

## CHAPTER 10

# CUMULATIVE IMPACTS

This section evaluates the combined impacts of buildout under the proposed Fortuna General Plan 2030 (proposed plan) and development of nearby jurisdictions under their respective plans (e.g., Humboldt County, Cities of Rio Dell and Ferndale). The cumulative impact analysis in this chapter evaluates presumed conditions in 2030.

### 10.1 INTRODUCTION

CEQA Guidelines require a discussion of the cumulative impacts resulting from a proposed plan. Per CEQA Guidelines §15065(3), “cumulative impacts” refer to possible environmental effects that may be limited individually but when viewed cumulatively become considerable.

“Cumulative considerable” means that the incremental effects of an individual project become significant when viewed in connection with the effect of past projects, the effects of other current projects, and the effects of probable future projects.

CEQA Guidelines §15130(b) indicates that the cumulative impact discussion need not be as detailed as the project impact discussion, but should reflect the severity of the cumulative impacts and their likelihood of occurrence. In addition, §15130(b) identifies the following four elements that are necessary for adequate cumulative impact analysis:

- 1) Either: (a) list of past, present, and probable future projects producing related or cumulative impacts, or (b) a summary of projections contained in an adopted general plan;
- 2) A definition of the geographic scope of the area affected by the cumulative effect and a reasonable explanation for the geographic limitation used;
- 3) A summary of the expected environmental effects to be produced by those projects, with reference to additional information stating where that information is available; and
- 4) A reasonable analysis of the cumulative impacts of the relevant projects, and identification of reasonable, feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects.

Cumulative impacts refer to two or more individual effects that, when considered together, create a significant environmental impact, or that compound (increase) other environmental impacts. Cumulative impacts can result from individually minor, but collectively significant projects taking place simultaneously or over time. By requiring an evaluation of cumulative impacts, CEQA attempts to identify environmental impacts that might be overlooked or ignored through to the project-by-project nature of the project-level analyses contained in EIRs. If a significant cumulative impact is identified, this EIR identifies whether the proposed plan would contribute to this impact.

## 10.2 CUMULATIVE SETTING

A summary of projections contained in adopted land use plans (e.g., planning method) has been used to analyze the cumulative impacts in this PEIR. For the more localized cumulative impacts (such as visual resources and noise), the cumulative setting is based on the existing land use plans of the cities and unincorporated communities within the vicinity of the Planning Area, including the Rio Dell General Plan (2015), Ferndale General Plan (1986), and Humboldt County's Fortuna Area Community Plan (2002) and Carlotta/Hydesville Area Plan (1985; see Figure 10-1). For the more regional cumulative impacts (such as population, housing, economic impacts, traffic and air quality), the cumulative setting is based on the Humboldt County Framework Plan (1984), population projections for the County as a whole (both incorporated and unincorporated areas), and/or regional plans such as the Humboldt County Regional Transportation Plan (2006) and North Coast Unified Air Quality Management Plan (1995).

It should be noted that Humboldt County, and the City of Rio Dell, are currently updating their General Plans. In order to comply with CEQA Section 15130(a)(1)(B) the adopted plans, rather than draft plans, were used for the cumulative impact setting and analysis.

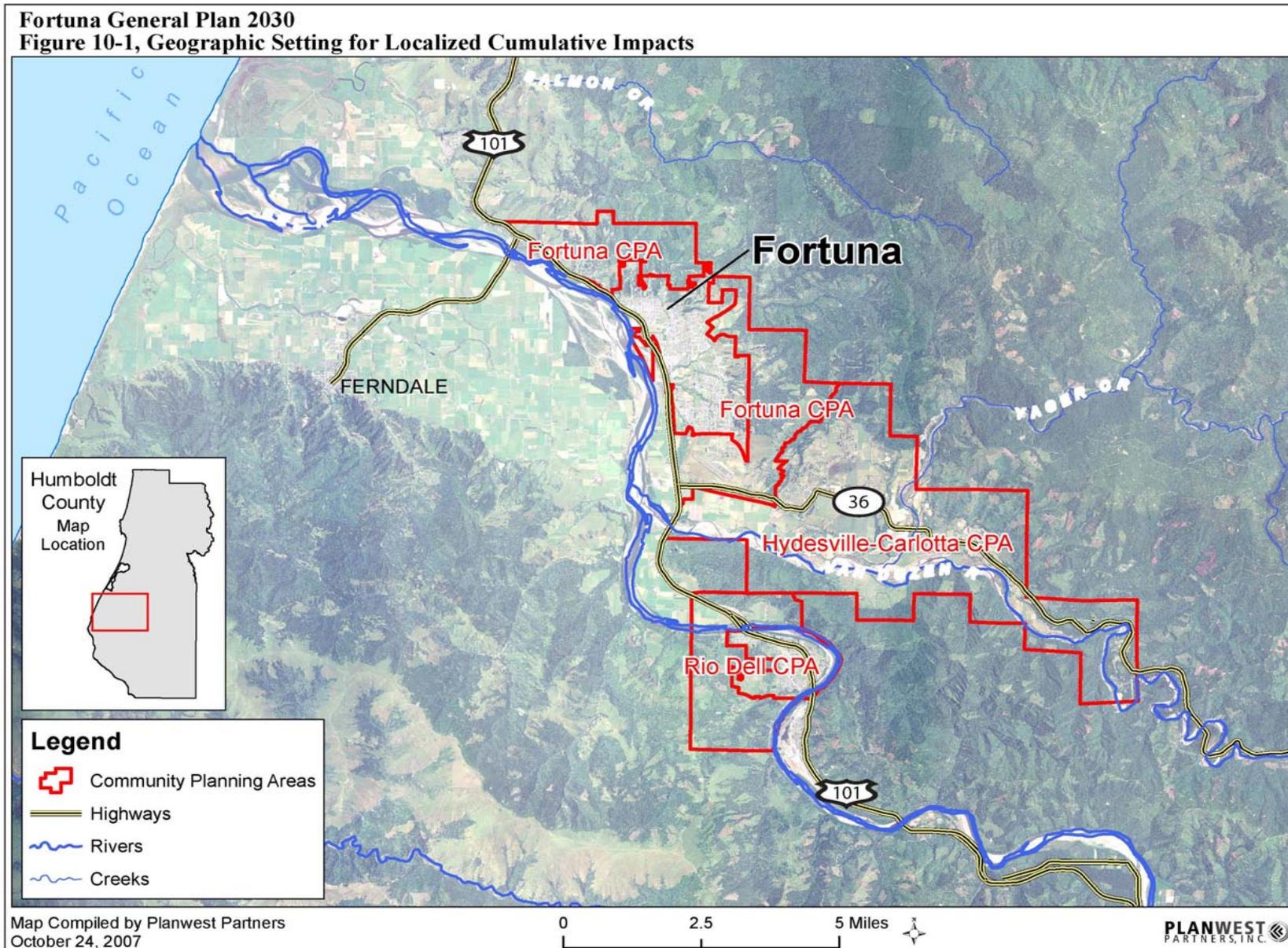
### Rio Dell General Plan

The Rio Dell planning areas consists of 1,438 acres, not including some recent annexations. The City is bordered on the north and east by the Eel River and the south by Dean Creek. The planning area is mainly comprised of rural (570 acres) and urban residential (332 acres) land uses. Permitted uses on lands designated as rural include agriculture, commercial, and residential use. Other land uses for the Rio Dell planning area include suburban (119 acres), suburban residential (15 acres), town center (48 acres), neighborhood commercial (6 acres), community commercial (33 acres), and public facility (50 acres).

The PEIR for the 2015 Rio Dell General Plan projects a total of 16,462 residents at full build out. In order to project the population growth for the Rio Dell plan area through the year 2030, the historical change in population (5.4%) between the years 1990 and 2000 was obtained from the *Humboldt County 2025 General Plan Update Building Communities Report* (Dyett and Bhatia, 2007). An average annual growth rate was applied to population projections contained in the Rio Dell General Plan through the year 2030. Based on this methodology, the Rio Dell planning area population is expected to grow to 3,948 by 2030.

### Ferndale General Plan

For the cumulative impact setting, Ferndale's Planning Area (e.g., incorporated City and Sphere of Influence or SOI) is used as a basis of analysis. The unincorporated territory includes coastal agricultural lands, the Francis Creek watershed and upland timber grazing land. This adjacent territory was included, as it bears a relationship to long term planning for the City of Ferndale -- most notably, for providing the city's drinking water. Its lands have the potential to create sedimentation resulting from soil erosion and landslide activity, leading to an increase in the frequency and intensity of downstream flooding.



The 1986 Ferndale General Plan does not include acreage totals for the various planning area land use designations. The Land Use map consists primarily of land designated for residential, agricultural and public facility use. In addition, the General Plan does not include projected population numbers, but does include the total population in 2004. In order to project the population growth for the Ferndale plan area through the year 2030, the historical change in population (3.8%) between the years 1990 and 2000 was obtained from the *Humboldt County 2025 General Plan Update Building Communities Report* (Dyett and Bhatia, 2007).

The percent change for the ten year time period equates to an average annual growth rate of 0.38%. That growth rate was applied to population projections contained in the Ferndale General Plan through the year 2030. Based on this methodology, the Ferndale Planning Area population is expected to grow by 149 residents for a total of 1,543 residents in 2030. However, it should be noted that Ferndale's population was reduced by 27 residents between 2000 and 2004.

The Ferndale General Plan was written to encourage the following a small town living environment: sense of community cohesiveness; balanced use of economic and residential community resources; the Victorian architectural heritage; maximum reliance on local decision-making; and maintenance of the agricultural economic base of the community.

### **Humboldt County General Plan - Fortuna Area Community Plan**

The 2002 Fortuna Area Community Plan covers about eight square miles (5,200 acres) of unincorporated land surrounding the City of Fortuna, including Fortuna's existing SOI and the proposed Planning Area expansion between SR 36 and the Van Duzen River. The Community Plan area's principle land uses are timber production (1,362 acres), agriculture (1,750 acres) and residential development (401 acres). Other land uses include commercial general (4 acres), commercial services (3 acres), industrial general (220 acres), industrial resource related (51 acres), public facility (169 acres) and commercial recreation, primarily in the form of campgrounds and related uses (151 acres).

The Community Plan projected a total of 1,500 residents by 2000. In order to project the population growth for the Community Plan area through the year 2030, the historical change in population (19.4%) between the years 1990 and 2000 was obtained from the *Humboldt County 2025 General Plan Update Building Communities Report* (Dyett & Bhatia, 2007). The percent change for the ten year time period equates to an average annual growth rate of 1.94%. That was then applied to the population projections through the year 2030. Based on this methodology, the Fortuna Community Plan area is projected to have 4,221 residents by 2030.

The Fortuna Area Community Plan is aimed at:

- Maintaining the present level of resource protection for timberlands and providing some additional protections for agricultural lands within an urban environment;
- Reserving land suitable for industrial development;
- Precluding and/or limiting residential development in high hazard areas (flooding, unstable slopes and immediate vicinity of Rohnerville airport);

- Directing residential development to existing urbanized areas and smaller pockets on the fringe of the city, in close proximity to potential urban services;
- Providing an ample supply and variety of housing;
- Providing levels of development that maintain the rural atmosphere;
- Establishing maximum residential development, based on the absence of public water and sewer systems with the planning area; and
- Establishing boundaries as the basis for programming eventual provision of appropriate levels and types of urban services.

This plan promotes the protection of productive agricultural and timberlands and the concentration of new residential development around existing communities. By focusing development near existing communities, rural areas can be retained in resource production uses.

### **Humboldt County General Plan - Carlotta /Hydesville Area Community Plan**

The 1985 Carlotta/Hydesville Community Plan area covers the lower reaches of the Van Duzen River Valley. The Community Plan area is almost seventeen square miles in size and includes the communities of Carlotta, Hydesville, a small residential community at Riverside Acres and the Starvation Flats settlement on the Van Duzen River. The Community Plan area's rural portions consist primarily of timber and agricultural lands. Rural homesites, on parcels generally ranging from 1-5+ acres, are mostly concentrated within or close to the existing communities.

The Community Plan area's principle land uses are timber production (4,641 acres), agriculture (5,911 acres) and residential (293 acres). Other land uses are commercial general (29 acres), industrial general (108 acres), industrial resource related (54 acres), and public facility (24 acres). The Community Plan projected a total of 1,565 residents by 2000. In order to project the population growth for the Community Plan area through the year 2030, the historical change in population (4.7%) between the years 1990 and 2000 was obtained from the *Humboldt County 2025 General Plan Update Building Communities Report* (Dyett and Bhatia, 2007). The percent change for the ten year time period equates to an average annual growth rate or .47%. That was applied to population projections contained in the Carlotta/Hydesville Community Plan through the year 2030. Based on this methodology, the Carlotta/Hydesville Community planning area is projected to have 1,810 residents in 2030.

The Carlotta/Hydesville Community Plans major proposals and underlying principles include:

- Maintaining the present level of resource protection for timberlands and providing additional zoning protection for agricultural lands on the Van Duzen River flood plain and the Yager Creek Valley;
- Reserving additional land suitable for industrial development in the vicinity of the existing lumber mills along Yager Creek;
- Precluding and/or limiting the extent of additional residential development in high hazard areas (flooding and geologic fault rupture corridors);

- Directing residential development to existing urbanizing areas; providing for adequate housing sites for the area's future growth;
- Planning residential densities in Hydesville to be compatible with the continued use of on-site wastewater disposal systems; and
- Planning residential densities in Carlotta to be compatible with the continued use of individual water systems and on-site wastewater disposal systems.

## **Humboldt County General Plan – Framework Plan**

The 1984 Humboldt County General Plan (Framework Plan) covers the entire unincorporated portion of the County, including the areas both within and outside the Community Plan areas. According to the *Humboldt County 2025 General Plan Update Building Communities Report*, the year 2000 population of the unincorporated portions of the County was 67,242, and this population is projected to grow to 77,150 by 2025 (Dyette and Bhatia 2007).

Using the historical annual change in unincorporated population of 0.55% between 1980 and 2000 identified in the *Building Communities Report*, the County's unincorporated population is projected to increase to 79,272 by 2030.

The Framework Plan emphasizes the conservation and development of rural areas, the protection of productive agricultural and timberlands, and the concentration of new residential development around existing communities. By focusing development near existing communities, one of the goals of the Framework Plan is to retain rural areas of the County in resource production uses.

## **Humboldt County County-wide Population Projections**

Population projections for Humboldt County as a whole (e.g., both incorporated and unincorporated areas) are included in the *Humboldt County 2025 General Plan Update Building Communities Report* (Dyett and Bhatia 2007). The Report indicates that the County's total year 2000 population was 126,500, and that this is projected to grow to 143,100 by 2025. Based on the historical annual change in County-wide population of 1.4% between 1980 and 2000 identified in the *Building Communities Report*, the County-wide population is projected to increase to 153,400 by 2030.

## **Humboldt County Regional Transportation Plan**

The 2008 Humboldt County Regional Transportation Plan (RTP) is a long range (to 2030) planning document developed by the Humboldt County Association of Governments (HCAOG). HCAOG is the Regional Transportation Planning Agency (RTPA) for Humboldt County. Its member entities include Humboldt County and its incorporated cities. HCAOG prepared the RTP to comply with the California Transportation Commission's (CTC) adopted RTP Guidelines. The RTP: (1) provides detailed information regarding the current conditions of the regional transportation system in the County and identifies future transportation needs; (2) includes regional policies, objectives, and performance measures to promote an efficient and equitable transportation infrastructure; (3) includes programmed and recommended

transportation improvements; (4) includes updated funding program information and a funding strategy for financing future transportation improvements; and (5) demonstrates the region's ability to maintain its air quality attainment status. RTP goals include maintaining the existing transportation system, providing adequate capacity in the system to accommodate projected growth, and encouraging alternative modes of transportation (HCAOG 2009).

### **North Coast Unified Air Quality Management Plan**

The North Coast Unified Air Quality Management District (NCUAQMD) is the regional agency empowered to regulate air pollution emissions within North Coast Air Basin (NCAB) that covers Humboldt County and surrounding counties. NCUAQMD operates air quality monitoring stations that provide information on ambient concentrations of criteria air pollutants in the NCAB, and has identified criteria pollutant significance thresholds for new development in the NCAB. Because the NCAB is in non-attainment for PM<sub>10</sub>, NCUAQMD has: (1) adopted Rule 430 to control fugitive dust emissions through required implementation of dust control measures during construction and operation; and (2) prepared a PM<sub>10</sub> Attainment Plan that identifies cost-effective control measures that can be implemented to bring PM<sub>10</sub> levels down to the California standards, including transportation control measures (public transit, ridesharing, vehicle buyback program, traffic flow improvements, bicycle incentives, etc.), land use measures to reduce reliance on automobiles, and open burning limitations. The above represents the NCUAQMD's Air Quality Management Plan.

## **10.3 CUMULATIVE IMPACT ANALYSIS**

The following subsections evaluate the cumulative impacts of implementing the proposed plan in combination with cumulative development projected to occur in the region during the time horizon of the proposed plan (e.g., 2010-2030). The significance thresholds applied in the analyses that follow are the same as those set forth in the respective sections of Chapter 3 through 8 of this PEIR. They are not restated here for purposes of brevity and conciseness.

### **Land Use**

Discussion: PEIR Section 3.1 found that the proposed plan will result in a potentially significant but mitigable land use impact by creating potential inconsistencies between Fortuna's proposed Land Use Diagram and the City's existing zoning map. The mitigation identified in Section 3.1 requires the City to start revising its Zoning Ordinance and zoning map within three months of proposed plan adoption to make zoning consistent with the new Land Use Diagram. Assuming that Humboldt County and the cities of Rio Dell and Ferndale were to implement similar requirements to those proposed under the Fortuna General Plan Update, which is logical given State law requiring General Plan and zoning consistency, significant cumulative inconsistencies would be avoided.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

Discussion: PEIR Section 3.1 also found that the proposed plan will result in a significant unavoidable land use impact by creating inconsistencies with Humboldt County's existing land use designations and zoning in currently unincorporated portions of the Planning Area. This is due largely to the proposed intensification of uses in Fortuna's SOI above levels permitted by existing County land use designations and zoning. Such inconsistencies could potentially occur at such time as the cities of Rio Dell and Ferndale complete General Plan updates. No mitigation is available to avoid such an impact, short of not permitting annexations and up-designations that are infeasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential inconsistencies with California law and LAFCo guidelines, potential to interfere with the ability of the County and cities to meet their share of regional housing needs).

Mitigation Measures: No feasible mitigation available.

Significance Conclusion: Significant unavoidable cumulative impact.

## **Housing and Population**

Discussion: PEIR Section 3.2 found that the proposed plan will result in significant unavoidable population and housing impacts by indirectly inducing substantial population growth, mainly through up-designating land that would facilitate substantial additional development and population. If Humboldt County and the cities of Rio Dell and Ferndale were to approve new large-scale General Plan Amendments associated either with proposed new development projects or General Plan updates, they too would indirectly induce substantial population. No mitigation is available to avoid such an impact, short of not permitting General Plan amendments which would up-designate large areas which is infeasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential to interfere with the ability of the County and cities to meet their share of regional housing needs, including affordable housing needs, etc.).

Mitigation Measures: No feasible mitigation available.

Significance Conclusion: Significant unavoidable cumulative impact.

## **Transportation and Circulation**

An operational analysis of the primary roadways and intersections in the City of Fortuna Planning Area is provided in Section 4.1 of this PEIR. As indicated, future development under the proposed plan would increase traffic on the local roadway and highway system. However, this traffic would not result in significant cumulative traffic impacts. This is 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 (<http://www.hcaog.net/docs/RTP.2006/>).

An analysis of the proposed plan's impacts on bicycle, pedestrian, and public transportation facilities is provided in Sections 4.2 and 4.3 of this PEIR. As indicated, future development under the proposed would increase the demand for bicycle, pedestrian and public transportation

facilities in the City. However, this increase in demand would not contribute to any significant cumulative demand for such facilities. This is because the proposed plan contains a substantial number of policies and programs (listed in Sections 4.2 and 4.3 of this PEIR) designed to ensure that new development permitted under the proposed plan is accompanied by the development of new or expanded bikeway, pedestrian and mass transit facilities required to serve it.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## Hydrology and Water Resources

Discussion: 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. PEIR Section 5.1 found that, with implementation of the proposed hydrology and water quality policies and programs listed in Section 5.1, the proposed plan would result in: (1) less-than-significant groundwater impacts; (2) less-than-significant water quality impacts associated with runoff; and (3) less-than-significant water quality impacts associated with increased discharges of treated wastewater to the Eel River.

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. This could further degrade water quality; especially the water quality of the Eel River given the river's impaired status. 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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## Biological Resources

Discussion: A CNDDDB database search revealed that there special status plant and animal species are known to occur in the Fortuna Planning Area, and that additional special status plant and animal species occur in the USGS quadrangle that the Planning Area is located in and thus have the potential to occur in the Planning Area (see PEIR Section 5.2 for listing). The CNDDDB also indicated that several Sensitive Natural Communities occur in the vicinity of the Planning Area, while the U.S. Department of Interior's National Wetland Inventory indicates that approximately 30 jurisdictional wetlands occur in the Planning Area. It can thus be assumed that special status species, Sensitive Natural Communities, and jurisdictional wetlands occur within the larger geographic area as well.

The California Department of Fish and Game (CDFG) is mandated to review projects subject to CEQA which have the potential to affect special-status species and their habitat, and to identify mitigation measures required to avoid or reduce significant impacts to these resources. As indicated in PEIR Section 5.2, with implementation of the substantial number of policies and programs proposed under the Fortuna General Plan Update, the proposed plan 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 (that could potentially impact sensitive fish or terrestrial wildlife species) 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.

#### Mitigation Measures:

*Mitigation Measure 10-1:* 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 CNNDDB 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.

Significance Conclusion: Significant unavoidable cumulative impact (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 a significant cumulative loss of sensitive species habitat in the Eel River Valley).

## **Agricultural and Timber Resources**

Discussion: PEIR Section 5.3 found that the proposed plan will designate 634 acres for agricultural use but will also re-designate 289 acres of prime farmland to non-agricultural uses. This will represent a significant unavoidable conversion of prime farmland to non-agricultural use and a significant unavoidable conflict with existing agricultural zoning, even after implementing proposed policies and programs designed to minimize conversion (i.e., adoption of a "right-to-farm" ordinance and Humboldt County farmland protection standards, emphasis on infill development, requiring clustering to preserve farmland).

The Carlotta/Hydesville Community Plan designates 5,911 acres for agricultural use, and the Ferndale and Rio Dell General Plans designate small areas for agricultural use. In addition, these jurisdictions 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. Furthermore, the proposed plan will contribute to this cumulative conversion of prime farmland.

No mitigation is available to avoid such cumulative conversion, short of not permitting conversions and general plan amendments; an action that is infeasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential to interfere with the ability of the County and cities to meet their share of regional housing needs).

Several NOP comments indicated that agricultural easements should be sought by Fortuna and, by extension, Humboldt County and other cities within the County to mitigate for the loss of prime farmland. For several reasons, requiring agricultural easements as mitigation is both infeasible and inappropriate. First, it is economically infeasible for the cities of Fortuna, Rio Dell and Ferndale to acquire large agricultural easements, especially given the small size of these rural communities and the current economically-depressed environment. Second, the prime farmland in question is located either in incorporated cities or within a County community planning area; an indication that the cities and County have deemed these areas appropriate for urban development. Finally, agricultural easements do not represent mitigation for the loss of prime farmland because they do not result in new (replacement) prime farmland (i.e., they only protect existing prime farmland).

#### Mitigation Measures:

*Mitigation Measure 10-2:* 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 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.

Significance Conclusion: Significant unavoidable cumulative impact (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 a significant cumulative loss of prime farmland in the Eel River Valley).

Discussion: PEIR Section 5.3 found that, while the proposed plan will preserve the majority of existing timberland within the Planning Area, approximately 290 acres of existing timberland will be designated for urban use. This represents a significant unavoidable conversion of timberland to non-timber use.

The Carlotta/Hydesville Community Plan designates 4,641 acres for timber use, and the Ferndale and Rio Dell General Plans designate large areas within their SOIs for timber use. Also, 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.

No mitigation is available to avoid such cumulative conversion, short of not permitting conversions and general plan amendments. This is infeasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential to interfere with the ability of the County and cities to meet their share of regional housing needs).

Mitigation Measures: Implement Mitigation Measure 10-2.

Significance Conclusion: Significant unavoidable cumulative impact (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 a significant cumulative loss of timberland in the Eel River Valley).

## **Cultural Resources**

Discussion: PEIR Section 5.4 found that 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. These policies and programs, listed in Section 5.4, include but are not limited to: requiring NCIC cultural resources record searches for proposed development over five acres, and cultural resources surveys and the implementation of required cultural resources mitigation where the records searches identify cultural resource sensitivity; requiring consultations with the applicable Native American groups where construction activities have the potential to impact cultural resources; suspension of construction activities and the performance of cultural resource evaluations where construction activities unearth potential cultural resources or human remains; performance of National and California Register eligibility evaluations where demolition of buildings 45 years of age or older is proposed, and implementation of Secretary of Interior Standards for the Treatment of Historic Properties where eligible structures are involved; and performance of paleontological investigations where development activities occur within soil or rock formations that have yielded paleontological resources in the past.

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 cultural resources requirements similar to those proposed under the Fortuna General Plan Update which, given federal and state cultural resources regulations is logical, significant cumulative cultural resources impacts will be avoided.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Mineral Resources**

Discussion: PEIR Section 5.5 found that 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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: No cumulative impact.

## **Visual Resources**

Discussion: 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.

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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## Parks, Recreation, and Open Space

Discussion: PEIR Section 6.1 found that the proposed plan will create demand for 67 additional acres of community parkland, increase the use of existing park and recreational facilities, and reduce the amount of open space in the Planning Area. However, Section 6.1 also found that implementing the proposed policies and programs listed in Section 6.1 will reduce these impacts to less-than-significant levels by ensuring that required parkland is provided through the adoption of Quimby Act-based park dedication requirements, that the City ensures adequate funding is available for park maintenance, and that access to open space is increased through new trail development, riparian corridors and access easements.

Under cumulative conditions, new development in the communities around Fortuna could increase the demand for parks, recreational facilities and open space. It is likely that the existing facilities and open space will be unable to accommodate the increased demand. However, the General Plan land use diagram of each jurisdiction designates land for new park facilities. These jurisdictions have plans for new trails to access the plentiful open space in the Eel River Valley, and both Humboldt County and Rio Dell have park dedication requirements for new development. Therefore, it is anticipated that adequate parks, recreational facilities and open space will be available to serve future cumulative development.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## Water Supply and Distribution

Discussion: PEIR Section 7.1 found that the proposed plan will result in less-than-significant water supply and distribution impacts, especially with the implementation of the proposed water conservation and water infrastructure policies/programs.

The communities around Fortuna will experience new development between 2010 and 2030 resulting in an increased demand for groundwater from the Eel River Groundwater Basin. The Basin covers an area of 115 square miles (73,700 acres), is one of the principal groundwater basins in Humboldt County, is recharged by both direct precipitation and seep from the Eel and Van Duzen Rivers, has an estimated capacity of 136,000 acre-feet, has a useable storage capacity and annual recharge rate of 100,000 acre-feet, and currently experiences annual groundwater extraction of 50,400 (DWR, 2004). While the proposed plan plus cumulative development in the Eel River Valley will result in an increase in demand for groundwater from the Basin: (1) the Basin has a substantial access capacity at the present time (e.g., annual recharge currently exceeds annual withdrawals by almost 50,000 acre feet per year); (2) the proposed plan will generate a demand for 1,676 acre feet of additional water which will represent less than 3.4% of the excess capacity of the Basin; and (3) because other cumulative development in the Basin during the time horizon of the proposed plan (e.g., to 2030) should be only a portion of that for Fortuna, it will consume at most a couple of percent more of the access capacity of the Basin. Also, SB 610 ties the approval of large development projects to the availability of adequate water supply to serve them, so new large subdivisions will not be approved in the Eel River Valley

without adequate water supply. For these reasons, adequate water supply exists to serve plan plus cumulative development.

Mitigation Measures: No mitigation required.

Significance Conclusion: Less-than-significant cumulative impact.

## **Wastewater Collection, Treatment, and Disposal**

Discussion: New development under the proposed plan will increase the quantity of wastewater requiring treatment in Fortuna's wastewater treatment plant (WWTP), and will increase the amount of storm water runoff and treated wastewater discharged to the Eel River. PEIR Section 7.2 noted that City discharges of treated wastewater and storm water occur under existing NPDES discharge permits, and that these permits have been formulated to comply with Basin Plan and river TMDLs and avoid water quality violations and degradation of the water quality of the Eel River. Policies and programs proposed under the proposed plan requires future discharges c to comply with the City's NPDES discharge permits and the Clean Water Act; new development to connect to the City's municipal wastewater and storm drain systems (thus avoiding unregulated discharges); and new large development projects to incorporate features (e.g., grassy swales, infiltration/sedimentation basins, etc.) and BMPs to improve runoff water quality. By complying with the City's NDPEs permits and implementing these policies/programs, Section 7.2 concluded that the proposed plan will not violate NCRWQCB wastewater treatment or discharge requirements.

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. The proposed plan will not contribute to such violations, so a less-than-significant cumulative impact will occur.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Storm Water Drainage**

Discussion: New development under the proposed plan will increase impervious surfaces and could alter existing drainage patterns within the Planning Area leading to increased erosion and siltation, and localized flooding. Increased storm water levels have the potential to exceed both the capacity of existing/planned storm drain facilities, and demand for new or expanded storm

drainage facilities. However, PEIR Section 7.3 found that, by complying with existing plans and permits (i.e., the City's NPDES permits, state SWPPP requirements, and the City's 2005 Storm Drainage Master Plan), reviewing proposed grading activities and flood control/drainage facilities, and implementing proposed storm drainage policies and programs listed in Section 7.3, the proposed plan will result in less-than-significant storm drainage and flooding impacts.

Proposed policies and programs include, but are not limited to: requirements for new development to connect to the City's municipal storm drain system; the development of storm drainage infrastructure to convey 25-year storm event runoff without on-site or downstream flooding; requirements for the use of storm water detention facilities to reduce peak flows; prohibiting grading during the rainy season without a Winterization Plan; requiring site-specific drainage studies for major developments; the incorporation of low impact development techniques; City adoption of a Storm Water and Flood Protection Ordinance and Post and Storm Water Quality Control Standards for New Development; and adopting no-build Streamside Management Area (SMA) buffers along all creeks and rivers.

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 proposed plan will not contribute to any such impacts.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Solid Waste**

Discussion: PEIR Section 7.4 found that buildout under the proposed plan will increase the City's solid waste by approximately 120%, and that adequate capacity exists as the Anderson Landfill. Section 7.4 also found that while the City does not currently meet its AB 939 solid waste stream diversion target of 50% (i.e., only at 34%), it has implemented curb-side recycling, green waste and construction waste diversion, and a composting program under a joint City-CIWMB Local Assistance Plan and C&D Diversion Program. This program, combined with the proposed solid waste policies and programs, will allow the City to meet its AB 939 waste diversion target. Therefore, the proposed plan will result in a less-than-significant solid waste impact.

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. However, the Anderson Landfill does not have sufficient

capacity to accommodate all solid waste generated in its service area over the 20 year time horizon of the proposed plan (i.e., through year 2030). Therefore, one or more new landfill sites will be required. It can be reasonably assumed that landfill space will be available to serve cumulative development even if it is located a considerable distance from the point of generation. Whether additional landfill space will be created locally (e.g., Humboldt or Trinity County) is highly speculative and outside the scope of the current PEIR (per State CEQA Guidelines §15145 which states that if after evaluation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact).

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Gas, Electricity and Communications**

Discussion: An analysis of gas, electric and communication facilities in the City of Fortuna Planning Area is provided in Section 7.5 of this PEIR. As indicated, future development under the proposed plan would increase electricity and 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 new development.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Law Enforcement and Fire Protection**

Discussion: PEIR Section 7.6 found that the proposed plan will create demand for new FPD police officers, new volunteer FVFD firefighters, and new FPD and FVFD station space. However, Section 7.6 also found that the increased tax revenues generated by development will finance the new police and fire protection personnel and station space required. At the same time, the proposed policies and programs listed in 7.6 will ensure that existing officer and firefighter service ratios are maintained, that mutual aid agreements with law enforcement and fire protection agencies are maintained and strengthened, and that new development will be subject to FPD and FVFD review and incorporates lighting, access and other features requested by these departments.

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, it is anticipated that adequate police and fire protection services will be available to serve cumulative development.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less than significant cumulative impact.

Discussion. The proposed plan along with cumulative development in the communities around Fortuna will create a demand for new police and fire station space to maintain acceptable service ratios, response times, and other performance objectives. Because no specific proposals for new or expanded fire police and fire station space are being made at this time, it is unknown whether construction and operation of such new space will cause significant cumulative environmental impacts. Not speculating with respect to potential environmental effects is encouraged under State CEQA Guidelines §15145 which states that if, after evaluation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## Schools

Discussion: PEIR Section 7.7 found that the additional development permitted under the proposed plan will allow for 1,718 new elementary school (K-5) students, 1,145 middle school (6-8) students, and 1,145 high school (9-12) students, and that these new students will create a demand for roughly 5 new elementary schools, four new middle schools, and one new high school within the Planning Area between 2010 and 2030. As set forth under California Education Code §17620, payment of the State-mandated school impact fees are legislatively deemed full mitigation for development impacts to schools. Payment of these fees by new development combined with the incremental increase in tax revenues associated with development will fund new school construction and service, and will mitigate the plan's impact on schools.

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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

Discussion. The proposed plan along with cumulative development in the communities around Fortuna will create a demand for new schools. Because no specific proposals for new schools are being made at this time, it is unknown whether construction and operation of such new schools will cause significant cumulative physical impacts (for example, localized traffic and noise impacts). Not speculating with respect to potential environmental effects is encouraged under State CEQA Guidelines §15145 which states that if, after evaluation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Air Quality**

Discussion: PEIR Section 8.1 found that the proposed plan will result in significant unavoidable impacts in terms of: (1) conflicting with or obstructing implementation of the NCUAQMD's PM<sub>10</sub> Attainment Plan (e.g., Air Quality Management Plan); (2) exceeding NCUAQMD criteria pollutant thresholds during both construction and operation; and (3) conflicting with the State goal of reducing GHG emissions under AB 32. These impacts will occur despite strong policies and programs proposed to reduce emissions, including: providing housing proximate to one of the County's employment centers (e.g., City of Fortuna); providing for mixed-use developments that reduce reliance on motor vehicle travel; requiring the City to adopt State and federal standards for EPA approved wood burning appliances; requiring construction at or above Title 24 energy efficiency standards; prohibiting outdoor burning of vegetation; minimizing the idling time of delivery trucks; coordinating with transit providers on extending transit service to new development; requiring the City to increase clean-fuel use, promote transit-oriented development (TOD), and promote alternative travel modes; requiring proposed major development projects to implement a range of standard construction, area source, and mobile source emission reduction measures during construction and operation; and requiring Fortuna to participate in regional air quality planning management. See Section 8.1 of this PEIR for a complete listing of proposed air quality policies and programs.

During the time horizon of the proposed plan (e.g., 2010-2030), cumulative development in the NCAB will increase substantially. For example, Humboldt County's population is projected to increase by nearly 27,000 persons between 2000 and 2030. Even with implementation of NCUAQMD's PM<sub>10</sub> 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 PM<sub>10</sub> 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.

No mitigation is available to avoid the above significant impacts short of severely restricting development and personal motor vehicle use, neither of which are considered feasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential to interfere with the ability of the County and cities to meet their share of regional housing needs, potential to severely restrict commerce).

Mitigation Measures:

*Mitigation Measure 10-3:* 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 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.

Significance Conclusion: Significant unavoidable cumulative impact (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 emissions of PM<sub>10</sub> and GHGs in the Eel River Valley).

## Noise

Discussion: PEIR Section 8.2 found that, by implementing the proposed noise policies and programs listed in Section 8.2, the proposed plan will result in less-than-significant impacts in terms of: (1) exposure of new noise-sensitive uses to existing excessive noise levels; (2) temporary or periodic increases in ambient noise levels; (3) permanent increases in stationary source noise levels; and (4) ground borne noise and vibration. Proposed policies and programs include, but are not limited to: requiring the City to 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<sub>dn</sub> at the exterior of residential uses); prohibiting new development that exceeds noise compatibility standards at either existing adjacent or proposed new noise-sensitive uses; requiring new uses that generate high noise levels or ground borne vibration to be separated or shielded from adjacent noise-sensitive uses; striving to limit exterior and interior noise levels in residential areas to 60 and 45 dBA CNEL, respectively; encouraging the use of berms, building setbacks, or both where noise-sensitive uses are proposed adjacent to major roads, commercial, or industrial uses; restricting construction

activities to specified hours; requiring new large development projects to have a noise study prepared that calculates future noise levels and identifies required mitigation; and enclosing proposed loading docks and HVAC systems and restricting loading dock hours.

Under cumulative conditions, new development in the communities around Fortuna has the potential to expose existing noise-sensitive uses to excessive noise, create additional construction, stationary source and instantaneous noise, and to create ground borne noise and vibration. 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. In addition, if Humboldt County and the cities of Rio Dell and Ferndale implement noise policies similar to those proposed under the Fortuna General Plan Update which, given that these jurisdictions have their own noise standards and noise mitigation requirements is logical, less-than-significant cumulative construction, stationary source, and instantaneous noise impacts, and less-than-significant cumulative ground born noise and vibration impacts, will occur.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant impact.

Discussion: PEIR Section 8.2 found that, even by implementing the proposed noise policies and programs summarized above, the proposed plan will result in a significant unavoidable impact in terms of permanent increases in mobile source noise levels. This will occur with increased traffic on area streets and highways and could result in mobile source noise levels, measured at adjacent noise-sensitive uses, above the recommended exterior State standard of 60 dBA  $L_{dn}$ .

Under cumulative conditions, new development in the communities around Fortuna will generate traffic on HWY 101, SR 36, Main Street, Fortuna Boulevard, Rohnerville Road, and other shared streets that could expose existing noise-sensitive uses along these highways and streets to mobile source noise above the recommended exterior State standard of 60 dBA  $L_{dn}$ . Implementing the proposed plan could contribute to such noise by generating increased traffic on these highways and streets.

No mitigation is available to avoid such an impact, short of not permitting new development. This would be infeasible for a variety of reasons (e.g., politically infeasible, potential for takings, potential inconsistencies with California law and LAFCo guidelines, potential to interfere with the ability of the County and cities to meet their share of regional housing needs).

Mitigation Measures: *Mitigation Measure 10-4:* 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 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.

**Significance Conclusion:** Significant unavoidable cumulative impact (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).

## Geologic and Seismic Hazards

**Discussion:** 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 (e.g., liquefaction, lateral spreading, subsidence and expansive soils) hazards, and with local regulations (i.e., construction limitations on steep slopes) that mitigate landslide hazards.

**Mitigation Measures:** No mitigation necessary.

**Significance Conclusion:** Less-than-significant cumulative impact.

## Human Made Hazards and Emergency Response

**Discussion:** PEIR Section 8.4 found that, by complying with existing regulations and implementing the proposed hazards policies and programs summarized below, the proposed plan will result in less-than-significant impacts in terms of: (1) consistency with emergency response and evacuation plans; (2) exposure of hazardous materials to the public or environment through either routine use or accidental release; and (3) emission or handling of hazardous materials within one-quarter mile of existing or proposed schools.

Existing applicable regulations include, but are not limited to: federal and State laws requiring the preparation of Emergency Response Plans (ERPs); Federal Water Pollution Control Act, Clean Air Act, Occupational Safety and Health Act, Resource Conservation and Recovery Act, Safe Drinking Water Act, and Toxic substance Control Act; federal NPDES permits and Storm Water Pollution Prevention Plan requirements; Cal/EPA, SWRCB, DTSC and OES hazardous materials handling and spill response requirements; and Humboldt County Hazardous Materials Business Plan (HMBP) and Humboldt County Emergency Operations Plan requirements.

Proposed policies and programs include, but are not limited to: requiring the City to designate evacuation routes and to develop an Emergency Response Plan and Hazardous Waste Management Plan; requiring the City to prepare an inventory and map of hazardous materials sites and to consider these when reviewing project proposals; requiring compliance with

applicable hazardous materials regulations and building/fire codes; providing buffers between new hazardous materials uses and adjacent uses; locating proposed hazardous materials repositories in non-residential areas; containing hazardous materials/wastes in flood-proof structures; evaluating buildings for asbestos and lead-based paint, and removing any such materials in compliance with applicable regulations; requiring land uses that generate, use, store, transport, dispose, or emit hazardous materials to file a Hazardous Materials Release Response Plan and Inventory (Business Plan) with HCDEH; and requiring that any development proposed on listed hazardous materials/waste sites include documentation from the applicable regulatory agency indicating that the site has been remediated, or else remediate the site.

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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

Discussion: The proposed plan will facilitate the development of new land uses within the Rohnerville Airport land use compatibility zones designated by the Humboldt County Airport Land Use Compatibility Plan (ALUCP). The proposed plan will also contribute to an increased number of flights out of Rohnerville Airport and Arcata/Eureka Airport (ACV).<sup>1</sup> However, PEIR Section 8.2 found that, by implementing the proposed policies and programs listed in Section 8.2, the proposed plan will result in less-than-significant impacts in terms of: (1) airport hazards associated with incompatible land uses and (2) changes in air traffic levels or flight patterns that could lead to safety risks. These policies include, but are not limited to: requiring the City to regulate land uses around Rohnerville Airport consistent with the ALUCP. This is accomplished by limiting development around the airport to that permitted within each Land Use Compatibility Zone by the ALUCP.; The City is also required to ensure that development within the Rohnerville Airport approach and departure zones complies with Part 87 of Federal Aviation Administration regulations (i.e., objects affecting navigable airspace).

The only cumulative development outside the Planning Area and covered by the designated compatibility zones around Rohnerville Airport would occur within the unincorporated community of Hydesville. As indicated in PEIR Figure 8-7, Hydesville is located partially within Compatibility Zone D of Rohnerville Airport. Compatibility Zone D is the least restrictive the compatibility zones around the airport. Per PEIR Table 8.4-2, development in Compatibility Zone D is subject to negligible risk from airport operations, is exposed to aircraft

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<sup>1</sup> Arcata/Eureka Airport (ACV) is discussed here because, although it is tens of miles from Fortuna, it is the only commercial aviation airport in the County and the proposed plan would increase commercial traffic out of it.

overflight noise that has the potential to cause annoyance but does not exceed applicable noise standards, and has no limit on the type or density of permitted land uses. Because there are no limits on the type of land uses permitted in Compatibility Zone D, future cumulative development in Hydesville does not have the potential to generate airport hazards associated with incompatible land uses. Therefore no cumulative impact will occur.

Cumulative development will not change the location of Rohnerville Airport or ACV, and thus will not change air traffic patterns or generate any related potential air safety risks. The county-wide population of Humboldt County is projected to increase by approximately 23,700 persons during the time horizon of the proposed plan (i.e., 2010 to 2030), and while this additional population will likely cause an increase in general aviation flights out of Rohnerville Airport and commercial flights out of ACV. Airport facility and operational planning is the responsibility of the Humboldt County Airport Land Use Commission (ALUC) and attempting to evaluate potential impacts associated with increased airport operations would be speculative and outside the scope of the current PEIR. Per State CEQA Guidelines §15145, if after evaluation a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Flooding**

Discussion: PEIR Section 8.5 found that by complying with existing regulations and by implementing the proposed flood policies and programs and the recommended mitigation measure, the proposed plan will result in less-than-significant impacts in terms of: (1) residential construction within a 100-year flood hazard area; (2) locating structures within a 100-year flood hazard area that could impede or redirect flood flows; and (3) exposing people or structures to significant flood risk, including flooding resulting from levee failure. Proposed flooding policies and programs include, but are not limited to: requiring new development to submit final grading plans that include topographic and stormwater flow information; prohibiting new residential uses, facilities essential for emergencies (hospitals, police stations, fire stations, etc.), and large public assembly facilities in the 100-year floodplain unless the structure and access road is elevated above the 100-year Base Flood Elevation; requiring stormwater detention facilities in future large developments; requiring new subdivisions, PUDs and other large development projects proposed within the 100-year floodplain to evaluate whether development would change FEMA flood zone designations on or in the project vicinity, and if yes, requiring the developers to submit the evaluation to FEMA for concurrence; prohibiting new development that results in flooding on- or off-site; providing multiple escape routes in areas protected from flooding by levees; requiring that new development is flood-proof or otherwise protected from flooding; requiring the City to adopt a Flood Protection Master Plan. The recommended mitigation measure reads:

“ALL buildings constructed within 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.”

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 Ferndale implement requirements similar to those proposed under the Fortuna General Plan Update, a logical assumption given federal, state, and local flooding regulations (e.g., National Flood Insurance Program – requirements for floodplain management ordinances, local flood control ordinances, etc.), significant cumulative flooding impacts would be avoided.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

## **Wildland Fires**

Discussion: PEIR Section 8.6 found that, by implementing the proposed wildland fire policies/programs and the recommended mitigation measure, the proposed plan will result in a less-than-significant impact in terms of exposing persons and property to wildland fire hazards.

The proposed wildland fire policies and programs include, but are not limited to: requiring the City to adopt the fuel modification, emergency access, signage, and fire-fighting water supply requirements of the County’s Fire Safe Regulations, including the defensible space clearance requirements authorized by Public Resources Code §4291, and to make these regulations applicable in State Responsibility Areas (SRA); and requiring plan of new subdivisions, PUDs and other large development projects proposed in the SRA to be submitted to CAL FIRE for review of proposed fuel modification, emergency access, signage, water supply and pressure, and other fire safe measures to protect against wildland fires.

The recommended mitigation measure requires new subdivisions proposed within SRA areas of the City to comply with the emergency access, emergency water (fire flow), and defensible space standards set forth in Humboldt County’s Fire Safe Regulations (Title III, Division 11, Chapter 1, §3111 of the Humboldt County Code). These standards include, but are not limited to: requiring roads to be constructed to Road Category 4 standards with no grades in excess of 16%; provision of additional roadway surface with to curves of 50-100 feet in radius; provision of turnarounds on driveways and dead-end roads, with a minimum turning radius of 40 feet or hammerhead T top of “T” of 60 feet; provision of visible/legible street signs on all new streets and addresses on all new buildings; availability of emergency water for wildland fire protection in the quantities and locations specified by CAL FIRE and County Fire Safe Regulations; provision of water delivery systems meeting water supply size and pressure requirements of the National Fire Protection Association; requiring fuel modification and greenbelts, and providing

defensible space of at least 100 feet in width around buildings; and provision of building setbacks from property lines of at least 100 feet for parcels one acre in size and larger.

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.

Mitigation Measures: No mitigation necessary.

Significance Conclusion: Less-than-significant cumulative impact.

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