

8.4 HUMAN-MADE HAZARDS AND EMERGENCY RESPONSE

This section evaluates the human-made hazards impacts caused by implementing the proposed General Plan with respect to: (1) emergency response and evaluation planning; (2) hazardous materials; and (3) airport hazards. It is based, in part, on two hazardous materials records searches (EDR 2007, 2009) conducted for the proposed plan. The records searches are included in their entirety as Appendix F1 through F4 of this PEIR.

Environmental Setting

Emergency Response and Evacuation Planning

The Humboldt County Department of Health & Human Services Division of Environmental Health (HCDEH) has a Hazardous Materials Area Plan (HMAP) that covers the County, including the City of Fortuna and its surroundings. The MNAP establishes the following:

- Policies, responsibilities, and procedures required for protecting the health and safety of Humboldt County's population, the environment, and the public and private property from the effects of hazardous materials incidents;
- Emergency response organization for hazardous materials incidents occurring within Humboldt County; and
- Operational concepts and procedures associated with the Eureka Fire Departments Regional Hazardous Materials Response Team (EFD HMRT).

The City of Fortuna also has hazardous material response plans associated with the regulatory requirements for their wastewater treatment, water treatment plant facilities and operations, and an emergency response plan that establishes chain-of-command and response procedures between the police, fire, public works, City staff and board, and other essential departments and outside organizations. Response plans are also included in hazardous materials business plans, for those businesses that are required by the HCDEH to prepare and maintain them.

Hazardous Materials

Hazardous materials are substances, or a combination of substances, that, due to quantity, concentration, physical, chemical, radiological, explosive, or infectious characteristics, pose a potential danger to humans or the environment. Generally, these materials are categorized as: explosive and blasting agents; flammable and nonflammable gases; combustible liquids and solids; oxidizers; poisons; disease-causing agents; radioactive materials; corrosive materials and other materials, including hazardous wastes.

When planning for future development, it is important to know the approximate locations and types of existing hazards because they can significantly affect construction projects in areas contaminated by hazardous materials. Risks are associated with developing near facilities that contain hazardous chemicals above their regulatory threshold limits. For example chlorine and

sulfur dioxide gasses are stored and used at the City of Fortuna wastewater treatment plant (WWTP). Development proposed within an identified hazardous release zone or in a potentially hazardous area may be restricted to certain uses.

Searches of government databases were conducted in December 2005 and May 2009, by Environmental Data Resources, Inc. (EDR) to identify sites within the Planning Area where hazardous materials are used, stored, disposed of, or where there are instances of present or past hazardous materials contamination. As indicated in Figure 8-6, there are 94 recorded hazardous materials sites in the Planning Area. The government databases where these sites are listed are identified in Table 8.4-1. For a detailed description of the sites, refer to the EDR database searches in Appendix F of this PEIR.

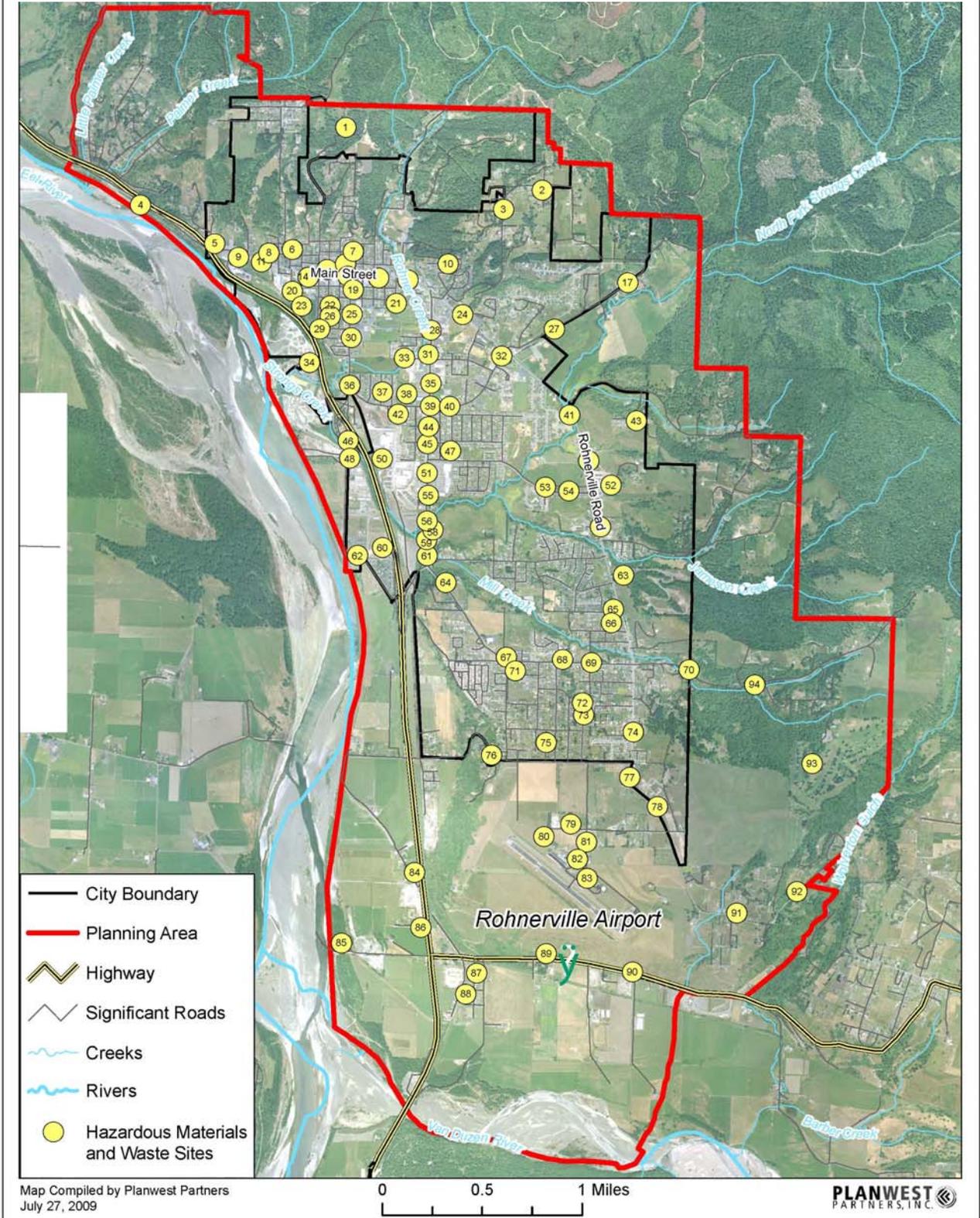
Underground Storage Tanks and Other Hazardous Spills. Underground Storage Tanks (USTs) are common throughout the Planning Area. They are most often used for the storage of gasoline, diesel fuel, and waste oil. Leaking Underground Storage Tanks (LUSTs), especially those containing petroleum hydrocarbons -- are the leading cause of soil and groundwater contamination. Suspected contamination from LUSTs, and/or unauthorized releases is heaviest along Fortuna's main thoroughfares (i.e., Main Street Area, Fortuna Blvd, S. Fortuna Blvd, 12th Street, Newburg Road, Rohnerville Road), and around Rohnerville Airport, where the most fueling facilities are located.

Other areas of concern are former industrial areas -- including mill sites, truck shops, dry cleaners, and junkyards where hazardous and toxic materials were stored, used, and/or released. The Mill District is one area of concern with regard to hazardous and toxic releases that may have impacted the soil and/or groundwater. HCDEH and the California Regional Water Quality Control Board (RWQCB) are the agencies that generally regulate the investigation and clean-up of potentially impacted sites.

Asbestos. Given the age of the community, it is likely that there are structures within the Planning Area containing asbestos and or asbestos containing materials (ACMs). ACMs in existing buildings can pose an inhalation threat if in a friable state. Release of asbestos fiber to the air, from material such as insulation, can occur during renovation or structure demolition. These releases are regulated in accordance with Federal Clean Air Act §112. According to EPA's Hazardous Air Pollutants for Asbestos National Emission Standard, individual asbestos abatement surveys and appropriate removal and disposal are required for most renovation projects.

Brownfields. Properties that have the potential for redevelopment or reuse but lie fallow, because of actual or suspected contamination are considered brownfields. Former auto-wrecking yards, gas stations, and lumber mills are examples of brownfields that may exist within the Planning Area. Redevelopment of brownfield properties can be a cost-effective land use alternative to meet local development needs.

Fortuna General Plan 2030
Figure 8-6, Listed Hazardous Materials/Waste Sites



**Table 8.4-1
Hazardous Materials Database Listings in the Planning Area**

Database	Total Plotted
FEDERAL RECORDS	
RCRA Sm. Quantity Gen	11
RCRA-Non Gen	
ERNS	1
US BROWNFIELDS	2
FINDS	23
NPDES	1
STATE AND LOCAL RECORDS	
State Landfill	3
CA WDS	4
WMUD/SWAT	1
CORTESE	43
LUST	59
SLIC	3
UST	16
CA FID UST	1
HIST UST	64
SWRCY	2
AST	2
SWEEPS UST	74
CHMIRS	2
CLEANERS	2
HAZNET	51
SWIS	2
<i>Source: Environmental Data Resources, 2005 and 2009.</i>	

Treatment, Storage, and Disposal Facility Sites. Treatment, Storage, and Disposal (TSD) facilities collect, store, recycle, and treat hazardous wastes from industrial and commercial sites. Also, numerous industrial and commercial facilities are required to treat, and/or temporarily store, their own hazardous materials and waste. Hazardous waste haulers transport the collected hazardous waste, both one-time and recurring, to TSD facilities outside the area. There are no listed TSD facilities located within the Planning Area.

Hazardous materials and waste are also collected through a periodic mobile drop-off program. This program provides an opportunity for businesses and households to conveniently dispose of leftover paints, oils, and other toxic wastes.

Transportation Routes. Hazardous wastes are transported through the Planning Area by trucks, primarily along the major arterials and highways, for disposal at TSD facilities in other counties or States. County and city streets may be used to transport hazardous wastes from their source to major highways. Licensed haulers are required to use the most direct and safest route and to comply with applicable federal, state and local hazardous materials hauling regulations.

Aside from low level nuclear sources used in some detection devices, no nuclear material is transported on city or county streets; however, nuclear waste may be transported along U.S. Highway 101 through the Planning Area.

Commercially Applied Chemicals. Pesticides, herbicides, insecticides, fungicides, etc., are applied for both commercial (agricultural) and household purposes. Commercially applied pesticides are regulated and monitored by the State Department of Pesticide Regulation. The Agriculture Commissioner is responsible for monitoring commercial applications of agricultural pesticides. The use of pesticides in households is regulated by instructions on the container and is not independently monitored.

Household Hazardous Materials. Data on the number of City households that contribute to pesticide pollution – primarily through the use of home landscaping products and other toxic chemicals is not available and is outside the scope of the PEIR to identify. Typical household toxins which include: antifreeze, motor oil, gasoline, waxes, auto batteries, brake fluid, paint, paint thinner, wood preservatives, glues, solvents, photo chemicals, ammonia and bleach cleaners, polishes, medications, syringes, batteries, pesticides, fungicides, weed killers, pool chemicals, and pool backwash.

Hazardous household material also includes an increasing amount of electronic waste, including computers, cell phones and small appliances. Improper disposal of these wastes can result in potentially toxic leachate at sanitary landfills, in storm drains, and in creeks and rivers. The City has relied on electronic waste recycling, and periodic household toxic roundups, to keep toxics out of the waste streams.

Airport Hazards

Two airports serve the City of Fortuna, including Arcata-Eureka Airport (ACV) and Rohnerville Airport.

The Arcata-Eureka Airport, located approximately 32 miles north of the Planning Area in the unincorporated community of McKinleyville, is the primary regional commercial airport serving Humboldt County. It is a federally designated port of entry for civil aircraft arriving in the U.S and covers 745 acres including two runways. Current utilization is a mixture of general and commercial aviation with three commercial airlines, Delta Air Lines, Horizon Air and United Airlines, providing scheduled services. In 2009, it is estimated that ACV accommodated: (1) 112,000 enplaned (departing) passengers on approximately 5,825 commercial flights; (2) 38,850 general (private, corporate and cargo) flights; and (3) 875,000 pounds of cargo (Humboldt County, 2005). Given that the existing (2009) population of Humboldt County is 132,755 (DOF 2009), this equates to average airport utilization rate of approximately 844 enplaned passengers per 1,000 County residents.

Rohnerville Airport (KFOT), located within the southern portion of the Planning Area between Drake Hill Road and SR 36, is a public airport. The airport covers 541 acres, with one 4,007 foot asphalt paved runway and parallel taxiway oriented roughly northwest/southeast. In total, the airport has 35 fixed-wing aircraft and helicopters stored in hangars, and 4 airplanes parked on

tiedown spaces. Current utilization is general aviation (e.g. private and corporate aircraft, no commercial). In 2004, the airport accommodated approximately 27,800 general flights (FAA 2005). The airport also includes a CALFIRE firefighting attack base on the east side of the airport that receives an average of 80 to 100 calls per year for aerial firefighting patrol and tanker service. The Sheriff's Department also utilizes the airport for aerial law enforcement patrols. The airport is managed by the Humboldt County Aviation Division of Public Works. Airport staff includes an airports manager, program coordinator, and aircraft rescue and fire fighting/maintenance personnel.

Applicable Plans, Policies, Codes, and Regulations

Emergency Response and Evacuation Planning

Federal and State. Federal and state laws require local jurisdictions to prepare Emergency Response Plans (ERPs) that address interruptions of water and power due to earthquakes, fires, floods, sabotage and terrorist acts. Applicable laws and regulations include but are not limited to:

- United States Public Law 107-188 Public Health Security and Bioterrorism Preparedness and Response Act of 2002;
- United States Public Law 107-188 Public Health Security and Bioterrorism Preparedness and Response Act of 2002—"All community water systems serving more than 3,300 population (1,000 service connections) shall prepare or revise an ERP that incorporates the results of Vulnerability Assessments (VAs) that have been completed. The updated ERP shall be certified within 6 months of completing the vulnerability assessment."
- California Waterworks Standards §64560.
- California Health and Safety Code, §s 116460 (Emergency Notification Plan Requirements), 116555 (Operational Requirements), and 116750 (Tampering with Public Water Systems)

The City of Fortuna has Emergency Response Plans in place.

County. Regionally, Humboldt County is the primary agency responsible for emergency response and evacuation planning. Local agencies, such as the City of Fortuna, are required to coordinate local emergency planning with the County (HCDEH) and other relevant agencies (e.g., California Highway Patrol, CAL-FIRE, special districts, other cities in the County).

The Humboldt County Emergency Operations Plan (Humboldt County, 2002) addresses a planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting Humboldt County (Humboldt County 2002). The EOP establishes the emergency management organization required to mitigate significant emergencies or disasters, identifies the policies, responsibilities and procedures to protect health and safety, and establishes the operational procedures associated with field response to emergencies.

The Humboldt County Operational Area Hazard Mitigation Plan (Humboldt County, 2007) inventories the potential natural hazards in the County, assesses the risk to people, buildings and critical facilities, and develops a mitigation strategy to reduce the risk of exposure and allow a swift and organized recovery should a disaster occur (Humboldt County, 2007). Natural hazards that this plan addresses include but are not limited to earthquakes, floods, wildfires and severe weather.

Hazardous Materials

Hazardous materials are subject to numerous laws and regulations at all levels of government. Most hazardous materials regulation and enforcement in Humboldt County is managed by the HCDEH; however, the RWQCB, EPA, and the DTSC are also responsible for regulating hazardous materials handling, operations, safety, response, training, and facility security. The following regulatory requirements pertain to businesses, municipalities, industrial sites, construction and development sites, and private facilities:

Federal. Federal laws and guidelines governing hazardous substances:

- Federal Water Pollution Control Act;
- Clean Air Act;
- Occupational Safety and Health Act;
- Federal Insecticide, Fungicide, and Rodenticide Act;
- Comprehensive Environmental Response Compensation and Liability Act;
- Guidelines for Carcinogens and Biohazards;
- Superfund Amendments and Reauthorization Act Title III;
- Resource Conservation and Recovery Act;
- Safe Drinking Water Act; and
- Toxic Substance Control Act.

State. In 1991, Cal/EPA unified the State's environmental authority under a single accountable, cabinet-level agency. The Secretary for Environmental Protection oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board (SWRCB), DTSC, and Office of Emergency Services (OES). The Cal/EPA and the OES of the State of California establish rules governing the use of hazardous materials, and the SWRCB has the primary responsibility to protect water quality and supply.

Acting through the RWQCBs, the SWRCB regulates surface and groundwater quality pursuant to the Porter-Cologne Water Quality Act, the federal Clean Water Act, and the Underground Tank Law. The North Coast Unified Air Quality Management District (NCUAQMB) regulates emissions from specific facilities in accordance with the Clean Air Act and amendments.

Landfill sites that contain regulated materials and/or wood waste are managed in accordance with Title 27 CCR and its specific Waste Discharge Requirements adopted for the site. The HCDEH, RWQCB, and the California Integrated Waste Management Board (CIWMB) regulate landfill sites.

The National Pollutant Discharge Elimination System (NPDES) program is the national program for administering and regulating Sections 307, 318, 402, and 405 of the Clean Water Act. The NPDES Program requires all facilities that discharge pollutants from any point source into waters of the U.S. to obtain a permit from the SWRCB or RWQCB for the discharge.

Storm Water Pollution Prevention Plans (SWPPPs) must be prepared for certain projects in compliance with the SWRCB Water Quality Order No. 97-03-DWQ, NPDES General Industrial Storm Water Permit No. CAS000001 (General Permit). SWPPS outline the measures to be implemented during operation to control pollutants in storm water runoff associated with industrial activities.

Construction SWPPPs must be prepared for certain projects to conform to the General Construction Activities Storm Water Permit, Water Quality Order No. 99-08-DWQ (NPDES No. CAS000002), and as modified in 2001 by Resolution No. 2001-046 "Modification of Water Quality Order 99-08-DWQ SWRCB NPDES General Permit for Construction Storm Water Discharges Associated with Construction Activity (CGP)." On December 8, 1999, federal regulations promulgated by USEPA (40 CFR Parts 9, 122, 123, and 124) expanded the NPDES storm water program to include storm water discharges from small construction activities. Federal regulation 40 CFR Section 122.26(b)(15) defines small construction activity as including: clearing, grading, and excavating that result in land disturbance of equal to, or greater than, one acre and less than five acres. Construction SWPPS outline the measures to be implemented during construction to control runoff-related sedimentation and erosion from the construction site.

Administered by Cal/EPA, the United States Environmental Protection Agency (USEPA) issued the Oil Pollution Prevention Regulation, codified in Title 40 of the CFR Part 112, and that addresses the oil spill prevention provisions contained in the Clean Water Act of 1972. This regulation forms the basis of US EPA's Oil Spill Prevention, Control and Countermeasures (SPCC) program, which seeks to prevent oil spills from certain aboveground storage tanks and containers which have the potential to discharge significant quantities of petroleum products to waters of the United States.

Emergency Planning and Community Right-to-Know laws (California State EPCRA Rules/Law) allow the public to obtain specific information regarding facilities that contain regulated quantities of hazardous materials and/or wastes, the types of chemicals being stored and used, and the potential hazards of chemicals handled on site.

OSHA's Hazardous Waste Operations and Emergency Response Plans (29 CFR 1910.120) is utilized to protect workers and the public when handling, or in contact with hazardous and/or toxic substances or materials.

Development proposed on parcels of land that are proximate to regulatory-listed sites may require completion of a Phase I Environmental Site Assessment (ESA), especially for city land transfers, or as a requirement of a Brownfield Grant. ESAs shall comply with Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and CCR Title 22; and prepared in general accordance with American Society for Testing and Materials—International (ASTM) Standard Practice E 1527-05 for the Phase 1 ESA Process. This process must include “all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice,” as defined in 42 USC 9601 (35)(B), in order to qualify for the innocent landowner defense to CERCLA liability.

To protect the public and the environment during the transportation of hazardous waste, stringent State requirements and federal regulations for container packaging and labeling, vehicle identification and manifesting have been established. California law requires that hazardous waste (as defined in California Health and Safety Code Division 20, Chapter 6.5) is transported by a California registered hazardous waste transporter meeting specific registration requirements. The California Highway Patrol and Caltrans are State agencies with primary responsibility for enforcing federal and State regulations, and responding to hazardous materials transportation emergencies.

County. The California Unified Program Agency (CUPA), is implemented by the HCDEH under DTSC direction. It requires any business that handles hazardous materials in quantities equal to, or greater than listed thresholds to complete a Hazardous Materials Business Plan (HMBP) as required by the California Health and Safety Code, Chapter 6.95, Article 1.

The California Accidental Release Prevention (Cal-ARP) Program, regulated by the CUPA, requires sites that contain threshold quantities of extremely hazardous chemicals, to conform with California Code of Regulations (CCR), Title 19, Division 2, Chapter 4.5, and Occupational Health and Safety Administration (OSHA) Process Safety Management (PSM) standards (§5189 of Title 8 of CCR, or Code of Federal Regulations [CFR], Title 29, § 1910.119).

The HCDEH Local Oversight Program (LOP) oversees the investigation and cleanup resulting from unauthorized releases, mainly from underground fuel tanks and associated systems. Facilities that receive an LOP number are required to investigate and mitigate releases, to the satisfaction of the HCDEH and the RWQCB. Sites are to be investigated and conditions mitigated in accordance with the State Underground Storage Tank Regulations, and per the RWQCB Water Quality Objectives and Basin Plan.

Airport Hazards

Federal. The Federal Aviation Administration (FAA) is responsible for the safety of civil aviation. The Federal Aviation Act of 1958 created the agency under the name Federal Aviation Agency. The agency changed its name to “Administration” in 1967 when it became a part of the Department of Transportation. Major roles of the FAA include:

- Regulating civil aviation to promote safety;
- Encouraging and developing civil aeronautics, including new aviation technology;

- Developing and operating a system of air traffic control and navigation for both civil and military aircraft;
- Researching and developing the National Airspace System and civil aeronautics;
- Developing and carrying out programs to control aircraft noise and other environmental effects of civil aviation; and
- Regulating U.S. commercial space transportation.

State. The State's aviation commitment began in 1947 with the creation of the California Aeronautics Commission that eventually became the Division of Aeronautics in the California Department of Transportation (Caltrans). The State Aeronautics Act, Public Utilities Code (PUC) section 21001 et seq., is the foundation for the Division's mission to foster and promote the development of a safe, efficient, dependable, and environmentally compatible air transportation system. It issues permits and annually inspects hospital heliports and public-use airports; makes recommendations regarding proposed school sites within two miles of an airport runway; and authorizes helicopter landing sites at/near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen noise, air pollution, and other impacts caused by aviation. It also provides grants and loans for safety, maintenance and capital improvement projects at airports.

The State of California, Public Utilities Code, Chapter 4. Airports and Navigational Facilities, Article 3.5 Airport Land Use Commission, Sections 21670 – 21679.5, is the statutory authority to establish an Airport Land Use Commission (ALUC). Every county that has an airport that is served by a scheduled airline or is operated for the benefit of the general public must have an ALUC. The purpose of the statute is to:

“Protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.”

Each ALUC is required to formulate a comprehensive land use plan for the areas surrounding the airports within its jurisdiction. The plan must reflect the anticipated growth of the airports for a 20 year horizon.

County. The Humboldt County Airport Land Use Compatibility Plan sets forth criteria and policies which the Humboldt County ALUC use in assessing the compatibility between the public use airports in Humboldt County and proposed development in areas surrounding them. The plan contains compatibility criteria and airport compatibility maps that are utilized by the ALUC to determine if proposed land uses are compatible with airport operations.

Figure 8-7 illustrates five land use compatibility zones around Rohnerville Airport (from the Land Use Compatibility Plan). Tables 8.4-2 and 8.4-3 identify the compatibility criteria set forth within each zone. The criteria outline the types, densities and heights of land uses permitted within each zone that provide for both safe airport operation and airport land use compatibility.

Compatibility Zone A identifies the “Runway Protection” zone and the airfield building restrictions. Runway protection zone dimensions and locations are set in accordance with Federal Aviation Administration standards for the proposed future runway location, length, width and approach type as indicated on an approved Airport Layout Plan. Compatibility Zone B1 is the outer boundary of the Approach/Departure zone and is defined as the area where aircraft are commonly below 400 feet above ground level (AGL). Zone B1 also includes areas with 1,000 feet laterally from the runway centerline. Compatibility Zone B2 is the extended Approach/Departure zone and is defined by areas where aircraft routinely fly below 800 feet AGL. Compatibility Zone C is the common traffic pattern zone and is defined as areas where aircraft typically fly below 1,000 AGL. This area is considered to extend 5,000 feet laterally from the runway centerline and from 5,000 to 10,000 feet longitudinally from the end of the runway primary surface. Compatibility Zone D is the “Other Airport Environs” zone and conforms to the adopted Planning Area for each airport.

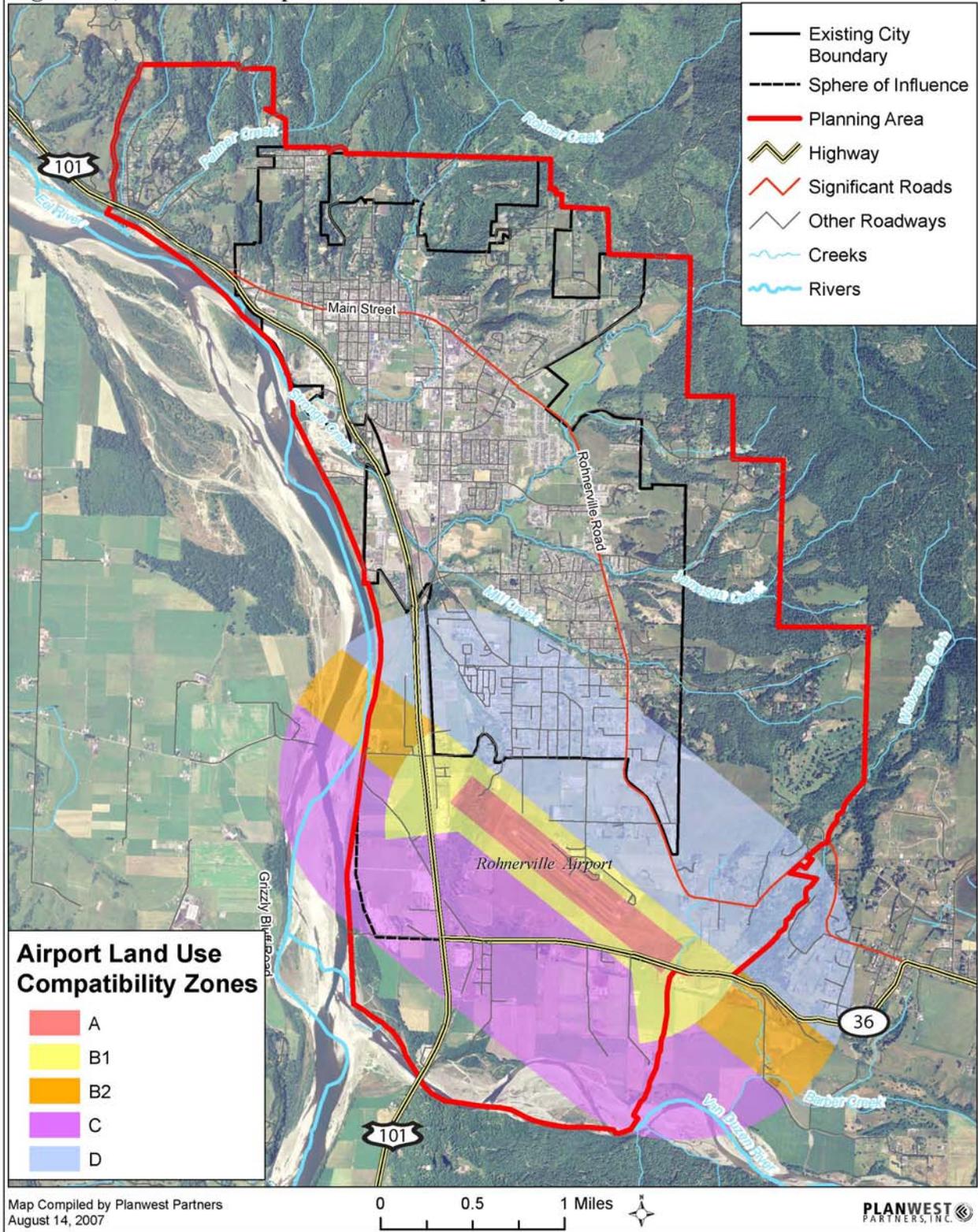
Methodology

Policy Background

- The Planning Area is subject to Humboldt County Emergency Operations Plan (EOP), and the City will continue to coordinate emergency response and evacuation planning with the County regardless of City actions within the Planning Area.
- The population of the Planning Area will increase adding to the need for emergency response and evacuation planning. This growth could potentially expose additional people to hazardous materials and airport hazards.
- As indicated in Figure 8-6, the Planning Area contains 79 listed hazardous materials sites; some of these sites may include hazardous materials contamination.
- The transportation, handling, use, emission, storage and disposal of hazardous materials within the Planning Area are highly regulated by federal, state and county agencies. This regulation will continue and be largely unaffected by City actions within the Planning Area.
- The Arcata-Eureka Airport (ACV) will continue to provide commercial aviation service, and Rohnerville Airport (KFOT) will continue to provide general aviation service, to Humboldt County and the Planning Area.
- ACV utilization is expected to grow from an estimated 112,000 enplaned passengers in 2009 to 167,000 enplaned passengers in 2024 (Humboldt County 2005).

Fortuna General Plan 2030

Figure 8-7, Rohnerville Airport Land Use Compatibility Zones



**Table 8.4-2
Airport Land Use Compatibility Criteria 1**

Zone	Location	Impact Elements	Maximum Densities		Required Open Land ³
			Residential (du/ac) ¹	Other Uses (people/ac) ²	
A	Runway Protection Zone or within Building Restriction Line	<ul style="list-style-type: none"> • High risk • High noise levels 	0	10	All Remaining
B1	Approach/Departure Zone and Adjacent to Runway	<ul style="list-style-type: none"> • Substantial risk – aircraft commonly below 400 ft. AGL or within 1,000 ft of runway • Substantial noise 	0.1	60	30 %
B2	Extended Approach/Departure Zone	<ul style="list-style-type: none"> • Significant risk – aircraft commonly below 800 ft. AGL • Significant noise 	0.5	60	30 %
C	Common Traffic Problems	<ul style="list-style-type: none"> • Limited risk – aircraft at or below 1,000 ft. AGL • Frequent noise intrusion 	4	150	15 %
D	Other Airport Environs	<ul style="list-style-type: none"> • Negligible risk • Potential for annoyance from overflights 	No limit	No Limit	No Requirement

1. Residential development should not contain more than the indicated number of dwelling units per gross acre. Clustering of units is encouraged as a means of meeting the Required Open Land requirements.

2. The land use should not attract more than the indicated number of people per acre at any time. This figure should include all individuals who may be on the property (e.g., employees, customers/visitors, etc.). These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses.

3. In the event an aircraft is forced to land away from an airport, the risks to the people on board can best be minimized by providing as much open land area as possible within the airport vicinity. (a) To qualify as open land, an area must be : (1) free of structures and other major obstacles such as walls, large trees, and overhead wires; and (2) have minimum dimensions of at least 75 feet by 300 feet. Roads and automobile parking lots are acceptable as open land areas if they meet the preceding criteria. (b) Open land requirements for each compatibility zone are to be applied with respect to the entire zone. Individual parcels may be too small to accommodate the minimum size open area requirement. Consequently, the identification of open land areas must initially be accomplished at the general plan or specific plan level or as part of large-acreage projects. (c) Clustering of development and providing contiguous landscaped parking areas is encouraged as a means of increasing the size of open land areas. (d) Building envelopes and the approach zones should be indicated on all development plans and tentative maps within an airport's planning area in order to assure that individual development projects provide the open land areas identified in a general plan, specific plan, or other large-scale plan.

**Table 8.4-3
Airport Land Compatibility Criteria 2**

Zone	Additional Criteria		Examples	
	Prohibited Uses	Other Development Conditions	Normally Acceptable Uses ⁴	Uses not Normally Accepted ⁵
A	<ul style="list-style-type: none"> All structures except ones with location set by aeronautical function Assemblages of people Objects exceeding FAR Part 77 height limits Hazards to flight⁶ 	<ul style="list-style-type: none"> Dedication of aviation easement 	<ul style="list-style-type: none"> Aircraft tiedown apron Pastures, field crops, vineyards Automobile parking 	<ul style="list-style-type: none"> Heavy poles, signs, large trees, etc.
B1 and B2	<ul style="list-style-type: none"> Schools, day care centers, libraries Hospitals, nursing homes Highly noise-sensitive uses Storage of highly flammable materials Hazards to flight⁶ 	<ul style="list-style-type: none"> Locate structures maximum distance from extended runway centerline Minimum NLR⁷ of 25 dBA in residential and office buildings Dedication of aviation easement 	<ul style="list-style-type: none"> Uses in Zone A Any agricultural use except ones attracting bird flocks Warehousing, truck terminals Single-story offices 	<ul style="list-style-type: none"> Residential subdivisions Intensive retail uses Intensive manufacturing or food processing uses Multiple story offices Hotels and motels
C	<ul style="list-style-type: none"> Schools Hospitals, nursing homes Hazards to flight⁶ 	<ul style="list-style-type: none"> Dedication of overflight easement for residential uses 	<ul style="list-style-type: none"> Uses in Zone B Parks, playgrounds Low-intensity retail, offices, etc. Low-intensity manufacturing, food processing Two-story motels 	<ul style="list-style-type: none"> Large shopping malls Theaters, auditoriums Large sports stadiums Hi-rise office buildings
D	<ul style="list-style-type: none"> Hazards to flight⁶ 	<ul style="list-style-type: none"> Deed notice required for residential development 	<ul style="list-style-type: none"> All except ones hazardous to flight 	

4. These uses typically can be designed to meet the density requirements and other development conditions listed.

5. These uses typically do not meet the density and other development conditions listed. They should be allowed only if a major community objective is served by being in this zone and no feasible alternative location exists.

6. Policy 3.3.5 *Other Flight Hazards* – Land uses which may produce hazards to aircraft in flight shall not be permitted within any airport’s planning area. Specific characteristics to be avoided include: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam or smoke which may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; (4) any use which may attract large flocks of birds, especially landfills and certain agricultural uses.

7. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure.

- Rohnerville Airport (KFOT) is expected to grow from an estimated 27,800 annual flights in 2005 to 34,600 annual flights in 2025, and land uses around the Airport will continue to be subject to the land use restrictions of the Humboldt County Airport Land Use Compatibility Plan regardless of City actions within the Planning Area (Humboldt County 2007).

Thresholds of Significance

Development resulting from General Plan implementation will significantly impact the City's human-made hazards and emergency response if it:

- Impairs implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- Creates a significant hazard to the public, or the environment, through the routine transport, use, or disposal of hazardous materials;
- Creates 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;
- Is permitted at a site that is included on the hazardous materials sites list compiled pursuant to Government Code Section 65962.5 and, as a result, creates a significant hazard to the public or the environment; or
- Emits hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed, school;
- Is located within an airport land use plan, resulting in a safety hazard (e.g., land use incompatibilities) for people residing or working in the area; or
- Results in changes to air traffic patterns due either to an increase in air traffic levels or a change in location that results in substantial safety risks.

Implications of the Draft Land Use Diagram

Land uses and development patterns shown on the proposed Land Use Diagram (Figure 2-7 in Chapter 2 of this PEIR) will facilitate increased development and population within the Planning Area. This is especially true within the proposed Focus Areas where existing land uses will be intensified, within the proposed Annexation Areas where the an extension of City services and utilities will enable development, and within the northern and eastern periphery of the Planning Area where low-density residential areas will be expanded. This, in turn, could: (1) increase the need for emergency response and evacuation planning; (2) increase the number of persons exposed to hazardous materials; (3) increase the number of persons exposed to airport hazards around Rohnerville Airport; and (4) result in changes in air traffic patterns, related to either an increase in air traffic levels or a change in location, which could result in safety hazards.

General Plan Policy Response

The proposed General Plan includes the following policies and programs relevant to human made hazards and emergency response.

General

Policy HS-1.1 New Development. The City shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.

Policy HS-1.2 Hazardous Conditions. The City shall designate/zone areas with a potential for significant hazardous conditions as open space, agriculture, and other appropriate low-intensity uses.

Policy HS-1.3 Building Safety Codes. The City shall ensure that all new buildings, except as otherwise allowed by State law, intended for human habitation are designed in compliance with the most-recent edition of the California Building Code, California Fire Code, and other adopted standards based on risk (e.g., seismic hazards, flooding), type of occupancy, and location (e.g., floodplain, fault).

Policy HS-1.4 Safety Awareness. The City shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.

Emergency Response

Policy HS-2.1 Essential Emergency Services. The City shall strive to ensure that during natural catastrophes and emergency situations, the City can continue to provide essential emergency services.

Policy HS-2.2 Emergency Response Coordination. The City shall continue to coordinate emergency response services with the City's Police Department, California Highway Patrol, the Fortuna Fire Protection District, CAL-FIRE; Humboldt County and State Health Departments; other cities within Humboldt County, including special districts, service agencies, and voluntary organizations; and State and Federal regulatory agencies.

Policy HS-2.3 GIS/Emergency Services. The City shall coordinate with other local agencies including the County and cities within the county to develop and maintain coordinated geographical information systems (GIS) planning for emergency response services.

Policy HS-2.4 Evacuation Routes. The City shall develop evacuation routes and a disaster plan in the event of a natural or human-made catastrophe (e.g., topping or failure of the Eel River levee during a major flood event). The City shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

Program HS-1. The City shall develop, certify, and maintain an Emergency Response Plan.

Program HS-2. Based on the information provided in the Emergency Response Plan, the City shall prepare a map that identifies potential hazards and provides emergency evacuation routes for Fortuna residents. The City shall post the map on its website and provide a copy of the map at City Hall's front counter.

Program HS-3. The City shall coordinate with other local agencies, including the County and cities within the county to develop and maintain coordinated geographical information systems (GIS) planning for emergency response services.

Human Made Hazards

Policy HS-6.1 Compliance with Hazardous Material Laws and Regulation. The City shall require that all land uses that transport, generate, use, handle, store, dispose of, and/or emit hazardous materials or waste be in compliance with all applicable, federal, state, County and local hazardous materials safety laws and regulations.

Policy HS-6.2 Building Code Enforcement. The City shall enforce all building and fire codes adopted by the State to minimize any potential harm to the public from the storage of hazardous materials.

Policy HS-6.3 Buffer Zones. The City shall require new industries that store and process hazardous materials to provide a buffer zone between the installation and the property boundaries sufficient to protect public safety.

Policy HS-6.4 Regional Coordination. The City shall coordinate with Humboldt County, the Regional Water Quality Control Board, Environmental Protection Agency, and State Department of Toxic Substance Control to minimize the risk of hazardous materials impacting people and property from sites that store, handle and/or use hazardous materials above local, State, and Federal thresholds.

Policy HS-6.5 Household Hazardous Wastes. The City shall encourage household hazardous waste to be disposed of properly.

Policy HS-6.6 CalARP. The City shall participate in the California Accidental Release Prevention (CalARP) Program in order to maintain the City's effectiveness in minimizing the impacts from a human-made disaster and/or from an accidental release of an extremely hazardous material.

Policy HS-6.7 Hazardous Waste Siting. Hazardous waste repositories, incinerators, and facilities that use or store a substantial quantity of hazardous materials, or other similar facilities intended primarily for hazardous waste disposal, shall be sited in appropriate (non-residential) land use districts.

Policy HS-6.8 Hazardous Wastes and School Avoidance. School districts should avoid siting new schools within one-quarter mile of hazardous waste repositories, incinerators, facilities that use a substantial quantity of hazardous materials, or other similar facilities intended primarily for hazardous waste disposal.

Policy HS-6.9 Flood-Proofing. The City shall require that hazardous materials and wastes in existing facilities be contained within flood-proofed structures or storage areas if situated within the 100-year floodplains as shown in Figure HS-3.

Policy HS-6.10 Hazardous Wastes and Flood Prone Areas. The City shall prohibit the siting of new hazardous waste repositories, incinerators, and facilities that use a substantial quantity of hazardous materials within the 100-year floodplain as shown in Figure HS-3.

Policy HS-6.11 Asbestos and Lead-based Paint. The City shall require that any structures, constructed prior to 1979 and proposed for renovation or demolition, be evaluated for asbestos or lead-based paint, and any found materials be removed in compliance with applicable regulations.

Policy HS-6.12 Finding Potential Hazardous Materials Contamination. The City shall require construction contractors to report any evidence of potential soil contamination to the City, and shall require the property owner to have the potential contamination investigated and remediated.

Program HS-14. The City shall work with the County to prepare a Hazardous Waste Management Plan that minimizes the risk associated with human-made hazards.

Program HS-15. The City shall work with the State Department of Toxic Substances Control in providing educational materials to address the proper method of disposal of household hazardous waste. The City shall provide information at both the public counter in City Hall and on the City's website.

Program HS-16. The City shall require that land uses that generate, use, handle, store, transport, dispose of or emit hazardous materials or waste have a Hazardous Materials Release Response Plan and Inventory (Business Plan) on file with HCDEH.

Program HS-17. The City shall require that any new development proposed at a hazardous materials/waste site identified in Figure HS-3 include documentation from the applicable regulatory agencies indicating that the site status is "cased closed" or "no further action required." If such evidence cannot be provided, or if remediation activities have not been completed, the applicant(s) shall remediate to the applicable agencies' satisfaction prior to development.

Program HS-18. The City shall require that, prior to any demolition or renovation of structures constructed prior to 1979, an asbestos and lead-based paint survey be performed by a licensed contractor. If the contractor finds the presence of asbestos and/or lead-based paint, either: (1) an Operations and Maintenance Plan shall be prepared that evaluates the potential risk posed to maintenance personnel, construction workers, facility staff and patrons, and identifies

remediation measures required to avoid associated hazards, for structures are to be retained; or (2) the materials shall be removed by licensed contractors in accordance with all applicable regulations, for structures to be removed.

Program HS-19. The City shall require construction contractors to report any potential soil contamination to the Building Department, and the Building Department has the authority to hire a licensed hazardous materials consultant at property owner's expense to assess the potential soil contamination and identify any required remediation.

Airport Hazards

Policy TC-6.1 Airport Capacity and Services. In the considering of Rohnerville Airport being one of the most significant economic development opportunities and transportation resources for the region, the City shall work with Humboldt County Public Works Airport and Aviation Department to improve and expand the capacity of the airport and services to the region.

Policy TC-6.2 Land Uses Consistency. The City shall continue to regulate land use around the Rohnerville Airport consistent with the Airport Land Use Compatibility Plan Humboldt County Airports.

Policy TC-6.4 Aviation Services Expansion. The City shall explore opportunities for expanding aviation services for the region from the Rohnerville Airport.

Policy TC-6.6 Airport Land Use Compatibility Plan. The City shall, upon annexation, request that Humboldt County Airport Land Use Commission update the Rohnerville Airport Land Use Compatibility Plan.

Program TC-19. The City shall review the Rohnerville Airport Land use Compatibility Plan and ensure that land use designations and zoning within the Rohnerville Airport Land Use Compatibility zones are consistent with the plan.

Policy HS-9.1 Humboldt County Airport Land Use Compatibility Plan Compliance. The City shall limit development within each of the Land Use Compatibility Zones around Rohnerville Airport (Figure HS-6) to that permitted within each of these zones by the Humboldt County Airport Land Use Compatibility Plan. This will ensure: (1) that new uses around the airport do not interfere with, or represent a hazard to, the proper operation of the airport; and (2) that airport operations do not represent a substantial safety hazard to surrounding land uses.

Policy HS-9.2 Navigable Airspace. The City shall ensure that development within the Rohnerville Airport approach and departure zones complies with Part 87 of Federal Aviation Administration regulations (i.e., objects affecting navigable airspace).

Impacts and Mitigation

Impact 8.4-1: Emergency Response and Evacuation Plans

Proposed General Plan implementation will result in more development and population in the Planning Area, especially in the proposed Focus Areas, Annexation Areas, and in the northern and eastern peripheries of the Planning Area, and this will increase the demand for emergency response and evacuation planning.

Discussion

The proposed Land Use Diagram: (1) allows greater density within portions of the existing incorporated City, especially within the proposed Focus Areas; (2) replaces County land use designations with City designations in the proposed Annexation Areas; and (3) pre-designates land outside of the incorporated City boundaries but within the City's Sphere of Influence (SOI). The effect of these changes is to increase the development potential and number of residents within the Planning Area. This will increase the demand for emergency response and evacuation planning (including the need for the City to coordinate emergency response and evacuation planning with HCDEH and other applicable government agencies as required by the County's EOP).

The proposed Policy Document contains the following policies and programs intended to ensure that emergency response and evacuation planning in the City is updated to reflect changing conditions in the Planning Area:

- Policy HS-1.4 requires the City to promote awareness and education among residents regarding emergency procedures;
- Policy HS-2.1 requires the City to ensure that it can continue to provide essential emergency services;
- Policy HS-2.2 requires the City to coordinate emergency response services with HCDEH, California Highway patrol, CAL-FIRE, Fortuna Fire Prevention District, and other applicable agencies;
- Policy HS-2.4 requires the City to develop evacuation routes and a disaster plan for natural and human-made emergencies;
- Program HS-1 requires the City to develop, certify and maintain an Emergency Response Plan;
- Program HS-2 requires the City to prepare and post an emergency evacuation routes map; and
- Program HS-14 requires the City to work with the County to prepare a Hazardous Waste Management Plan to minimize the risk of human-made hazards.

By implementing these policies and programs, the proposed plan will not impair or physically interfere with the EOP and other applicable emergency response and evacuation plans. Thus, impacts will be less than significant.

Determination of Level of Significance

Less-Than-Significant

Mitigation

No mitigation necessary

Impact 8.4-2: Release of Hazardous Materials

Proposed General Plan implementation could result in the transport, use, and/or disposal of hazardous materials, and/or the disturbance of listed hazardous materials sites, activity that could result in exposure of such materials to the public through either routine use or accidental release.

Discussion

Development activities allowed under the proposed plan could result in the release of hazardous materials associated with: (1) the routine transport, use and storage of hazardous materials (including residential use); (2) upset and accident conditions involving the release of hazardous materials; and (3) disturbance of listed hazardous materials sites and asbestos-containing structures. Each of these is discussed below.

The proposed Land Use Diagram allows new agricultural, residential, commercial, and industrial activity that may use or disturb hazardous materials. As a result, more of these materials will be transported, used, and stored within the Planning Area. The routine transportation, use and storage of hazardous materials, while heavily regulated, involves a certain amount of risk resulting from spills or leaks due to accidents or improper uses or handling. However, the proposed plan includes the following policies to ensure that the potential for release of hazardous materials associated with the transport, use or storage of such materials is minimized:

- Policy HS-6.1 requires business or agencies that transport, use or storage hazardous materials do so in compliance with all applicable federal, state, County and local hazardous materials safety laws and regulations;
- Policy HS-6.3 requires new industries that store and process hazardous materials to provide a buffer zone between the installation and adjacent uses to protect public safety;
- Policy HS-6.4 requires the City to coordinate with Humboldt County, RWQCB, EPA, DTSC and other applicable agencies to minimize the risk of hazardous materials to people and property;
- Policy HS-6.5 requires the City to encourage proper disposal of household hazardous waste;
- Policy HS-6.6 requires the City to participate in the California Accidental Release Prevention (CalARP) Program in order to maintain the City's effectiveness at minimizing impacts from the accidental release of hazardous materials; and

- Policy HS-6.7 requires hazardous waste repositories, incinerators, or facilities that use or store substantial quantities of hazardous materials to be located in appropriate (non-residential) land use districts.

Increased residential development will result in the increased use, storage, and/or disposal of hazardous household materials within the Planning Area. In residential settings, small amounts of hazardous materials are typically used by individuals without extensive training in the use, storage, and disposal of those materials. This can result in accidental releases into the water, storm drain, or sewer systems. However, the proposed policies and programs listed above, especially Policies HS-1.4 and HS-6.5, together with Program HS-15 that requires the City to work with DTSC to provide residents with educational materials describing the proper disposal of household hazardous waste, will ensure that the potential for release of hazardous materials in residential areas is minimized.

New commercial and industrial development will occur under the proposed plan. Some of this development will include the storage of potentially hazardous materials. Of particular concern are facilities with underground storage tanks or other storage methods that could be compromised during a seismic event or that could otherwise accidentally leak into the soil, surface water, groundwater, or air. Facilities with storage facilities typically include gas stations, automotive repair shops, industrial facilities, and dry cleaners. However, the following proposed plan includes the following policies and programs intended to ensure that hazardous materials storage facilities are designed in accordance with applicable regulations.

- Policy HS-6.2 requires the City to enforce building and fire codes adopted by the State for hazardous materials storage facilities;
- Policy HS-6.7 requires the location of hazardous materials storage facilities to be in appropriate (non-residential) land use districts;
- Policy HS-6.9 requires that existing (i.e., at time of adoption) hazardous materials and waste stored within the 100-year floodplain be contained in flood-proof structures or storage areas;
- HS-6.10 prohibits the location of new hazardous waste repositories, incinerators and facilities within the 100-year floodplain; and
- Program HS-16 requires land uses that generate, use, handle, store, transport, dispose of or emit hazardous materials to have a Hazardous Materials Release Response Plan and Inventory (Business Plan) on file with HCDEH.

The proposed plan will designate portions of the Planning Area for urban development. This will facilitate construction activities within the Planning Area that have the potential to disturb hazardous materials sites listed in Figure 8-6, as of yet unlisted/unknown hazardous materials sites, and/or existing structures containing asbestos or lead-based paint. Any such disturbance has the potential to release hazardous materials into the environment. However, the proposed plan includes the following policies and programs designed to minimize any such potential disturbance and release:

- Policy HS-6.11 requires structures constructed prior to 1979 and proposed for renovation

or demolition to be evaluated for asbestos and lead-based paint, and if found, removed in compliance with applicable regulations;

- Policy HS-6.12 requires contractors to report evidence of potential soil contamination to the City and property owners to have the potential contamination investigated and remediated;
- Policy HS-17 requires new development proposed at any of the listed hazardous materials sites to include documentation from applicable regulatory agencies. The documentation should indicate that the site has been remediated or is not a hazard; if such evidence cannot be provided, the applicant shall remediate hazardous conditions at the site.

By complying with existing applicable hazardous materials transportation, handling, storage and disposal and asbestos removal regulations, and implementing the policies and programs described above, the proposed plan will not create a significant hazard to the public associated with the routine transportation, use or disposal of hazardous materials; will not create a significant hazard through reasonably foreseeable upset and accidental conditions involving hazardous materials; and will not permit development to occur on listed hazardous materials sites. Therefore, hazardous materials release impacts will be less than significant.

Determination of Level of Significance

Less-Than-Significant

Mitigation

No mitigation necessary

Impact 8.4-3: Emission or Handling of Hazardous Materials Near Schools

Proposed General Plan implementation could result in the emission or handling of hazardous materials within one-quarter mile of existing schools.

Discussion

The proposed plan does not include proposals for new school sites, and per Section 7.7 of this PEIR, the projected increase in population under the proposed plan will not generate a demand for new school facilities in the Planning Area. Therefore, the proposed plan will not result in the emission or handling of hazardous materials within one-quarter mile of a proposed school.

General Plan implementation could result in the emission or handling of hazardous materials within one-quarter mile of existing schools. According to Section 7.1 of the PEIR, there are 10 existing schools within the Planning Area. The proposed Land Use Diagram permits additional urban land uses around these schools. Some of these uses could emit or handle hazardous materials. This is especially true in the areas of:

- Fortuna Middle (Town School) at 9th and L Streets. that is adjacent to areas (to the north and west) that are designated Commercial and Industrial uses, respectively;
- Fortuna Union High and East High on 12th Street south of J Street that are adjacent to areas (to the southeast and southwest) designated as Commercial; and
- River Valley Charter School on Ross Hill Road and Fortuna Junior Elementary (South School) at the intersection of Newburg Rd. and Fortuna Blvd that are near areas designated as Mill District and Corridor Mixed Use.

Although the proposed designates areas around the schools for land uses that could handle or emit hazardous materials, the proposed plan includes policies and programs designed to minimize any potential exposure hazard to schools:

- Policy HS-6.1 requires that all land uses that transport, generate, use, handle, store, dispose of, and/or emit hazardous materials do so in compliance with all applicable federal, state, County and local regulations;
- Policy HS-6.3 requires new industries that store and process hazardous materials to provide a buffer zone between the installation and adjacent uses to protect public safety;
- Policy HS-6.8 requires school districts to avoid locating new schools within one-quarter mile of hazardous materials repositories, incinerators and large users; and
- Program HS-16 requires land uses that generate, use, handle, store, transport, dispose of or emit hazardous materials to have a Hazardous Materials Release Response Plan and Inventory (Business Plan on file with HCDEH).

By compliance with applicable hazardous materials regulations and implementing of the above policies, the potential for future exposure at schools to hazardous emissions or materials will be less than significant.

Determination of Level of Significance

Less-Than-Significant

Mitigation

No mitigation necessary

Impact 8.4-4: Airport Hazards Associated With Incompatible Land Use

Proposed General Plan implementation could cause a safety hazard (e.g., land use incompatibilities) to people residing or working in the vicinity of Rohnerville Airport as a result of incompatible land use.

Discussion

The Humboldt County Airport Land Use Compatibility Plan designates five compatibility zones around Rohnerville Airport (Figure 8-7). Each of these zones, and the proposed plan's consistency with the development criteria set forth by the Compatibility Plan to ensure land use compatibility between the airport and adjacent uses, is discussed below.

Zone A is the runway protection zone. Large trees, signs or other flight hazards are not permitted in zone A. Only structures with a location established by aeronautical function are allowed. Residential uses are not permitted within Zone A due to high safety risk and noise hazards. Other uses are limited to 10 people per acre, and all remaining areas must be left as open land. The majority of Zone A is owned by the airport, and outside of the City's land use jurisdiction. However, the northwestern and southeastern portions of Zone A are located outside the airport property and designated by the proposed Land Use Diagram as Public and Agriculture. Each of these land uses permit the development of structures other than those established by aeronautical function and potentially at heights greater than FAA Part 77 height limits. In addition, the Agriculture designation permits extremely low density residential development (1 unit per 20 acres). Hence, residential development could occur in Zone A. This is inconsistent with the Airport Compatibility Plan.

Zone B1 represents the approach and departure zone. Zone B2 represents the extended approach and departure zone. Substantial safety and noise risks exist in these zones. Aircraft typically fly below 400 feet above ground level in B1 and below 800 feet above ground level in B2. Compatibility criteria limit residential density to 0.1 du/ac in Zone B1 and 0.5 du/ac in Zone B2, limit other uses to 60 people per acre, require 30% open land, and prohibit schools, day care centers, hospitals, libraries and other noise-sensitive land uses in both B1 and B2. The proposed Land Use Diagram designates land within Zone B1 as Public, Industrial, Rural Residential and Agriculture, and within Zone B2 as Rural Residential and Agriculture. This could conflict with Compatibility Criteria for Zones B1 and B2 in several respects. (1) The Public designation permits several uses not allowed in the Zones B1 and B2, including schools, hospitals and libraries; (2) the Rural Residential designation allows residential uses at densities up to 1.0 du/ac (above that permitted in either zone); and (3) both the Public and Industrial designations could result in more than 60 people per acre in Zone B1. Hence, development could occur in Zones B1 and B2 that is inconsistent with the Compatibility Plan.

Zone C is identified as an area of common aircraft traffic problems. The compatibility criteria for this zone indicate that there is limited risk in this zone from aircraft flying at or below 1,000 feet above ground level and from frequent noise intrusion. Residential density is limited to 4 du/ac. Other uses are limited to 150 people per acre. Criteria also require 15% open land, and prohibit schools, hospitals, nursing homes and hazards to aviation (e.g., uses that emit extensive light and glare, smoke or significant electrical transmissions that could interfere with aircraft navigation or communication, attracting flocks of birds, etc.). The proposed Land Use Diagram designates areas within this zone as Public, Industrial, Commercial, Residential Rural and Agriculture. While the land uses permitted under these proposed designations are permitted in Zone C, the potential remains for these uses to generate hazards to aviation.

Zone D is identified as “other airport environs”. This zone is subject to negligible risk or annoyance from over-flights. Compatibility criteria require land uses to avoid features that could cause hazards to aviation (see above), but do not restrict the types of land uses permitted or require some proportion of open land. The proposed Land Use Diagram designations within Zone D include Agriculture, several residential designations, Public, Commercial, Industrial, and Open Space. Although uses permitted under these proposed designations are consistent with Zone D Compatibility Criteria, there remains the potential that these uses could generate hazards to aviation.

The proposed Land Use Diagram permits development within one or more Airport Land Use Compatibility Zones that is inconsistent with the Compatibility Plan, and/or that create hazards to aviation. The proposed plan includes the following policies and programs designed to ensure that development within these zones occurs consistent with Compatibility Plan requirements:

- Policy HS-9.1 requires the City to limit development within the Compatibility Zones to that permitted within each zone by the Humboldt County Airport Land Use Compatibility Plan; and
- Program HS-9.2 requires the City to ensure that development within the Rohnerville Airport approach and departure zones complies with Part 87 of FAA regulations (i.e., objects affecting navigable airspace).

By complying with Airport Land Use Compatibility Criteria for development proposed within the Compatibility Zones of Rohnerville Airport, and by implementing the listed policies and, the proposed plan will not result in a safety hazard for people residing or working around the Airport. Thus, development impacts will be less than significant.

See Section 6.2 of this PEIR for an analysis of light and glare impacts and Section 8.2 for an analysis of noise impacts, as they relate to permitted future land uses around Rohnerville Airport.

Determination of Level of Significance

Less-Than-Significant impact

Mitigation

No mitigation necessary

Impact 8.4-5: Airport Hazards Associated With Changes in Flight Patterns

Proposed General Plan implementation could result in changes in air traffic patterns, due either to an increase in air traffic levels or a change in location, that result in substantial safety risks.

Discussion

The proposed plan will not change the location of either Arcata-Eureka Airport (ACV) or

Rohnerville Airport (KFOT). Therefore, the proposed plan will not result in any related changes in air traffic patterns or associated safety risks. No impact will occur.

Development under the proposed plan will increase the number of general aviation flights into and out of Rohnerville Airport. The 2007 Rohnerville Airport Master Plan projects that general aviation traffic at Rohnerville Airport will increase from 27,800 annual flights (2005) to 34,600 annual flights in 2025, and outlines a phased plan to expand airport facilities and operations that will accommodate this projected growth. At buildout under the proposed plan the population will include 8,395¹ more people than projected in Fortuna's existing (1993) General Plan. As a result, the proposed plan could result in more air traffic at Rohnerville Airport than has been planned for under the Airport's Master Plan. However, assuming 209 annual flights per 1,000 persons, based on the existing annual flights at the airport (e.g., 27,800) and the existing county-wide population (132,755), these 8,395 additional individuals will generate only 1,755 annual (five daily) flights at Rohnerville Airport. The small number of additional flights will be insufficient to warrant changes in the facility and operational planning as set forth for the airport in the Airport's Master Plan. Therefore, the proposed plan will not change traffic patterns or affect any associated safety risks at Rohnerville Airport due to an increase in air traffic levels. A less than significant impact will occur.

Development under the proposed plan will increase the number of commercial aviation flights into and out of the Arcata/Eureka Airport (ACV). The 2005 ACV Airport Master Plan projects that commercial passengers will increase from 112,000 annual enplaned (departing) passengers in 2009 to 167,000 annual enplaned passengers by 2024 and outlines a phased plan that will expand airport facilities and operations to accommodate this projected growth. Because buildout population projections result in approximately 8,395¹ more people than under Fortuna's existing (1993) General Plan, the proposed plan could result in more air traffic at ACV than planned for under the Airport's Master Plan. However, based on the airport utilization rate of 844 enplaned passengers per 1,000 residents discussed earlier in this section, 8,395 additional persons will generate an additional 7,085 annual (19 daily) enplaned passengers at ACV. Assuming 30 passengers per flight, this equates to less than one additional flight per day; insufficient to warrant changes in the facility and operational planning set forth for the airport in the Airport's Master Plan. Therefore, the proposed plan will not change traffic patterns or affect associated safety risks at ACV due to an increase in air traffic levels. A less than significant impact will occur.

Determination of Level of Significance

Less-Than-Significant impact

Mitigation

No mitigation necessary

¹ Assumes a buildout population of 16,509 and 24,904 persons under the existing and proposed City of Fortuna General Plans, respectively.

References Cited

California Department of Finance (DOF), 2009. Demographic Research Unit, Report E-1, City/County Population Estimates, 2009.

Environmental Data Resources (EDR), 2005. December 08, 2005. EDR Data Map, Area Study, Fortuna General Plan Update, Fortuna, California. < <http://www.edrnet.com/>> NR: EDR.

Environmental Data Resources (EDR), 2009. May 2009. EDR Data Map, Area Study, Fortuna General Plan Update – Southern Area, Fortuna, California. < <http://www.edrnet.com/>> NR: EDR.

Federal Aviation Administration (FAA), 2005. FAA Airport Master Record for Rohnerville Airport (Form 5010).

Humboldt County, 2002. County of Humboldt Emergency Operations Plan (EOP) – Humboldt Operational Area. June.

Humboldt County, 2005. Arcata-Eureka Airport Master Plan Report, Chapter 2, Table 2A. Prepared for Humboldt County by Mead & Hunt. September.

Humboldt County, 2007. Rohnerville Airport Master Plan Report, Chapter 2, Table 2-1 and 2-2. Prepared for Humboldt County by Mead & Hunt. May.

Humboldt County, 2007. The Humboldt County Operational Area Hazard Mitigation Plan (HMP). December 11.

Hodges & Shutt. 1993. Airport Land Use Compatibility Plan Humboldt County Airports. March.