THE PLANNING AREA
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Site/Facility Name	Address Description	Site/Facility Type	Cleanup Status
Chico – Skyway Subdivision Groundwater Plume	Hagen Lane/Skyway Avenue	State Response	Active[2]
Chico Groundwater – Central Plume	Chico Area Groundwater	State Response	Active
Chico Scrap Metal – 20th Street	878 E 20th Street	State Response	Active
First Avenue Cleaners	1082 E 1st Avenue	State Response	Active
North Valley Plaza Cleaners	801 East Avenue	State Response	Active
Bidwell Park Gun Range	Horseshoe Lake	Voluntary Cleanup	Certified
PG&E, Chico – 1	825 W 2nd Street	Voluntary Cleanup	Active
Chico Groundwater – Southwest Plume	Chico Area Groundwater	State Response	Active – Land Use Restrictions
Chico Municipal Airport	651 and 681 Liberator Street	State Response	Active – Land Use Restrictions
Victor Industries – 20th Street	365 E 20th Street	State Response	Active – Land Use Restrictions
Esplanade Cleaners	164 E 2nd Avenue	State Response	Backlog[3]
Flair Custom Cleaners	660 Mangrove Avenue	State Response	Backlog
Norge Village Cleaners	254 E 1st Street	State Response	Backlog
Allen Property Burn Piles	Esplanade and Nord Highway	Voluntary Cleanup	Certified[4]
Louisiana Pacific Corporation – Chico	West 16th Street	State Response	Certified/ Operation and Maintenance[5] – Land Use Restrictions
Asbury Environmental Services	2549 Scott Avenue	Hazardous Waste – Operating Permit	Evaluation Needed
Chico Drain Oil Service LLC	1618 W 5th Street	Hazardous Waste – Operating Permit	Evaluation Needed
Hignall Development	Bruce Road	Voluntary Cleanup	No Further Action[6]
Old Farm Estates Bruce Road	NW intersection of Hwy 32 and Bruce Road	Voluntary Cleanup	No Further Action
Beale Titan Site 1C	46.4 acres located 6 miles north of Chico	State Response	REFER: RWQCB[7]

Site/Facility Name	Address Description	Site/Facility Type	Cleanup Status
Chico Development, Inc.	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
Humboldt Road Burn Dump (HRBD)	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
Johnson Property (HRBD)[1]	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
Dunn Property (HRBD)	NE corner Bruce Road and Humboldt Road, Hwy 32	State Response	REFER: RWQCB
Mulkey Property (HRBD)	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
Rosellini Property (HRBD)	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
Scott Property (HRBD)	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB
West Property (HRBD)	Bruce and Humboldt Roads, Hwy 32	State Response	REFER: RWQCB

Source: Department of Toxic Substances Control, 2009b

Notes: [1] The HRBD consisted of a primary disposal area and other exposed disposal piles scattered over 13 parcels. Properties followed by (HRBD) are associated with the HRBD but are not part of the primary disposal area. It should be noted that the Regional Water Board Executive Officer issued Certificates of Completion for each of the Humboldt Road Burn Dump properties between December 2005 and December 2006. The Certificates confirmed that Site Investigations and Remedial Actions at the sites were satisfactorily completed by the Property Owners and permanent remedies were accomplished. (http://www.swrcb.ca.gov/rwqcb5/water_issues/site_cleanup/. Accessed August 19, 2010)

2 Active identifies that an investigation and/or remediation is currently in progress and that DTSC is actively involved, either in a lead or support capacity.

[3] Backlog identifies nonactive sites which DTSC is not currently investigating or remediating. These sites generally become active when staff and/or financial resources are available. Priorities for placing a site on backlog status versus active are based on the degree of long-term threat posed by the property. Before placing a property on backlog status, DTSC considers whether interim actions are necessary to protect the public and the environment from any immediate hazard posed by the property.

[4] Certified identifies completed sites with previously confirmed release that are subsequently certified by DTSC as having been remediated satisfactorily under DTSC oversight.

[5] Certified/Operation and Maintenance identifies sites that have certified cleanups in place but require ongoing operation and maintenance activities.

[6] No Further Action identifies completed sites where DTSC determined after investigation, generally a PEA (an initial assessment), that the property does not pose a problem to public health or the environment.

[7] Identifies sites that, based on limited information available to DTSC, appear to be more appropriately addressed by the California Regional Water Quality Control Boards.

Leaking Underground Storage Tanks

Leaking underground storage tanks (LUST) are a significant source of petroleum impacts to groundwater and can also result in the following potential threats to health and safety (SWRCB, 2009):

- Exposure from impacts to soil and/or groundwater;
- Contamination of drinking water aquifers;

- Contamination of public or private drinking water wells; and
- Inhalation of vapors.

The SWRCB records soil and/or groundwater contamination caused by LUSTs in its Geotracker database. An inquiry through SWRCB's Geotracker database identified eight open LUST sites in the Planning Area (see **Table 4.4-2**). These sites are shown in **Figure 4.4-1**.

TABLE 4.4-2
OPEN LUST SITES IN THE PLANNING AREA

Site/Facility Name	Address Description	Cleanup Status
Gasmat #954	580 10th Avenue	Open – Assessment and Interim Remedial Action
Esplanade Arco	2538 Esplanade Street	Open – Remediation
Ledford Beacon	2233 Esplanade Street	Open – Remediation
Vanella Oil Company	1055 Mangrove Avenue	Open – Remediation
Chevron SS/One Stop Chico	2402 Cohasset Road	Open – Site Assessment
Municipal Services Center	901 Fir Street	Open – Site Assessment
Enloe Hospital Property	120 6th Avenue	Open – Verification Monitoring
Eric's Cable Car Wash	1625 Mangrove Avenue	Open – Verification Monitoring

Source: SWRCB, 2009

Hazardous Waste Treatment, Storage, and Disposal

The SWRCB's Land Disposal program regulates waste discharge to land for treatment, storage, and disposal in waste management units, which include waste piles, surface impoundments, and landfills. The Geotracker database identifies two Land Disposal program sites in the Planning Area: the Humboldt Road Burn Dump Operational Unit and the Humboldt Road Private Properties Operational Unit. The cleanup status for both sites is open but inactive.

The Humboldt Road Burn Dump is located on approximately 157 acres near the intersections of Bruce Road, Humboldt Road, and State Route 32. The City of Chico owned and operated the landfill/burn dump from the early 1900s to approximately 1965 when the Butte County Neal Road landfill was opened. Smaller-scale illegal dumping is believed to have continued at the dump beyond 1965, which consisted of a primary disposal area and other exposed disposal piles scattered over 13 parcels. Excavation and grading occurred through portions of the dump in 1982 related to installation of a sewer system and in 1986 related to the extension of Bruce Road. Analysis of soil samples collected from the dump indicated that lead was the primary contaminant of concern with elevated levels throughout the entire dump. Other chemicals detected in the soil included arsenic, antimony, dieldrin (a pesticide), and low concentrations of dioxin (DTSC, 2009b). The dump site was referred to the Regional Water Quality Control Board (RWQCB) for remediation in 2005. During the summer of 2005, the Chico Redevelopment Agency (RDA) completed the major portion of the remediation project and all contaminated

soil was placed into a containment cell and capped by the required date of August 15, 2005. The cleanup on the parcels west of Bruce Road was completed first and the RDA received a Certificate of Completion for these parcels from the RWQCB on December 22, 2005. On February 8, 2006, the RWQCB issued the RDA a Certificate of Completion for the two parcels located east of Bruce Road (City of Chico, 2009). On December 22, 2006, the RWQCB issued a final Certificate of Completion stating that the remainder of the Humboldt Road Burn Dump site had complied with the requirements of all state and local laws, ordinances, regulations, and standards that are applicable to the site investigation and remedial action.

The Planning Area also contains the only two permitted hazardous waste storage facilities in Butte County: Asbury Environmental Services and Chico Drain Oil Service. Asbury Environmental Services is currently operating a used oil transfer and storage facility under a Standardized Hazardous Waste Facility Permit which was initially issued in 1997 to Evergreen Oil Company and subsequently transferred to Asbury. The permit expired December 2007. Asbury has submitted a renewal application for the standardized permit; however, as of August of 2010, Asbury continues to operate under the expired permit (DTSC, 2010). Chico Drain Oil Service, LLC, is currently operating a hazardous waste storage and transfer facility in Chico that collects, consolidates, stores, and transfers used oil from off-site generators. It has been authorized to operate its storage facility pursuant to Standardized Permit Interim Status since 1993. On March 3, 2010, the DTSC issued a Standardized Hazardous Waste Facility Permit to Chico Drain Oil Service. The Permit is effective until March 2, 2020 (DTSC, 2010). The facility stores used oil in two storage tanks until they reach maximum capacity and then transports the used oil to a DTSC-authorized oil recycling facility (Pacific Land Advisors, 2008).

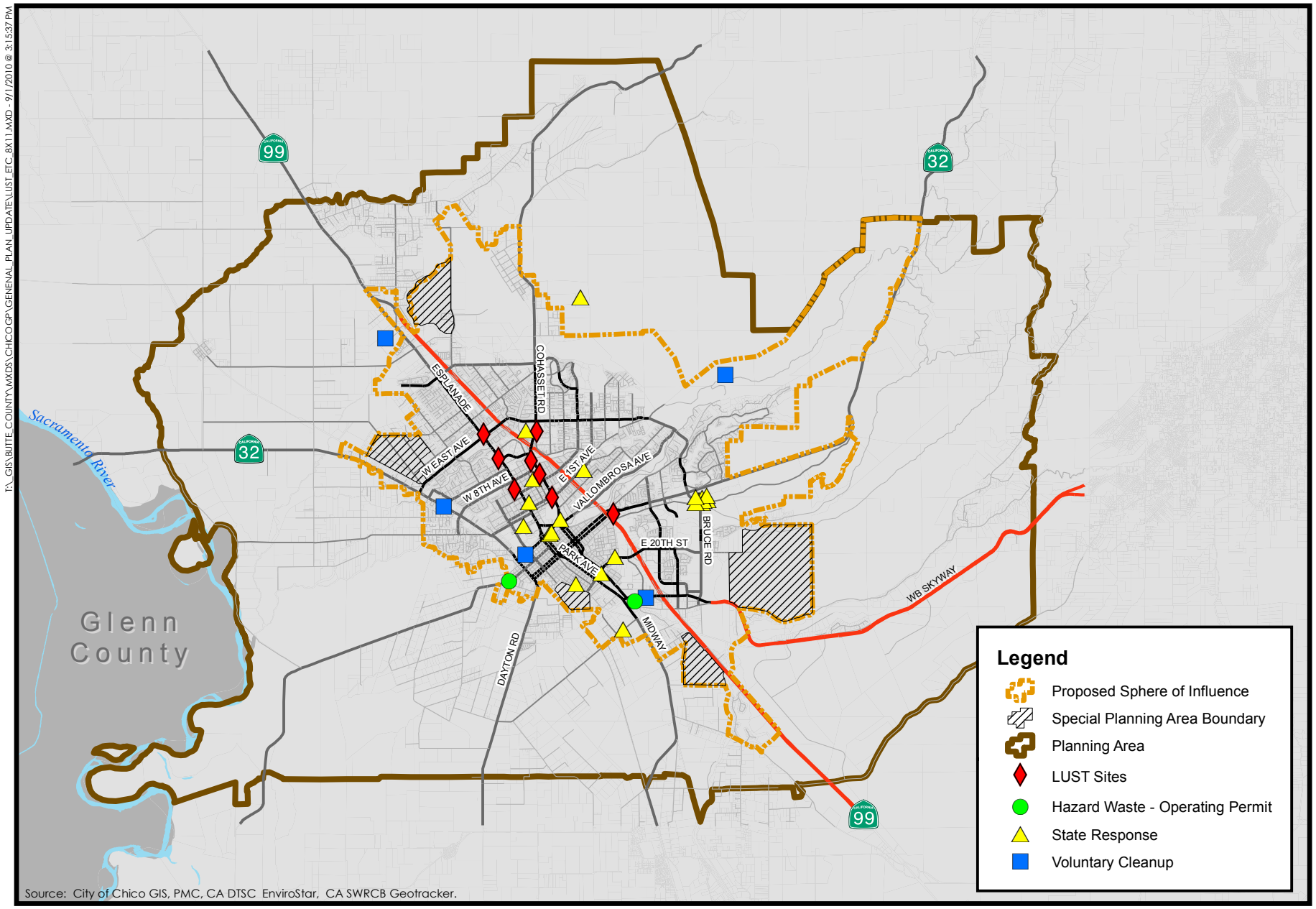


Figure 4.4-1
Hazardous Material Sites in the Planning Area

Household Hazardous Waste

Hazardous materials, used in many household products (such as drain cleaners, waste oil, cleaning fluids, insecticides, and car batteries), are often improperly disposed of as part of normal household trash. These hazardous materials can interact with other chemicals to create risks to people or cause soil and groundwater contamination. The California Department of Health Services and the city define household hazardous waste as any substance that is characteristic of one of the following:

- **Ignitability** – flammable (e.g., lighter fluid, spot and paint removers)
- **Corrosivity** – eats away materials and can destroy human and animal tissue by chemical action (e.g., oven and toilet bowl cleaners)
- **Reactivity** – creates an explosion or produces deadly vapors (e.g., bleach mixed with ammonia-based cleaners)
- **Toxicity** – capable of producing injury, illness, or damage to humans, domestic livestock, or wildlife through ingestion, inhalation, or absorption through any body surface (e.g., rat poison, cleaning fluids, pesticides, bleach)

In April 2002, Butte County assumed responsibility for a permanent household hazardous waste collection facility known as the Butte Regional Household Hazardous Waste Collection Facility (BRHHWCF). All Butte County residents are able to recycle and properly dispose of household hazardous waste at the BRHHWCF, which is located at the Chico Airport Industrial Park at 1101 Marauder Street and is operated under contract by A/C Industrial Services, Inc. The facility also accepts hazardous waste from small businesses who qualify as Conditionally Exempt Small Quantity Generators (City of Chico, 2009).

TRANSPORTATION OF HAZARDOUS MATERIALS

Hazardous materials transported through Butte County, including the Planning Area, are carried by truck on the state highway system or via the rail line. Registered hazardous waste haulers may use all county roadways to transport hazardous materials (Pacific Land Advisors, 2008). To date, regulators have not placed restrictions on roadways available for the transportation of hazardous waste (BCAG, 2008).

Hazardous materials are also regularly shipped via the Union Pacific Railroad, which runs through the Planning Area west of downtown Chico along the western boundary of California State University Chico paralleling State Route (SR) 32 and Midway to the north and south, respectively. Neither Butte County nor the City of Chico has control over the types of materials that are shipped via the rail line. Transported commodities can include chemicals, coal, food and food products, truck trailers and containers, forest products, grain and grain products, metals and minerals, and automobiles and parts. There are 14 crossings of the Union Pacific tracks in Chico, and, on an average day, 19 trains pass through the city on these railroad tracks.

KNOWN AND UNKNOWN HAZARDOUS MATERIALS IN THE CITY OF CHICO

Asbestos-Containing Building Materials

Structures constructed or remodeled between 1930 and 1981 have the potential to contain asbestos-containing building materials (ACBM). Asbestos is the name given to a number of

naturally-occurring fibrous minerals with high tensile strength, the ability to be woven, and resistance to heat and most chemicals. Because of these properties, asbestos fibers have been used in a wide range of manufactured goods, including roofing shingles, ceiling and floor tiles, paper and cement products, textiles, coatings, and friction products such as automobile clutch, brake, and transmission parts.

When asbestos-containing materials are damaged or disturbed by repair, remodeling, or demolition activities, microscopic fibers become airborne and can be inhaled into the lungs, where they can cause significant health problems. The current federal definition of asbestos is the asbestiform varieties of chrysotile (serpentine), crocidolite (riebeckite), amosite (cummingtonite/grunerite), anthophyllite, tremolite, and actinolite. A distinction is made between building materials that would readily release asbestos fibers when damaged or disturbed and those materials that were unlikely to result in significant fiber release. The terms *friable* and *nonfriable* are used to make this distinction. The U.S. Environmental Protection Agency (USEPA) has determined that, if severely damaged, otherwise nonfriable materials can release significant amounts of asbestos fibers. Friable asbestos-containing material (ACM) is defined by the Asbestos National Emission Standards for Hazardous Air Pollutants as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM are also known as regulated asbestos-containing materials (RACM). Nonfriable ACM is any material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. If nonfriable ACM becomes or is likely to become friable due to the forces expected to act upon the materials during renovation or demolition, they become an RACM. Exposure to airborne RACM may result in a potential health risk because persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the amount of fibers that remain in the lung. Fibers embedded in lung tissue over time may cause serious lung diseases including asbestosis, lung cancer, or mesothelioma (USEPA, 2009a).

Lead

Lead is a toxic metal that was used for many years in a variety of products. Lead also can be emitted into the air from motor vehicles and industrial sources, and lead can enter drinking water from plumbing materials. Lead may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Children six years old and under are most at risk. Research suggests that the primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil (USEPA, 2009b).

Lead dust can form when lead-based paint is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. Settled lead dust can re-enter the air when people vacuum, sweep, or walk through it. Lead in soil can be a hazard when children play in bare soil or when people bring soil into the house on their shoes (USEPA, 2009b). In addition, lead can be deposited in unpaved areas or formerly unpaved areas, primarily due to vehicle emissions.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) belong to a broad family of human-made organic chemicals known as chlorinated hydrocarbons. PCBs were domestically manufactured from 1929 until their manufacture was banned in 1979. They have a range of toxicity and vary in consistency from thin, light-colored liquids to yellow or black waxy solids. Due to their nonflammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic

equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other industrial applications (USEPA, 2009c).

Prior to the 1979 ban, PCBs entered the environment during their manufacture and use in the United States. Today, PCBs can still be released into the environment from poorly maintained hazardous waste sites that contain PCBs, illegal or improper dumping of PCB wastes, leaks or releases from electrical transformers containing PCBs, and disposal of PCB-containing consumer products into municipal or other landfills not designed to handle hazardous waste. PCBs may also be released into the environment by the burning of some wastes in municipal and industrial incinerators (USEPA, 2009c). Once in the environment, PCBs do not readily break down and therefore may remain for long periods of time cycling between air, water, and soil. PCBs can accumulate in the leaves and aboveground parts of plants and food crops. They are also taken up into the bodies of small organisms and fish. PCBs have been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system (USEPA, 2009c).

Residual Agricultural Chemicals

Historically, agriculture has been one of the major elements of Butte County's economic base, and although greater diversification of land use has occurred over the past decade, agriculture remains an active industry. In 2000, 3,237,656 pounds of active pesticide ingredients were applied to lands in Butte County (SIPMP, 2002). Pesticide use in the county has remained fairly consistent (just over 3 million pounds per year) since at least 1990, the earliest year for which data is available. The most commonly used pesticides included (SIPMP, 2002):

- borax
- captan
- chlorpyrifos
- copper hydroxide
- copper sulfate
- glyphosate, isopropylamine salt
- maneb
- methyl bromide
- mineral oil
- molasses
- molinate
- petroleum hydrocarbons
- petroleum oil
- propanil
- sulfur
- thiobencarb
- thiophanate-methyl
- ziram

Frequent applications of agriculture-related chemicals over time can eventually result in chemicals accumulating in the topsoil. Therefore, persistent residual chemicals may be present at differing levels in soils in the Planning Area. Exposure to pesticides can cause harm to humans, animals, or the environment because they are designed to kill or otherwise adversely affect living organisms.

NATURALLY-OCCURRING HAZARDOUS MATERIALS

Fibrous (Asbestiform) Minerals (Naturally-Occurring Asbestos)

Asbestos is the generic term for the naturally-occurring fibrous (asbestiform) varieties of six silicate minerals. These minerals are chrysotile, tremolite (when fibrous), actinolite (when fibrous), crocidolite (fibrous riebeckite), anthophyllite (when fibrous), and amosite (fibrous cummingonite-grunerite). Chrysotile, which belongs to the serpentine mineral group, and amphibole asbestos (such as tremolite) occur naturally in certain geologic settings in California, most commonly in association with ultramafic rocks and along associated faults (DMG, 2000).

Asbestos is a known carcinogen, and exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a noncancerous lung disease which causes scarring of the lungs) (CARB, 2009). The asbestos content of many manufactured products has been regulated in the United States for a number of years. In 1998 new concerns were raised about activities that disturb rocks and soil containing naturally-occurring asbestos that could release asbestos-laden dust. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present (CARB, 2009).

Since natural asbestos occurs most commonly in association with ultramafic rocks, the presence of ultramafic rocks in a region indicates the possibility of naturally-occurring asbestos materials. The potential occurrence and distribution of naturally-occurring asbestos fibers in Butte County is documented by the California Department of Conservation, Division of Mines and Geology (DMG). According to the General Location Guide for Ultramafic Rocks in California, the Planning Area does not contain any areas that have been identified as containing ultramafic rock (DMG, 2000).

Radon Potential

Radon isotope-22 is a colorless, odorless, tasteless radioactive gas that comes from the natural decay of uranium that is found in nearly all soils. Current evidence indicates that increased lung cancer risk is directly related to radon-decay products. The amount of radon in the soil depends on soil chemistry, which varies depending on location. Radon levels in soil range from a few hundred to several thousands of pico curies per liter (pCi/L). The amount of radon that escapes from the soil to enter a building depends on the weather, soil porosity, soil moisture, and the suction within the building. The USEPA recommends radon control methods be used if the radon level is 4 pCi/L or higher (USEPA, 2009d).

The USEPA uses three zone designations in order to reflect the average short-term radon measurement that can be expected in a building without the implementation of radon control methods. The radon zone designation of the highest potential is Zone 1. Butte County, including the Planning Area, is in Zone 3, which indicates a predicted average indoor radon screening level less than 2 pCi/L, which is considered a low potential for radon (USEPA, 2009d).

AIRPORT OPERATIONS HAZARDS

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Other airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport.

Public Airports

The City of Chico owns and operates one general aviation airport, the Chico Municipal Airport (CMA). The CMA is a modern integrated air facility capable of accommodating air carriers as well as commercial and general aviation planes. The CMA has one full-service fixed base operator (FBO) to provide services such as refueling, plane servicing, and flight training. The main runway is 6,722 feet and incorporates the use of high-intensity lighting GPS/VOR/ILS and Precision Approach Path Indicators (PAPI) in conjunction with other navigational aids to assist pilots. The air traffic control (ATC) tower is open from 7 a.m. until 7 p.m. seven days a week. The tower and all other navigational aids are maintained and operated by the Federal Aviation Administration (FAA). All communication runs through the tower or UNICOM, which is operated by the FBO (City of Chico, 2009).

The CMA is used for business, freight, firefighting aircraft, and general aviation serving the Chico and northern Sacramento Valley areas. In the 12-month period ending December 31, 2007, the CMA averaged 141 flights per day with 52 percent of those flights transient general aviation, 21 percent air taxi, 20 percent local general aviation, and the remaining 7 percent commercial and military flights (AirNav.com, 2010). The compatibility map adopted by the Butte County Airport Land Use Commission (ALUC) for the Chico airport is shown in **Figure 4.4-2**.

The ALUC adopted an Airport Land Use Compatibility Plan (ALUCP) pertaining to the CMA in 2000. The ALUCP establishes policies and guidelines by which the Butte County Airport Land Use Commission may assess the compatibility of development projects with the airport (see Regulatory Framework, below).

Privately Owned Airports

Ranchaero Airport is a privately owned airport located just west of the City of Chico, with the runway approximately 0.2 mile outside the city's Sphere of Influence. Ranchaero Airport is a 23.5-acre general aviation facility that serves a combination of recreational, flight training, agricultural, and limited business functions. A total of 39 aircraft are based at Ranchaero Airport, and annual aircraft operations are estimated at 5,000.

WILDLAND FIRES

A wildfire is an uncontrolled fire spreading through vegetative fuels, posing danger and causing destruction to life and property. Wildfires can occur in undeveloped areas and spread to urban areas where structures and other human development are more concentrated. A wildland-urban interface is an area where urban development has been located in proximity to open space, or "wildland" areas. Fires that occur in the wildland-urban interface areas affect natural resources as well as life and property. This type of fire is described as "a fire moving from a wildland environment, consuming vegetation for fuel, to an environment where structures and buildings are fueling the fire" (Butte County, 2007).

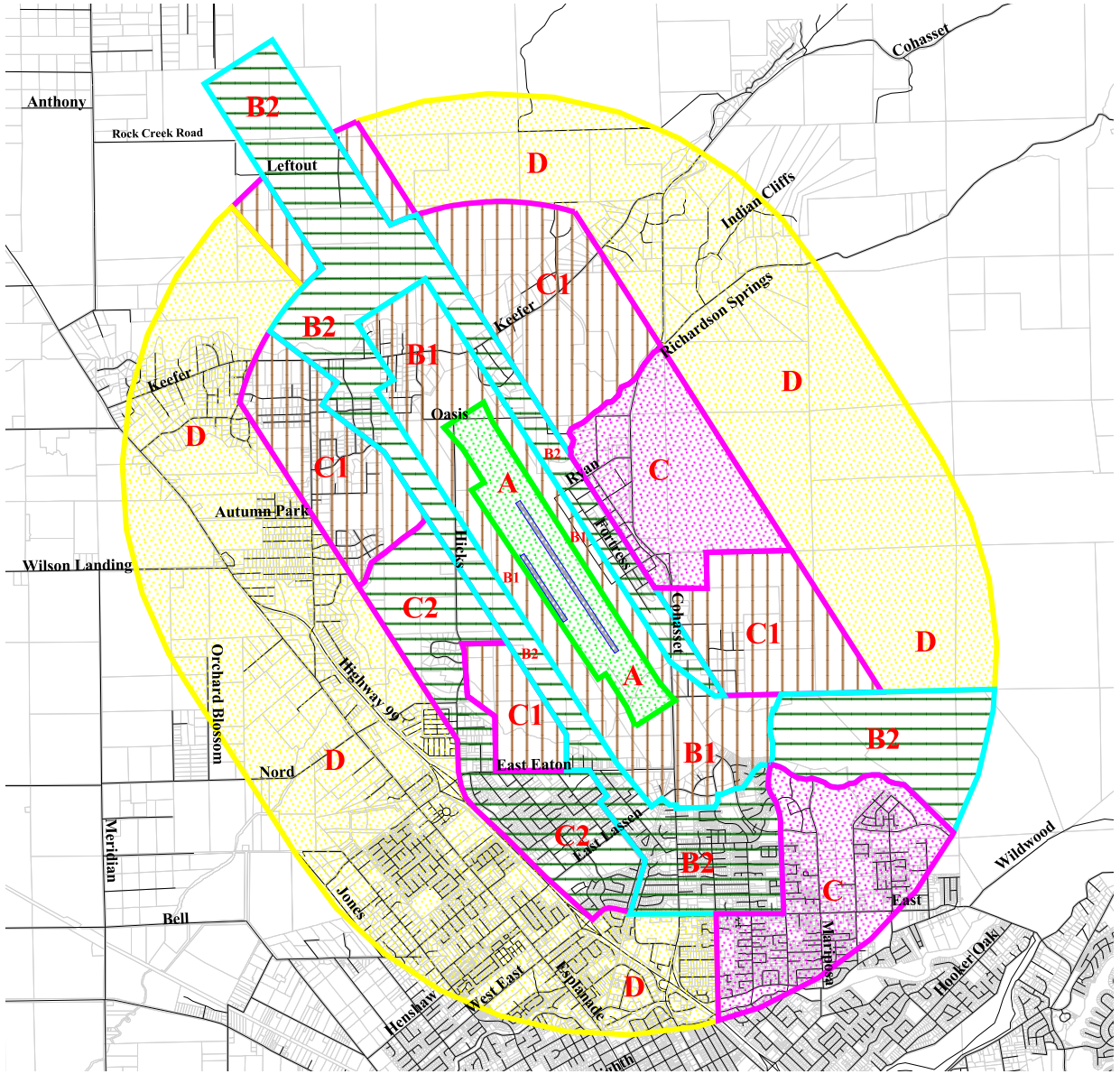
Wildland fire hazards (open space, rangeland, chaparral, and forested areas) exist in varying degrees over approximately 70 percent of Butte County, which has an extensive history of large damaging fires, most of which have burned in the wildland-urban interface area. During the past decade, Butte County has experienced several large and damaging wildfires in and around the wildland-urban interface areas. Most recently, the Butte Lightning Complex of fires burned 59,440 acres throughout Butte County, destroying 106 residences and 11 outbuildings in June and July of 2008. Also in June 2008 the Humboldt Fire burned 23,344 acres east of Chico at

State Route 32 and Humboldt Road on Stilson Canyon, and the Ophir Fire burned 1,600 acres near Highway 70 and Ophir Road, 2 miles south of Oroville (Cal-Fire, 2009).

The Planning Area includes significant foothill areas, and therefore is subject to the threat of wildland fires. Bidwell Park and the surrounding land, along with the foothills in the eastern Planning Area, are the areas most prone to wildland fires. These areas are classified as Very High Fire Hazard Severity Zones by the California Department of Forestry and Fire Protection (Cal-Fire), as discussed under the Regulatory Framework subsection below and shown in **Figure 4.4-3**. Fires to the east of Bruce Road receive a substantial first alarm augmentation because of the wildland fire risk. The grassy oak woodland in these areas can produce flame lengths exceeding 20 feet on hot summer days (Butte County, 2007).

Over the last 55 years, seven wildfires covering areas larger than 30 acres have been reported in Bidwell Park by Cal-Fire. The majority of these fires have burned through oak woodlands and chaparral along the north canyon face above Big Chico Creek in the Middle and Upper Park areas. The largest wildfire in recent park history was the Musty Buck Fire, which was started by lightning in August of 1999 and consumed 1,180 acres in the park and nearly 17,000 acres in Butte County (EDAW, 2008).

T:_CS\Work\Chico, City of\General Plan Update - 27-0146\FIGURES, July 2009



Planning Area

Legend

Compatibility Zones

- A — Runway Protection Zone
- B1 — Approach and Departure Zone and Sideline Zone
- B2 — Extended Approach and Departure Zone
- C — Traffic Pattern: Either C1 or C2
- C1 — Traffic Pattern: 1 Dwelling Unit Per Minimum 5 Acres
- C2 — Traffic Pattern: 4 Dwelling Units Or More Per Acre
- D — Other Airport Environs

Airport Runways

Butte County Roads

Butte County Parcels

Adopted: December 20, 2000

Figure "3A"

2000 0 2000 4000 6000 Feet

Source: Butte County Department of Development Services Planning Division

Figure 4.4-2

Chico Municipal Airport Adopted Compatibility Map

PMC®

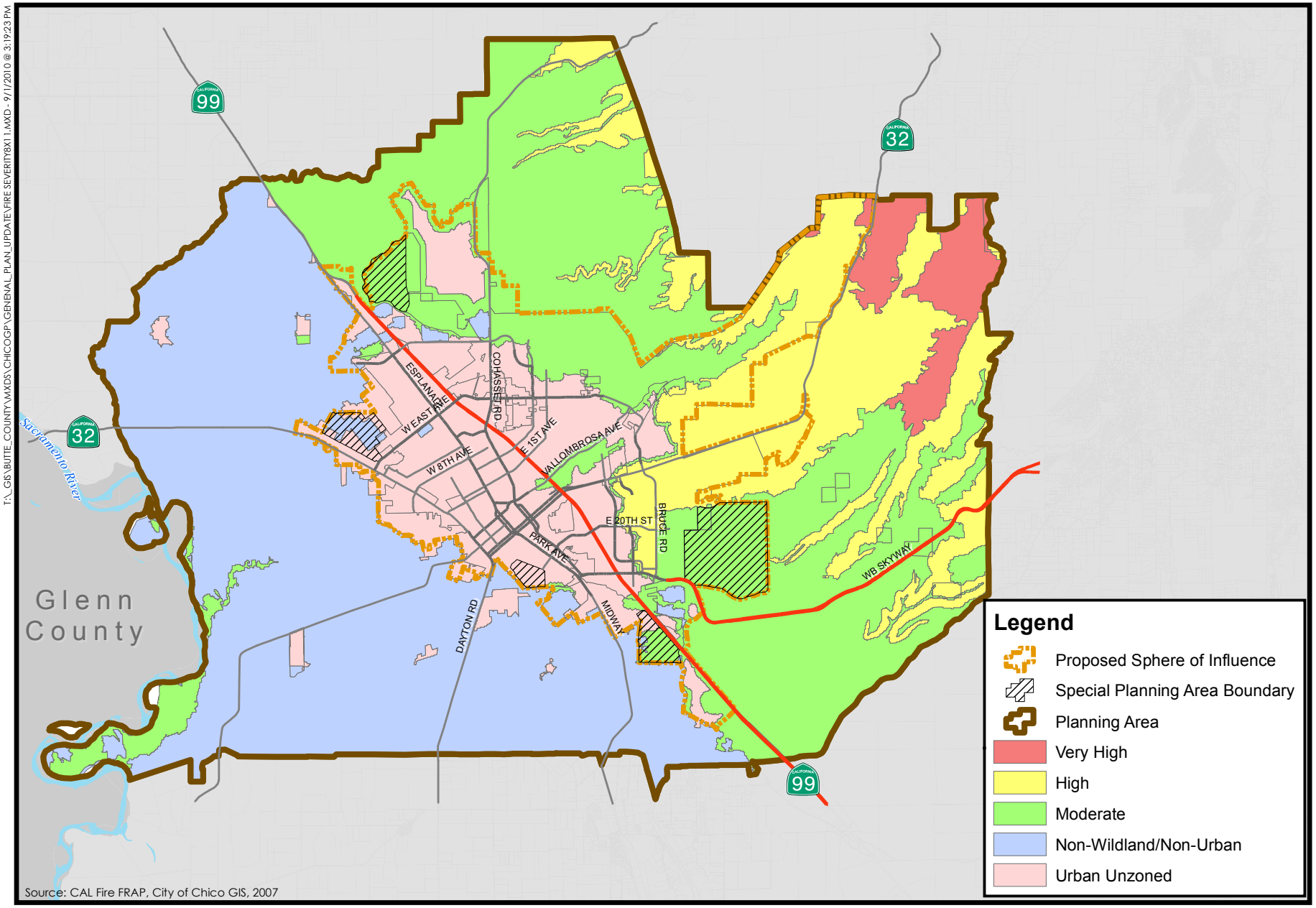


Figure 4.4-3
Fire Severity Zones

4.4.2 REGULATORY FRAMEWORK

FEDERAL – HAZARDOUS MATERIALS

Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) provides leadership in the nation's environmental science, research, education, and assessment efforts with the mission of protecting human health and the environment. The USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The USEPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. The agency also performs environmental research, sponsors voluntary partnerships and programs, provides direct support through grants to state environmental programs, and advances educational efforts regarding environmental issues. The USEPA develops and enforces regulations that span many environmental categories, including hazardous materials. Specific regulations include those regarding asbestos, brownfields, toxic substances, underground storage tanks, and Superfund sites, as discussed below.

Federal Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the act was significantly reorganized and expanded in 1972. The Clean Water Act became the act's common name with amendments in 1977.

The CWA implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface waters. The CWA also made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. USEPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges.

Federal Clean Air Act

The Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the USEPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants. Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, the CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. Major sources are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. For major sources, Section 112 requires that the USEPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as maximum achievable control technology, or MACT standards. Eight years after the technology-based MACT standards are issued for a source category, the USEPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk (USEPA, 2009e).

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives the USEPA the authority to control hazardous waste from "cradle-to-grave," including the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also set forth a framework for the management of nonhazardous solid wastes. The 1986 amendments to the RCRA enabled the USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to the RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program (USEPA, 2009e).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), provides a federal "superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their participation in the cleanup. The USEPA is authorized to implement the CERCLA in all 50 states and in U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definition clarifications, and technical requirements were added to the legislation, including additional enforcement authorities (USEPA, 2009e).

Small Business Liability Relief and Brownfields Revitalization Act

On January 11, 2002, the Small Business Liability Relief and Brownfields Revitalization Act was signed into law. The Brownfields Law amended the CERCLA by providing funds to assess and clean up brownfields, clarified CERCLA liability protections, and provided funds to enhance state and tribal response programs.

Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provides for federal regulation of pesticide distribution, sale, and use. All pesticides distributed or sold in the United States must be registered (licensed) by the USEPA. Before the USEPA may register a pesticide under the FIFRA, the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment" (USEPA, 2009e).

FIFRA defines the term *unreasonable adverse effects on the environment* to mean: ''(1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or (2) a human dietary risk from residues that result from a use of a pesticide in or on any food inconsistent with the standard under section 408 of the Federal Food, Drug, and Cosmetic Act" (USEPA, 2009e).

Occupational and Safety Health Act

Congress passed the Occupational and Safety Health Act (OSHA) in 1970 to ensure worker and workplace safety. The goal was to ensure that employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. OSHA is a division of the U.S. Department of Labor that oversees the administration of the act and enforces standards in all 50 states.

Toxic Substances Control Act of 1976

The Toxic Substances Control Act of 1976 (TSCA) provides the USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Various sections of the TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture.
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found.
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and recordkeeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform USEPA, except where USEPA has been adequately informed of such information.

In 2008 the USEPA expanded efforts to protect citizens from existing chemicals by making basic screening-level toxicity information on them publicly available with the Chemical Assessment and Management Program, or ChAMP (USEPA, 2009e).

U.S. Department of Transportation

Federal Hazardous Materials Transportation Law and Hazardous Materials Regulations

The federal hazardous materials transportation law (federal hazmat law), 49 U.S.C. Section 5101 et seq., is the basic statute regulating hazardous materials transportation in the United States. Section 5101 of the federal hazmat law states that the purpose of the law is to "protect against the risks to life, property, and the environment that are inherent in the transportation of hazardous material in intrastate, interstate, and foreign commerce."

The Hazardous Materials Regulations (HMR), which implement the federal hazmat law, govern the transportation of hazardous materials by highway, rail, vessel, and air. The HMR address hazardous materials classification, packaging, hazard communication, emergency response information, and training. The Pipeline and Hazardous Material Safety Administration (PHMSA) also issues procedural regulations, including provisions on registration and public sector training and planning grants (49 CFR Parts 105, 106, 107, and 110). The Pipeline and Hazardous Material Safety Administration issues the HMR (PHMSA, 2009).

The Federal Motor Carrier Safety Administration

The Federal Motor Carrier Safety Administration issues regulations concerning highway routing of hazardous materials, the hazardous materials endorsement for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials (PHMSA, 2009).

The Federal Aviation Administration

The Federal Aviation Administration issues regulations covering hazardous materials that are part of the required aircraft equipment. The FAA also regulates the transportation of radioactive materials on passenger-carrying aircraft when the material is intended for use in, or incident to, research or medical diagnosis or treatment (PHMSA, 2009).

FEDERAL – FIRE HAZARDS

Healthy Forest and Rangelands – National Fire Plan

Healthy Forests and Rangelands is a cooperative effort between the United States Department of the Interior (DOI), the United States Department of Agriculture (USDA), and their land management agencies. Healthy Forests and Rangelands provides fire, fuels, and land management information to government officials, land and fire management professionals, businesses, communities, and other interested organizations and individuals.

The National Fire Plan (NFP) was developed in August 2000, following a landmark wildland fire season, with the intent of actively responding to severe wildland fires and their impacts to communities while ensuring sufficient firefighting capacity for the future. The NFP addresses five key points: firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability. Finalized in August 2001 by the Department of the Interior and Department of Agriculture, the National Fire Plan outlines a coordinated national 10-year comprehensive strategy for the management of wildland fire, hazardous fuels, and ecosystem restoration and rehabilitation on federal and adjacent state, tribal, and private forest and rangelands in the United States. This approach recognizes fire as part of the ecosystem; focuses on hazardous fuels reduction, integrated vegetation management, and firefighting strategies; and allocates and

utilizes resources in a cost-effective manner on a long-term basis. An implementation plan of the National Fire Plan, completed in May 2002, designates general responsibilities for federal, state, and local agencies. The implementation plan was most recently updated in December 2006, with the goals of restoring fire-adapted ecosystems and reducing hazardous fuels in order to reduce risks to communities and provide economic benefits, as well as improve fire prevention and suppression (Healthy Forests and Rangelands, 2009).

FEDERAL – AIRPORT HAZARDS

CFR Federal Aviation Administration

The Federal Aviation Administration (FAA) is responsible for the safety of civil aviation in the United States. The Federal Aviation Act of 1958 created the agency under the original name of the Federal Aviation Agency. The FAA's major responsibilities include:

- Regulation of civil aviation to promote safety.
- Encouragement of the development of civil aeronautics, including new technology.
- Development and operation of a system of air traffic control and navigation for use by both civil and military aircraft.
- Research and development of the National Airspace System and civil aeronautics.
- Regulation of U.S. commercial space transportation.

FAA regulations, known as Federal Aviation Regulations (FARs), provide regulatory guidance for the operation, development, and construction of airports and aircraft as well as the training of and conduct of pilots of all civil types and ratings. Included in the FARs are specific regulations guiding the operation of airports and requirements related to development adjacent to airports. (14 CFR 77. FAR Part 77 pertains to objects affecting navigable airspace and establishes standards for determining obstructions in navigable airspace, sets forth the requirements for notice to the administrator of certain proposed construction or alteration, provides for aeronautical studies of obstructions to air navigation in order to determine their effect on the safe and efficient use of airspace, provides for public hearings on the hazardous effects of proposed construction or alteration on air navigation, and provides for the establishment of antenna farm areas.

STATE – HAZARDOUS MATERIALS

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) was created in 1991 by Governor's Executive Order. The six boards, departments, and office were placed under the CalEPA "umbrella" to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of state resources. The mission of CalEPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality (CalEPA, 2009).

Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs (CalEPA, 2009):

- The Hazardous Waste Generator (HWG) program and Hazardous Waste Onsite Treatment activities
- The Aboveground Storage Tank (AST) program Spill Prevention Control and Countermeasure Plan requirements
- The Underground Storage Tank (UST) program
- The Hazardous Materials Release Response Plans and Inventory (HMRRP) program
- California Accidental Release Prevention (CalARP) program
- The Hazardous Materials Management Plans and the Hazardous Materials Inventory Statement (HMMP/HMIS) requirements

The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program. The Unified Program requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local Certified Unified Program Agency (CUPA) is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements in the county. Most CUPAs have been established as a function of a local environmental health or fire department.

The Butte County Environmental Health Department is the CUPA for Butte County. CalEPA periodically evaluates the ability of each CUPA to carry out the requirements of the Unified Program. A program evaluation of Butte County Environmental Health CUPA was conducted on November 14 and 15, 2007. The evaluation found that the Butte County Environmental Health CUPA's program performance is satisfactory with some improvement needed (CalEPA, 2007).

Department of Pesticide Regulation

Within CalEPA, the California Department of Pesticide Regulation (DPR) protects human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. DPR's oversight begins with product evaluation and registration and continues through statewide licensing of commercial applicators, dealers and consultants, residue testing of fresh produce, and local permitting and use enforcement by agricultural commissioners in each of the state's 58 counties (CalEPA, 2009).

Air Resources Board

In 1967, California's Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus—the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board—to establish the California Air Resources Board (CARB). Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problem. CARB's mission is to promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants,

while recognizing and considering the effects on the state's economy. CARB also oversees the activities of 35 local and regional air pollution control districts. These districts regulate industrial pollution sources, as well as issue permits, develop local plans to attain healthy air quality, and ensure that the industries in their area adhere to air quality mandates.

The Air Resources Board's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act (AB 1807, Tanner 1983) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly 1987) supplements the Assembly Bill (AB) 1807 program, by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

Under AB 1807, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)]. AB 1807 also requires CARB to use available information gathered from the AB 2588 program to include in the prioritization of compounds. This report includes available information on each of the above factors required under the mandates of the AB 1807 program.

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California, primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. The U.S. Environmental Protection Agency authorizes DTSC to carry out the Resource Conservation and Recovery Act program in California. Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. The following are descriptions of the roles and responsibilities of DTSC's organizational programs (DTSC, 2009a).

Site Mitigation and Brownfields Reuse Program

- **Statewide Cleanup Operations Division** – DTSC's Statewide Cleanup Operations Division conducts and oversees cleanup of sites contaminated with a toxic substance, coordinating all aspects of the cleanup from investigation through certification. Expediting this cleanup work is one of the most important goals of the program. DTSC created the Voluntary Cleanup Program, Expedited Remedial Action Pilot program, and other "Brownfields" tools to encourage redevelopment of blighted urban areas. DTSC also encourages property owners to investigate and clean up contamination through a combination of low-interest loans. In 2001, the Investigating Site Contamination and Cleanup Loans and Environmental Assistance to Neighborhoods (ISCP and CLEAN) programs received 11 loan applications totaling $7.9 million to investigate and clean up urban properties.

- **School Property Evaluation and Cleanup Division** – The School Property Evaluation and Cleanup Division works to ensure that all new, existing, and proposed school sites are environmentally safe. State law requires all proposed school sites that will receive state funding for purchase or construction to go through DTSC's rigorous environmental review.

If the properties were previously contaminated, DTSC Schools Division staff makes sure they have been cleaned up to a level that is safe for students and faculty.

- **Office of Military Facilities** – The Office of Military Facilities is responsible for investigation, technical assistance, and oversight of cleanup operations at contaminated California properties currently or previously operated by the Department of Defense.

- **Emergency Response and Statewide Operations Division** – DTSC's Emergency Response and Statewide Operations Division (ERSO) encompasses several elements. The Emergency Response Program provides immediate assistance in the case of sudden releases or threatened releases of hazardous materials. This program includes disaster response, illegal drug lab cleanup and developing remediation guidelines for illegal drug labs, and off-highway removal. ERSO also houses the Engineering and Geological Services Branch, which supports the other programs within DTSC by providing expert technical assistance. ERSO has lead responsibility for conducting cleanup and enforcement actions at several high-profile federal Superfund sites.

- **Planning and Management Branch** – The Planning and Management Branch is a headquarters organization responsible for developing and managing various federal grants which help fund the Site Mitigation and Brownfields Reuse Program. Staff analyze state and federal legislation, develop policy and procedure, coordinate the annual workplan, and perform consolidated budget and personnel functions. In addition, Site Mitigation and Brownfields Reuse maintains a database of confirmed and suspected hazardous waste substance release sites.

Hazardous Waste Management Program

The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities. The main focus of HWMP is to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

- **Permitting & Corrective Action Division –** The Permitting Division authorizes facilities to treat, store, and dispose of hazardous waste in a manner consistent with federal, state, and local laws. Types of authorization include permits, emergency permits, and variances. The purpose of this process is to ensure that these facilities and their operators meet requirements for safe operating conditions, financial assurance, and environmental monitoring. In addition, the division conducts the corrective action and closure programs, including long-term maintenance of closed facilities for closed hazardous waste facilities.

- **Statewide Compliance Division –** The Statewide Compliance Division (SCD) monitors hazardous waste transfer, storage, treatment, and disposal facilities for illegal activity. SCD carries out a technical investigation program that provides sampling, technical site investigation, and expert testimony for civil and criminal investigations brought by the California Attorney General, district attorneys, regional environmental crimes task forces, and federal attorneys. Staff members conduct routine inspections, investigate complaints, monitor hazardous waste transporters and their manifests, and take enforcement action against those who violate hazardous waste laws. In addition, SCD makes sure that commercial hazardous waste management facilities have adequate financial resources to cover both sudden accidental liability and the long-term costs of closing the facility.

- **State Regulatory Programs Division –** The State Regulatory Programs Division (SRPD) oversees the implementation of the hazardous waste generator and on-site treatment program, one of the six environmental programs at the local level consolidated within the Unified Program. SRPD participates in the triennial review of 72 Certified Unified Program Agencies (CUPAs) to ensure that their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. SRPD also carries out the state's hazardous waste recycling and resource recovery program, a waste evaluation program to assist in waste determinations, and the household hazardous waste and agricultural chemical collection programs. The division conducts a corrective action oversight program that assures any releases of hazardous constituents at generator facilities that conduct on-site treatment of hazardous waste are safely and effectively remediated.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) was created by the Legislature in 1967. The mission of the SWRCB is to ensure the highest reasonable quality for waters of the state, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters.

Porter-Cologne Water Quality Control Act

In 1969, the California Legislature enacted the Porter-Cologne Water Quality Control Act, the cornerstone of today's water protection efforts in California. Through it, the SWRCB and the nine Regional Boards are entrusted with broad duties and powers to preserve and enhance all beneficial uses of the state's surface and groundwater.

Land Disposal Program

The SWRCB's Land Disposal program regulates waste discharge to land for treatment, storage, and disposal in waste management units, which include waste piles, surface impoundments, and landfills. CCR Title 23, Chapter 15, contains the regulatory requirements for discharge of hazardous waste to land. The regulations establish waste and site classifications and waste management requirements for waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities. The regulations also include minimum standards for proper management of each waste category. In addition, the regulations apply to cleanup and abatement actions for unregulated discharges to land of hazardous waste (e.g., spills).

California Department of Industrial Relations – Division of Occupational Safety and Health

In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for employees, according to the California Occupational Safety and Health Act of 1973. The Division of Occupational Safety and Health (Cal/OSHA) program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. Cal/OSHA regulations are administered through Title 8 of the CCR. The regulations require all manufacturers or importers to assess the hazards of substances which they produce or import and all employers to provide information to their employees about the hazardous substances to which they may be exposed.

California Office of Environmental Health Hazard Assessment

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, was enacted as a ballot initiative in November 1986. The proposition was intended by its authors to protect California citizens and the state's drinking water sources from chemicals known to cause cancer, birth defects, or other reproductive harm and to inform citizens about exposures to such chemicals. Proposition 65 requires the governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity.

STATE – FIRE HAZARDS

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (Cal-Fire) protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. Cal-Fire's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. Those fires burn more than 172,000 acres annually (Cal-Fire, 2009).

The Office of the State Fire Marshal (SFM) supports Cal-Fire's mission by focusing on fire prevention. SFM provides support through a wide variety of fire safety responsibilities including by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.

The responsibility for the prevention and suppression of wildfires in Butte County belongs to Cal-Fire, the Butte County Fire Department (BCFD), and individual cities in their incorporated areas. As the major firefighting force in the county, Cal-Fire/BCFD maintains 48 fire stations and support facilities either fully or cooperatively, as well as a fleet of firefighting equipment in Butte County, including engines, aircraft, squads/rescues, bulldozers, water tenders, hazardous materials units, and heavy rescue vehicles (Butte County, 2007).

Wildland-Urban Interface Fire Area Building Standards

On September 20, 2005, the California Building Standards Commission approved the Office of the State Fire Marshal's emergency regulations amending the CCR, Title 24, Part 2, known as the 2007 California Building Code (CBC). Included in these amendments were the wildland-urban interface codes, which include provisions for ignition resistant construction standards in the wildland-urban interface. The broad objective of the Wildland-Urban Interface Fire Area Building Standards is to establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface fire areas. The standards require the use of ignition-resistant materials and design to resist the intrusion of flame or burning embers projected by a vegetation fire (wildfire exposure) (Cal-Fire, 2009).

Vegetation Management Program

The Cal-Fire Vegetation Management Program (VMP) is a cost-sharing program that focuses on the use of prescribed fire and mechanical means for addressing wildland fire fuel hazards and other resource management issues on State Responsibility Area (SRA) lands. The use of

prescribed fire mimics natural processes, restores fire to its historic role in wildland ecosystems, and provides significant fire hazard reduction benefits that enhance public and firefighter safety. VMP allows private landowners to enter into a contract with Cal-Fire to use prescribed fire to accomplish a combination of fire protection and resource management goals. Implementation of VMP projects is by Cal-Fire units. The projects which fit within a unit's priority areas (e.g., those identified through the Fire Plan) and are considered to be of most value to the unit are those that will be completed. The Vegetation Management Program has been in existence since 1982 and has averaged approximately 35,000 acres per year since its inception (Cal-Fire, 2009).

California Public Resources Code

Fire Hazard Severity Zones

The California Public Resources Code 4201–4204 and Government Code 51175–89 directs Cal-Fire to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires.

Within the Chico city limits, the area on the northern boundary of Bidwell Park is designated as a Very High Fire Hazard Severity Zone in a Local Responsibility Area. In addition, land surrounding Bidwell Park is also classified as a Very High Fire Hazard Severity Zone in a State Responsibility Area (Cal-Fire, 2008a and 2008b).

Defensible Space Requirements

In 1987, Senate Bill (SB) 1075 was adopted to require the California Board of Forestry to establish minimum fire safety standards that apply to State Responsibility Areas (SRAs). Subsequently, Public Resources Code Section 4290 required local jurisdictions to implement these fire safe standards. The concept of defensible space is the cornerstone of fire safety regulations. The intent is to reduce the intensity of a wildland fire by reducing the volume and density of fuels (e.g., vegetation that can transmit fire from the natural growth to a building or structure), to provide increased safety for fire equipment and evacuating civilians, and to provide a point of attack or defense from a wildland fire. Defensible space is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names, building identification, and fuel modification measures. Changes to Public Resources Code 4291 in 2006 expanded the defensible space clearance requirement maintained around buildings and structures from 30 feet to a distance of 100 feet.

California Fire Plan and Cal-Fire Unit Fire Management Plans

The California Fire Plan is the state's road map for reducing the risk of wildfire. The Fire Plan is a cooperative effort between the California Board of Forestry and Fire Protection and Cal-Fire. By emphasizing what needs to be done long before a fire starts, the Fire Plan's goals are to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The current plan was finalized in June of 2010.

Individual Cal-Fire Unit Fire Management Plans document assessments of the fire situation in each of Cal-Fire's 21 units and six contract counties. The 2005 Butte Unit Fire Management Plan documents the assessment of the fire situation within the unit; it includes stakeholder contributions and priorities, and identifies strategic areas for pre-fire planning and fuel treatment

as defined by the people who live and work with the local fire problem. The 2005 plan was adapted from the original Butte Unit Fire Management Plan 2000 and subsequent versions.

California Fire Code

The 2007 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California (CBSC, 2008). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas. The City of Chico has adopted the California Fire Code as part of its building regulations (City of Chico Municipal Code, Chapter 16R.42).

LOCAL – HAZARDOUS MATERIALS, FIRE HAZARDS, AND EMERGENCY MANAGEMENT

Hazardous Materials Joint Power Agreement

The Hazardous Materials (Hazmat) Joint Powers Agreement (JPA) was initiated in December 1990 by the County of Butte and the five cities in Butte County—Biggs, Chico, Gridley, Oroville, and the Town of Paradise. It is governed by the fire chiefs of the six signatory agencies.

The key components of the JPA are:

- Establishment and equipping of a countywide Hazardous Materials Response Team with a maximum membership of 40 fire department personnel.
- Each entity provides state-certified Hazardous Materials Specialists and a small ten cents per capita financial contribution commensurate to their overall percentage of total county population.
- Operation of two Type 1/Level A response units, one stationed in Chico and one stationed in Kelly Ridge.
- Dispatching of the closest on-duty specialists to any hazardous materials incident regardless of jurisdiction.
- The JPA provides emergency response services, but it is not responsible for cleanup or removal of hazardous materials.
- Accepting additional funding from donations, grants, billing for services, and court-ordered restitution.

The response agency establishes training and operational standards in accordance with applicable law and regulation. In early 2006, a third response unit designated for mass decontamination and rehabilitation was located in the City of Oroville. As Homeland Security first responders, the team is trained and equipped to respond to incidents involving weapons of mass destruction. The team works closely with the County Environment Health and Agriculture

departments. The Chico Fire Department provides 11 of the 40 authorized state-certified specialist positions on the team. The closest specialists are dispatched to any hazardous materials emergency, regardless of jurisdiction (City of Chico, 2009).

City of Chico Household Hazardous Waste Element

In compliance with requirements set forth in AB 939, the City of Chico has developed a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE). In combination, the SRRE and the HHWE constitute the city's Integrated Waste Management Plan (IWMP). The goals of the IWMP include minimizing the use and disposal of household hazardous wastes in the city as well as establishing and promoting an environmentally sound methodology for the collection, transportation, and disposal of hazardous wastes. The IWMP seeks to evaluate the effective methods and alternatives for the collection, transportation, and disposal of household hazardous wastes as part of the city's overall solid waste collection and recycling program.

Bidwell Park Master Management Plan

The Bidwell Park Master Management Plan Update was adopted by the City of Chico in 2008. IT includes a Natural Resources Management Plan (NRMP) which provides a framework for managing resources in the park that meets established park-wide goals and objectives. The NRMP provides an overview of the ecological role of fire as well as a discussion of the history of wildland fire and the fire environment in Bidwell Park. Among its findings were that the park presents a serious potential for extreme wildfire events due to high fuel loads, steep, irregular topography, and local climate.

Fire management in Bidwell Park consists of two main objectives (EDAW, 2008):

- Reduce the probability of wildfire within the park that threatens park visitors, park facilities, and surrounding land owners and residents.
- Safely use prescribed fire as a management tool to treat invasive plants and improve habitat for native plants and wildlife.

Wildfire reduction and management strategies for the park include:

- Fuels management
- Wildfire detection and reporting
- Wildfire pre-suppression and suppression
- Prescribed burning
- Post-fire rehabilitation

City of Chico Municipal Code

Chapter 16.42, Fire Regulations, of the City of Chico Municipal Code contains fire regulations adopted to safeguard life and property from the hazards of fire and explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the use or occupancy of buildings or structures. The

Municipal Code requires permits for certain hazardous activities and operations and inspections to determine whether such activities or operations can be conducted in a manner which complies with the fire regulation standards and in a manner which will not cause a fire or contribute to its spread.

Airport Land Use Compatibility Plan

The Butte County Airport Land Use Commission (ALUC) adopted an Airport Land Use Compatibility Plan (ALUCP) pertaining to both of the airports in the Chico area in 2000. The ALUCP planning area generally encompasses lands within a 14,000-foot radius of the runway centerline of the Chico Municipal Airport (CMA), and within 9,000 feet of the runway centerline of the Ranchaero Airport. In order to provide for the orderly growth of the airports and the areas surrounding them, the ALUCP includes defined airport compatibility zones in the vicinity of the airports, largely based on safety and noise factors, with prescribed land use restrictions by which the ALUC and other jurisdictions may assess the compatibility of proposed development projects in those areas. The adopted compatibility map for the CMA is shown in **Figure 4.4-2**.

The city's existing 1994 General Plan is not consistent with some aspects of the Butte County Airport Land Use Compatibility Plan (ALUCP), which was adopted in 2000. Pursuant to state law, the city had 180 days to either amend its General Plan to be consistent with the ALCUP or adopt overrides as provided for in state law. The city did not pursue either route, resulting in the current situation of inconsistencies between the General Plan and the ALUCP. As a result of this inconsistency, the city is currently required to refer major land use actions (as defined in the ALUCP) to the Butte County Airport Land Use Commission for review and approval. It should be noted that there are both programmatic inconsistencies (such as the city not requiring noise-resistant construction by ordinance in airport overflight areas) and location-specific land use inconsistencies (such as a site designated by the General Plan for 14 to 22 units per acre, while simultaneously being designated for no more than 1 unit per 5 acres by the ALUCP).

Butte County Code

Chapter 24, the Airport Air Zoning Ordinance, of the Butte County Code prevents the creation and establishment of airport hazards. The code is intended to protect the lives and property of the users of the Chico Municipal Airport and of the occupants of the land in its vicinity. The code also prevents destruction or impairment of the utility of the airport and the public investment therein in accordance with and as part of any future comprehensive master plan of the airports in Butte County (DC&E, 2007).

Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan

The County of Butte is required to adopt a federally approved Hazard Mitigation Plan to be eligible for certain disaster assistance and mitigation funding. Therefore, Butte County and the participating jurisdictions of the City of Biggs, the City of Chico, the City of Gridley, the City of Oroville, and the Town of Paradise developed the Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan (MHMP). The overall intent of the MHMP is to reduce or prevent injury and damage from hazards in the county. The MHMP identifies past and present mitigation activities, current policies and programs, and mitigation strategies for the future. The MHMP also guides hazard mitigation activities by establishing hazard mitigation goals and objectives (Butte County, 2007).

County of Butte Office of Emergency Management

California Government Code, Section 8607, requires the development of a standardized emergency management system (SEMS). SEMS facilitates coordination among all responding agencies and expedites the flow of resources and communication at all organizational levels (OES, 2003). SEMS regulations authorize each county board of supervisors to designate an operational area (OpArea) lead agency. The County of Butte Office of Emergency Management (County OEM) has been designated the OpArea Coordinator in Butte County (Butte County, 2009). OEM works with state and local agencies to develop effective emergency response systems in the county. OEM also acts as the requesting and coordinating agency when situations require the involvement of state and other outside agencies (DC&E, 2007). The OpArea includes Biggs, Chico, Durham, Gridley, Oroville, Magalia, Paradise and the unincorporated areas of Butte County.

In an emergency, County OEM may be contacted and requested to activate in order to coordinate among local "political subdivisions" and act as a single point of contact for state and federal agencies. If two or more jurisdictions are affected, the OpArea activates automatically. The level of activation is dependent upon the scope of the event (Butte County, 2009).

Butte County Operational Area Disaster Plan

The Butte County Operational Area Disaster Plan (EOP) serves as the official Emergency Plan for Butte County. It includes planned operational functions and the overall responsibilities of each area of the county in addressing emergency situations. The EOP provides an overview of operational concepts, identifies components of the County's emergency management organization within the SEMS National Incident Management System (NIMS), and describes the overall responsibilities of the federal, state, and county entities and the Butte County Operational Area for protecting life and property and assuring the overall well-being of the population. While emergency services are administered at the county level, they are available to local jurisdictions.

The EOP is designed to focus on potential large-scale disasters, rather than daily emergencies that are regularly handled by local law enforcement and protection agencies. The EOP defines the County's planned response to "extraordinary" emergency situations associated with natural disasters, technological incidents, and nuclear defense operations (DC&E, 2007).

City of Chico Emergency Response/Evacuation Plan

The City of Chico is responsible for emergency operations within city boundaries. The City of Chico Emergency Management Plan specifies actions for the coordination of operations, management, and resources during emergencies in the City of Chico; governmental responsibilities during emergency events; and a plan for the organization of nongovernmental agencies providing support assistance.

4.4.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

This analysis evaluates the project's impacts from hazards to human health and hazardous materials based on the standards identified in State CEQA Guidelines Appendix G. The city has

determined that a hazards and hazardous materials impact is considered significant if implementation of the project would:

1) Expose people or structures to significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

2) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.

3) For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

4) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

5) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

6) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

7) Be located on a site which is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

8) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

METHODOLOGY

This analysis of hazards was based on review of existing documentation such as the Butte County Multi-Hazard Mitigation Plan and DTSC and USEPA databases for hazardous sites in the city, as well as review of the applicable fire codes and regulations, review of the existing City of Chico Municipal Code, and other relevant literature. A detailed list of reference material used in preparing this analysis can be found at this end of this section. This material was compared to the proposed General Plan Update's specific hazard-related impacts. The impact analysis below focuses on whether those impacts would have a significant effect on the physical environment and/or on the health of the public.

The following proposed General Plan Update policies and actions address hazards to the public health and safety or the environment:

Policy S-1.1 *(Emergency Preparedness) – Promote public safety from hazards that may cause death, injury, or property damage through emergency preparedness and awareness.*

Action S-1.1.1 *(Emergency Plan Maintenance) – Maintain and update, as needed, the City's Emergency Plan to guide emergency management in the City.*

Action S-1.1.3 *(Incident Training) - Continue to participate in the National Office of Emergency Services' National Incident Management System program, which provides a standardized approach to emergency incidents.*

Action S-4.3.3 *(Project Design) – As part of project review process in wildland fire areas, require consideration of emergency evacuation routes and defensible buffer areas.*

Policy S-4.1 *(Fire Safety Staffing) – Maintain adequate fire suppression and prevention staffing levels.*

Policy S-4.2 *(Interagency Coordination) – Continue to maintain interagency relationships to maximize fire protection services and support programs that reduce fire hazards.*

Action S-4.2.1 *(Interagency Programs) – Continue to work with CalFire and the Butte County Fire Department on programs that will enhance fire protection and firefighting capabilities in the Planning Area, including maintaining aid agreements.*

Action S-4.3.2 *(Structural Standards) – Incorporate building construction standards for the Local Resource Area, areas which are provided City fire suppression services, that are consistent with the requirements for the State Responsibility Area, areas that are provided State and County fire suppression services for State-designated Very High, High and Moderate Fire Hazard Severity Zones.*

Action S-4.3.3 *(Project Design) – As part of project review process in wildland fire areas, require consideration of emergency evacuation routes and defensible buffer areas.*

Policy S-6.1 *(Airport Operations) – Promote safe air operations by limiting the height of structures and regulating uses that would have adverse impacts on airport safety.*

Policy S-6.2 *(Safety in Airport Vicinity) – Continue to consider relevant public safety factors prior to approving development projects in the vicinity of airports.*

Action S-7.1.1 *(Coordinate with UPRR) – Request Union Pacific Railroad to verify that relevant safety measures for at-grade crossings are implemented and maintained, and assess the feasibility of improving safety features, including enhanced crossing gate practices and warning devices.*

Policy S-8.1 *(Hazardous Materials Safety Coordination) – Support efforts to reduce the potential for accidental releases of toxic and hazardous substances.*

Action S-8.1.1 *(Planning for Hazardous Materials Safety) – Consult with the State Office of Emergency Services, the State Department of Toxic Substances Control, the California Highway Patrol, Butte County, and other relevant agencies regarding hazardous materials routing and incident response programs.*

Policy LU-7.1 *(Airport Protection) – Safeguard the Chico Municipal Airport from intrusion by uses that could limit expansion of air services, and prohibit development that poses hazards to aviation.*

Action LU-7.1.1 *(Airport Compatibility) – Amend the City's Municipal Code and Zoning Map to implement airport overflight zoning district overlays, consistent with the boundaries and policy direction contained within the Butte County Airport Land Use Compatibility Plan, which address the following:*

- *Airport noise-related compatibility issues and noise-resistant construction techniques.*
- *Height limitations for both structures and landscaping.*
- *Lighting, electrical interference, glare, or other issues which may endanger the landing, takeoff, or maneuvering of aircraft.*
- *Prohibition of incompatible land uses and limitations on the density and/or intensity of land uses.*
- *Infill compatibility criteria consistent with the 2005 agreement between the City and the Butte County Airport Land Use Commission.*

Action LU-7.1.2 *(Avigation Easements) – Continue to require avigation easements and deed notices for new development within the Airport Compatibility Land Use Plan area.*

The impact analysis provided below utilizes these proposed policies and actions to determine whether implementation of the proposed General Plan Update would result in significant hazard impacts. The analyses identify and describe how specific policies and actions as well as other City regulations and standards provide enforceable requirements and/or performance standards that protect public health and avoid or minimize significant impacts.

PROJECT IMPACTS AND MITIGATION MEASURES

Wildland Fire Hazards (Standard of Significance 1)

Impact 4.4.1 Implementation of the proposed General Plan Update would not expose people or structures to significant hazards involving wildland fires including in areas where wildlands are adjacent to urbanized areas. This is considered to be a **less than significant** impact.

Cal-Fire designates the eastern portion of the Planning Area as having moderate to very high risk for wildland fires. In particular, lands in and surrounding Bidwell Park are in a Very High Fire Hazard Severity Zone and have a history of wildland fires. Implementation of the proposed General Plan Update includes new development and redevelopment in both the North Chico Special Planning Area (SPA-1) and the Doe Mill/Honey Run SPA (SPA-4), both of which are located in the eastern portion of the city in moderate and high fire hazard severity zones. Development in these areas has the potential to expose people or structures to significant risk of loss, injury, or death involving wildland fires.

Any new development or redevelopment in areas at risk for wildland fire hazards would be required to comply with the 2007 California Fire Code (Title 24, Part 9 of the California Code of Regulations), which requires construction methods that mitigate wildfire exposure be applied in geographical areas where wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses. The Fire Code establishes minimum standards for materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface areas and requires the use of ignition-resistant materials and design to resist the intrusion of flame or burning embers projected by a vegetation fire.

In addition, future development associated with the proposed General Plan Update would be required to comply with Chapter 16.42, Fire Regulations, of the City of Chico Municipal Code, which contains fire regulations adopted to safeguard life and property from the hazards of fire and explosion. The proposed General Plan Update includes a policy that requires consideration of emergency evacuation routes and defensible buffer areas as part of the project review process in wildland fire areas (Action S-4.3.3). As such, future development in the North Chico SPA and the Doe Mill/Honey Run SPA would be evaluated for these wildland fire-related impacts and mitigation measures or conditions of approval would be required if necessary. The proposed General Plan Update also requires new development in State-designated Very High, High and Moderate Fire Hazard Severity Zones to incorporate building construction standards consistent with the requirements for the State Responsibility Area (Action S-4.3.2).

Furthermore, implementation of the Bidwell Park Master Management Plan Update reduces the probability of wildfire impacts to landowners and residents surrounding the park through wildfire reduction and management strategies including fuels management, wildfire detection and reporting, wildfire pre-suppression and suppression, prescribed burning, and post-fire rehabilitation.

As discussed above, implementation of proposed General Plan Update Actions S-4.3.2 and S-4.3.3 would reduce wildland fire hazards to future development by considering buffer areas and incorporating state standards to protect structures in wildland fire areas. In addition, the Bidwell Park Master Management Plan reduces the probability of wildfire impacts to landowners and residents surrounding Bidwell Park, one of the most wildland fire prone areas of the city. These policies, in conjunction with the existing California Fire Code and the Chico Municipal Code, require new development to incorporate fire prevention measures that would reduce impacts associated with wildland fires to **less than significant**.

Public and Private Airport Hazards (Standards of Significance 2 and 3)

Impact 4.4.2 Implementation of the proposed General Plan Update would not result in a safety hazard for people residing or working in the vicinity of a public or private airport in the Planning Area. This impact is considered **less than significant**.

Safety concerns associated with airport land use compatibility include 1) risks to people and property on the ground in the event of an aircraft accident; and 2) land use characteristics which may affect the survivability of an accident for occupants of an aircraft (Butte County, 2000). Potential safety hazards associated with the Ranchaero Airport and the Chico Municipal Airport (CMA) are provided below.

Ranchaero Airport

The airport compatibility zones for the Ranchaero Airport which overlay the Planning area are primarily D, C, and B2, with smaller areas of B1 and A. Because the majority of this land is already developed and is in an "area of stability" as envisioned in the General Plan, new development in this area should be minimal. Because the Aeronautics Act only gives ALUCs authority over new land development, not existing development, the total acreage which is in the overflight zones which will be subject to development will be minimal. The proposed General Plan Update does not propose any land use changes that would result in new safety hazards associated with the operation of the Ranchaero Airport.

Chico Municipal Airport

The proposed General Plan Update identifies the area to the immediate west of the CMA as an environmentally constrained area which is not expected to accommodate any further development. However, the North Chico SPA is located immediately adjacent to the western boundary of this constrained area, and the Eaton Road Opportunity Site is located southwest of the constrained area. Future residents and employees in these areas could be exposed to airport hazards associated with the CMA. In particular, the North Chico SPA is proposed for portions of this area and is located in Airport Compatibility Zones C2 and D, and the large Medium-High Density Residential-designated Webb property on Eaton Road is located in Zone C1.

According to the CalTrans *California Airport Land Use Planning Handbook* (CalTrans Handbook)there is generally a low likelihood of accident occurrence in the Traffic Patterns Zone (C1 and C2 Zones) at most airports, with risk concern primarily for uses with potentially severe consequences (i.e., uses with very high intensities such as outdoor stadiums). Similarly, the ALUCP notes that the intrusiveness of aircraft noise is the most significant compatibility factor in the C Zone and that safety is only a minor concern.

According to the CalTrans Handbook the level of individual risk for a given location near an airport is dependent to a significant extent upon the number of aircraft operations and to a lesser degree upon the type of aircraft. CMA has an average of 182 daily aircraft operations. This is expected to increase to an average of 257 daily aircraft operations during the 20-year planning period of the ALUCP (Butte County, 2000). Data shows the highest level of risk for aircraft accident occurs immediately beyond the runway ends. These risks are on the order of 1:10,000 (10^{-4}) per year and are typically contained within the limits of the airport's runway protection zones (RPZs). The extent of risks at the 1:100,000 (10^{-5}) level is more dependent upon the volume of aircraft operations on a runway, but generally is within an area immediately surrounding the RPZs. In addition, according to the ALUCP, 80 percent of arrival aircraft accidents occur within a strip extending 10,000 feet from the end of the runway and 2,000 feet on either side of the runway centerline. Similarly, 80 percent of departure aircraft accidents occur 6,000 feet from the end of the runway and 2,500 feet to each side of the runway centerline. The General Plan Update does not allow for any new development in CMA's RPZ or the immediately surrounding area. Furthermore, the eastern boundary of the North Chico SPA, which is closest to the CMA, is approximately 3,925 feet from the centerline of the closest

runway. The Webb property on Eaton Avenue is over 4,000 feet from the centerline of the closest runway.

In addition, the ALUCP identifies that one way to address safety concerns is to provide open areas in the airport vicinity where small aircraft can make a survivable landing if necessary. To that end, the ALUCP requires 10 percent of the land within Zone C to remain open. If the North Chico SPA and the Webb property on Eaton Road were to be built out consistent with its proposed General Plan land use designations, well over 10 percent of the overall Zone C would remain open, primarily because the proposed General Plan Update identifies a large portion of Zone C to the immediate west of the CMA as an environmentally constrained area which is not expected to accommodate any further development.

Given the low amount of daily flights in and out of the CMA and the particularly low probability for an aircraft accident to occur within Zones C and D (the only airport zones where new and infill development will be allowed), the General Plan Update will not result in increased safety hazards for people residing or working in the vicinity of the CMA.

As discussed in Section 4.1, Land Use, as part of the City's referral of the proposed General Plan Update to the ALUC for its consideration, and as included in proposed General Plan Update Action LU-7.1.4, the City is requesting that the ALUC consider altering the boundary between the C1 and C2 subzones on the west side of the CMA to aid in a determination that the proposed General Plan Update is consistent with the Compatibility Plan. The General Plan Update proposes the North Chico SPA to consist of a combination of multi-family, single-family, commercial mixed-use, industrial-office mixed-use, public facilities, open space, and parks. It is due to these proposed land uses that the City is requesting that the ALUC consider altering the boundary between the C1 and C2 subzones on the west side of the CMA so that the proposed North Chico SPA would lay primarily in subzone C2. The primary difference between Zones C1 and C2 is the residential density limitations of 1 dwelling unit per 5 acres and 4 dwelling units per acre, respectively. This difference is based on a determination that the intrusiveness of aircraft noise is considered the most significant compatibility factor in Zone C and the concept that noise concerns can be minimized by limiting the number of dwellings in an affected area or by allowing high densities with comparatively higher ambient noise levels. Because the difference between C1 and C2 Sub-Zones is primarily related to noise concerns, altering the boundary between the C1 and C2 subzones on the west side of the CMA would not result in significant safety impacts. The reader is referred to Section 4.1, Land Use, for a discussion of impacts associated with airport land use compatibility issues, including the General Plan Update's compatibility with the ALUCP.

The proposed General Plan Update identifies the CMA as one of the community's greatest assets and promotes its long-term protection and development. The proposed General Plan Update includes a policy framework related to airport land use compatibility. Specifically, General Plan Action LU-7.1.1 requires that the city amend its Municipal Code to establish airport compatibility overlay zoning districts that conform to the boundaries and policy direction of the ALUCP's overflight zones. The overlay districts would enforce development standards consistent with the standards in the ALUCP, including noise-resistant construction, structure and tree height limitations, density/intensity limitations on the use of land, and establishing infill criteria consistent with the 2005 agreement between the city and the ALUC. Actions LU-7.1.2 and LU-7.1.3 direct that the city continue requiring avigation easements and deed notices, and state the city's goal of maintaining Federal Aviation Administration passenger certification for the CMA. Implementation of proposed General Plan Update Policy LU-7.1 and actions LU-7.1.1 and LU-7.1.2 would ensure that no safety impacts would be created by new development in the

vicinity of the CMA. In addition, the policies prevent development that would pose hazards to aviation or interfere with or endanger the landing, taking off, or maneuvering of aircraft.

Given the low amount of daily flights in and out of the CMA and the particularly low probability for an aircraft accident to occur within Zones C and D (the only airport zones where new and infill development will be allowed), as well as adherence to FAA regulations and ALUCP requirements and implementation of the proposed General Plan Update policies and actions discussed above, airport safety hazards are considered **less than significant.**

Transportation, Use, and Disposal of Hazardous Materials (Standard of Significance 4)

Impact 4.4.3 Implementation of the proposed General Plan Update would allow for land uses that would involve the routine transportation, use, or disposal of hazardous materials in the Planning Area. Such activities would continue to be regulated in order to protect public health and will not create a significant hazard to the public or the environment. Therefore, this impact is considered **less than significant.**

Implementation of the proposed General Plan Update would allow for land uses that routinely store, use, and transport hazardous materials, including industrial uses and certain commercial uses (such as water and wastewater treatment plant operations, swimming pool facilities, gas stations, and dry cleaners). New development or redevelopment that involves construction, demolition, and landscaping activities could also result in the transport, use, and disposal of hazardous materials such as gasoline fuels, demolition materials, asphalt, lubricants, toxic solvents, pesticides, and herbicides. The transport, use, and disposal of these materials could pose a potential hazard to the public and the environment. The proposed General Plan Update also allows for increased residential development in the city, the Sphere of Influence, and the five Special Planning Areas (SPAs), which could result in the increased exposure of the public to hazardous material being transported by the Union Pacific Railroad and by trucks on Planning Area highways and roadways.

Furthermore, increased population in these areas could increase the amount of household hazardous waste being transported to the Butte Regional Household Hazardous Waste Collection Facility (BRHHWCF). State law prohibits the transportation of more than 5 gallons or 50 pounds of hazardous waste without a hazardous materials transportation license. Therefore, it is anticipated that the transport of additional household waste to the BRHHWCF would be in relatively small amounts and would not result in significant hazards to the public or environment.

The transport, use, and storage of hazardous materials by any development associated with the proposed General Plan Update would be required to comply with all applicable local, state, and federal regulations during project construction and operation. Facilities that use hazardous materials are required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. Federally, the Resource Conservation and Recovery Act (RCRA) give the USEPA the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste. The Hazardous Materials Regulations (HMR) included in federal law governs the transportation of hazardous materials. The Federal Motor Carrier Safety Administration (FMCSA) issues regulations concerning highway routing of hazardous materials, hazardous materials endorsements for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

The Butte County Environmental Health Department is the CUPA for Butte County and is responsible for consolidating, coordinating, and making consistent the administrative requirements, permits, inspections, and enforcement activities of six state programs regarding the transportation, use, and disposal of hazardous materials in Butte County and the Planning Area, as discussed under the Regulatory Framework subsection above. As CUPA, the Environmental Health Department inspects businesses or facilities that handle or store hazardous materials; generate and/or treat hazardous waste; own or operate underground storage tanks; store petroleum in above-ground tanks over State thresholds; and store Federal regulated hazardous materials over State thresholds. These inspections determine compliance with the California Health and Safety Code (HSC), the CCR, and the Code of Federal Regulations (CFR) and focus on site inspections, review of Hazardous Material Business Plans, documentation of employee training programs, disposal documentation for hazardous waste generated onsite, and UST monitoring records. All development or redevelopment under the General Plan Update that handle or store hazardous materials would be subject to these inspections, which would ensure compliance with state and federal law intended to prevent potential hazards to the public and the environment.

Although the proposed General Plan Update could result in increased population and thus increased exposure of the public to hazardous material being transported by the Union Pacific Railroad and by trucks on Planning Area highways and roadways, the federal HMR address hazardous material transportation via classification, packaging, hazard communication, emergency response information and training. Training meeting HMR requirements increases a hazmat employee's safety awareness and thus contributes to a reduction in hazmat incidents. HMR emergency response requirements include initial emergency actions regarding evacuation isolation of the affected area, firefighting, leaking containers, spill containment and first aid. These requirements would also reduce the number of persons exposed to any hazmat incidents. The Safety Element of the General Plan Update also includes requirements for the city to consult with relevant local, state, and other agencies regarding hazardous materials routing and incident response programs.

As previously mentioned, the city has little influence over the types of material transported by the rail line. However, the potential for rail incidents can be reduced by ensuring that at-grade crossings in the Planning Area are operating in a safe and effective manner. The Safety Element of the proposed General Plan Update includes Action S-7.1.1 that requires the city to request verification from the UPRR that relevant safety measures for at-grade crossings are implemented and maintained. This policy would assist in ensuring that at-grade crossings in the Planning Area operate in a safe and effective manner, thus reducing the potential for rail incidents involving hazardous materials.

Therefore, even though the proposed General Plan Update could result in increased storage, use, and transportation of hazardous materials and increased exposure of the public to hazardous materials, there are federal, state, and local regulations regarding hazardous material transport, use, and disposal that are currently enforced and would continue to be enforced as discussed above. These regulations provide a comprehensive regulatory system for handling, using, and transporting hazardous materials in a manner that protects human health and the environment. Therefore, potential hazards to the public and the environment would be **less than significant**.

Release and Exposure of Hazardous Materials (Standards of Significance 5 and 7)

Impact 4.4.4 Implementation of the proposed General Plan Update could create a significant hazard to the public or the environment through reasonably

foreseeable upset and accident conditions involving the release of hazardous materials into the environment or by locating development on a site included on a list of hazardous materials sites compiled by Government Code Section 65962.5. Such activities and circumstances would continue to be regulated in order to protect public health and will not create a significant hazard to the public or the environment. This is considered **less than significant**.

As discussed under Impact 4.4.3 above, implementation of the proposed General Plan Update would allow for land uses that would involve the transportation, use, and disposal of hazardous materials in the Planning Area. These activities could result in the accidental release of hazardous materials into the environment and/or exposure of the public to hazardous materials via reasonably foreseeable upset conditions. In addition, the General Plan Update would result in increased population and thus increased exposure of the public to accidental or reasonably foreseeable releases of hazardous materials.

Accidental releases of hazardous materials are those releases that are unforeseen or that result from unforeseen circumstances, while reasonably foreseeable upset conditions are those release or exposure events that can be anticipated and planned for. As discussed under Impact 4.4.3, the transport, storage, and use of hazardous materials by developers, contractors, business owners, and others are required to be in compliance with local, state, and federal regulations during project construction and operation. Facilities that use hazardous materials are required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. These regulations provide a comprehensive regulatory system for handling, using, and transporting hazardous materials in a manner that protects human health and the environment. These requirements would also reduce the number of persons exposed to any hazmat incidents. As such, both accidental and reasonably foreseeable hazardous materials releases would be expected to occur infrequently and result in minimal hazard to the public or the environment.

New development and/or increased population in the city, the proposed Sphere of Influence, and the five SPAs included in the proposed General Plan Update could also increase exposure to electrical transformers containing polychlorinated biphenyls (PCBs) and persistent residual chemicals, including pesticides, herbicides, and fertilizers, that have the potential to pose a health and safety risk via accidental release, misuse, or historic use. In addition, redevelopment activities associated with the proposed General Plan Update could result in exposure to hazardous materials by disturbing and thus releasing asbestos and/or lead during demolition and remodeling activities.

The public could also be exposed to hazardous materials if new development or redevelopment were to be located on a current or historical hazardous material site. Currently, there are 28 hazardous material sites known to handle and store hazardous materials or associated with a hazardous material-related release in the Planning Area. In addition, there are eight open LUST sites in the Planning Area. All except two of these sites are currently under investigation, in the remediation process, or remediated entirely. In addition, the Humboldt Road Burn Dump site was previously known to be contaminated by lead, arsenic, antimony, dieldrin (a pesticide), and low concentrations of dioxin. However, on December 22, 2006, the RWQCB issued a final Certificate of Completion stating that the Humboldt Road Burn Dump site had complied with the requirements of all state and local laws, ordinances, regulations, and standards that are applicable to the site investigation and remedial action. All sites that are known to contain hazardous materials and/or are identified in a hazardous material/waste search are required by state and federal regulations to be reviewed, tested, and remediated for potential hazardous materials. Furthermore, the proposed General Plan Update does not propose any development

or redevelopment on identified hazardous material sites. If future development or redevelopment were to be proposed on or near these sites, or other hazardous material sites identified in the future, the environmental review for the project would evaluate potential health and environmental impacts and require mitigation measures or conditions of approval as necessary to avoid or lessen hazards consistent with local, state and federal requirements.

Similarly, future site-specific environmental review would ensure a reasonable level of safety for residents, workers, and property owners of future development through review and mitigation of site-specific health hazards associated with electrical transformers containing PCBs and persistent residual chemicals. In addition, redevelopment activities, including demolition and remodeling, would be subject to federal state and local regulations specifically aimed at preventing lead and asbestos hazards. For example, the EPA requires contractors or firms performing renovation, repair and painting projects that disturb lead-based paint in homes, child care facilities, and schools built before 1978 to be certified and to follow specific work practices to prevent lead contamination (EPA's Renovation, Repair and Remodeling rule). The EPA has also developed asbestos demolition and renovation requirements in the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation (40 CFR, Part 61, Subpart M). NESHAP includes notification, inspection, and emission control requirements.

As discussed under the Existing Setting subsection above, the Planning Area does not contain any areas that are have been identified by the California Department of Mines and Geology as containing ultramafic rock (DMG, 2000). Since natural asbestos occurs most commonly in association with ultramafic rocks, the potential for occurrence and distribution of naturally-occurring asbestos fibers in the Planning Area is considered very low. Additionally, the Planning Area is identified by the USEPA as being in Zone 3 for radon, which indicates a predicted average indoor radon screening level less than 2 pCi/L. Zone 3 represents the lowest potential for radon hazards. Modern building construction practices provide for adequate ventilation of structures that minimize this hazard. For these reasons, no impacts associated with naturally-occurring asbestos or radon would be expected to occur and this issue is not discussed further in this Draft EIR.

Given that federal, state, and local regulations regarding hazardous materials provide a comprehensive regulatory system that would minimize exposure of the public to hazardous materials, both from accidental/reasonably foreseeable releases and from known contaminated sites, impacts would be **less than significant**.

Release and Exposure to Hazardous Materials in the Vicinity of a School Site (Standard of Significance 6)

Impact 4.4.5 Implementation of the proposed General Plan Update would not result in significant emission of hazardous emissions or significant handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. This is considered a **less than significant** impact.

The proposed General Plan Update Land Use Map has not designated land uses that allow for acutely hazardous materials, substances, or waste within one-quarter mile of a school. In addition, zoning regulations generally discourage such uses in the vicinity of each other and, as such, future discretionary review of development projects would prevent such incompatibilities (see Section 4.1, Land Use, for a discussion of land use compatibility associated with the General Plan Update). However, it is anticipated that implementation of the proposed General Plan Update would result in the need for additional school sites in the Planning Area (see Section 4.12,

Public Services and Utilities, for more information). The City of Chico does not determine the siting of new schools. Therefore, the siting of schools in the vicinity of land uses involving the use, transport, disposal, or release of hazardous materials creates the potential for health impacts to children, who are especially sensitive receptors in regard to exposure to hazardous substances or pollution exposures.

The California Department of Education (CDE) establishes standards for school sites pursuant to Education Code Section 17251 and adopts school site regulations, which are contained in the California Code of Regulations, Title 5, commencing with Section 14001. The regulations define certain health and safety requirements for school site selection, including a potential school site's proximity to airports, high-voltage power transmission lines, railroads, and major roadways. School siting regulations also restrict the presence of toxic and hazardous substances and hazardous facilities and hazardous air emissions within one-quarter mile of a proposed school site. In addition, as required by Education Code, Section 17213, the written findings of the environmental impact report or negative declaration prepared for a proposed school site must include a statement verifying that the site is not currently or formerly a hazardous, acutely hazardous substance release, or solid waste disposal site or, if so, that the wastes have been removed. Also, the written findings must state that the site does not contain pipelines which carry hazardous wastes or substances other than a natural gas supply line to that school or neighborhood. If hazardous air emissions are identified, the written findings must state that the health risks do not and will not constitute an actual or potential danger of public health of students or staff. If corrective measures of chronic or accidental hazardous air emissions are required under an existing order by another jurisdiction, the governing board is required to make a finding that the emissions have been mitigated prior to occupancy of the school.

In addition, DTSC's School Property Evaluation and Cleanup Division is responsible for assessing, investigating, and cleaning up proposed school sites. The division ensures that proposed school sites are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school. All proposed school sites that will receive state funding for acquisition or construction are required to go through a rigorous environmental review and cleanup process under DTSC's oversight (DTSC, 2009).

Since any future siting of schools would be required to comply with state statutory and regulatory requirements addressing safety from hazards, including hazardous materials, impacts from siting schools in the vicinity of such hazards are anticipated to be **less than significant**.

Emergency Response and Evacuation Plans (Standard of Significance 8)

Impact 4.4.6 Implementation of the proposed General Plan Update would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan. This impact is considered **less than significant**.

In the event of a hazardous material emergency, several agencies are responsible for timely response. The Butte County Hazardous Materials Response Team responds to large-scale, emergency hazardous material incidents in Butte County. This team is made up of specially trained representatives of the Butte County Fire Department, California Department of Forestry, and members of the Chico, Paradise, Oroville, Gridley, and Biggs fire departments. The City of Chico is responsible for emergency operations within city boundaries. The City of Chico Emergency Management Plan specifies actions for the coordination of operations, management, and resources during emergencies. The proposed General Plan Update would

not alter the city's overall land use patterns or land use designations to such an extent that they would conflict with either the City of Chico Emergency Management Plan or with operations of the Butte County Hazardous Materials Response Team.

Additionally, an efficient circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles during an emergency. Implementation of the proposed General Plan Update would result in an increased number of people that would require evacuation in case of an emergency. Currently, incidences have occurred when emergency vehicles have been unable to access areas west of the railroad tracks as a result of stopped trains blocking at-grade crossings. Implementation of the proposed roadway connections under the Circulation Element of the proposed General Plan Update would provide additional roadway connections that offer more escape route and emergency access options (see **Figure 3.0-4**). As such, implementation of the proposed General Plan Update roadway system would improve implementation of the city's evacuation plans and the City of Chico Emergency Management Plan. Therefore, impacts are considered **less than significant**.

4.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

CUMULATIVE SETTING

The cumulative setting for hazards and human health risks associated with the proposed General Plan Update includes the City of Chico as well as the surrounding areas in Butte County. Most hazardous material, human health, and safety impacts as described in CEQA Appendix G are generally site-specific and not cumulative by nature, as impacts generally vary by land use, site characteristics, and site history.

However, the cumulative setting for wildland fires would consist of the Planning Area as well as wildland hazard areas adjacent to the Planning Area, including large areas of unincorporated Butte County. Wildland fire hazards (open space, rangeland, chaparral, and forested areas) exist in varying degrees over approximately 70 percent of Butte County, which has an extensive history of large damaging fires, most of which have burned in the wildland-urban interface area (Butte County, 2007).

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Wildland Fire Hazards (Standard of Significance 1)

Impact 4.4.7 Potential development under the proposed General Plan Update, along with increased urban development in Butte County, would not result in cumulative wildland fire hazard impacts. This impact would be **less than cumulatively considerable**.

Future development in the City of Chico, along with increased urbanization in other areas of Butte County, would contribute to increased exposure of people and structures to the risk associated with wildland fire hazards in the region. In addition, urbanization of areas adjacent to open space, rangeland, chaparral, and forested areas in the county would increase the amount of wildland-urban interface area, thus resulting in cumulative wildland fire hazards.

Any new development or redevelopment in areas at risk for wildland fire hazards would be required to comply with minimum standards for materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface

areas as required by the 2007 California Fire Code. The code also requires the use of ignition-resistant materials and design to resist the intrusion of flame or burning embers projected by a vegetation fire. As discussed above, the proposed General Plan Update includes a policy that requires consideration of emergency evacuation routes and defensible buffer areas as part of the project review process in wildland fire areas. The proposed General Plan Update also requires new development in State-designated Very High, High and Moderate Fire Hazard Severity Zones to incorporate building construction standards consistent with the requirements for the State Responsibility Area.

In addition, the Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan addresses the prevention of injury and damage from wildland fire hazards in Butte County and identifies past and present mitigation activities, current policies and programs, and mitigation strategies for wildland fire hazards.

The Bidwell Park Master Management Plan also reduces the probability of wildfire impacts to landowners and residents surrounding Bidwell Park, one of the most wildland fire prone areas of the city. These policies and regulations, in conjunction with the existing California Fire Code and the measures identified in the Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan, would reduce cumulative impacts associated with wildland fires to a **less than cumulatively considerable** level.

REFERENCES

AirNav.com. 2010. *KCIC Chico Municipal Airport*. http://www.airnav.com/airport/KCIC (accessed March 31, 2010).

Butte County, 2000. *Butte County Airport Land Use Compatibility Plan.*

Butte County. 2007. *Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan*.

Butte County. 2009. http://www.buttecounty.net (accessed July 7, 2009).

Butte County Association of Governments (BCAG). 2008. *Butte County Regional Transportation Plan, 2008–2035*. Chico, California.

California Air Resources Board (CARB). 2009. http://www.arb.ca.gov/ (accessed July 6, 2009).

California Building Standards Commission (CBSC). 2008. *California Fire Code, California Code of Regulations, Title 24, Part 9, California Building Standards Commission*. Sacramento, California.

California Department of Conservation, Division of Mines and Geology (DMG). 2000. *Open File Report 2000–19, A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos.*

California Department of Forestry and Fire Protection (Cal-Fire). 2008a. *Butte County Very High Fire Hazard Severity Zones in LRA as Recommended by CAL FIRE*.

California Department of Forestry and Fire Protection (Cal-Fire). 2008b. *Chico Very High Fire Hazard Severity Zones in LRA as Recommended by CAL FIRE*.

California Department of Forestry and Fire Protection (Cal-Fire). 2009. http://www.fire.ca.gov/ (accessed July 6, 2009).

California Department of Toxic Substances Control (DTSC). 2009a. http://www.dtsc.ca.gov/ (accessed July 6, 2009).

California Department of Toxic Substances Control (DTSC), EnviroStor. 2009b. http://www.envirostor.dtsc.ca.gov/ (accessed July 6, 2009).

California Department of Toxic Substances Control (DTSC), EnviroStor. 2010. http://www.envirostor.dtsc.ca.gov/ (accessed August 19, 2010).

California Environmental Protection Agency (CalEPA). 2007. *Certified Unified Program Agency Evaluation Summary of Findings, Butte County Environmental Health.* Sacramento, California.

California Environmental Protection Agency (CalEPA). 2009. http://www.calepa.ca.gov/ (accessed July 7, 2009).

California State Water Resources Control Board (SWRCB). 2009. Geotracker. http://geotracker.swrcb.ca.gov/ (accessed July 6, 2009).

City of Chico. 2009. http://www.chico.ca.us/ (accessed July 6, 2009).

City-Data.com. 2010. *Chico Municipal Airport in Chico, California.* http://www.city-data.com/airports/Chico-Municipal-Airport-Chico-California.html (accessed March 31, 2010).

Design, Community, and Environment (DC&E). 2007. Butte *County General Plan 2030, Setting and Trends Report, Public Draft*. Berkeley, California.

EDAW. *2008. Bidwell Park Final Master Management Plan Update*. Sacramento, California.

Governor's Office of Emergency Services (OES). 2003. *Emergency Management in California*.

Healthy Forests and Rangelands. 2009. http://www.forestsandrangelands.gov/ (accessed July 7, 2009).

Pacific Land Advisors. 2008. *Notice of Preparation – 2008 Butte County RTP*. El Dorado Hills, California.

United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA). 2009. http://www.phmsa.dot.gov/ (accessed July 7, 2009).

United States Environmental Protection Agency (USEPA). 2009a. *Asbestos.* http://www.epa.gov/asbestos/ (accessed July 6, 2009).

United States Environmental Protection Agency (USEPA). 2009b. *Lead.* http://www.epa.gov/lead/ (accessed July 6, 2009).

United States Environmental Protection Agency (USEPA). 2009c. *PCBs.* http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/about.htm (accessed July 6, 2009).

United States Environmental Protection Agency (USEPA). 2009d. *Radon.* http://www.epa.gov/radon/ (accessed July 6, 2009).

United States Environmental Protection Agency (USEPA). 2009e. *Laws, Regulations, Guidance and Dockets*. http://www.epa.gov/lawsregs/ (accessed July 6, 2009).

University of California, Statewide Integrated Pest Management Program (SIPMP). 2002. *California Pesticide Use Summaries, 2000 – Statewide Pesticide Use by County and Pesticide*.