

EXECUTIVE SUMMARY

ES.1 Introduction

This Program Environmental Impact Report (PEIR) describes possible environmental effects that could result through the implementation of the proposed Fortuna General Plan 2030 (proposed General Plan or proposed plan), an update of the City's existing 1993 General Plan (existing General Plan).

The proposed General Plan includes goals, policies and implementation programs for development and growth within Fortuna's Planning Area through the year 2030. The Planning Area includes the existing incorporated City, four proposed Annexation Areas (Riverwalk, Strongs Creek, Carson Woods Road, and Rohnerville Airport), and the City's existing sphere of influence (less the annexation areas). The proposed General Plan includes - two documents:

- (1) The General Plan 2030 Policy Document, including a Land Use Diagram and goals, policies and implementation programs to guide development of the City over the next 20 years; and
- (2) The General Plan 2030 Background Report, which describes existing conditions and trends in the City.

The City of Fortuna, as the General Plan lead agency, is charged with the responsibility of, where possible, avoiding or minimizing environmental damage that could occur resulting from the General Plan's implementation. As part of this responsibility, the City is required to balance the General Plan's economic, environmental, and social objectives. This PEIR is integral to that process, functioning to both help formulate the proposed General Plan and inform the decision-makers and public as to the significant effects that might result from General Plan implementation.

In addition, the PEIR identifies possible means for minimizing potentially significant effects, and presents a range of alternatives to the proposed General Plan. The City of Fortuna must consider the information in this PEIR, along with any other available information, before making its decision about the proposed General Plan.

ES.2 Proposed Plan Under Review

Proposed General Plan

A general plan is a legal document that serves as a community's "blueprint" or "constitution" for land use and development. State law requires every city and county in California to adopt a general plan that is comprehensive and long-term. The plan must also be updated to keep it current (California Government Code §653000 et seq.). The City of Fortuna initiated its General Plan update process in 2005 and assembled a multidisciplinary consulting team to prepare the General Plan update documents. A series of public workshops were held for the purpose of

identifying objectives that provide the foundation upon which the goals, policies, and programs in the General Plan were developed.

These objectives, listed below, provide the foundation upon which the goals, policies and programs in the General Plan were developed, and also serve as the “CEQA objectives” for the proposed plan.¹

- To maintain Fortuna’s small town character;
- To create a balanced community where residents can live, work, play and shop;
- To establish a controlled growth that is adequately served by public services and infrastructure;
- To encourage mixed use, infill, and sustainable development;
- To maintain and enhance scenic resources, including but not limited to views of the Eel River and surrounding Eel River Valley and rustic agricultural lands in the south;
- To strengthen connection with Fortuna’s history and local culture;
- To establish a dynamic waterfront that is easily accessible, that provides scenic and recreational opportunities, and development complimentary to the riverfront;
- To maintain the Downtown area as the established city center and the social, institutional, and economic heart of the City;
- To provide convenient access to parks and recreational, community, and public facilities and services to all Fortuna residents;
- To stimulate economic growth and diversity, particularly through local businesses, retail development, and employment opportunities that will provide city residents with a living wage;
- To create an extensive open space/trail network along the Eel River and creeks throughout the City;
- To establish a multi-modal transportation system (i.e., roadways, bike paths, sidewalks) that will provide strong connectivity among neighborhoods and districts, is free of congestion, provides convenient transit opportunities, and greater safety for pedestrians and motorists;
- To address safety concerns such as landslides, flooding, dangerous intersections and criminal activity;
- To respond to significant demographic shifts and adequately provide services;
- To encourage housing types that meet the community’s needs, such as senior housing, residential mixed use (such as what exists in Downtown), townhouses, apartments, or second units;

¹ Per State CEQA Guidelines §15124, “CEQA objectives” are a statement of the objectives sought by a proposed project [or plan]. These objectives are used to help the lead agency: (1) develop a reasonable range of alternatives that would obtain most of the basic objectives of the proposed project while avoiding one or more of its significant effects; and (2) prepare findings or a statement of overriding considerations, if necessary.

- To provide protections for riparian corridors, Palmer Creek, Rohner Creek, North Fork Strongs Creek, Strongs Creek, Mill Creek, and Jameson Creek;
- To expand Riverwalk and recreational and visitor serving uses in the vicinity of the River Lodge Conference Center;
- To capitalize on the airport as an economic development asset; and
- To create a well-planned and well-designed Mill District for the old PALCO mill site and adjacent area.

Proposed General Plan Elements

Every general plan in California must address these seven topics or “elements”: (1) land use; (2) circulation; (3) housing; (4) conservation; (5) open space; (6) noise; and (7) safety. In addition to these “mandated” topics, general plans may address “optional” topics including but not limited to economic development, historic preservation and urban design. The elements need not be organized into these specific categories, but must cover the topics listed.

The proposed General Plan is a comprehensive update of the City’s existing (1993) General Plan and contains the following elements:

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| • Land Use | • Parks, Recreation and Open Space |
| • Economic Development | • Public Facilities |
| • Transportation & Circulation | • Health and Safety |
| • Natural & Cultural Resources | • Community Design |

Also included is a proposed Land Use Diagram that identifies the locations of planned land uses within the Planning Area by land use designation.

The proposed General Plan will also eventually contain a comprehensive revision of the City’s existing Housing Element. Because of specific State updating requirements for Housing Elements, the Housing Element updating process currently being undertaken by the City is on a separate schedule, and that update represents a separate project under CEQA. Still, this PEIR evaluates the draft policies of the Draft Housing Element to the degree that those draft policies have been formulated.

Proposed Boundaries

The City of Fortuna is part of a larger “Planning Area” evaluated in this PEIR (see Figure 2-3 of the PEIR). The Planning Area covers 8,051 acres and includes: (1) the incorporated City of Fortuna (3,114 acres); (2) the City’s Sphere of Influence or SOI (3,996.1 acres); and (3) a proposed Planning Area Expansion (940.9 acres).

Proposed Focus Areas

The proposed General Plan contains policies that specifically address the unique planning and design needs of five Focus Areas within the Planning Area, and calls for the preparation and

adoption of individual Area Plans that outline goals, policies, objectives, programs, development concepts, design criteria, and land use plans for the Focus Areas. The focus areas are identified in Figure 2-4 of the PEIR and are listed below:

- Fortuna Boulevard
- Downtown
- Riverwalk District
- Rohnerville
- Mill District

A draft Area Plan has already been prepared for the Mill District that outlines goals, policies, objectives, programs, development concepts, design criteria, and land use plans for this area. The District Plan has been incorporated into the proposed General Plan, including the proposed Land Use Diagram, and is evaluated as part of the proposed General Plan in this PEIR.

Proposed Annexation Areas

The proposed General Plan anticipates future annexation of four separate areas to the City of Fortuna. The plan includes policies and programs applicable to these areas as well as pre-designating these areas in the proposed General Plan Land Use Diagram. The annexation areas are identified in Figure 2-5 of the PEIR and are listed below:

- Riverwalk
- Strongs Creek
- Carson Woods Road
- Rohnerville Airport

Major Changes Between the Existing and Proposed General Plans

Major differences between the existing (1993) and proposed General Plans are listed below. The existing and proposed General Plan Land Use Diagrams are included as Figures 2-6 and 2-7 of the PEIR, and tables identifying the acreage of each existing and proposed land use designation are included in Chapter 3.0 of this PEIR.

- (1) Update the physical and regulatory setting information;
- (2) Extend the time horizon of the proposed plan to 2030;
- (3) Plan for four proposed future annexations ,including pre-designating these areas with City land use designations, as follows:
 - a. Riverwalk: Re-designate from Industrial and Unknown (County) to Industrial, Public and Riverwalk District (City);
 - b. Strongs Creek: Re-designate from Agriculture and Timber (County) to Residential Low, Park and Open Space (City);

- c. Carson Wood Road: Re-designate from Agriculture (County) to Rural Residential (City); and
 - d. Rohnerville Airport: Re-designate from Public Facility, Agriculture and a small amount of Industrial (County) to Public Facility, Agriculture, and a larger amount of Industrial (City).
- (4) Add five proposed Focus Areas , and replace the existing City land use designations in these areas, as follows:
- a. Riverwalk: Re-designate from Industrial and Unknown (County) to Industrial, Public and Riverwalk District (e.g., single-use and mixed-use including retail, service, hotel, conference, restaurant, entertainment, office and public uses; City);
 - b. Mill District: Re-designate from Manufacturing, Commercial, Multi-family and Commercial to Mill District (e.g., mixed-use, including retail, service, restaurant, entertainment, office and residential uses, as part of an integrated center);
 - c. Downtown: Re-designate from Commercial to CBD (e.g., continuation of existing commercial, office and high-density residential uses)
 - d. Fortuna Boulevard: Re-designate from Commercial to Commercial Mixed-Use (e.g., retail, service commercial, entertainment, office, residential and public uses); and
 - e. Rohnerville: Generally maintain existing designations, but add additional policies preserving the historic district within this area.
- (5) Change the County land use designations in the northwestern portion of the Planning Area (SOI area) from Agriculture and Timber to Open Space;
- (6) Change the County land use designations in the northeast portion of the Planning Area around Newburg Road from Agriculture (County) to Rural Residential and Open Space (City);
- (7) Change the County land use designations in the eastern portion of the Planning Area around Mill Street (SOI area) from Agriculture to Rural Residential;
- (8) Change the names of existing City land use designations (e.g., Residential Estates to Rural Residential, etc.); and
- (9) Revise the development standards for each of the above land use designations, including identification of FAR standards for non-residential designations.

General Plan Preparation Process

The City of Fortuna (City) initiated its General Plan update program in 2005 when it retained a multidisciplinary consulting team to prepare the General Plan update documents and reports. Of these, the Background Report and the Policy Document are considered the General Plan,

although they are published under separate covers due to the size of each document. Other reports prepared included the 2008 General Plan (which was subsequently replaced by the current version of the General Plan as discussed below), Issues & Opportunities Report, Alternatives Report, and Economic and Fiscal Considerations Report. All these reports, along with the Policy Document, are available for review at Fortuna City Hall. The Policy Document is also available for review on the City's website.

The City made a considerable effort to involve the public throughout the entire process to formulate the Draft General Plan (including the Draft Land Use Diagram). The public provided City staff and the General Plan consultants with direction at key benchmarks throughout the General Plan update effort. The public's input, especially in terms of their identified values and vision statement, served as the foundation from which City staff and the consultants developed the General Plan goals, policies, and programs. The General Plan outreach program included a series of community workshops, a Community Advisory Committee, a General Plan website, community newsletters, electronic newsletters, and two community surveys.

In May 2008, the City circulated a Draft PEIR (DPEIR) on the Draft General Plan. The City received a substantial number of lengthy comments from responsible agencies and members of the public. In response, the City decided to revise the Draft General Plan and DPEIR. These revisions became the proposed 2009 Draft General Plan being evaluated in this DPEIR. As part of the re-drafting process, the City held additional public hearings before the City Council and Planning Commission to solicit public comments on the Draft General Plan. These hearings, which were held in April, May and June 2009, along with the previous hearings and outreach program, CEQA scoping process for the earlier DPEIR, City attorney comments, and City staff direction, served as a guide for formulating the current version of the Draft General Plan, Land Use Diagram, and DPEIR.

Following publication of the Draft General Plan and this PEIR, the City of Fortuna Planning Commission and City Council will hold public hearings to receive public comments on the draft documents, provide their own comments on these documents, and deliberate on the comments. Following revisions of the draft documents in response to the comments, final documents will be prepared, and the City Council will hold at least one public hearing to certify the PEIR and adopt the proposed General Plan.

ES.3 Alternatives

Chapter 9 of this EIR evaluates three alternatives to the project as described in Chapter 2. These alternatives include:

- (1) No Project (Existing 1993 General Plan) Alternative
- (2) Reduced Density Alternative
- (3) Resource Management Alternative

An examination of the relative impacts of the alternatives to those of the proposed plan identified the Reduced Density Alternative as having the least impact, followed by the Resource Management Alternative, the proposed General Plan, and the No Project (Existing 1993 General Plan) Alternative. Although the Reduced Density Alternative would not avoid any of the significant and unavoidable adverse impacts of the proposed plan, it would lessen several of these impacts and lessen other impacts of the proposed plan, especially in the quantitative areas. Therefore, in accordance with CEQA Guidelines §§15126.6(e), the Reduced Density Alternative is identified as the “environmentally superior alternative”. However, it would not be as effective as the proposed General Plan at achieving the objectives of the proposed plan.

ES.4 Environmental Impacts and Mitigation Measures

Potentially significant environmental impacts of the project are summarized in Table ES-1. This table lists potential impacts, recommended mitigation measures, and the level of significance of the impact after implementation of the recommended mitigation. Three levels of significance after mitigation are used: *Significant Unavoidable*, *Less than Significant*, and *No Impact*. A complete discussion of each impact and recommended mitigation measures, if any, is provided in Chapters 3 through 10 of this PEIR.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
3.1 Land Use		
<p>3.1-1: Physically Divide an Established Community. The proposed plan will facilitate development and redevelopment activities, but no road closures are proposed. Roads constructed as part of new development within the proposed annexation areas could increase connectivity to, within, and across these areas. Furthermore, the proposed plan requires the provisions of roadways, bikeways and pedestrian trails associated with new large development projects facilitated by the proposed plan, and mitigation in Chapter 4.0 requiring roadway and intersection improvements. These would all increase rather than decrease connectivity within the Planning Area, therefore, a beneficial impact will occur.</p>	None required.	Beneficial impact.
<p>3.1-2: Conflict with Applicable Land Use Plans, Policies and Regulations Adopted to Avoid or Mitigate Environmental Effects. City of Fortuna Zoning Ordinance. Under the proposed plan, a revised Land Use Diagram will be adopted. Revision of the proposed General Plan and Land Use Diagram will necessitate revision of the City of Fortuna Zoning Ordinance and zoning map. Without revising the Zoning Ordinance and zoning map to bring them into consistency with the proposed plan, a significant impact would occur.</p> <p>Humboldt County General Plan and Zoning Ordinance. Under the proposed plan, the City of Fortuna will extend its incorporated boundaries to cover the proposed Annexation Areas. The County’s General Plan land use designations and zoning within these areas will be replaced with City designations, generally facilitating the expansion of low-density urban development into areas currently designated for agriculture and timber use. The proposed plan contains policies and programs to encourage infill development and reduce impacts to prime farmland but will still conflict with County Agricultural land use and zoning designations adopted to preserve prime farmland by re-designating some of this farmland for urban use. Therefore, a significant impact will occur.</p> <p>Humboldt County Regional Transportation Plan. Implementation of the proposed General Plan will increase traffic on several routes identified by the RTP as “regionally significant.” To ensure consistency with the regional plan the proposed plan contains policies and programs that require the City to coordinate growth and regional planning efforts with HCAOG, LAFCO, and Caltrans, and assess fees on new development for their fair share impacts on the local and regional transportation system.</p> <p>Humboldt County Airport Land Use Compatibility Plan. The proposed Land Use</p>	<p><i>Mitigation Measure 3.1.2a:</i> To comply with California Government Code §65860(a), requiring consistency between an agency’s zoning ordinance and general plan, the City of Fortuna shall revise its Zoning Ordinance and zoning map making them consistent with the General Plan and Land Use Diagram. The City shall start the Zoning Ordinance and zoning map revision process within three months of adoption of the proposed plan, and shall adopt the revisions within nine months thereafter. The City’s Zoning Ordinance and zoning map shall take precedence over the proposed General Plan and Land Use Diagram until such time as the Zoning Ordinance and zoning map are revised.</p>	<p>Less-than-significant (City of Fortuna Zoning Ordinance).</p> <p>Significant unavoidable (Humboldt County General Plan Zoning Ordinance).</p> <p>Less-than-significant (Humboldt County Regional Transportation Plan).</p> <p>Less-than-significant (Humboldt County Airport Land Use Compatibility Plan).</p> <p>Less-than-significant (Humboldt County Streamside Management Area Ordinance).</p>

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>Diagram will permit development within one or more Airport Land Use Compatibility Zones inconsistent with the ALUCP and/or would result in land uses that could generate hazards to aviation, the proposed plan includes policies and programs designed to ensure that development within these zones occurs consistent with Compatibility Plan requirements. By complying with ALUC review requirements for development proposed within the Compatibility Zones of Rohnerville Airport the proposed plan will not conflict with the ALUC.</p> <p>Humboldt County Streamside Management Area Ordinance. The Ordinance requires a 50 foot wide SMA around perennial and a 25 foot wide SMA around ephemeral watercourses, and restricts the types of land uses and activities permitted within the SMA. Five perennial watercourses currently pass through the annexation areas and two perennial watercourses abut one or more of these annexation areas. The proposed Land Use Diagram designates land for urban uses adjacent to each of the watercourses, but the proposed General Plan requires the City to prepare an SMA ordinance equivalent to the County's, protecting the physical integrity and water quality of the watercourses and providing an equivalent level of protection.</p>		
<p>3.1-3: Result in Negative Community Character, Substantial Land Use Conflicts, or an Inadequate Amount of Industrially-Designated Land (Mill District Area Plan). The Mill District Area Plan is intended to provide specific development guidelines and standards for the area to provide for a comprehensively planned mixed-use district within a currently blighted and underutilized portion of the City's urban core. Industrial, commercial thoroughfare, single family residential, and vacant/floodplain uses will gradually be replaced with complementary higher-density mixed commercial, multi-family residential and open space uses that will improve the character of the community within the District.</p> <p>Development of the District according to the Area Plan would result in higher densities than the existing and surrounding development. However, the proposed Area Plan and proposed General Plan include policies that will preserve open space, cluster higher density development, and ensure the compatibility of new development with existing uses, resulting in a less than significant impact.</p> <p>The proposed plan will phase out industrial use within the Mill District but this will not result in an inadequate amount of industrially-designated land in the City because the</p>	<p>None required.</p>	<p>Beneficial (Character). Less-than-significant (Land use conflicts).</p>

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
proposed General Plan designates almost 80 acres of land within two annexation areas for industrial use, and analysis indicates the amount of land designated industrial will be sufficient to meet the City’s projected demand for industrial land through 2030.		
3.1-4: Conflict with any Applicable Habitat Conservation Plan. The Planning Area is not subject to an existing habitat conservation plan (HCP) or natural community conservation plan (NCCP; City of Fortuna, 2009).	None required.	No impact.
Cumulative: The proposed plan will result in a potentially significant, but mitigable, inconsistencies between Fortuna’s proposed Land Use Diagram and existing zoning map. The proposed mitigation requires the city to revise its zoning ordinances to achieve consistency with the new Land Use Diagram. It is logical to assume that Humboldt County and the cities of Rio Dell and Ferndale will implement similar measures in accordance with state law requiring G.P./zoning consistency, thus resulting in no significant cumulative inconsistencies. The proposed plan will result in significant unavoidable land use impacts by creating inconsistencies with Humboldt County’s existing land use designations and zoning in currently unincorporated portions of the Planning Area. This is due primarily to the proposed intensification of uses in Fortuna’s SOI, and cumulative inconsistencies could potentially occur at such times as the cities of Rio Dell and Ferndale complete their general plan updates.	No feasible mitigation available.	Significant unavoidable.
3.2 Housing		
3.2-1: Population Growth Inducement. The proposed plan does not directly induce substantial population growth because it does not contain specific development proposals. However, the proposed plan would indirectly induce substantial population growth by increasing the amount of land designated for residential use by both designating undeveloped land for urban development and increasing the intensity of existing urban development. There are policies and programs in the proposed General Plan designed to reduce growth inducing development but the proposed plan will still facilitate a substantial growth inducement.	None available.	No impact (directly population growth). Significant unavoidable (indirectly population growth).
3.2-2: Population and Housing Displacement. The proposed plan does not include specific development proposals and, therefore, would not have the potential to directly displace substantial numbers of existing people or housing. While the proposed plan would facilitate infill, reuse and redevelopment in the urban core, and would facilitate new development at the urban/rural interface, this re-designation of land would not require that newly non-conforming residential uses be removed. In addition, policies are	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
proposed to protect existing residential uses.		
3.2-3: Consistency with Adopted Regional Fair-Share Housing Demand Forecasts. The proposed plan increases the amount of land where residential is the primary use, and the amount of land where residential use is permitted. The proposed plan contains no development proposals, but the proposed Land Use Diagram will permit up to 5,725 new housing units, or 273 new units per year. This is sufficient to meet HCAOG’s adopted regional fair-share housing allocation (2007-2014) for the city of 586 new units. If only 17% of the new units are constructed as very low or low-income units, this would still be sufficient to meet the City’s 2007-2014 allocation.	None required.	Less-than-significant.
Cumulative: The proposed plan will result in significant unavoidable population and housing impacts by indirectly inducing substantial population growth, mainly through up-designating land for urban development. If Humboldt County and the cities of Rio Dell and Ferndale were to approve new development projects, they too would indirectly induce substantial population increase.	None available.	Significant unavoidable.
3.3 Economic Impacts		
3.3-1: Potential to Cause Blight Conditions. Implementation of the proposed plan could result in 973,460 square feet of new commercial space and 400,000 square feet of new industrial space in Fortuna. This represent 26.7% and 30% of the County’s projected 2030 commercial and industrial space demand, and this will not exceed the absorptive capacity for these uses, nor will the development of the new commercial and industrial space result in blight conditions.	None required.	Less-than-significant.
4.1 Transportation and Circulation Impacts		
4.1-1: Cause an Increase in Traffic That is Substantial in Relation to the Existing Traffic Load and Capacity of the Street System (Including Exceeding, Either Individually or Cumulative, LOS Standards). Implementation of the proposed plan would generate an estimated 79,002 additional daily automobile trips on the local roadway and highway system, a substantial increase in relation to the existing traffic load and capacity of the street system. At buildout, 18 of the 26 study intersections are expected to operate at an unacceptable LOS and will require improvement. With implementation of the mitigation measures indicated and the General Plan policies, all of the critical intersections identified are anticipated to operate at an acceptable LOS except for one.	<i>Mitigation Measure 4.1-1a:</i> The City shall implement the following intersection improvements when financially feasible or as development occurs to maintain the LOS at acceptable levels: <ul style="list-style-type: none"> • 9th Street/Main Street – Signalize and add left-turn lanes to the eastbound and westbound approaches. • 12th Street/Main Street – Add a left-turn lane and thru lane to the northbound and southbound approaches. Add a thru lane to the eastbound and westbound approaches. 	Significant unavoidable (Bryant Lane/Main Street-southbound Bryant Lane approach).

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>4.1-1: <i>Continued.</i></p>	<p>Use permitted – overlap phasing on the northbound and southbound approaches.</p> <ul style="list-style-type: none"> • North Fortuna Boulevard—Main Street—Rohnerville Road. Install traffic signal or convert into a two-lane roundabout. • Rohnerville Road/Newburg Road – Install all-way stop controls and add a right-turn lane on the eastbound approach. • South Fortuna Boulevard/Newburg Road – Signalize with protected left-turn and right- turn overlap phasing on both the eastbound and westbound approaches. Add left-turn lanes and thru lanes to the eastbound and westbound approaches. • 12th Street-Riverwalk Drive/US 101 South Ramps – Signalize and provide dual left-turn lanes on the eastbound approach. • Rohnerville Road/Redwood Way – Install traffic signal or roundabout • South Fortuna Boulevard – Ross Hill Road/Kenmar Road – Signalize with split phase and right-turn overlap phasing on both the eastbound and westbound approaches. • Kenmar Road/Eel River Drive – Signalize and add right-turn lanes to the northbound approach and add a left-turn lane to the westbound approach. • Kenmar Road/US 101 North Ramps – 	

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>4.1-1: <i>Continued.</i></p>	<p>Signalize and operate with permitted left-turn phasing. No additional lanes would be needed.</p> <ul style="list-style-type: none"> • Kenmar Road/US 101 South Ramps – Signalize and add a right-turn lane on the eastbound approach and operate with permitted left-turn phasing. • Rohnerville Road/School Street-Mill Street – Signalize and add left-turn lanes to the northbound, southbound, and eastbound approaches. • 12th Street/Loni Drive – Signalize, no additional lanes are needed. • Future extension of Redwood Way through the Mill District and intersecting with a realigned Newburg Rd. – Signalize, no additional lanes are needed. • Fortuna Boulevard/Strong's Creek – Signalize, no additional lanes are needed. • Ross Hill Road/Thelma Street – Install traffic signal or roundabout. • Rohnerville and Drake Hill Road Improvements to include two traffic and parking lanes, two-way left-turn lane, bicycle lanes, and pedestrian sidewalks. These improvements not incorporated within the serpentine segment of Rohnerville Road south of Drake Hill. • Newburg Road and 12th Street Realignment to include the northbound US 101 on-ramp and extend the northbound off-ramp from US 101 onto 	

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
4.1-1: <i>Continued.</i>	<p>12th Street.</p> <ul style="list-style-type: none"> • Dinsmore Drive Intersection Redesign, In conjunction with annexation of land between Riverwalk Drive and the Eel River redesign the five-point intersection of Dinsmore Drive, the southbound off-ramp from US 101, Riverwalk Drive, and 12th Street. • Eel River and Kenmar Intersection Improvements, Request funding and design assistance from Caltrans to alleviate traffic congestion at the intersection of Eel River Drive and Kenmar Drive resulting from the State’s closure of Drake Hill Road in conjunction with the Highway 36 and 101 interchange. 	
4.1-2: Substantially Increase Hazards Due to a Design Feature or Incompatible uses. Implementation of the transportation specific policies and programs contained in the proposed General Plan will minimize hazards by establishing design standards for a variety of traffic, transit, and a variety of transportation modes. Other policies including land use and circulation concepts will be designed early during the design phases of citywide development to minimize land use conflicts. Intersection and roadway design in the future will have to meet applicable standards that include appropriate geometry for the safe movement of all types of transportation.	None required.	Less-than-significant.
4.1-3: Result in Inadequate Emergency Access. Intersection and roadway design in the future will have to meet applicable standards that include appropriate geometry that result in adequate emergency vehicle access.	None required.	Less-than-significant.
4.1-4: Result in Inadequate Parking Capacity. Implementation of the proposed General Plan includes new development that will require parking areas based upon the specific parking requirements generated by a particular land use. Implementation of the City’s current Zoning Code-required parking standards and the proposed policies and programs will ensure that adequate parking is provided.	None required.	Less-than-significant.
Cumulative: Future development under the proposed plan would increase traffic on the	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
local roadway and highway system. However, this traffic would not result in significant cumulative traffic impacts because: Highways 101 and 36 serve as the primary arteries carrying traffic between the Cities of Fortuna, Rio Dell and Ferndale, and according to the 2006 Humboldt Regional Transportation Plan (RTP), the segments of these highways in the Fortuna/Rio Dell/Ferndale area would operate at LOS A in 2025, the highest level of service.		
4.2 Bicycle and Pedestrian Facilities		
4.2-1: Discourage or Interfere with Pedestrian Circulation. Implementation of the proposed plan will facilitate residential and commercial development and could generate a substantial demand for safe and convenient pedestrian facilities. Specific policies and projects in the proposed plan will result in these new facilities and result in a less than significant impact.	None required.	Less-than-significant.
4.2-2: Increased Need for New Pedestrian Facilities. Implementation of the proposed plan will facilitate residential and commercial development and could generate a substantial demand for safe and convenient pedestrian facilities. Specific policies, projects, and programs in the proposed plan will result in these new facilities to serve present and future demand resulting in a less than significant impact.	None required.	Less-than-significant.
4.2-3: Discourage or Interfere with Bicycle Circulation. Proposed General Plan implementation could generate a substantial demand for safe and convenient bicycle facilities. Implementation of the bicycle specific policies and projects contained in the General Plan will result in new bikeways, bicycle parking, and bicycle programs to serve existing and future demand in Fortuna.	None required.	Less-than-significant.
4.2-4: Increased Need for New Bicycle Facilities. General Plan implementation could generate a substantial demand for new bicycle facilities. However, implementation of the bicycle specific policies, projects, and programs contained in the General Plan will result in the development of new bikeways, bicycle parking, and bicycle programs as a component of new development and a function of the City to serve both existing and future bicycling needs in Fortuna.	None required.	Less-than-significant.
Cumulative: Future development under the proposed would increase the demand for bicycle, pedestrian and public transportation facilities in the City. However, this would not contribute to any significant cumulative demand for such facilities because the proposed plan contains a substantial number of policies and programs designed to ensure that new development is accompanied by the development of new or expanded bikeway, pedestrian and mass transit facilities required to serve it.	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
4.3 Public Transportation		
4.3-1: Discourage or Interfere with Fixed Route Transit Service. Implementation of the proposed plan could impact public transportation when new land uses create an increase in transit ridership, and when new development occurs in areas that are not currently served by the fixed route bus system. However, policies in the proposed plan require the funding and expansion of transit service that is responsive to growth patterns.	None required.	Less-than-significant.
4.3-2: Generate an Increase in Transit Ridership. New development facilitated by the proposed plan could result in an increase in transit ridership. Coordination with the Humboldt Transit Authority and the Redwood Transit Service will promote and support public transit services that meet the local and regional needs of residents and visitors, consistent with policies in the proposed plan.	None required.	Less-than-significant.
Cumulative: Future development under the proposed would increase the demand for bicycle, pedestrian and public transportation facilities in the City. However, this would not contribute to any significant cumulative demand for such facilities because the proposed plan contains a substantial number of policies and programs designed to ensure that new development permitted under the proposed plan is accompanied by the development of new mass transit facilities required to serve it.	None required.	Less-than-significant.
5.1 Hydrology and Water Resources		
5.1-1: Groundwater Supply/Recharge. The proposed plan will facilitate population growth that will increase the demand for groundwater and affect groundwater recharge rates by increasing the amount of impervious surfaces. At buildout the City's water demand will more than double but this will not substantially deplete groundwater supplies because annual recharge of the Eel River Groundwater Basin will still exceed the increased withdrawals by a large margin; an increase in demand under the proposed plan will be partially mitigated by a reduction in groundwater use by agriculture; and the proposed plan contains specific policies and programs to minimize water use and maximize water conservation. Under buildout of the proposed plan urban acreage will increase, but this increase would represent less than 1% of the Eel River Valley Groundwater Basin. Furthermore, the proposed plan contains specific policies and programs to minimize development of impervious surfaces and maximize recharge.	None required.	Less-than-significant.
5.1-2: Runoff Water Quality. The proposed plan will guide and facilitate new development which will include new impervious surfaces and activities that could deposit pollutants onto these impervious surfaces. These deposited pollutants could be transported in stormwater runoff. However, federal, State, County and City regulations,	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
plans and permits are in place to minimize the quantity of pollutants in urban runoff, and the policies and programs contained in the proposed plan will substantially increase current City requirements for new development to incorporate stormwater pollution reduction facilities and to implement construction- and operational BMPs that minimize point and non-point source stormwater pollutants.		
5.1-3: Water Quality Standards and Waste Discharge Requirements. The proposed plan will facilitate and guide future development which will result in an increase of point source discharges of treated wastewater and stormwater to the Eel River. City stormwater and treated wastewater discharges to the Eel River occur under National Pollution Discharge Elimination System permits. Any future increases in City discharges will be required to be consistent with these permits, and will be formulated by the RWQCB consistent with discharge requirements of the Basin Plan and Eel River TMDLs. The proposed plan also includes policies and programs designed to minimize wastewater and stormwater flows as well as pollutants in these flows.	None required.	Less-than-significant.
Cumulative. New development in the Fortuna Planning Area and adjacent communities could increase runoff in affected watersheds, causing changes in water quality and/or quantity. Runoff could cause, or contribute to, point source and non-point source pollutant discharges to nearby receiving waters, which could lead to substantially degraded water quality. New development in the unincorporated communities of Carlotta and Hydesville could result in increased use of individual septic systems and ground water extraction from wells as these areas are not served by municipal water and storm drain systems. Land use changes in these areas could also increase urban runoff draining to surface waters and increased treated wastewater discharges to the Eel River. Assuming that Humboldt County were to implement similar requirements to those proposed under the Fortuna General Plan Update, which is logical given federal, state and RWQCB water supply and water quality regulations, significant cumulative hydrology and water quality impacts would be avoided.	None required.	Less-than-significant.
5.2 Biological Resources		
5.2-1: Special-Status Species. The CNDDDB indicates that four special-status plant species and three special-status animal species occur in the planning area, and suggests that ten other special-status plant species and eleven other special-status animal species have the potential to occur in the Planning Area. The development of urban uses in portions of the Planning Area known or likely to contain special status species has the potential to cause substantial adverse impacts to these species, either directly or through habitat modification. However, the proposed plan includes policies and programs	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
designed to minimize impacts to special-status species and their habitat, and the proposed Land Use Diagram designates large tracts of undeveloped forest and prairie that represent potential special-status species habitat as open spaces, greenways, recreation, or very low urban use. This will augment the special-status species and associated habitat to be retained in compliance with applicable regulations and implementation of the proposed policies and programs that serve to reduce or avoid the significant impacts of the proposed plan.		
5.2-2: Wildlife and Fish Management. The creeks within the Planning Area represent movement corridors for listed fish species, while the riparian threads along these creeks, the bluffs, and the hillside forested areas in the eastern portion of the Planning Area represent movement corridors for listed terrestrial wildlife species. The proposed Land Use Diagram designates some of these areas for urban uses which could result in the conversion of wildlife movement corridors and wildlife movement areas to urban uses, fragment existing wildlife habitat, and/or limit wildlife movement opportunities. However, the proposed plan includes policies and programs designed to preserve these wildlife movement corridors.	None required.	Less-than-significant.
5.2-3: Watercourses and Wetlands. The Planning Area contains approximately 30 mapped wetlands of which 13 could be impacted by development allowed by the proposed Land Use Diagram. However, the proposed plan contains a substantial number of policies and programs designed to avoid significant impacts to watercourses and wetlands, including but not limited to adopting buffer areas and land use controls around these features similar to Humboldt County’s SMA Ordinance. In addition, a substantial number of federal and state regulations (Clean Water Act, Rivers and Harbors Act, etc.) require that any new development that could impact such features obtain permits from the appropriate regulatory agencies (USACE, FWS, DFG, etc.) that have been formulated by these agencies to avoid significant impacts to watercourses and wetlands.	None required.	Less-than-significant.
5.2-4: Riparian Habitat and other Sensitive Natural Communities. A CNDDDB search did not turn up any sensitive natural communities within the Planning Area, but did record three such communities within the vicinity. While development and activities permitted under the proposed Land Use Diagram could result in substantial adverse effects to any Sensitive Natural Communities that may be present, the proposed plan includes policies and programs designed to minimize such impacts. In addition, timber harvesting requires preparation of a THP or NTMP under California Forest Practice Rules that require the implementation of measures to ensure the protection of special-status species, their habitat, and Sensitive Natural Communities. By complying with	None required.	Less-than-significant.

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
applicable laws and regulations, and implementing these policies and programs, the proposed General Plan will not have substantial adverse effects on Sensitive Natural Communities.		
<p>Cumulative. A CNDDDB database search revealed that special status plant and animal species, Sensitive Natural Communities, and jurisdictional wetlands exist in the Fortuna Planning Area. Implementation of the substantial number of policies and programs proposed under the Fortuna General Plan Update will result in less-than-significant impacts to special-status species and their habitat, wildlife and fish movement, watercourses, wetlands, riparian habitat, and other Sensitive Natural Communities. Assuming that Humboldt County and the cities of Rio Dell and Ferndale implement biological resources requirements similar to those proposed under the Fortuna General Plan Update significant cumulative hydrology and water quality impacts can be reduced. However, it is anticipated that the proposed plan and cumulative projects will still result in a cumulative loss of sensitive species and their habitat over time.</p>	<p><i>Mitigation Measure 10-1:</i> Similar to what is required by policies and programs in the City of Fortuna General Plan Update within Fortuna, cumulative development in Rio Dell, Ferndale and areas unincorporated areas of the Eel River Valley shall: (1) provide no-build buffers around rivers, creeks, riparian areas, wetlands, and ESHAs, and implement other protections of these resources similar to the protections set forth in the Humboldt County SMA Ordinance; (2) minimize impervious surfaces, implement LID strategies (bioswales, etc.), and minimize point and non-point source pollutant discharges to local watersheds in accordance with applicable NPDES permits and federal and state requirements; (3) prepare required SWPPs and implement required BMPs to avoid sediment and pollutant discharges from construction sites; (4) conduct CNDDDB database searches, biological surveys, wetland delineations, and required CDFG/USFWS/USACE consultations for new development, and implement biologist recommendations to avoid significant biological and wetlands impacts; (5) comply with the federal and state ESAs, Clean Water Act, CDFG Code, and CEQA; and (6) provide wildlife movement corridors.</p>	<p>Significant unavoidable (Implementation of mitigation is outside of Fortuna’s control, and even with mitigation there would be a significant cumulative loss of sensitive species habitat in the Eel River Valley).</p>
5.3 Agricultural & Timber Resources		
<p>5.3-1: Convert Prime Farmland. The Planning Area contains 923 acres of prime farmland. Under the proposed Land Use Diagram, an estimated 289 acres of this prime farmland is designated for urban use. Proposed policies and programs will require clustering where development is proposed on prime farmland, adopt a land evaluation</p>	<p>No feasible mitigation available.</p>	<p>Significant unavoidable.</p>

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>and site assessment system, and encourage the continuation of existing agricultural activities to minimize farmland conversion. With restrictions on development under each proposed land use designation, and with implementation of the proposed policies and programs, the amount of prime farmland converted to non-agricultural use will be lower than the 289 acre estimate. Still, some proportion of the existing 289 acres of prime farmland will be converted to non-agricultural use.</p>		
<p>5.3-2: Convert Timberland. The Planning Area contains 861 acres of timberland. The proposed Land Use Diagram designates the majority of this timberland as Open Space (OS) or Parks, Greenways & Recreation (PRK). Still, the proposed Land Use Diagram will designate approximately 290 acres of existing timberland for urban uses. Restrictions on development and implementation of policies contained the proposed plan will lessen the amount of timberland converted. Still, some proportion of the existing 290 acres of timberland designated for urban use will be converted.</p>	<p><i>Mitigation Measure 5.3.2a:</i> Make Policies NCR-3.1 through -3.5, and Programs NCR-17, -19, and -21 also applicable to timberland.</p>	<p>Significant unavoidable.</p>
<p>5.3-3: Conflict with Agricultural Zoning or Williamson Act Contracts. The proposed Land Use Diagram designates the majority of agricultural and timber areas within the incorporated City and its SOI for the same or compatible use, and will not conflict with existing agricultural zoning. Approximately 235 acres of agricultural and timber land, all outside the city limits, is designated for urban uses, resulting in a significant unavoidable impact. The proposed plan does not designate any of the 396 acres of farmland and timberland under Williamson Act contract for urban use. Therefore, development under the proposed plan will not conflict with existing Williamson Act contracts.</p>	<p>No feasible mitigation available (agricultural zoning). None required (Williamson Act contracts).</p>	<p>Significant unavoidable (agricultural zoning). No impact (Williamson Act contracts).</p>
<p>5.3-4: Involves Other Changes That Could Result in Conversion of Farmland to Non-Agricultural Use. Agricultural operations can be incompatible with non-agricultural uses and suburban residents may object to the hours of operation, emissions, smells, and sounds associated with agricultural production. The proposed plan designates land for residential development adjacent to existing agricultural activities that could lead to land use conflicts and eventual conversion of existing farmland to non-agricultural use. However, the proposed plan contains policies such as a “right to farm” ordinance, that will avoid such conflicts and conversion.</p>	<p>None required.</p>	<p>Less-than-significant.</p>
<p>Cumulative. The Carlotta/Hydesville Community Plan and the Ferndale and Rio Dell General Plans designate areas for agricultural use and have General Plan policies encouraging the preservation of prime farmland. However, prime farmland conversion in each of these jurisdictions is likely because a portion of this farmland is already designated for urban use. Furthermore, the proposed plan will contribute to this</p>	<p><i>Mitigation Measure 10-2:</i> Similar to what is required by policies and programs in the City of Fortuna General Plan Update within Fortuna, cumulative development in Rio Dell, Ferndale and areas unincorporated areas of the Eel River</p>	<p>Significant unavoidable (Implementation of mitigation is outside of Fortuna’s control, and even with mitigation</p>

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>cumulative conversion of prime farmland.</p> <p>The Carlotta/Hydesville Community Plan and the Ferndale and Rio Dell General Plans designate large areas within their SOIs for timber use, and each of these General Plans includes policies encouraging the preservation of timber use. However, timberland conversion in these jurisdictions is likely for the same reasons discussed under prime farmland above, and the proposed plan will contribute to this timberland conversion.</p>	<p>Valley shall: (1) provide buffers where adjacent to existing farmland; and (2) use clustering where development is proposed on prime farmland and timberland. In addition, unless Humboldt County and the cities of Rio Dell and Ferndale already have these, these jurisdictions shall: (1) adopt “right-to farm” ordinances to encourage the continuation of existing agricultural activities and prevent situations where existing agricultural activities in conformance with existing regulations are categorized as a “nuisance”; (2) support and encourage the retention agricultural and timberland areas until these areas may be ripe for development; (3) adopt Humboldt County’s farmland preservation standards.</p>	<p>there would be a significant cumulative loss of prime farmland and timberland in the Eel River Valley).</p>
5.4 Cultural Resources		
<p>5.4-1: Archeological Resources. The extent to which archaeological sites may occur in the Planning Area is unknown. The Native American Heritage Commission conducted a Sacred Lands File Check of the Planning Area with negative results. However, the area is located in the Eel River Valley which has a history of Native American occupation, and archeological resources have been discovered in the valley in the past. The proposed plan will facilitate future development within the Planning Area, and, if such resources are present, ground disturbing activities associated with the construction of this development could affect “historically significant” or “unique” archaeological resources. However, the proposed plan contains policies and programs that will avoid substantial adverse changes in the significance of archaeological resources.</p>	<p>None required.</p>	<p>Less-than-significant.</p>
<p>5.4-2: Historical Resources. The Planning Area contains one building listed in the National Register of Historic Places, one historic district, and 72 other buildings, roads and sites known to be 45 years of age or older. The Planning Area may also contain other buildings, roads or sites of 45 years of age or older which have not yet been identified. The proposed plan will not facilitate major changes in land uses designations at the historic place or historic district, but could potentially facilitate major changes in land use at the locations of some of the 72 potential historic resources or at the locations of other potential historic resource sites that have not yet been identified. Specific policies and</p>	<p>None required.</p>	<p>Less-than-significant.</p>

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
programs are contained in the proposed plan that would avoid substantial adverse changes in the significance of historical resources.		
5.4-3: Paleontological Resources. The bluffs overlooking the Eel River are a significant source of fossils in the Eel River Valley including mollusk, sand dollar, fossilized plant, turtle, starfish and agatized whalebone finds. Therefore, it is assumed that the Planning Area has the potential to contain paleontological resources. The proposed plan will facilitate additional development within the planning area which could potentially unearth, disturb, and/or otherwise destroy any “unique” paleontological resources. However, the proposed plan contains programs that will avoid destruction of “unique” paleontological resources.	None required.	Less-than-significant.
5.4-4: Human Remains. The Eel River Valley has a history of Native American occupation. Therefore, the Planning Area has the potential to contain as of yet undiscovered human remains, including human remains interred outside of formal cemeteries that may be Native American in origin. With adherence to existing federal laws and regulations formulated to protect human remains, and with implementation of the proposed policy and program, the proposed plan will not disturb human remains.	None required.	Less-than-significant.
Cumulative. The proposed plan will result in less-than-significant impacts to archaeological, historical and paleontological (collectively, cultural resources) with implementation of cultural resources policies and programs proposed in the proposed plan. Under cumulative conditions, new development in the communities around Fortuna could impact cultural resources. Assuming that Humboldt County and the cities of Rio Dell and Ferndale implement the cultural resources requirements of applicable federal and state cultural resources regulations, significant cumulative impacts will be avoided.	None required.	Less-than-significant.
5.5 Mineral and Soil Resources		
5.5-1: Loss of Ability of a Known Mineral Resource. There are four aggregate extraction sites along the Planning Area’s westerly boundary, two of which exist partially or wholly within the Planning Area. The proposed Land Use Diagram designates these sites for Industrial and Agricultural uses, neither of which specifically permits aggregate extraction operations. Without a policy that specifically permits the continued operation of existing mineral resource recovery/extraction operations, a significant impact could occur.	<i>Mitigation Measure 5.5-1a:</i> Add a new policy as follows: NCR-4.9. Continuation of Existing Mineral Resource Recovery/Extraction. The City shall permit existing mineral resource recovery/extraction operations in the Planning Area to continue. Petitions to classify extraction operations as “nuisances” will not be entertained provided that extraction activities are occurring consistent with applicable federal, state and local regulations.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
5.5-2: Loss of a Delineated Mineral Resource Recovery/Extraction Site. The four existing aggregate extraction sites located within/adjacent to the Planning Area are delineated in the Humboldt County General Plan, Natural Resources and Hazards Report (Figure 7-1; Humboldt County 2002). Without implementation of proposed mitigation policy NCR-4.9 Continuation of Existing Mineral Resource Recovery/Extraction, the proposed plan could result in the loss of these delineated mineral resource recovery/extraction sites. Any such loss would represent a potentially significant impact.	Implement Mitigation Measure 5.5-1a.	Less-than-significant.
Cumulative. The proposed plan will result in less-than-significant mineral resources impacts by implementing the proposed policies and programs listed in Section 5.5 and mitigation requiring the City to permit existing mineral resource recovery/extraction operations. The unincorporated communities of Carlotta and Hydesville, as well as the incorporated cities of Rio Dell and Ferndale, each contain known mineral resources and/or contain existing mineral resource recovery/extraction sites. Cumulative development in these areas could result in the loss of access to these resources and/or the closing of resource recovery/extraction sites. However, since the proposed plan will not contribute to any such loss or closures, no cumulative impact will occur.	None required.	No impact.
5.6 Energy Conservation		
5.6-1: Inefficient, Wasteful or Unnecessary Consumption of Energy. There are generally three categories of energy efficiency and energy conservation measures that can be implemented under urban planning projects to reduce energy consumption. Land use measures designed to provide a balance of residential and employment-generating uses, provide compact and mixed-use development, encourage infill, discourage leapfrog development, and provide housing near employment centers. Transportation measures designed to extend transit to new development, provide trails and bicycle paths in new development, and provide transit and non-vehicular connectivity. And energy conservation measures employed to ensure energy efficient construction, that new development is equipped with energy conserving features, and that the public is properly informed as to energy conserving conservation. While buildout under the proposed plan would roughly double energy consumption within the Planning Area, the proposed plan proposes policies and programs that would employ all three types of measures to ensure that energy is not used in an inefficient, wasteful or unnecessary manner.	None required.	Less-than-significant.
6.1 Parks, Recreation and Open Space		
6.1-1: Increased Demand for Public Parks. The proposed plan facilitates new development that, at buildout, would amount to an additional 13,415 residents. According to the Quimby Act guidelines of five acres of parkland for every 1,000	None required.	No impact.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
residents, 67 acres of new community parkland within the planning area will be required at buildout. The proposed plan includes policies and programs (including park dedication requirements) that would provide this required park space.		
6.1-2: Increased Use of Existing Park and Recreational Facilities. The proposed plan will permit new development, redevelopment, and the intensification of existing development which will attract an additional residential population and increase usage of existing park facilities. However, the proposed plan includes policies and programs to ensure that existing park/recreation facilities are adequately maintained to accommodate increased use.	None required.	Less-than-significant.
6.1-3: Increased Demand for Access to Open Space. Under the proposed plan, the population within the Planning Area will increase from 11,489 to 24,904 residents adding to the demand for access to open space. The proposed Land Use Diagram designates 778.4 acres as Open Space. In addition, the proposed plan includes policies and programs designed to both protect and provide public access to open space as well as provide for trail connectivity and new trails in new development. Implementation of the proposed Land Use Diagram and these proposed policies and programs will substantially increase connectivity and access to open space.	None required.	Beneficial impact.
Cumulative. Under cumulative conditions, new development in the communities around Fortuna could increase the demand for parks, recreational facilities and open space. However, the General Plan land use diagram of each jurisdiction designates land for new park facilities. Therefore, it is anticipated that adequate parks, recreational facilities and open space will be available to serve future cumulative development.	None Required.	Less-than-significant.
6.2 Visual Resources		
6.2-1: Scenic Vistas. Scenic vistas available within the Planning Area northerly and easterly views of forested bluffs and meadows; westerly views of the Eel River and agricultural landscapes; and southerly views of the Van Duzen River and the Eel River Valley. Under the proposed plan, development will be permitted within the Planning Area that could potentially block vistas from certain locations. However, the plan includes policies and programs that will minimize blockages and will ensure that view corridors are provided in new development. In addition, the proposed land use designations will limit residential density and non-residential FAR. Therefore, the proposed General Plan will not have a substantial adverse effect on scenic vistas.	None required.	Less-than-significant.
6.2-2: Scenic Resources- Natural Features. The Planning Area contains or is adjacent to several natural scenic resources, including the forested hillsides and meadows, bluffs, the Eel and Van Duzen Rivers, the creeks and their associated riparian corridors, and the	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
agricultural fields. While development permitted under the proposed Land Use Diagram would intrude into and/or replace some of the existing natural resources in the Planning Area, policies and programs are included in the proposed plan to minimize and/or avoid such intrusion/replacement. With adherence to these policies and programs, the proposed plan will not substantially damage natural scenic resources.		
6.2-3: Scenic Resources – Urban Features. The Planning Area contains multiple urban scenic resources, including Fortuna’s Downtown, Rohnerville Historic District, and 75 other historic or eligible buildings, roads or sites. Development and redevelopment permitted under the proposed General Plan could intrude into and/or replace some of these resources. However, the proposed land use designations include limits on the size and mass of new buildings to ensure that new development is consistent with existing development, and a wide range of urban design, aesthetics, and historic preservation policies and programs are proposed to preserve existing urban scenic resources. Therefore, the proposed plan will not substantially damage the visual integrity of Fortuna’s historic resources.	None required.	Less-than-significant.
6.2-4: Visual Character. The visual character of the City of Fortuna is of a small rural community dominated by forested hillsides, bluffs, the Eel River, the Rohnerville Plateau, agricultural land, and rural residential development in the topographically diverse outskirts, and one- to three-story residential, commercial and industrial development, parks and riparian corridors in the flatter urban core. The proposed plan could potentially affect the rural small town character of Fortuna by removing or modifying the existing scenic resources, the existing visual character of the city, and/or introduce new development that is inconsistent with this existing visual character. However, policies and programs are proposed to ensure that the existing visual character of the historic areas, neighborhoods, downtown, and other areas that contribute to the visual character of the City are preserved.	None required.	Less-than-significant.
6.2-5: Light and Glare. The existing light environment of the Planning Area can be characterized as small town in character with a lit urban core which transitions to a scattering of residential lighting associated with rural residential uses to unlit hillside, forest and meadow areas. Under the proposed plan, this existing pattern of development and associated nighttime outdoor lighting will be largely maintained. In the designated five focus areas and some other parts of the urban core, commercial, industrial, mixed use and public uses will be permitted by the proposed Land Use Diagram, and such uses are sometimes accompanied by high intensity lighting that can sometimes interfere with nighttime views. While the proposed plan contains policies and programs designed to	<i>Mitigation Measure 6.2-5a:</i> Add a new program as follows: CD-12. The operation of outdoor stadium lights, and of other high-intensity outdoor lighting covering more than five acres other than security lighting, shall not extend past 10:00 p.m. nightly.	Less-than-significant (Light). Less-than-significant (Glare).

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Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
ensure that lighting is controlled such that it does not conflict with nighttime views, no policies or programs are proposed that will avoid the potential for substantial nighttime glow associated with placing high intensity lighting covering a large area, such as stadium lighting. Therefore, the impact will be significant.		
<p>Cumulative. PEIR Section 6.2 found that the proposed plan will result in less-than-significant impacts to scenic vistas, natural scenic resources, urban scenic resources, visual character, and light and glare (collectively, visual resources) with implementation of visual resources policies and programs proposed in the proposed plan. These policies and programs include, but are not limited to: requiring the City to implement form-based zoning and setback standards, each of which will ensure that new development is compatible in height, size and mass with existing adjacent uses; requiring the preservation of listed historic resources, the evaluation of eligible historic resources and the preservation of any resources found to be significant; and requiring new development to minimize the potential of high-intensity lighting to substantially interfere with nighttime views in the Planning Area.</p> <p>Under cumulative conditions, new development in the communities around Fortuna could impact visual resources. Assuming that Humboldt County and the cities of Rio Dell and Ferndale have applicable zoning codes and implement visual resources requirements similar to those proposed under the Fortuna General Plan Update, significant cumulative visual resources impacts will be avoided.</p>	None required.	Less-than-significant.
7.1 Water Supply and Distribution		
<p>7.1-1: Water Supply. The City currently extracts its groundwater from five wells that draw water from the Eel River Groundwater Basin. Under proposed buildout, the service population within the Planning Area will increase from 11,351 to 24,904 persons. While this will roughly double water demand in the Planning Area: (1) the City has unregulated access to groundwater from the Basin (e.g., no statewide water right permit process regulates the use of percolating groundwater; (2) the Basin has a substantial surplus of water (currently approximately 50,000 acre-feet per year) that would barely be impacted by the approximately 1,676 acre-feet per year of additional water demand under the proposed plan; and (3) policies and programs are proposed to ensure that water is conserved and is not used in an un-needed or wasteful manner. Therefore, water supply impacts will be less-than-significant.</p>	None required.	Less-than-significant.
<p>7.1-2: Water Supply and Distribution Facilities. The proposed General Plan will increase development in underdeveloped and/or underutilized areas, particularly within</p>	None required.	Less-than-significant (Water supply).

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
the proposed Focus Areas and Annexation Areas. Future development will connect to the City’s water system infrastructure and could exacerbate any existing system and pressure zone deficiencies. The City’s five-year Capital Improvement Plan prioritizes water system improvement projects within the Planning Area. The proposed plan also includes policies and programs designed to reduce impacts associated with new or expanded water supply and distribution facilities. With implementation of these policies and programs, and with completion of improvement projects identified in the City’s five-year CIP, implementation of the proposed plan will not significantly impact the City’s water system.		Less –than-significant (Water distribution facilities).
Cumulative. The communities around Fortuna will experience new development resulting in an increased demand for groundwater and the infrastructure required to deliver this water to new users. There are sufficient water supplies in the Eel River Valley to serve the project plus cumulative growth. In addition, assuming that Humboldt County and the cities of Rio Dell and Ferndale implement water supply and distribution requirements similar to those proposed under the Fortuna General Plan Update which, given SB 610 and other state requirements which ensure that adequate water is available to serve proposed development is presumed, significant cumulative water supply and distribution impacts will be avoided.	None required.	Less-than-significant.
7.2 Wastewater Collection, Treatment, and Disposal		
7.2-1: Waste Treatment or Waste Discharge Requirements. The proposed plan will increase residential, commercial, and industrial development within the Planning Area which will increase discharges into the City’s municipal waste water treatment plant. Because City stormwater and treated wastewater discharges to the Eel River currently occur under the existing National Pollutant Discharge Elimination System permits, any future increases in City discharges to the river will occur consistent with these permits. In addition, proposed policies and programs will minimize wastewater flows and pollutants in these flows by requiring that all new development to construct sewer infrastructure and route runoff through bioretention features; and require the City to comply with requirements of the Federal Clean Water Act and other discharge regulations and permits. The impact will be less-than-significant.	None required.	Less-than-significant.
7.2-2: Wastewater Treatment Capacity. The City’s WWTP currently has a dry-weather capacity of 0.7 MGD and a wet-weather capacity of 7.0 MGD, and currently treats an average o 0.95 MGD of wastewater during dry-weather conditions and 1.5 MGD during wet-weather conditions (although peak west-weather flows can reach 7.0 MGD). At General plan buildout, the service population will increase from 11,351 to 24,904	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
persons, generating average an average dry-weather flow of 2.2 MGD and an undetermined wet-weather flow (it would be too speculative to estimate a projected wet-weather flow at this plan level of planning). While projected wastewater flows would exceed the existing dry- and wet-weather capacities of the WWTP, policies and programs are proposed requiring that the City immediately embark on planning to upgrade the capacity of the WWTP, and also limits development to the availability of adequate WWTP capacity. Therefore, the treatment capacity of the WWTP will not be exceeded.		
7.2-3: Impacts of Constructing New or Expanded Wastewater Facilities. The implementation of the proposed General Plan will require or result in the construction of new wastewater treatment facilities or expansion of existing facilities. However, no specific development projects or wastewater facility improvements are proposed under the proposed plan, so the specific environmental effects associated with constructing any new or expanded wastewater facilities cannot be identified at this time.	None required.	Less-than-significant.
Cumulative. Future development in the communities around Fortuna will increase the quantity of wastewater requiring treatment at area WWTPs and the amount of treated wastewater and storm water discharges to the Eel River. It is anticipated that the majority of treated wastewater and storm water generated by the cumulative development will be discharged to the Eel River in accordance with the NPDES discharge permits held by Humboldt County and the cities of Rio Dell and Ferndale. The cities of Rio Dell and Ferndale are currently pursuing expansions of the WWTPs. Nonetheless, the potential exists for increased unregulated cumulative discharges in these areas because some of the cumulative areas are not served by municipal WWTPs and storm water systems. Thus, cumulative development could violate NCRWQCB discharge requirements. However, the proposed plan will not contribute to such violations, so a less-than-significant cumulative impact will occur.	None required.	Less-than-significant.
7.3 Storm Drainage		
7.3-1: Alter Existing Drainage Patterns Leading to Substantial Erosion or Siltation. At buildout, the urbanized area will increase by 28% and the added volume of storm water runoff could lead to erosion of unlined drainage facilities and creeks within the Planning Area and leave sediment deposits in the creeks and Eel River. The proposed plan includes policies and programs to minimize sedimentation/erosion and any changes to the quantity and/or quality of water discharged into the municipal storm drain system. This, together with City review of flood control, drainage, and grading permits, and storm water runoff controls under the State’s NPDES programs will mitigate potential impacts associated with increased runoff. Also, no alterations affecting the course of streams or	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
rivers are proposed.		
7.3-2: Increase Surface Runoff Leading to Increased Flooding. A gradual increase in impervious cover associated with new development, particularly within the proposed Focus Areas and Annexation Areas, could increase storm water runoff by up to 28%. The City has been monitoring the performance of its storm drain system through periodic updates of its Storm Drainage Master Plan, and has been repairing deficiencies in the system as funding has permitted. Also, the proposed plan contains policies and programs that require the City to inspect and maintain drainage system facilities that adequately convey 25-year storm event runoff; the programming of improvements at such time as any storm drain facilities reach 90% of capacity; and require new development to route runoff through on-site bioretention measures and demonstrate that adequate storm drainage can be provided. With implementation of these proposed policies and programs, the proposed plan will not substantially increase the rate or volume of surface runoff in a manner that could result in on- or off-site flooding.	None required.	Less-than-significant.
7.3-3: Exceed Existing or Planned Storm Water Drainage System Capacity. For the same reasons discussed under the previous impact, the proposed plan will not create or contribute runoff water in excess of the capacity of existing or planned storm water drainage systems.	None required.	Less-than-significant.
7.3-4: New or Expanded Storm Drainage Facilities. Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the storm water permit during construction activities requires the preparation of a SWPPP that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages. In addition to complying with the NPDES programs, the proposed plan contains policies and programs to reduce impacts associated with construction of new storm water drainage facilities. For these reasons, the proposed plan will not result in significant environmental impacts associated with the construction of new storm water drainage facilities and expansion of existing facilities.	None required.	Less-than-significant.
Cumulative. New development in the communities around Fortuna could increase erosion and siltation, localized flooding, and demand for new or expanded drainage facilities, especially as some portions of these areas are not served by municipal storm drain systems and have the potential for unregulated runoff. However, assuming that Humboldt County and the cities of Rio Dell and Ferndale implement requirements similar to those proposed under the Fortuna General Plan Update which, given that they are subject to the same FEMA and RWQCB requirements as Fortuna is logical, significant cumulative storm water drainage impacts will likely be avoided. In any event, the	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
proposed plan will not contribute to any such impacts.		
7.4 Solid Waste		
7.4-1: Increased Solid Waste Disposal. Under buildout of the proposed plan, the Planning Area population will increase from 11,351 to 24,904 persons resulting in a 120% increase of solid waste generated. The Anderson Landfill has a remaining capacity of approximately 8 million cubic yards which, according to the current solid waste service provider, is sufficient to dispose of the additional solid waste that would be generated under full buildout. Therefore, the project will be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs, and a less-than-significant impact would occur.	None required.	Less-than-significant.
7.4-2: Non-Compliance with Mandated Solid Waste Reduction Requirements. AB 939 requires cities to reduce their solid waste streams 50% by 2000 and 70% by 2015. To date, the City has not met the 2007 compliance target of a 50% reduction in its solid waste stream. Under buildout of the proposed plan, solid waste generation will increase which will exacerbate the City's lack of achievement in meeting AB 939 solid waste diversion targets. However, the proposed plan contains policies and programs designed to reduce, recycle, and re-use solid waste generated in the City. These requirements will be added to existing waste diversion programs required by CALRECYCLE in the City's Local Assistance Plan which will eventually bring the City into compliance with AB 393.	None required.	Less-than-significant.
Cumulative. Under cumulative conditions, new development in the communities around Fortuna will increase levels of solid waste. Because Humboldt County and the cities of Rio Dell and Ferndale are subject to AB 939, and because each is implementing waste stream reduction measures similar to those being implemented in Fortuna, the anticipated cumulative growth will comply with AB 939 waste reduction requirements.	None required.	Less-than-significant.
7.5 Gas, Electricity, and Communications		
7.5-1: Gas, Electric and Communications Facilities. The proposed plan will facilitate development that, at buildout, could more than double and almost double the demand for electricity and natural gas, respectively. The proposed new development could either the extension of natural gas, electricity and communication infrastructure to serve it or system wide improvements to the local natural gas, electricity and communication systems. To reduce the potential impacts associated with new infrastructure the proposed plan contains specific policies and programs that require energy conservation in new construction, the support of renewable energy sources and alternative energy technologies, and coordination with pertinent agencies when extending new services.	None required.	Less-than-significant.
Cumulative. Future development under the proposed plan would increase electricity and	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
natural gas demand, requiring the extension of infrastructure to serve it and/or require system-wide improvements to accommodate existing and new development in the Planning Area. However, the electricity and natural gas increase would not result in significant cumulative impacts. This is because any improvements will be provided by the utility companies consistent with California Public Utilities Commission (CPUP) regulations, which obligate the utility providers to serve the City of Fortuna.		
7.6 Law Enforcement and Fire Protection		
7.6-1: Increased Demand for Police Services. Proposed General Plan buildout will increase the Planning Area population to approximately 24,904 persons creating a demand for approximately 17 new City of Fortuna Police Department officers to maintain current officer to resident ratios. The proposed plan contains specific policies and programs that require the City to maintain adequate police staffing levels, provide sufficient police facilities and equipment, and promote public safety education programs. These policies and programs will ensure that the City maintains adequate police protection despite projected growth under the proposed plan.	None required.	Less-than-significant.
7.6-2: Increased Demand for Fire Protection Services. Proposed General Plan buildout will increase the Planning Area population to approximately 24,904 persons creating a demand for approximately 74 new volunteer firefighters to maintain current firefighters to resident ratios. The proposed plan contains specific policies and programs that require the City to support the efforts of the Fortuna Fire Protection District in providing fire protection services, maintaining adequate equipment and fire fighting personnel, and engaging in mutual aid agreements. These policies and programs will ensure that the City maintains adequate fire protection through buildout under the proposed plan.	None required.	Less-than-significant.
Cumulative. Under cumulative conditions, new development in the unincorporated communities of Hydesville and Carlotta, and in the incorporated cities of Rio Dell and Ferndale, could increase the demand for new law enforcement and fire protection personnel and station space. As with Fortuna, it is anticipated that the incremental increase in tax revenues generated by development in these areas will pay for this additional personnel and station space. Also, each jurisdiction requires police and fire department review of development plans for adequate lighting, access, and other features to ensure that police and fire protection services can be provided, and monitor service demand to determine when new or expanded service is required. Therefore, adequate police and fire protection services will be available to serve cumulative development.	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
7.7 Schools		
7.7-1: School Services. Projected plan buildout will generate a net increase of 5,725 new residential units. This will add 1,718 Kindergarten -fifth grade students, 1,145 sixth - eighth grade students, and 1,145 ninth - twelfth grade students, for a total of 4,008 students, creating a demand for roughly five new elementary schools, four new middle schools, and one new high school between 2009 and 2030. The proposed plan includes policies and programs designed to minimize school impacts, and new development will be required to pay the State-mandated school impact fees which are considered by the State to represent full mitigation for impacts to schools. Therefore, the proposed plan will have a less-than-significant impact on schools.	None required.	Less-than-significant.
Cumulative. Under cumulative conditions, new development in the communities around Fortuna could increase the demand for school facilities and services. As with the proposed plan, payment of the State-mandated school impact fees together with the increase in tax revenues associated with new development will mitigate the cumulative impact on schools.	None required.	Less-than-significant.
8.1 Air Quality		
8.1-1: Conflict With or Obstruct Implementation of the Applicable Air Quality Management Plan. The North Coast Air Basin is in “attainment” for all criteria pollutants except PM ₁₀ which is in “nonattainment”. The proposed General Plan, before mitigation, will generate less than significant levels of PM ₁₀ during construction but will exceed PM ₁₀ significance thresholds during operation, and thus could contribute to an obstruction of the NCUAQMD’s PM ₁₀ Attainment Plan. The proposed plan includes policies and programs designed to reduce construction and operational air emissions of PM ₁₀ , and the NCUAQMD has a standard set of emission reduction measures that it requires be implemented during construction and operation. However, even with the implementation of these policies, programs, and requirements operational emissions will still exceed the specified NCUAQMD threshold for PM ₁₀ under the Attainment Plan.	None available beyond those required by existing regulations and the proposed policies and programs.	Significant unavoidable.
8.1-2: Violate Air Quality Standards or Contribute Substantially to Existing/Projected Air Quality Violations. Construction activities associated with new development permitted under the proposed plan will produce air emissions. Projected construction activities associated with buildout under the proposed plan will result in the emission of pollutants below NCUAQMD thresholds for all criteria pollutants except CO. However, the emission of construction-related CO will be temporary in nature; construction activities associated with the proposed plan will be required to comply with all applicable NCUAQMD rules and regulations; and the proposed plan includes policies	None available beyond those required by existing regulations, the proposed Land Use Diagram, and the proposed policies and programs.	Significant unavoidable.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>and programs designed to reduce construction-related CO emissions. Still, construction activities could result in CO emissions above the NCUAQMD threshold.</p> <p>New development under the proposed plan will also generate operational emissions of criteria pollutants. These emissions will result from stationary sources such as heaters, wood burning fireplaces, restaurant exhaust, and industrial activities, and mobile sources including motor vehicles. Operational emissions associated with the proposed plan will exceed NCUAQMD thresholds of significance for ROG, NO_x, CO and PM₁₀. While, operational activities associated with the proposed plan will be required to comply with all applicable NCUAQMD rules and regulations, the proposed Land Use Diagram includes mixed-use development that will provide for efficient land use patterns and reduce motor vehicle use, and the proposed plan includes policies and programs designed to reduce operations-related emissions, the proposed plan will still result in operational emissions of ROG, NO_x, CO and PM₁₀ above NCUAQMD thresholds.</p>		
<p>8.1-3: Result in a Cumulatively Considerable Net Increase of Criteria Pollutants for which the Region is in Non-Attainment. The NCAB is in “attainment” for the criteria pollutants ozone and PM_{2.5} but is in “non-attainment” for the criteria pollutant PM₁₀. The proposed plan’s implementation will generate PM₁₀ during both construction and operation, and emissions associated with proposed plan during operation will be above the NCUAQMD significance threshold.</p>	<p>None available beyond those required by existing regulations, the proposed Land Use Diagram, and the proposed policies and programs.</p>	<p>Significant unavoidable.</p>
<p>8.1-4: Expose Sensitive Receptors to Substantial Pollutant Concentrations or Other Dangerous Conditions. The proposed plan will facilitate new development that will generate construction and operational emissions of criteria pollutants, but because of the relatively low density of development permitted under the proposed plan and the relatively low volume of traffic compared to larger urbanized areas, the potential to generate substantial pollutant concentrations is considered less-than-significant. Implementing the proposed plan will also not result in the generation of dangerous TAC concentrations because the City of Fortuna is a small rural community with no potential to develop large TAC generators, TACs are highly regulated and compliance with applicable regulations will avoid dangerous concentrations, and the proposed plan contains policies and programs to avoid exposure to TACs.</p>	<p>None required.</p>	<p>Less-than-significant (Criteria pollutant concentrations).</p> <p>Less-Than-Significant (TAC emissions)</p> <p>No Impact (Asbestos and lead-based paint emissions)</p>
<p>8.1-5: Create Objectionable Odors Affecting a Substantial Number of People. The proposed plan will facilitate the development of agriculture, restaurants, industrial facilities, and a variety of other uses that are often associated with objectionable odors. The proposed plan includes policies requiring all new businesses to minimize odors so</p>	<p>None required.</p>	<p>Less-than-significant.</p>

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
that they are not detectable off-site. With implementation of these policies a less-than-significant odor impact will occur.		
<p>8.1-6: Conflict with the State Goal of Reducing GJHG Emissions Under AB 32. No specific development projects are proposed under the proposed plan. Therefore confirmation as to whether the all land use permitted under the proposed plan would be consistent with CARB 44 early action strategies is impossible at this programmatic level of planning. Also, the proposed plan contains a substantial number of policies and programs that would minimize potential GHG emissions and maximize energy efficiently and alternative forms of transportation, and the proposed Land Use Diagram proposes an energy-efficient land use pattern where higher density uses are concentrated in the urban core. Still, when combined with the emissions likely to be generated by all other development in the state during the time horizon of the proposed plan, it is possible that the proposed plan will contribute to a state-wide inability to meet its AB 32 GHG emission reduction goals.</p>	None available beyond those required by existing regulations, the proposed mixed-use development, and the proposed policies and programs.	Significant unavoidable.
<p>Cumulative. During the time horizon of the proposed plan, cumulative development in the NCAB will increase substantially. Even with implementation of NCUAQMD’s PM₁₀ Attainment Plan and ever stronger emission reduction requirements, greater motor vehicle miles per gallon averages, and use of new emission reduction technologies, it can be reasonably assumed that cumulative development in the NCAB could potentially exceed NCUAQMD emission thresholds for one or more criteria pollutants and thereby: (1) conflict with or obstruct implementation of NCUAQMD’s PM₁₀ Attainment Plan; (2) violate air quality standards or contribute substantially to existing air quality violations; and (3) conflict with the State goal of reducing GHG emissions under AB 32. Each of these represents a significant cumulative impact, and the proposed plan will contribute to these impacts.</p>	<p><i>Mitigation Measure 10-3:</i> Similar to what is required by policies and programs in the City of Fortuna General Plan Update within Fortuna, the Cities of Rio Dell and Ferndale, as well as Humboldt County in unincorporated areas of the Eel River Valley, shall: (1) foster housing development proximate to employment centers, and discourage housing away from employment centers; (2) foster mixed-use developments that reduce reliance on motor vehicle travel; (3) adopt State and federal standards for EPA approved wood burning appliances; (4) adopt construction standards at or above Title 24 energy efficiency standards; (5) prohibit the outdoor burning of vegetation; (6) limit new residential units to one a maximum of one wood-burning EPA Phase III or better stove or fireplace per unit; (7) require that the idling time of delivery trucks be minimizing through the adoption of some time limit standard; (8) coordinate with transit providers on extending</p>	Significant unavoidable (Implementation of mitigation is outside of Fortuna’s control, and even with mitigation there would be significant cumulative emissions of PM ₁₀ and GHGs in the Eel River Valley).

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
	transit service to new development; (9) require increased clean-fuel use; (10) promote transit-oriented development (TOD) and alternative travel modes; (11) require proposed major development projects to implement a range of standard construction, area source, and mobile source emission reduction measures during construction and operation as recommended by the NCUAQMD; and (12) participate in regional air quality planning.	
8.2 Noise		
8.2-1: Exposure of New Noise-Sensitive Uses to Existing Noise in Excess of Applicable Standards. The Planning Area contains several large stationary noise sources and multiple mobile noise sources that generate noise levels above existing and proposed City standards at adjacent properties. The proposed Land Use Diagram would permit new urban development, including new noise-sensitive uses adjacent to some of these noise generators. However, the California Noise Control Act requires that the State protect the health and welfare of its citizens by controlling, preventing and abating noise. Compliance with this law, and policies and programs are proposed in the General Plan to avoid exposure of new uses to noise levels above applicable standards.	None required.	Less-than-significant.
8.2-2: Result in a Substantial Temporary/Periodic Increase in Ambient Noise Levels. Construction activities associated with the development facilitated by the proposed General Plan will generate temporary periodic stationary and mobile source noise throughout the time horizon of the proposed plan. Where proximate to existing noise-sensitive uses, this construction noise could temporarily exceed both the State's and proposed recommended maximum acceptable exterior noise exposure levels. However, the proposed plan contains programs and policies that would avoid any such exposure.	None required.	Less-than-significant.
8.2-3: Result in a Substantial Permanent Increase in Ambient Noise Levels. The proposed Land Use Diagram would permit: (1) the development of new stationary noise sources in proximity to existing noise-sensitive uses; (2) the development of new noise-sensitive uses adjacent to existing mobile noise sources (e.g., existing streets); and (3) new urban development that would increase traffic on, and mobile-source noise along, existing streets. This could expose existing and future noise-sensitive uses to substantial permanent increases in ambient noise levels. While the proposed plan contains policies and programs that would protect new noise-sensitive uses from existing stationary- and	None required (Stationary noise source impacts). None required (Mobile noise source impacts on new noise sensitive uses). No feasible mitigation available (Mobile noise source impacts on existing noise sensitive uses).	Less-than-significant (Stationary noise source impacts). Less-than-significant (Mobile noise source impacts on new noise sensitive uses).

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
mobile-source noise above applicable standards, there are no feasible policies or mitigation measures to avoid exposure of existing noise-sensitive uses to increases in traffic noise above applicable standards.		Significant unavoidable (Mobile noise source impacts on existing noise sensitive uses).
8.2-4: Exposure to Excessive Ground Bourne Noise or Vibration. Construction activities associated with new development permitted under the proposed plan could result in ground bourne noise and vibration. The proposed plan also contains policies and programs designed to shield sensitive receptors from ground bourne noise or vibration by the use of berms and setbacks, and limiting construction activities to the hours of 7:00 a.m. to 8:00 p.m. Thus, the proposed plan would not expose persons to extensive ground bourne noise or vibration.	None required.	Less-than-significant.
8.2-5: Exposure to Excessive Airport Noise. Development permitted under the proposed General Plan could expose new development around Rohnerville Airport to excessive noise. However, the policies and programs of the proposed plan require that new development be consistent with the noise standards of the ALUCP and would not expose new development to excessive airport/airplane noise levels.	None required.	Less-than-significant.
<p>Cumulative. Under cumulative conditions, new development in the communities around Fortuna has the potential to expose existing noise-sensitive uses to excessive noise. However, these types of noise and vibration are highly localized and attenuate rapidly with distance. Given the distances between Fortuna, Hydesville, Carlotta, Rio Dell and Ferndale, noise and vibration will not build cumulatively. Existing noise, temporary/periodic noise, stationary source noise, and ground borne noise/vibration.</p> <p>Under cumulative conditions, new development in the communities listed above would also generate traffic which would increase mobile-source noise along HWY 101, SR 36, and other roadways between Fortuna and these other communities. This would increase exterior and potentially interior ambient noise levels at existing uses along these roadways, and could potentially result in exceedance of applicable noise standards at these existing uses which would be a significant cumulative impact.</p>	<p>None required (Existing noise, temporary/periodic noise, stationary source noise, ground borne noise/vibration).</p> <p>Mobile Source Noise: <i>Mitigation Measure 10-4:</i> Similar to what is required by policies and programs in the City of Fortuna General Plan Update within Fortuna, the Cities of Rio Dell and Ferndale, as well as Humboldt County in unincorporated areas of the Eel River Valley, shall: (1) adopt noise compatibility standards by land use type which are generally consistent with both recommended State standards and adopted Humboldt County standards (for example, 60 dBA L_{dn} at the exterior of residential uses); (2) prohibit new development that exceeds mobile source noise compatibility standards at either existing</p>	Significant unavoidable cumulative impact (mobile source noise), because: (1) implementation of the above mitigation is outside of Fortuna’s control; and (2) even with implementation of the above mitigation, there would be significant cumulative mobile source noise along HWY 101, SR 36 and other roadways utilized by cumulative traffic).

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
	adjacent or proposed new noise-sensitive uses; (3) strive to limit exterior and interior noise levels in residential areas to 60 and 45 dBA CNEL, respectively; (4) encourage the use of berms, building setbacks, or both where noise-sensitive uses are proposed adjacent to major roads; and (5) require new large development projects to have a noise study prepared that calculates future mobile source noise levels at adjacent noise-sensitive uses and identifies required mitigation.	
8.3 Geologic and Seismic Hazards		
8.3-1: Fault Rupture. The eastern portion of the Planning Area is bisected by the Little Salmon Fault and two associated fault traces, each of which has an established Alquist Priolo Fault Zone around them. State law requires setbacks around such faults so there is no potential for new construction in these areas under the proposed plan. Additionally, the proposed plan contains policies and programs that require the City to regulate and prohibit new development in these zones	None required.	Less-than-significant.
8.3-2: Strong Seismic Ground Shaking. The Planning Area is located within a region of high seismicity and is likely to experience strong ground shaking during the time horizon of the proposed plan. Policies and programs are contained in the proposed plan that require the City to map high risk geologic hazard areas, prohibit new critical facilities in mapped geologic hazard areas, and adopt guidelines for evaluating and mitigating geologic hazards. Additionally, applying the current California Building Standards Code requirements for site investigations, design, and construction will reduce these impacts to less than significant.	None required.	Less-than-significant.
8.3-3: Landslides. Development and land use in the Planning Area will likely expose people and property to landslides when it occurs at the periphery of the Planning Area on steep, less stable, slopes. The proposed plan contains policies and programs that require the City to map high risk geologic hazard areas including landslide areas, prohibit new critical facilities in mapped geologic hazard areas, and adopt guidelines for evaluating and mitigating geologic hazards. Additionally, applying the current California Building Standards Code design requirements to new development will reduce the potential risk for damage associated with landslides to less than significant.	None required.	Less-than-significant.
8.3-4: Liquefaction, Lateral Spreading, Subsidence and Expansive Soils. The Eel	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
River Valley is underlain by the Hookton Formation that includes coastal plain and fluvial deposits and the western two-thirds of the Planning Area overlays this formation. Given the unconsolidated nature of this formation and its proximity to the Eel and Van Duzen rivers this portion of the Planning Area is subject to varying levels of liquefaction, lateral spreading, subsidence, and expansive soils. The proposed General Plan contains policies and programs designed to mitigate these potential hazards. Implementation of these programs and policies, and compliance with the California Building Standards Code, will reduce the potential risks from these hazards to less than significant.		
Cumulative. Geologic and seismic impacts are site specific rather than cumulatively induced. The increase in population resulting from implementation of the proposed plan and cumulative development will increase the number of people and structures exposed to geologic and seismic hazards. However, development in the region is subject to the State’s Alquist Priolo Fault Zone and Uniform Building Code requirements that serve to mitigate fault rupture, seismic, and soils hazards, and with local regulations that mitigate landslide hazards.	None required.	Less-than-significant.
8.4 Human-Made Hazards and Emergency Response		
8.4-1: Emergency Response and Evacuation Plans. New development facilitated by the proposed General Plan will increase the demand for emergency response and evacuation planning. The proposed plan contains 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. Implementing these policies and programs, in conjunction with the County’s Emergency Operations Plan, will reduce the potential impacts to less than significant.	None required.	Less-than-significant.
8.4-2: Release of Hazardous Materials. Development activities allowed under the proposed plan could result in the release of hazardous materials associated with the routine transport, use and storage of hazardous materials; upset and accident conditions involving the release of hazardous materials; and disturbance of listed hazardous materials sites and asbestos-containing structures. The proposed Land Use Diagram permits new agricultural, residential, commercial, and industrial activity that may routinely transport, use, and store hazardous materials. While heavily regulated, a certain amount of risk from spills, leaks, accidents, or improper use exists. However, the proposed plan contains policies and programs that would reduce such risks to less-than-significant levels.	None required.	Less-than-significant.
8.4-3: Emission or Handling of Hazardous Materials Near Schools. The proposed plan does not include proposals for new school sites or hazardous materials facilities, but	None required.	Less-than-significant.

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
General Plan implementation could permit uses that emit hazardous materials within one-quarter mile of existing schools. Policies and programs are proposed that would avoid any related hazards to schools. Additionally, school districts are required to locate new schools more than a quarter mile from hazardous materials facilities, reducing the potential for future exposure at schools to less than significant.		
8.4-4: Airport Hazards Associated With Incompatible Land Use. 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. However, the proposed plan includes policies and programs designed to ensure that development within Compatibility Zones is limited to that permitted within each zone by the Humboldt County Airport Land Use Compatibility Plan. Therefore, the proposed plan will not result in a safety hazard for people residing or working around the Airport.	None required.	Less-than-significant.
8.4-5: Airport Hazards Associated With Changes in Flight Patterns. 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. The increase in population at buildout facilitated by the proposed plan will result in a very small number of additional flights at both airports and is insufficient to warrant changes in the facilities and operating plans of both.	None required.	Less-than-significant.
Cumulative. Under cumulative conditions, development in the communities around Fortuna could have implications for emergency response and evacuation planning. It may also present a hazardous materials/waste exposure hazard. However, there are substantial existing regulations in place that require emergency response and evacuation planning and which protect public health and safety from hazardous materials/waste exposure. By complying with these hazardous materials regulations and requirements, cumulative development will not be inconsistent with emergency response and evacuation plans, will not expose hazardous materials to the public or environment through either routine use or accidental release, and will not handle or emit hazardous materials within one-quarter mile of schools.	None required.	Less-than-significant.
8.5 Flooding		
8.5-1: Place Housing or Other Structures Within a 100-Year Flood Hazard Area. The Planning Area contains lands located within 100-year Flood Hazard Areas as mapped by FEMA. The proposed designation of lands within Flood Hazard Areas for urban development could expose such development, and the associated resident and non-	<i>Mitigation Measure 8.5-1a:</i> Add a new Fortuna City Code requirement as follows: Regulating Land Uses in the 100-Year Floodplain. ALL buildings constructed within	Less-than-significant.

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>resident populations, to flooding during 100-year storm events. Implementation of the proposed policies will not completely eliminate the hazard because they do not require that ALL new structures within these areas to be elevated above the Base Flood Elevation as required by FEMA.</p>	<p>the 100-year floodplain (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated by the FEMA FIRM maps) shall be elevated so that the lowest floor is at or above the Base Flood Elevation level.</p>	
<p>8.5-2: Place Structures Within a 100-Year Flood Hazard Area That Could Impede or Redirect Flood Flows. Several factors and proposed policies and programs minimize the potential for the impeding or redirecting flood waters under the proposed plan: approximately two-thirds of the floodplain area are designated as Agriculture, and thus will remain largely undeveloped; new development must be evaluated to determine whether it would alter FEMA flood zone designations; and projects that do are prohibited under the proposed plan. Even with these policies in place, FEMA has identified an additional measure required to ensure that the proposed plan does not significantly impede or redirect flood flows within a flood hazard area. Without implementation of this additional measure, the impact will be significant. 8.5-2: <i>Continued.</i></p>	<p><i>Mitigation Measure 8.5-2a:</i> Add a new Fortuna City Code requirement as follows: Maintenance of Base Flood Elevation Levels Within the 100-year Floodplain. If proposed development is located within a 100-year floodplain as delineated in the FEMA FIRM maps, a hydrologic and hydraulic analysis shall be performed prior to development that demonstrates that the development will not increase Base Flood Elevation levels within the floodplain – no rise is permitted within the 100-year floodplain. The analysis may be combined with the Drainage Study required by Policy PFS-5.14, and with the Flood Hazards Study required by Policy HS-7.8, of the City of Fortuna General Plan 2030.</p>	<p>Less-than-significant.</p>
<p>8.5-3: Flooding -- Expose People or Structures to a Significant Risk Involving Flooding, Including as a Result of Levee Failure. Portions of the Planning Area are partially protected from flooding by the Sandy Prairie Levee which provides a moderate amount of protection against major floods, but has experienced damage and breaches in the past. Sudden failure of this levee could potentially cause flooding within the portions of the Planning Area. Both FEMA and the California Government Code require the periodic inspection and certification of levees. In addition, policies and programs contained in the proposed plan will minimize the risk of flooding. Therefore, the potential for levee-related flooding would be less than significant.</p>	<p>None required.</p>	<p>Less-than-significant.</p>
<p>Cumulative. Under cumulative conditions, new development in the communities around Fortuna could place housing within a 100-year flood hazard area, place structures within a 100-year flood hazard area that could impede or redirect flood flows, and/or expose people or structures to significant flood risk, including flooding resulting from levee failure. However, assuming that Humboldt County and the cities of Rio Dell and</p>	<p>None required.</p>	<p>Less-than-significant.</p>

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
Ferndale implement requirements similar to those proposed under the Fortuna General Plan Update, a logical assumption given federal, state, and local flooding regulations, significant cumulative flooding impacts would be avoided.		
8.6 Wildland Fire		
<p>8.6-1: Increase Exposure to Wildland Fires. Under the proposed plan, some non-urban portions of the Planning Area will be designated for urban uses. These land use changes will facilitate the development of urban uses in State Responsibility Areas identified by CAL FIRE as having moderate to high fire severity hazard. The proposed plan will increase the exposure of people and structures to a 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. Policies and programs contained in the proposed plan to reduce the wildland fire hazard include adopting the County’s Fire Safe Regulations, submitting plans for large development projects to CAL FIRE for review, and educating residents living in the urban wildland interface on ways to reduce the wildland fire risk. Complying with these policies will reduce the wildland fire hazard. However, implementation of these policies will not completely eliminate the wildland fire hazard. Without specifying the fire safe standards to be implemented, the impact will be significant.</p>	<p><i>Mitigation Measure 8.6-1a:</i> Add a new ordinance requirement in the Fortuna City Code as follows: Fire Safe Regulations. New subdivisions proposed within SRA areas of the City shall comply with the emergency access, emergency water (fire flow), and defensible space standards set forth in the Humboldt County Fire Safe Regulations (Title III, Division 11, Chapter 1, §3111 of the Humboldt County Code). These standards include, but shall not necessarily be limited to, the following:</p> <ul style="list-style-type: none"> • Roads shall be constructed to Road Category 4 road standard for traveled way (18-20 feet) for subdivisions of greater than eight (8) parcels. • The surface of all roadways shall provide unobstructed access to conventional drive vehicles, including sedans and fire engines. • The grade for all roads, streets and private lanes shall conform to the standards for Road Category 4. No roadway grade in excess of 16 percent shall be permitted unless it has been demonstrated to be in conformance with the County Roadway Design Manual. • Roadway radii shall conform to Road Category 4 standards. No roadway 	Less-than-significant.

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>8.6-1 continued</p>	<p>shall have a horizontal inside radius of curvature of less than 50 feet unless in conformance with the County Roadway Design Manual.</p> <ul style="list-style-type: none"> • Additional surface width of four (4) feet shall be added to curves of 50-100 feet radius, and two (2) feet to those from 100-200 feet. • Turnarounds are required on driveways and dead-end roads, with a minimum turning radius of 40 feet from the center line of the road. If a hammerhead T is used, the top of the “T” shall be a minimum of 60 feet. • The maximum length of dead-end roads, including dead-ends roads accessed from a dead-end road, shall not exceed between 800 and 7500 feet, depending on zoning. • Visible/legible street signs shall be provided on all new streets, and buildings shall be posted with proper address numbers. • Emergency water for wildland fire protection shall be available and accessible in quantities and locations specified by CAL FIRE’s and the County’s Fire Safe regulations, and shall be available on-site prior to completion of building construction. • Fire water delivery systems shall meet the emergency water supply size and 	

**Table ES-1
Summary of Impacts and Mitigation Measures**

Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
<p>8.6-1 continued</p>	<p>pressure requirements of the National Fire Protection Association.</p> <ul style="list-style-type: none"> • Fuel modification and greenbelts shall provide (1) increased safety for emergency fire equipment and evacuating civilians; and (2) a point of attack or defense from a wildfire. • Defensible space, as defined by PRC §429, of at least 100 feet in width shall be maintained around buildings and structures. • All parcels one (1) acre and larger shall provide a minimum 100 foot setback for buildings and accessory buildings from all property lines and/or the center of a road, with certain exceptions. • For parcels less than one (1) acre, the same practical effect of the 100 foot setback shall be provided through any combination of provision of a community water system meeting the requirements specified by these regulations, establishment of a County Service Area or other acceptable district or association to provide maintenance of defensible space including vegetation modification, use of non-combustible or fire-resistive building materials or installation of sprinklers within buildings, development of greenbelts around the subdivision, etc. • Subdivisions that propose greenbelts 	

Table ES-1 Summary of Impacts and Mitigation Measures		
Potential Impact	Mitigation Measures	Level of Significance (after mitigation)
	shall locate the greenbelts as a separation between wildland fuels and proposed structures.	
<p>Cumulative. Under cumulative conditions, new development in those portions of the communities around Fortuna located within a SRA will be subject to CAL FIRE and Humboldt County Fire Safe Regulations. These regulations have been formulated to avoid significant exposure to wildfires, thus cumulative development in Carlotta and Hydesville will not expose additional persons and property to wildland fire hazards. However, the incorporated cities of Rio Dell and Fortuna do not require CAL FIRE and Humboldt County Fire Safe Regulations within their incorporated boundaries. Because the incorporated boundaries of these two cities contain wildland areas that are subject to wildland fires, future development in these areas could expose additional population and development to wildland fires. The proposed plan will not contribute to this exposure hazard because the proposed policies and programs implement of the referenced Fire Safe Regulations. Therefore, a less-than-significant cumulative impact will occur.</p>	None required.	Less-than-significant.
<p><i>Source: Planwest Partners, May, 2010.</i></p>		