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## 3.5 Transportation

This section provides background information regarding the circulation system within the County including the multimodal use of roads; marine, rail, and air transportation; public transportation; non-motorized transportation; the regulations and programs relating thereto; and an assessment of the potential impacts resulting from implementing the proposed General Plan Update.

Existing transportation system conditions are described in the *Moving Goods and People Report, October 2002* (Appendix G), which includes existing conditions, planned improvements and policy options for transportation planning and Section 2, Road Infrastructure, of the *Community Infrastructure & Services Technical Report, July 2008* (Appendix Q). These reports, which are available for review at the Planning Division public counter at 3015 H Street in Eureka during normal business hours, or for download at <http://co.humboldt.ca.us/gpu/documents/background.aspx>, are incorporated herein by reference, and summarized below. Where any discrepancies may exist between the referenced material and the material presented here, the material presented here should be considered as the most up to date and is to be relied on for the environmental setting and analyses.

### 3.5.1 Transportation/Traffic -Environmental and Regulatory Setting

#### Modes of Transportation

Travel by Humboldt County residents is accomplished through a variety of transportation modes. These modes present mobility choices for County residents, employees, and visitors, depending on their destinations and reasons for their trips. Transportation mode choices offer different benefits and costs, such as travel time, effort, convenience, and expense.

The U.S. Census collects information as part of the American Community Survey regarding the modes of travel to work for employed persons over the age of 16. Nearly 83 percent of County residents commute to work in cars, either alone or as part of car pools. Most people not commuting in cars either walk to work or work at home. A notable percentage of commuters who live in the County's incorporated cities walk to work: Arcata (18 percent), Ferndale (15.2 percent), Eureka (7.9 percent), as compared to the County on the whole (6.5 percent). This is primarily due to the proximity of employment opportunities to residential areas. Very few commuters living in unincorporated communities walk to work, with the exception of Redway – Garberville and Westhaven-Moonstone, where 10.3 percent and 5.5 percent, respectively, walk rather than drive. The following table summarizes the mode choices found in Humboldt County as a whole and in the various communities around the County in the year 2010-2014.

Table 3.5-1. Modes of Transportation.

| Census Designated Place              | Car – (Alone) | Carpool | Public Transit | Bicycle | Walk | Other | Work at Home |
|--------------------------------------|---------------|---------|----------------|---------|------|-------|--------------|
| Humboldt County (countywide average) | 73.5          | 9.3     | 1.2            | 1.7     | 6.5  | 1.2   | 6.6          |
| <i>Incorporated Cities</i>           |               |         |                |         |      |       |              |
| Arcata                               | 60.5          | 8.5     | 1.8            | 6.2     | 17.8 | 0.8   | 4.5          |
| Blue Lake                            | 73.6          | 4.4     | 0.0            | 1.0     | 9.8  | 1.6   | 9.6          |
| Eureka                               | 71.9          | 9.9     | 2.3            | 2.3     | 7.9  | 2.0   | 3.7          |
| Ferndale                             | 67.4          | 4.6     | 0.0            | 0.4     | 15.2 | 2.2   | 10.6         |
| Fortuna                              | 71.5          | 13.2    | 2.1            | 1.4     | 6.5  | 1.1   | 4.2          |
| Rio Dell                             | 86.7          | 7.8     | 0.0            | 0.0     | 1.0  | 0.0   | 4.5          |
| Trinidad                             | 48.1          | 6.0     | 0.0            | 0.0     | 9.0  | 0.0   | 36.8         |
| <i>Unincorporated Communities</i>    |               |         |                |         |      |       |              |
| Cutten                               | 77.1          | 10.9    | 0.0            | 1.7     | 2.0  | 3.5   | 5.0          |
| Humboldt Hill                        | 80.6          | 11.6    | 0.1            | 0.0     | 3.4  | 4.1   | 0.1          |
| Hydesville                           | 94.9          | 2.9     | 0.0            | 0.0     | 0.0  | 0.0   | 2.2          |
| McKinleyville                        | 82.2          | 9.6     | 0.9            | 0.7     | 1.5  | 0.2   | 5.0          |
| Myrtle town                          | 82.5          | 8.2     | 0.1            | 0.3     | 2.3  | 0.0   | 6.6          |
| Pine Hills                           | 77.6          | 8.6     | 0.9            | 2.0     | 0.0  | 2.5   | 8.4          |
| Redway – Garberville                 | 69.0          | 3.1     | 0.0            | 0.0     | 10.3 | 0.0   | 17.4         |
| Westhaven-Moonstone                  | 80.0          | 6.7     | 3.0            | 0.0     | 5.5  | 0.0   | 4.8          |
| Willow Creek                         | 68.4          | 12.8    | 1.6            | 0.0     | 3.0  | 0.0   | 14.2         |
| <i>American Indian Reservations</i>  |               |         |                |         |      |       |              |
| Big Lagoon Rancheria                 | 0.0           | 0.0     | 0.0            | 0.0     | 0.0  | 0.0   | 0.0          |
| Blue Lake Rancheria                  | 20.5          | 0.0     | 0.0            | 0.0     | 79.5 | 0.0   | 0.0          |
| Hoopa Valley Reservation             | 83.8          | 8.6     | 0.0            | 0.0     | 1.4  | 0.0   | 6.2          |
| Karuk Reservation                    | 68.6          | 19.6    | 0.0            | 0.0     | 7.8  | 0.0   | 3.9          |
| Table Bluff Reservation              | 64.3          | 7.1     | 0.0            | 0.0     | 28.6 | 0.0   | 0.0          |
| Yurok Reservation                    | 64.3          | 16.1    | 0.0            | 0.0     | 5.5  | 1.7   | 12.5         |

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year

## Humboldt County Roadway System

Humboldt County contains approximately 1,400 miles of County and city roads, state highways, and roadways on federal lands (see the General Plan Update Map Book Circulation Maps for an indication of the location of major roadways in Humboldt County.) Issues affecting the County road system include: roadway safety, capacity, and condition. Roadway condition and maintenance is a challenge for rural areas like Humboldt County, where lower population densities and long travel distances mean that limited road maintenance funds are spread across an extensive network of roads. Roadway capacity is generally less of an issue for rural areas due to the lower population densities. However, some roadways in urbanized portions of

the unincorporated area (such as Eureka and McKinleyville) are subject to existing and projected areas of congestion.

The Community Infrastructure and Services Technical Report and Moving Goods and People Report include information regarding the capacity of the current and future County roadway system, including maps of Average Daily Trips and Level of Services for roadway segments. Level of Service (LOS) is a standard system for measuring the flow of traffic on a roadway, called roadway capacity, and uses a scale from LOS A (free flow of traffic) to LOS F (extreme congestion and delay). The level of service for roadway segments can also be referred to as the volume to capacity ratio and is calculated by dividing the volume of traffic that passes through a segment of road over a specific period of time by the design capacity of that roadway segment.

The County's roadway network is comprised of a hierarchy of roads with different classifications and characteristics. Functional classification is the process by which streets and highways are grouped according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.

The hierarchy of roadways in Humboldt County follows the Federal Highway Administration Functional Classification Guidelines including arterials, collectors, and local roads. The functional classification system also provides for separate classification of urban and rural functional systems

The Humboldt County roadway system is dominated by U.S. 101, which runs north-south, through or adjacent to five of the County's seven cities. The following is a general description of major roadway facilities within the County:

**State Highways/Routes.** The following is a description of the state highways and state routes in Humboldt County.

The Caltrans Transportation Concept Report (TCR) for U.S. 101 states that it "is the economic lifeline of the north coast and the most important route in the (Caltrans) District. It is a principal arterial serving interregional and interstate traffic, with relatively high traffic volumes and heavy use by both truck and tourist traffic." This roadway varies between one and two lanes in each direction for most of its length with some three-lane passing sections. There are three-lane one-way couplets in Eureka, and U.S. 101 serves as the main street for the City of Eureka and for the community of Orick, and other portions operate as a freeway. U.S. 101 is also the principal commute route to Eureka and Arcata from the north and south. The Caltrans TCR indicates that U.S. 101 operates at level of service "C" or better within Humboldt County, except for the section through Eureka (Broadway/4<sup>th</sup> and 5<sup>th</sup> Streets) where "signalized intersections control level of service, and some intersections within the segment experience unstable flow at peak hour."

State Route (S.R.) 299 is the County's main east-west corridor connecting the Humboldt Bay area to Willow Creek and Trinity County, and eventually to Redding and Interstate 5 (I-5). S.R. 299 is a four-lane freeway between Arcata and Blue Lake and becomes a two-lane highway with alternating passing lanes between Blue Lake and the County line. S.R. 299 serves as the main street through Willow Creek and includes a traffic calming project. Caltrans reports that this facility operates at level of service "C" or better through Humboldt County (Route Concept Report, 299 Corridor, Caltrans, January 1998)

Other State Routes include:

- S.R. 36 is a two- and one-lane highway that extends from U.S. 101, south of Fortuna to Trinity County following the Van Duzen, Mad and Trinity River valleys and eventually connects with I-5 in Red Bluff.
- S.R. 96 is a two-lane highway that extends north/south along the eastern edge of the County from Willow Creek to Orleans and eventually connects with I-5 in Siskiyou County
- S.R. 169 is a one-lane highway that extends northwest from S.R. 96 at Weitchpec along the Klamath River to Wautec (Johnsons).
- S.R. 200 is a two-lane highway (also known as North Bank Road) that connects U.S. 101 south of McKinleyville to S.R. 299 east of Arcata and provides a bypass for trucks that are too tall to cross the Mad River Bridge.
- S.R. 211 is a short two-lane highway that extends from U.S. 101 to the City of Ferndale, crossing the Eel River over historic Fernbridge.
- S.R. 253, also known as Avenue of the Giants, is a two-lane highway that parallels U.S. 101 from approximately five miles north of Redway to approximately three miles south of Stafford. This route provides a scenic bypass to U.S. 101 and provides access to several unincorporated communities and state parks.
- S.R. 255 is a two-lane highway, with a four-lane segment in Arcata, that extends from Arcata to Eureka through Manila and also serves as an alternate to U.S. 101.
- S.R. 283 is the shortest State Highway in the State of California, consisting of a two-lane highway across the historic Eagle Prairie Bridge that connects Rio Dell and the unincorporated community of Scotia.

**Major County Roads.** County roads provide access to urban and rural communities from state highways, interconnect with city roads, and serve as main streets and local streets within unincorporated communities. The major County roads that carry significant amounts of daily traffic include (note - roadway functional classifications are identified in parenthesis after the road name):

- Central Avenue (Urban Minor Arterial) in McKinleyville
- Old Arcata Road (Rural Major Collector)/Myrtle Avenue (Rural Major Collector and Urban Minor Arterial) - serves as an alternate to U.S. 101 between Arcata and Eureka
- Walnut Drive (Rural Major Collector, Urban Collector, and Urban Minor Arterial)/Ridgewood Drive (Rural Major Collector) in the Cutten and Ridgewood areas
- Herrick Avenue /Fairway Drive/F Street (Urban Minor Arterial) - serve as an alternate to U.S. 101 to downtown Eureka and the Henderson Center and Myrtle town areas for commute traffic from the south
- Murray Road (Rural Major Collector and Urban Minor Arterial) in McKinleyville
- School Road (Urban Minor Arterial) in McKinleyville
- Harris Street (Urban Minor Arterial) - a major east-west route through the City of Eureka
- Harrison Street (Urban Minor Arterial) - serves as the eastern boundary of the City of Eureka and provides access to the County's major medical center

Numerous County roads operate like highways in the County's rural areas, such as:

- The Mattole Road (Rural Major Collector) - provides access to the Petrolia and Honeydew areas from Ferndale and Weott
- Briceland-Thorne Road (Rural Major Collector) - extends from Redway to Thorne Junction where it intersects with the Shelter Cove Road; these two roads provide access to the southwestern portion of the County
- The Alderpoint Road (Rural Major Collector) - extends from Garberville in the south to Bridgeville and serves the communities of Alderpoint and Blocksburg as well as other areas along the Middle Fork of the Eel River and the south-eastern County

In addition, Humboldt County has identified the following roads as Regionally Significant Streets and Roadways as part of the 2008 Regional Transportation Plan (see Humboldt County Regional Transportation Plan, 2008, Table HR1, Significant Roadway and the discussion on Page HR-1):

- Bald Hills Road (Rural Major Collector) - connects U.S. 101 to S.R. 169 through Redwood National Park and the Yurok Reservation
- Bair Road (Rural Minor Collector) - extends from S.R. 299 near Lord Ellis Summit, through Redwood Creek, to S.R. 96 in Hoopa
- Blue Lake Boulevard (Rural Major Collector)/Glendale Drive (Rural Major Collector) - extends from the City of Blue Lake to the community of Glendale;
- Blue Slide Road (Rural Major Collector)/Grizzly Bluff Road (Rural Major Collector) - extends from the City of Rio Dell to the City of Ferndale
- Campton Road (Urban Minor Arterial) - connects H Street in the City of Eureka to Walnut Drive
- Elk River Road (Rural Major Collector) - connects Herrick to Ridgewood Drive and serves the Elk River Valley
- Fieldbrook Road (Rural Major Collector) - connects S.R. 299 through the community of Fieldbrook to Murray Road, which connects to U.S. 101 in McKinleyville
- Freshwater (Rural Major Collector)/Kneeland Road (Rural Major Collector) - connects the communities of Freshwater and Kneeland to Myrtle Avenue as well as to Butler Valley Road which eventually connects to the City of Blue Lake via Maple Creek Road
- Maple Creek Road (Rural Major Collector) - see Freshwater/Kneeland Road above
- Humboldt Hill Road (Rural Minor Collector) - extends from U.S. 101 to the Humboldt Hill community
- Redwood Drive (Rural Major Collector) - U.S. 101 and extends from downtown Garberville through Redway and connects to U.S. 101 at Dean Creek
- Rohnerville Road (Rural Major Collector) - located mostly within the City of Fortuna, extends to S.R. 36
- Sprowel Creek Road (Rural Major Collector) - extends south from Garberville, past the Garberville County airport towards the Mendocino County line
- Wilder Ridge Road (Rural Minor Collector)/Ettersburg Road (Rural Minor Collector) - connects Mattole Road to Shelter Cove Road
- New Navy Base Road (Rural Major Collector) - extends south to the end of the Samoa Peninsula from S.R. 255

**Roadway System Condition and Capacity.** Roadway maintenance is a key challenge for rural areas such as Humboldt County. Lower population densities and long travel distances result in fewer funds available on a per-mile basis for roadway maintenance. Maintenance problems are even more challenging in an area, such as Humboldt, which is dependent on logging and heavy commercial truck traffic to sustain its economy. Heavy truck traffic and wet weather comprise the two most critical factors in pavement deterioration. Humboldt County experiences significant winter rainfall. In the 1960's, the American Association of Highway and Transportation Officials (AASHTO) found that damage to pavement from one truck is roughly equal to that of 10,000 cars.

Critical issues for the rural road system are safety and road rehabilitation. Roadway capacity (i.e. the number of lanes) is not generally an issue for rural areas, due to the lower population densities. There are areas of the County where capacity has become an issue due to increased tourist travel, increased truck travel, and increased development. Also, rugged topography often justifies truck climbing lanes, but funding for such improvements is limited and competes with funding for roadway maintenance.

In addition, the County lacks an infrastructure financing mechanism that would require all development to pay for its "fair-share" of off-site impacts to road infrastructure (as well as other infrastructure and public service needs). Currently, a traffic impact fee is being considered for the Greater Eureka Area by the County and the City of Eureka. The difficulty of recovering the costs of public road improvements and maintenance due to new construction is exacerbated by lower density rural residential development. This development typically occurs in a scattered pattern, requiring a more extensive road system than more compact development. The lower densities also make it more difficult to implement programs such as public transportation, which can also serve to lessen auto trips. Financing roadway improvements through Mello-Roos or other methods is not feasible due to a low rate of growth.

The Humboldt County roadways with the most significant capacity constraints are located in the Eureka and McKinleyville areas. Both of these areas have been experiencing increased development pressures, which have added vehicles to existing capacity constrained County roadways.

The circulation network for the unincorporated areas surrounding Eureka, including Cutten and Myrtle town, is inter-connected with the City of Eureka. The Eureka Community Plan area is largely dominated by residential land uses, with residents traveling into or through the City of Eureka for work, shopping, and other purposes. The development around the City of Eureka and regional commercial areas within the City, such as the Bayshore Mall, have contributed to increasing congestion and delays along Broadway, leading travelers and commuter to divert their trips to other routes as they travel through the City.

A traffic impact analysis was prepared for the General Plan Update by TJKM Transportation Consultants (Appendix H). As recommended by TJKM, the analysis utilizes level of service calculations based on daily traffic volumes rather than peak hour traffic volumes.

## Public Transportation

The Humboldt Transit Authority was established in 1975 through a joint powers agreement (JPA) between the cities of Rio Dell, Fortuna, Eureka, Arcata and Trinidad and the County of Humboldt to provide public transportation services along the U.S. 101 corridor throughout the County. Funding for HTA is available from Transportation Development Act (TDA) funds and passenger fares. Of the TDA funding, Humboldt County contributes 50% and the JPA cities contribute the other 50%. HTA operates and maintains the Redwood Transit System (RTS) and the Eureka Transit Service (ETS). In addition, HTA provides maintenance service to the Arcata & Mad River Transit System (A&MRTS) through a contract.

**Redwood Transit System.** The Redwood Transit System (RTS) consists of "mainline" commuter service along the U.S. 101 corridor from Scotia to Trinidad. Regular commute service is available to McKinleyville, as well as regional service to the California Redwood Coast – Humboldt County Airport. Although some trips serve the entire corridor, most trips provide service only along shorter sections of the route. Service was recently added to southern Humboldt, now connecting Garberville, Redway, Phillipsville, Miranda, Myers Flat, and Weott with the Humboldt Bay area. In addition to the mainline route serving U.S. 101, a separate route provides service between Willow Creek and various locations in Arcata and McKinleyville.

**Eureka Transit Service.** The Eureka Transit Service (ETS) has four fixed-routes within the city of Eureka, as well as the unincorporated communities of Bayview, Cutten, and Myrtle town.

**Arcata & Mad River Transit System (A&MRTS).** The Arcata & Mad River Transit System provides fixed-route service within the city of Arcata.

**Blue Lake Rancheria Transit System.** The Blue Lake Rancheria Transit System provides hourly service between Blue Lake and Arcata via S.R. 299, and includes service to the unincorporated community of Glendale.

**Klamath-Trinity Non-Emergency Transportation (K/T Net).** K/T Net provides fixed and flex route service between Willow Creek and Hoopa, Monday through Friday. K-T NeT provides two fixed-route services between Willow Creek and areas north along Highways 96 and 169, including Hoopa Valley, Weitchpec (since August 2008), and Pecwan/Wautec and Orleans (since early 2009). K-T NeT schedules the Hoopa-Willow Creek service to connect with the Willow Creek Transit System bus (for trips to the Humboldt Bay Area), and with Trinity Transit (for trips further east to Redding).

**Greyhound Lines, Inc.** Greyhound provides intercity bus service to Humboldt County with connections along the U.S. 101 corridor to various cities. Greyhound currently provides twice-daily services with stops at Arcata, Eureka, Rio Dell and Garberville.

**Amtrak Thruway Motorcoach.** Amtrak Thruway Motorcoach consists of buses to connect Amtrak train stations to areas not served by Amtrak railroads. The Amtrak Thruway bus route runs from McKinleyville to the Martinez Train Station, where passengers can board a connecting train to Emeryville and then a shuttle bus to San Francisco. Amtrak buses run seven days a week.

## Non-Motorized Transportation

Bicyclists, pedestrians, and equestrian riders each have unique needs for public facilities that support these modes of transportation for trips that might otherwise be accomplished using a car, and for recreation. Bicycle facilities include: Class I Bikeways (bike path), is a completely separated right of way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized; Class II Bikeway (Bike Lane), which provides a striped lane for one-way bike travel on a street or highway; and Class III Bikeway (Bike Route) that provides for shared use with pedestrian or motor vehicle traffic (Caltrans Highway Design Manual, Chapter 1000, Bicycle Transportation Design, <http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp1000.pdf>). Most dedicated bicycle facilities are in the urban areas of the County and many of the bike lanes and routes in the region do not meet current state standards. However, programs are underway to improve the bicycle network.

Pedestrian facilities, primarily sidewalks and crosswalks, are also most commonly provided in the urban areas. Most pedestrian facilities were constructed prior to the American with Disabilities Act (ADA) and are therefore not compliant. Compliance issues include inadequate sidewalk width, excessive cross-slope, inadequate curb ramps at intersections, and obstacles in the sidewalk. Such obstructions and impediments can force pedestrians on foot or who use wheelchairs onto road shoulders, and into parking and bike lanes. Over time, the County Department of Public Works is upgrading pedestrian facilities to be ADA compliant.

Rural areas and small communities do not often have pedestrian facilities that are separated from the roadway. Pedestrians and bicyclists frequently utilize roads in Humboldt County that lack sidewalks and/or bicycle lanes. As a result, sharing of roadways by pedestrians, car and truck drivers, bicyclists, and even equestrians, is common in many rural areas. While equine use does not constitute a significant portion of daily commuter travel in Humboldt County, equestrian trails can be a significant recreational resource. A number of community and public

land trail systems provide transportation and recreation opportunities; however, most of the facilities dedicated exclusively for non-motorized use are provided only in urban areas of the County.

Pedestrian facilities are most commonly found in the County's seven cities and larger unincorporated communities. Sidewalks and pathways of varying width are found in commercial areas, residential neighborhoods, and near schools. In many cases, existing sidewalks meet only the minimum ADA standards and often are obstructed by utility poles, signposts, and other obstacles. There are also sidewalk gaps, uncontrolled intersections, and street crossings that pose pedestrian travel impediments, especially to the mobility-impaired. Most facilities dedicated for bicycle use are in the urban and suburban areas of the County, with bicycle lanes in place in Eureka, Arcata, McKinleyville and Fortuna. The City of Arcata provides the most interconnected system of bicycle lanes/routes that facilitates access to and from a number of trip-generating areas. In Eureka, the bike lane/route system includes both north-south and east-west lanes; however, not all trip generating areas are connected. Fortuna has limited systems of bike lanes and designated routes.

Some existing bicycle lanes/routes in the region do not meet current state standards. Caltrans increased bike lane width standards from four to five feet in 1997 (when not adjacent to a curb four feet is still permitted); consequently, many bike lanes constructed before 1997 do not meet the new state width standards. The most prominent Class I bike path (a separated surfaced right-of-way designated exclusively for non-motorized use) in Humboldt County is the Hammond Coastal Trail in McKinleyville, which provides opportunities for non-motorized travel for both transportation and recreation purposes. The Hammond Coastal Trail is Humboldt County's preeminent bicycle and pedestrian facility. The trail presently consists of a 2.4-mile hiking/biking/equestrian trail linking Arcata with McKinleyville from the Arcata Bottoms to Murray Road in McKinleyville, a hiking/equestrian loop north of Murray Road, and the newest sections from just north of Vista Point on Highway 101 to Strawberry Creek and the Widow White Creek crossing.

There is also the Mid-Town Trail in McKinleyville located between Railroad Avenue and Fernwood Drive, and a new trail is being constructed along Highway 101 leading from Arcata toward Eureka. There are a few other trails of significant length in or near communities that provide for both transportation and recreation. There are, however, a large number of recreational trails in city, county, state, and national parks, the National Forest, and Bureau of Land Management land. Cyclists are granted full access to all state route facilities in Caltrans District 1, which includes all of Humboldt County.

The Elk River Hikshari' Trail (is a multiple-use, paved trail that runs between Truesdale Avenue (just south of the Bayshore Mall) 1.5 miles south to the Pound Road Park & Ride lot, off the Herrick Avenue and Highway 101 interchange. Four parking areas and trailheads were enhanced at the following locations: Truesdale Vista Point, Hilfiker Lane (with primitive boat ramp), Hilfiker Lane at the Elk River Wildlife Sanctuary, and Pound Road Park & Ride.

Humboldt County is the lead agency in the Humboldt People Powered Pathways (HP3) funding proposal to the federal government. The HP3 proposal seeks transportation funding to implement local jurisdiction's plans for improving active transport systems and programs. The HP3 plan identifies approximately 25 active transport planning, implementation programs, and partnerships that identify \$50 non-motorized transportation projects located across the County.

## Truck Transportation

Truck transportation is a major factor in business operations for most industries in Humboldt County. U.S. 101 and S.R. 299 are the County's main truck transportation corridors. A key concern for the County is the impact of heavy truckloads on deteriorating County roads. Annual maintenance costs associated with a sustained logging operation are \$9,000 per mile, according to the Moving Goods & People Technical Report (Appendix G).

Additionally, there is an economic effect on transportation costs due to the limitations on large STAA truck sizes on U.S. 101 at Richardson Grove. Because of the restrictions on the length of trucks that can travel this route into the County, goods often need to be transferred to smaller trucks, which increase the transportation cost of goods shipped to and from the County. State Route 299 from Arcata to Trinity County is considered a California Legal Network highway and allows STAA trucks.

Caltrans has completed a Final EIR (SCH # 2009012070) for a project to provide access for larger trucks on U.S. 101 through Richardson Grove State Park near the Humboldt County line. The proposed project extends from post mile (Humboldt) 1.1 to post mile (Humboldt) 2.2 and would include minor realignments and widening of the existing roadway, culvert improvements, and repaving the roadway. This project has been controversial because it involves road improvements and the removal of trees within a State Park as well as concerns regarding growth inducing impacts.

## Air Transportation

Humboldt County is served by nine public airports: California Redwood Coast– Humboldt County Airport; Dinsmore Airport; Garberville Airport; Kneeland Airport; Murray Field; Rohnerville Airport; Samoa Field; Shelter Cove Airport; and the Hoopa Airport (see Table 3.5-3 below for additional information regarding these airports). All but the Samoa Field, Shelter Cove, and Hoopa Airports are owned and operated by Humboldt County. General background information regarding public airports in Humboldt County can be found in the Humboldt County Regional Transportation Plan, Chapter 7, Aviation System Element and the Airport Land Use Compatibility Plan (ALUCP) for Humboldt County Airports, March 1993 that was adopted in 1998.

**Table 3.5-3. Airports in Humboldt County.**

| Airport   | Location                        | Based Aircraft | Annual Aircraft Operations | Owner/ Operator |
|---|---------------------------------|----------------|----------------------------|-----------------|
| California Redwood Coast– Humboldt County Airport | McKinleyville                   | 20             | 115 per day                | Humboldt County |
| Dinsmore Airport                                  | ¼ miles east of Dinsmore        | 1              | 1,600                      | Humboldt County |
| Garberville Airport                               | 1 mile southwest of Garberville | 20             | 16,500                     | Humboldt County |
| Kneeland Airport                                  | Kneeland                        | 0              | 7,000                      | Humboldt County |
| Murray Field Airport                              | City of Eureka                  | 100            | 55,450                     | Humboldt County |
| Rohnerville Airport                               | 0.8 miles south of Fortuna      | 36             | 27,500                     | Humboldt County |
| Samoa Field                                       | Fairhaven                       | N/A            | N/A                        | City of Eureka  |

| Airport              | Location     | Based Aircraft | Annual Aircraft Operations | Owner/ Operator                         |
|----------------------|--------------|----------------|----------------------------|---|
| Shelter Cove Airport | Shelter Cove | N/A            | N/A                        | Shelter Cove Resort Imp. District No. 1 |
| Hoopla Airport       | Hoopla       | N/A            | N/A                        | Hoopla Valley Tribal Council            |

Source: Humboldt County Airport Master Plans.

Air travel is a growing transportation option in Humboldt County with passenger enplanements at California Redwood Coast – Humboldt County, the only airport in the County with scheduled passenger flights, and passenger enplanements are expected to increase from 98,453 in 2014 to 167,000 in 2024 (Arcata-Eureka Airport Master Plan Report, Chapter 2 Airport Role and Activity Forecasts). Several daily flights are provided, connecting Humboldt County with San Francisco and Portland, Oregon. The airport continues to work to add more flights to more destinations.

The Board of Supervisors is the Humboldt County Airport Land Use Commission (ALUC) and approved the Airport Land Use Compatibility Plan (ALUCP) for Humboldt County Airports, March 1993 (adopted in 1998). The ALUCP sets forth the criteria and policies which the ALUC will use in assessing the compatibility between the public use airports and land use development in the areas surrounding them.

State law requires local agencies to modify their general plans and any affected specific plans to be consistent with airport land use compatibility plans (ALUCPs). A general plan must address compatibility planning issues and avoid direct conflicts with compatibility planning criteria. County zoning regulations limits density, height, and use within defined airport flight obstruction areas.

### Marine Transportation

The Port of Humboldt Bay is a working port that can handle ocean-going vessels with domestic or international cargoes. The Port is the only deep-water shipping port between San Francisco, 225 nautical miles to the south, and Coos Bay, Oregon, 156 nautical miles to the north. The Port of Humboldt Bay is an important transportation facility for the shipment of goods and products to and from Humboldt County. The competitiveness of the Port is closely related to its ability to adapt to changes in the shipping industry, most notably the use of larger deep draft vessels.

The Port's amenities include: the jetties at the Bay entrance, the bar and entrance channel, shipping channels within the Bay, turning basins, shoreline protection and improvements, docks and other landside improvements, and key waterfront sites used for coastal-dependent industry. Adjacent to the Humboldt Bay channels there are currently four operating terminals with the potential of serving ocean-going dry cargo vessels and one liquid bulk dock. Two of the eight cargo docks are located on the Eureka waterfront, four are located on the Samoa Peninsula, and two are located at Fields Landing.

The Humboldt Bay Harbor, Recreation and Conservation District (HBHRCD) District is a countywide agency that was established in 1970 to implement, supervise, and regulate the development of Humboldt Bay. The HBHRCD manages Humboldt Bay to promote commerce, navigation, fisheries, recreation, and the protection of natural resources. The HBHRCD also operates facilities in Shelter Cove. The HBHRCD has jurisdiction over port facilities and works with the U.S. Army Corps of Engineers to periodically dredge Humboldt Bay to maintain Bay access for various types of ocean-going vessels.

The HBHRCRD prepared the Humboldt Bay Management Plan in 2007. The purpose of the Humboldt Bay Management Plan is to serve as a management guide, planning tool, policy strategy, and reference document for the HBHRCRD and other parties interested in Humboldt Bay. The Humboldt Bay Management Plan provides a comprehensive discussion of existing conditions, including descriptions of the harbor and port, as well as recreation opportunities and conservation activities. The Humboldt Bay Management Plan also includes a policy document with water use designations similar to a land use plan, and policies regarding the harbor and recreation and conservation uses of the Bay.

In 2003, the HBHRCRD prepared the Port of Humboldt Bay Harbor Revitalization Plan that establishes a two-phase port strategy that involves channel deepening and landside improvement. After a 12-year effort, the Humboldt Bay Channel Deepening Project was completed in April 2000. The 48-foot deep Bar and Entrance Channels and 38-foot deep North Bay and Samoa Channels were intended to provide for greater navigation safety and improved vessel economics.

Annual maintenance dredging of Humboldt Bay is vital to maintaining safe and navigable access. Federal channels in Humboldt Bay are dredged by the U.S. Army Corps of Engineers. Any other area that requires dredging is the responsibility of local governments, in this area that is the Harbor District.

The U.S. Department of Transportation published a final rule in 2009 that established America's Marine Highway Program. Pursuant to this rule, marine highway corridors will be designated and funding made available to support short sea transportation projects in order to expand domestic water transportation services as an alternative means of moving containerized and wheeled freight cargoes. The objectives of America's Marine Highway Program are to mitigate the economic, environmental, and energy costs of landside congestion; integrate the marine highway into the transportation planning process; and research improvements in efficiencies and environmental sustainability. Humboldt Bay has been identified as a potential port within the marine highway system.

## **Rail Transportation**

The North Coast Railroad Authority (NCRA), created by the State Legislature in 1989, has either full or partial ownership of the Northwestern Pacific Railroad (NWP). NCRA owns the railroad from Arcata to Healdsburg, and is a member of the Northwestern Pacific Railroad Authority JPA (joint powers authority) for the portion south of Healdsburg. The NCRA has a Lease and Operating Agreement with Northwestern Pacific Railway Company (NWPY), to provide common carrier freight operations and maintenance of the railroad.

Rail service to and within Humboldt County was suspended in 2001 due to the deteriorating condition of railway infrastructure. When operating, it provided freight service three times a week and occasional passenger service on weekends. Rail service provided an alternative to truck transportation, carrying mostly lumber products with the potential for transporting dairy products, fish products, aggregates, and coke and calcified lime used in paper processing. In order to return competitive rail service to Humboldt County, a substantial program of roadbed, track, bridge, tunnel, and station upgrading will be necessary. The future of the railway and the use of the railroad right of way, especially along Humboldt Bay, has been an important policy discussion within the region during the preparation of the General Plan Update.

Amtrak provides twice-daily bus service between Humboldt County and the Martinez train station in the San Francisco Bay Area. The bus follows the U.S. 101 corridor and provides service at McKinleyville, Arcata, Eureka, Fortuna, Scotia and Garberville.

## Road Safety

Most County roads in rural areas are one- and two-lane roads of varying surface types that were constructed and improved over time and have evolved from trails, stage and rail routes, and logging roads. The alignment of many roads is irregular with varying horizontal and vertical curves and sight distances. Drivers are required to constantly adapt their speed to account for changing situations and circumstances that increase the opportunities for human error. In addition, street lights and intersection safety lighting are not present on most rural roads. Section 8, Streetlights, of the *Community Infrastructure and Services Technical Report* inventories street lighting standards and areas served by street lighting within the unincorporated area.

The operation of agricultural vehicles on roadways may also affect traffic on rural roadways in the unincorporated area. Agricultural activities are an important element of the local economy and agricultural vehicles operate regularly on County roadways. Agricultural vehicles are slow moving vehicles and considered incompatible with other motorists. Implementation of the proposed General Plan Update would increase the amount of traffic on roadways and could increase the potential for conflict with agricultural vehicles.

Another factor that can impact roadway safety is the incompatibility of some unincorporated area roadway and highway facilities with multi-modal transportation uses. Many existing roadways and intersections in the County do not contain pedestrian or bicycle facilities. Humboldt County Transportation-Disadvantaged Populations Report, 2006, (<http://www.naturalresourceervices.org/TDP.html>) found that Pedestrian and bicycle safety is generally poor in Humboldt County when compared to other rural counties. There are substantially higher bicycle injuries and fatality rates in Humboldt County than all other rural areas in California. Bicycle injury and fatality rates are also significantly higher than the state average, particularly for youth and the 05-24 age groups. In spite of this, bicycle and pedestrian injuries and fatalities are decreasing in Humboldt County.

The Transportation-Disadvantaged Populations Report further indicates that Humboldt County has a higher number of bicyclists than some other rural counties, and this fact may influence the absolute number of collisions. Two potential reasons for this include: the presence of both Humboldt State University and College of the Redwoods campuses within ten miles of each other in the Humboldt Bay region; and the Pacific Coast Bike Route on U.S. 101 attracts many touring cyclists every year. Until 2000, the City of Eureka still had many intersections without traffic signals, stop, or yield signs, which may have also contributed to a higher number of collisions.

The Humboldt County Public Works Department recently established the Humboldt County Rural Transportation & Access Partnership (RTAP) program to help rural communities overcome transportation challenges and improve access to goods, services, employment, education and/or recreation, as well as to increase safety and advance "complete streets" for all modes of transportation. The RTAP is a matching program available through Humboldt County Department of Public Works to help address unfunded transportation needs through community partnership. The types of projects eligible for the program could include street/road improvements, pedestrian and bicycle improvements, enhancement of sites in County jurisdiction for access to public or community transportation services.

### 3.5.2 Transportation/Traffic - Standards of Significance

This analysis uses the significance criteria from the CEQA Guidelines Appendix G. The proposed General Plan Update would result in a significant impact on transportation/traffic if it would:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- e) Result in inadequate emergency access.
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 3.5.3 Transportation/Traffic - Impacts and Mitigation Measures

#### Traffic Model Description

The traffic impacts resulting from General Plan Update land uses were evaluated by TJKM Transportation Consultants using the latest Humboldt County Travel Demand Model. The Humboldt County Travel Demand Model was updated in 2013 by the Humboldt County Association of Governments (HCAOG) and the California Department of Transportation (Caltrans) to forecast travel patterns in both rural and urbanized portions of Humboldt County. The main purposes of the Humboldt County Travel Demand Model are to support the Regional transportation planning process<sup>1</sup>, to evaluate potential improvements to the roadway system, and evaluate the impacts of land use changes in the County. The model also includes limited transit and non-motorized analysis capabilities. The base year for the model is 2010, with a forecast year of 2040.

The Humboldt County Travel Demand Model utilizes a traditional four-step modeling process, consisting of trip generation, trip distribution, mode split, and traffic assignment. This process addresses all person trips, occurring primarily by car but also includes trips made using transit and non-motorized modes (walk and bicycle). The updated model includes AM and PM peak periods and an off-peak period, which are combined to produce total daily traffic volumes. The entire process is automated and can be managed from a scenario management system within the TransCAD software platform.

A travel demand model is a computer program that simulates traffic levels and patterns for a specific geographic area. The program consists of input files that summarize population and

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<sup>1</sup> A State-mandated effort involving each of the local jurisdictions and Caltrans in setting regional transportation goals and programs on a recurring basis.

employment characteristics, the street network, travel characteristics, and other key factors of the area analyzed. The Humboldt County Travel Demand Model contains information regarding the street network and land uses for the entire County, including the seven incorporated cities. Using this data, the model performs a series of calculations to determine the number of trips that would be generated, where the trips would begin and end, and the route for each trip. The model's output includes information such as peak AM, PM, and daily vehicle trips; average daily trips; daily vehicle trips and speed; volume to capacity ratio; and vehicle miles traveled. The volume to capacity ratio is a ratio of the number of vehicles that can be expected to travel over a given section of roadway during a given time period and the capacity of the segment. For purposes of this traffic analysis, the volume to capacity ratio is used to measure LOS.

### 2010 Scenario

The model roadway network contains basic input information for use in the Travel Demand Model and represents real-world conditions for the 2010 base year. The transportation analysis zones cover the entire County and each city and include existing and projected future population and employment levels. The model was successfully calibrated and validated by using the data and networks described in the "*Humboldt County Association of Governments Rural Regional Blueprint Planning Phase III, Travel Model Update Technical Documentation*" report. The traffic count data provided by Caltrans, Humboldt County, and other local jurisdictions, as well as additional traffic counts collected specifically for the purpose of supporting the model update, were used for validation. Due to differences in the way various agencies provide traffic data, some adjustments were made to the original data, which has been retained on the roadway network for reference. For model validation, traffic count data must represent a "typical weekday when school is in session." This condition allows model results to reflect volumes that would be consistent with traffic counts taken during this time period. Due to minimal growth during the last few years, all traffic count data was assumed to represent 2010 conditions for use in model validation.

### 2040 Scenario

This scenario represents the land use and policies contained in the GPU. Land use forecasts were updated to represent 2040 conditions. The land use information, depicted in Table 3.5-4b, General Plan Land Use Information – 2010 to 2040, represents a realistic view of 2040 conditions. In the table HH represents the number of households and EMP indicates the number of jobs.

### 2028 Scenario

The 2040 scenario represents the population and jobs projected for the ultimate planning horizon year of the County General Plan Update. However, the highest projected County population numbers will occur during an interim year (2028) according to the Department of Finance (DOF). In other words, the County's population is projected to peak in 2028 and decline thereafter. Consequently, an interim year (2028) scenario was developed using the 2028 population from the DOF and 2028 employment from Caltrans 2015 Economics Forecasts, and analyzed as a worse-case scenario. This is depicted in Table 3.5-4a.

**Table 3.5-4a. General Plan Land Use Information – 2010 to 2028**

|                       | 2010   |        | 2028   |        | Growth        |              |
|-----------------------|--------|--------|--------|--------|---------------|--------------|
|                       | HH     | EMP    | HH     | EMP    | HH            | EMP          |
| <b>Unincorporated</b> | 33,176 | 18,724 | 34,856 | 19,911 | 1,680 -- 5.0% | 1,187 – 6.3% |
| <b>Cities</b>         | 22,855 | 29,478 | 24,012 | 31,199 | 1,157 – 5.0%  | 1,722 – 5.8% |
| <b>Model Total</b>    | 56,031 | 48,202 | 58,868 | 51,110 | 2,837 – 5.0%  | 2,908 – 6.0% |

HH – Households      EMP – Employment shown as number of jobs

Source: TJKM, 2017

**Table 3.5-4b. General Plan Land Use Information – 2010 to 2040**

|                       | 2010   |        | 2040 Rev |        | Growth       |               |
|-----------------------|--------|--------|----------|--------|--------------|---------------|
|                       | HH     | EMP    | HH       | EMP    | HH           | EMP           |
| <b>Unincorporated</b> | 33,176 | 18,724 | 34,085   | 21,164 | 909 – 2.7%   | 2,440 – 13.0% |
| <b>Cities</b>         | 22,855 | 29,478 | 23,482   | 33,018 | 627 – 2.7%   | 3,540 – 12.0% |
| <b>Model Total</b>    | 56,031 | 48,202 | 57,567   | 54,182 | 1,536 – 2.7% | 5,980 – 12.4% |

HH – Households                      EMP – Employment shown as number of jobs  
 Source: TJKM, 2017

As shown, the forecast 18 year and 30-year growth in both households and employment is relatively modest. Household growth is 5% to 2028 and only 2.7% to 2040. Employment growth is 6% to 2028 and 12.4% to 2040. Land use and employment projections were based on information from the California Department of Finance (DOF) and Caltrans. The 2028 and 2040 household forecasts are from DOF; the assignments of housing between unincorporated and incorporated areas are based on current proportions. The employment growth is from Caltrans; assignment of housing between cities and unincorporated areas also retains the current proportions.

**Vehicle Miles Traveled**

Table 3.5-5 describes the traffic model evaluation of vehicle miles traveled (VMT) on the Humboldt County roadway network in 2010, 2028 and 2040, as well as a comparison between the two model years. The growth percentages for the two future years are indicated in the table.

**Table 3.5-5. Comparison of 2010 and 2040 Vehicle Miles Traveled (VMT)**

| Trip Origin                   | Trip Destination              | 2010 VMT         | 2040 Rev VMT                        | 2028 VMT                            |
|-------------------------------|-------------------------------|------------------|-------------------------------------|-------------------------------------|
| Inside Unincorporated County  | Inside Unincorporated County  | 1,070,071        | 1,097,038                           | 1,116,701                           |
| Inside Unincorporated County  | Outside Unincorporated County | 851,484          | 929,479                             | 935,833                             |
| Outside Unincorporated County | Inside Unincorporated County  | 888,993          | 969,080                             | 976,290                             |
| Outside Unincorporated County | Outside Unincorporated County | 731,135          | 807,070                             | 819,932                             |
|                               | <b>Total</b>                  | <b>3,541,683</b> | <b>3,802,668 (7.4%)<sup>1</sup></b> | <b>3,848,756 (8.7%)<sup>1</sup></b> |

<sup>1</sup> Growth in VMT from 2010  
 Source: TJKM, 2017

**Circulation System Improvements**

Table 3.5-6, General Plan Update Circulation System Improvements, provides a list of the proposed roadway improvements included in the General Plan Update. The McKinleyville and Eureka Circulation and Public Facilities Maps in the General Plan Update Draft Map Book show the location of the proposed improvements. These improvements are intended to enable the roadway system to accommodate the increased traffic demand generated by General Plan Update development without causing unacceptable traffic congestion. Improvement project numbers 26, 27, 30, 32, 33, 34, 39, 42 are also contained in RTP Table HR8, Long Term (11-20 years) Roadway Projects and are therefore consistent with the RTP. Most of these sections are not on

the traffic model network, so they do not have a major impact on the traffic forecasting efforts summarized in this document.

**Table 3.5-6. General Plan Update Circulation System Improvements.**

| No. | Proposed Road Improvements                         | Area | Length (feet) | Class           | Maintenance Responsibility |
|-----|--|------|---------------|-----------------|----------------------------|
| 3   | McKinleyville Avenue South Ext.                    | MCPA | 784           | Urban Collector | County of Humboldt         |
| 4   | Norton Road Extension                              | MCPA | 5,821         | Urban Collector | County of Humboldt         |
| 7   | Underwood Road Extension                           | MCPA | 1,735         | Urban Collector | County of Humboldt         |
| 8   | City Center Road Extension                         | MCPA | 607           | Urban Collector | County of Humboldt         |
| 12  | Bird Avenue Extension                              | MCPA | 1,504         | Urban Collector | County of Humboldt         |
| 13  | Montana Road Extension                             | MCPA | 330           | Local           | Maintenance District       |
| 14  | Berg Avenue Extension                              | MCPA | 810           | Local           | Maintenance District       |
| 15  | Windson Road Extension                             | MCPA | 977           | Local           | Maintenance District       |
| 17  | West Bates Road Extension                          | MCPA | 210           | Local           | Maintenance District       |
| 18  | Rita Avenue Extension                              | MCPA | 645           | Local           | Maintenance District       |
| 19  | Terrace Road Extension                             | MCPA | 569           | Local           | Maintenance District       |
| 20  | Pedroni Road Extension                             | MCPA | 1,534         | Local           | Maintenance District       |
| 21  | Walnut Avenue Extension                            | MCPA | 1,085         | Local           | Maintenance District       |
| 22  | Waters Avenue Extension                            | MCPA | 120           | Local           | Maintenance District       |
| 23  | Lime/A Avenue Extension                            | MCPA | 152           | Urban Collector | County of Humboldt         |
| 25  | Pickett Road Extension                             | MCPA | 534           | Local           | Maintenance District       |
| 27  | Connection from Cypress to Harris at Girard        | ECPA | 7,348         | Urban Collector | Maintenance District       |
| 28  | Cypress Avenue Extension to new Connector 27/29    | ECPA | 529           | Local           | Maintenance District       |
| 30  | Fern Street Extension (Not on Circulation Diagram) | ECPA | 581           | Urban Collector | County of Humboldt         |
| 31  | Connection from Northridge to Walnut at Pleasant   | ECPA | 4,914         | Local           | Maintenance District       |
| 32  | Connection from Home to Fairway                    | ECPA | 10,124        | Urban Collector | County of Humboldt         |
| 33  | Connection from Ridgewood at Eggert to Lundblade   | ECPA | 9,828         | Urban Collector | County of Humboldt         |

| No. | Proposed Road Improvements                                | Area       | Length (feet) | Class           | Maintenance Responsibility |
|-----|---|------------|---------------|-----------------|----------------------------|
| 34  | Connection from Connector 32 to Connector 33              | ECPA       | 2,311         | Local           | Maintenance District       |
| 35  | Connection from Connector 33 to Elk River at Swain Slough | ECPA/ HBAP | 10,161        | Urban Collector | County of Humboldt         |
| 36  | Hilma Drive Extension to Connector 33                     | ECPA       | 3,009         | Local           | Maintenance District       |
| 37  | Bassford Road Extension to Connector 33                   | ECPA       | 1,719         | Local           | Maintenance District       |
| 38  | Eggert Road Extension to Elk River Road                   | ECPA       | 5,873         | Urban Collector | County of Humboldt         |
| 39  | Connection from Loma at King Salmon Drive to London       | ECPA/ HBAP | 2,699         | Urban Collector | County of Humboldt         |
| 40  | Aspen Road Extension to Loma                              | HBAP       | 1,361         | Urban Collector | County of Humboldt         |
| 41  | Mesa Avenue Extension to Connector 39                     | HBAP       | 1,269         | Local           | Maintenance District       |
| 42  | Connection from Humboldt Hill to Tompkins Hill            | ECPA/ HBAP | 5,975         | Urban Collector | County of Humboldt         |
| 43  | Connection from Barry Property to Connector 42            | HBAP       | 568           | Local           | Maintenance District       |

Source: Humboldt County Department of Public Works, 2016

## Impacts

The traffic impact analysis examined only roadway segment LOS for the EIR. Although an assessment of intersection LOS is very useful in evaluating traffic operations, the traffic model is not configured to carry out this function and the information was not available for the entire modeling area to conduct this analysis. However, the roadway segment analysis is considered adequate for characterizing the transportation and circulation impacts of the General Plan Update.

Table 3.5-7 below identifies the road segments within the incorporated and unincorporated areas of the County that are projected to fall below LOS C as a result of cumulative growth within the County that is projected to occur between 2010 and 2040<sup>2</sup>.

<sup>2</sup> As described in Chapter 2 – Project Description, the impacts considered in this RDEIR are those resulting from the increase in population projected by DOF and the increase in employment projected by Caltrans during the planning period (2016 -2040), which is a small fraction of the estimated maximum feasible development potential of the GPU, roughly four percent.

**Table 3.5-7. 2010 LOS and Projected Roadway Segments Worse than LOS C in 2028 and 2040.**

| Road        | Segments   | Location      | Estimated 2010 ADT | 2010 LOS | Estimated 2028 ADT | Estimated 2040 ADT | Length (Miles) | 2028/2040 LOS |
|-------------|--|---------------|--------------------|----------|--------------------|--------------------|----------------|---------------|
| U.S. 101    | Between 6 <sup>th</sup> Street and S.R. 255                | Eureka/Arcata | 36,452             | D        | 38,264             | 38,127             | 6.05           | D-E           |
| U.S. 101    | Between 6 <sup>th</sup> Street and Herrick Avenue          | Eureka        | 32,135             | D        | 32,851             | 32,201             | 3.03           | D             |
| Main Street | Between 7 <sup>th</sup> Street and 13 <sup>th</sup> Street | Fortuna       | 13,640             | D        | 13,681             | 13,744             | 0.3            | D             |
| Kenmar Road | Between U.S. 101 and Fortuna Blvd.                         | Fortuna       | 15,756             | D        | 16,563             | 16,257             | 0.2            | D             |

Source: TJKM, 2017

**Impact 3.5.3.1 – Increase in Vehicle Miles Traveled.**

Implementation of the General Plan Update would generate levels of development that result in a greater number of vehicle trips and increased traffic volumes on roads within the County that could cause congestion.

This impact analysis addresses item “a” of the significance standards listed in Appendix G of the CEQA Guidelines as provided in Section 3.5.2 above. Pursuant to these criteria, the proposed County General Plan Update would have a significant impact if it would:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

The Level of Service (LOS) for traffic is defined in the General Plan Update as the performance rating (“A” through “F”) for a segment of street or intersection, based on generalized perceptions of performance. Caltrans uses measures of effectiveness (MOEs) for gauging the level of service of State highway facilities and defines MOEs for each facility type (for instance freeway ramps or signalized intersection) in the “Guide for the Preparation of Traffic Impact Studies” December 2002 ([http://www.dot.ca.gov/hq/tpp/offices/ocp/igr\\_ceqa\\_files/tisguide.pdf](http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf)). Measures of Effectiveness include items such as passenger cars per lane mile per hour, seconds of delay, and average travel speed.

There are no adopted plans, ordinances or policies establishing measures of effectiveness for the performance of the circulation system in Humboldt County. The Eureka Community Plan contains a general goal that does not include an MOE: Policy 4220.1 “the County shall strive to maintain a Level of Service of C or better on arterials in the Planning Area.

The acceptable level of service goal will be consistent with the financial resources available and the limits of technical feasibility. Plans adopted by HCAOG do not contain required MOEs or LOSs.

Land use planning is critical to reducing vehicle trips and vehicle miles traveled. A report prepared by U.C. Davis for the California Air Resources Board (Land Use and Travel Behavior, Parts 1 and 2, University of California, Davis, 1994) found that local land use characteristics influence the amount of driving and travel by other modes, such as transit, bicycling, and walking. The neighborhood characteristics found to be most important were housing density, access to services, the availability of transit service, and the interconnection of travel routes. Residents in higher density, mixed-use areas were found to make more trips by transit, walking, and biking than those living in lower density areas.

Due to already established auto-oriented land use patterns, the private automobile would likely continue to be the dominant mode of transport in Humboldt County. The General Plan Update seeks to reduce vehicle miles traveled per person by providing balanced transportation opportunities, whereby the needs of motorized vehicles, public transit, bicyclists, and pedestrians are considered during land use and transportation planning.

Growth projected to occur during the General Plan Update planning period would generate levels of development that result in a greater number of vehicle trips and increased traffic volumes on roads within the County. The proposed General Plan Update, plus growth that would be allowed by each city general plan, would generate about 3,769,686 vehicle miles traveled per day (65 miles per dwelling unit per day) by the year 2040, up from approximately 3,541,683 vehicle miles traveled per day in 2010 (63 miles per dwelling unit per day). The cumulative traffic generated by both the County and the seven cities could cause congestion on some County or city roadways and would also affect air quality and greenhouse gas emissions. Air quality and greenhouse emission related impacts are evaluated in Section 3.12 Air Quality and Greenhouse Emissions.

### ***Analysis of Relevant General Plan Update Policies***

In general, the General Plan Update seeks to reduce vehicle trips and trip length by encouraging growth within existing communities, improving pedestrian and bicycle facilities and connectivity, and encouraging transit service expansion. The General Plan Update includes policies to reduce the length and frequency of vehicle trips by encouraging mixed use zoning; focusing planned residential uses within neighborhood and town centers, thereby locating residential development in proximity to transportation and work; ensuring neighborhood connectivity; and providing incentives for housing and infrastructure development in housing opportunity zones located within urban development areas.

Circulation Element Policy C-P1, Circulation System, encourages a road system that supports a pattern of growth with more intense development near collectors and arterials, and that provides connectivity between neighborhoods and destinations. Policy C-P2, Consideration of Land Uses in Transportation Decision Making, notes that a comprehensive planning approach be utilized that considers the transportation consequences of land use changes to avoid operational and economic impacts.

Policy C-P4, Mitigation Measures, requires that conditions of approval be imposed on new development to address proportional potentially significant transportation impacts. Policy C-P4 would relate only to discretionary development that would trigger CEQA review and not to ministerial projects. Policy C-Pxx, Long Term Transit Plan, directs the County to support the

development of a long term transit plan with the goal of increasing the percentage of public transit trips compared to automobile trips.

Table 3.5-7 lists only one road in the City of Eureka, that would be affected by the implementation of General Plan Update, and countywide growth expected to occur during planning period, that is the responsibility of Caltrans. Humboldt County cannot implement mitigation measures for projects that are not under its jurisdiction or guarantee their success. As a result, the General Plan Update contains policies that involve inter-jurisdictional coordination. Community Infrastructure and Services Element Policy IS-P7, Mitigation of Cross-jurisdictional Impacts, directs the County to work with cities to mitigate impacts associated with new development for each affect jurisdiction. Policy C-P5, Level of Service Criteria, requires that the County shall strive to maintain level of service "C" on all roads and intersections except U.S. 101, where level of service D is acceptable, and advises that the County should not adversely affect Level of Service and/or Quality of Service for other modes of transportation, if possible. This policy compliments policies contained in the City of Eureka General Plan. Policy C-P6, Jurisdictional Coordination and Integration, furthers the level of service standard consistency between the County and the City of Eureka by using HCAOG, memorandums of understanding, and informal project level cooperation to integrate countywide transportation planning and implementation measures. Policy C-P7, Joint Use of Traffic Models, encourages the County-Wide Transportation Plan (CWTP) and projects with potentially significant transportation impacts to use area-wide travel demand models.

### ***Conclusion***

Given that there are no applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, increased vehicles miles traveled is used as a measure of congestion for purposes of this analysis. As noted above, the growth anticipated under the General Plan Update would increase the absolute number of vehicle miles traveled within the County as well as the vehicle miles traveled per dwelling unit. This could result in a potentially significant effect on roadway operation and maintenance.

### ***Mitigation***

**Mitigation 3.5.3.1.a.** The following policies shall be added to the Circulation Element and would require the implementation of transportation demand management programs with new larger scale development in the unincorporated area.

***C-P3. Consideration of Transportation Impacts in Land Use Decision Making.*** *Decisions to change or expand the land use of a particular area shall include an analysis of the impacts to existing and proposed transportation facilities and services so as to minimize or avoid significant operational, environmental, economic, and health-related consequences.*

***C-Px9. Regional Transportation Demand Management Funding.*** *Encourage HCAOG to seek funding to support transportation demand management planning and to promote strategies that can lower the demands made on the road and highway system, reduce energy consumption, and improve air quality.*

**C-Px10. Transportation Demand Management Programs.** Require residential subdivisions and multifamily development that would result in fifteen or more dwelling units, and non-residential development that would employ greater than ten persons,

and that require a discretionary permit, to comply with County transportation demand management programs.

***C-IMX6. Transportation Demand Management.** Amend the Zoning Regulations to include criteria for the development and implementation of transportation demand management programs as required by this Plan.*

### ***Level of Significance after Mitigation***

Although the General Plan Update seeks to reduce vehicle miles traveled per capita, total vehicle miles traveled are projected to increase into the future. Adoption and implementation of the additional policies and implementation measures described in the above Mitigation Measure may help reduce VMT per person. Given the political and economic difficulties of actually implementing these programs, achieving reducing VMT per person from 2010 levels is unlikely; therefore, this would be a **significant unavoidable impact**.

### **Impact 3.5.3.2 – Unacceptable LOS on Roadways within the County.**

Implementation of the General Plan Update would generate levels of development that result in increased traffic volumes on roads within the County that could cause existing levels of service to fall below LOS C as a result of cumulative growth within the County that is projected to occur between 2010 and 2040.

This impact analysis addresses item “b” of the significance standards listed in Appendix G of the CEQA Guidelines as provided in Section 3.5.2 above. Pursuant to these criteria, the proposed County General Plan Update would have a significant impact if it would:

- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

Impacts 3.5.3.2-1 through 3.5.3.2-4 analyze the four roadway segments that would be expected to degrade to below LOS “C” (see Table 3.5-7,).

The following road segments: U.S. 101 between 6th Street and S.R. 255; U.S. 101 in Eureka between 6th Street and Herrick Avenue; Main Street Fortuna, between 7th Street and 13th Street; and Kenmar Road in Fortuna, between U.S. 101 and Fortuna Blvd are projected to fall below level of service “C” due to cumulative growth during the General Plan Update planning period. Each of these segments is described in greater detail below and specific mitigations are proposed to reduce impacts. The following more general mitigations are proposed to limit undesirable transportation impacts and, in combination with specific mitigations listed below, would reduce impacts relating to these four roadway segments.

## **Mitigation**

To help reduce impacts of the General Plan Update on Levels of Service on county roads, the following mitigation measures are necessary.

**Mitigation Measure 3.5.3.2.a.** Amend existing policies and add the following implementation measure to the Circulation Element that establishes a multi-faceted program to lessen impacts relating to traffic congestion:

***C-IMX7. Congestion Relief Planning and Implementation Program.** The County shall utilize the best available traffic information, including the Humboldt County Travel Demand Model, other models and plans, and transportation impact analyses to identify roads that are currently capacity constrained or projected to become capacity constrained at some point as a result of General Plan implementation, and shall work cooperatively with HCAOG, Caltrans, applicable cities, HTA, or other agencies to implement a coordinated traffic management strategy to plan and prioritize transportation demand measures and roadway improvements to reduce roadway congestion along such roadways.*

*The County shall use state and federal transportation improvement funds available directly to the County or through HCAOG, other grant funds, project related exactions, other available County funds, and impact fees to fund congestion relief improvements.*

*The following steps shall be taken to address specific capacity limitations:*

- A. *Monitor vehicle trips and other modes of travel at regular intervals.*
- B. *Solicit public involvement in transportation improvement planning prior to implementing any improvements.*
- C. *Identify transportation demand management measures that could be applied to the areas served by the specific roadway(s) to reduce peak-hour vehicle trips and congestion, such as:*
  1. *Coordinate with school districts to expand school bus operations, create a "walking school bus" program, create programs for shared rides to school, or other programs to reduce school-related vehicle trips;*
  2. *Coordinate with transit providers to identify strategies to improve and expand bus service and encourage ridership;*
  3. *Coordinate with businesses served by the roadway(s) and encourage the use of appropriate transportation demand measures to reduce employee-related vehicle trips;*
  4. *Identify bicycle and pedestrian enhancements that improve the ability of motorists to shift short trips to non-motorized modes.*
- D. *Use the following roadway and intersection improvements, as appropriate, in combination with "E" below, to accommodate additional traffic volumes while providing a safe multi-modal circulation system:*
  1. *Public education*
  2. *Signage*
  3. *Stop signs*
  4. *Traffic signals or roundabouts*
  5. *Traffic signal timing changes and signal coordination*
  6. *Striped turn-lanes*
  7. *Turn movement prohibitions*
  8. *Bulb-outs and chicanes*

9. *Change stop sign location of two-way stop signs at four-way intersections to reduce unwarranted stops on parallel alternative routes*
10. *Develop parallel routes or make parallel routes into couplets*
- E. *Implement the following measures in a stepwise manner to provide additional vehicle capacity on existing two-lane roads:*
  1. *Within the existing curbs, provide a two-way left turn lane (2WLTL), two travel lanes, and up to two parking lanes when space permits – provides a capacity of up to 16,000 vehicles per day.*
  2. *Provide 2WLTL, two travel lanes, two bike lanes, and up to two parking lanes when space permits (usually a parking lane needs to be removed to add bike lanes) - provides a capacity of up to 16,000 vpd.*
  3. *Identify parallel alternate routes with available traffic capacity to which some of the excess traffic can be diverted and utilize intersection improvements listed in “D” above to encourage drivers to divert to identified alternate routes.*
- F. *If transportation demand management measures and capacity improvements located within the existing two-lane cross-section have been demonstrated to be inadequate:*
  1. *Consider accepting a lower level of service;*
  2. *Within the existing curbs, provide four lanes consisting of two travel lanes and no parking - provides a capacity of up to 20,000 vpd. Note: Although a four-lane undivided roadway section provides more capacity than two lanes and one 2WLTL, the section with a 2WLTL is considered safer.*
    - a. *Within the existing curbs, same as above but with a.m. and p.m. peak hour left turn prohibitions into driveways and side streets - provides a capacity of up to 22,000 vpd.*
    - b. *Within the existing curbs, same as above but with a.m. and p.m. peak hour left turn prohibitions into driveways and side streets; widen curbs to provide left turn pockets at key intersections – provides a capacity of 24,500.*
  3. *Consider widening the curbs to provide additional travel lanes, bike lanes, 2WLTL, medians, parking lanes, and sidewalks, all as needed to meet demands.*

**C-Px. Countywide Traffic Impact Fee Program.** *In coordination with the cities within the County, shall develop and implement a countywide traffic impact fee program that addresses impacts on major roads resulting from development in cities and unincorporated areas. Adopt this fee within one year of the adoption of the General Plan Update. A traffic impact fee is currently being evaluated for the Greater Eureka Area, encompassing the Eureka urbanized area.*

#### **Impact 3.5.3.2.-1: Unacceptable LOS on U.S. 101 Between S.R. 255 in Arcata and 6th Street in Eureka**

The travel demand model indicates that implementation of the General Plan Update will result in increased traffic that will cause U.S. 101 between S.R. 255 in Arcata and 6<sup>th</sup> Street in Eureka to operate at LOS D/E in 2028 and 2040. The minimum acceptable LOS on U.S. 101 in urban areas in Caltrans District 1 is LOS D.

Caltrans is in the process of completing planning and designs for the Eureka-Arcata Route 101 Corridor Improvement Project (SCH Number 2001092035), which includes the area in question. Caltrans has completed a Final Environmental Impact Statement and a Final Environmental

Impact Report for the Eureka-Arcata Corridor Improvement Project ([http://www.dot.ca.gov/dist1/d1projects/eureka\\_arcata/reports.htm](http://www.dot.ca.gov/dist1/d1projects/eureka_arcata/reports.htm)). Caltrans is planning on certifying these documents and approving this project in early 2017. Permits will then need to be obtained and a final design will need to be approved.

Major proposed project features include safety and operational improvements to U.S. Highway 101 between Eureka and Arcata in Humboldt County, including a grade separated interchange at Indianola Road, a half signal at Airport Road, and a bridge replacement. The primary purpose of the proposed project is to improve safety at uncontrolled left turns on and off the highway. No other improvements are planned by Caltrans.

### ***Analysis of Relevant General Plan Update Policies***

The General Plan Update includes Policy C-P5, Level of Service Criteria, which strives to maintain a LOS "C" on all roadway segments, except for any portion of U.S. 101, where Level of Service "D" would be acceptable, and further states that Level of Service improvements for automobiles should not adversely affect Level of Service and/or Quality of Service for other modes of transportation, if possible. Policy C-P17, Highway Improvements, encourages state and federal highway improvements that promote safety and connectivity for all users, especially for communities with highway arterials. Policies C-P6 Jurisdictional Coordination and Integration, and C-P7 Joint Use of Traffic Models, encourages the use of consistent travel demand models and cross jurisdictional coordination in addressing impacts outside County jurisdiction.

### ***Conclusion***

Projected growth during the General Plan Update planning period in conjunction with growth in the cities within the County would increase vehicle trips on U.S. 101 between the cities of Eureka and Arcata. Future traffic levels are projected to cause the highway to fall to LOS "D/E"; therefore, implementation of the General Plan Update would result in a potentially significant impact. The General Plan Update policies and measures referenced above would reduce the anticipated impacts but not necessarily to a less-than-significant level. The mitigation measures described below would help reduce the impacts of the General Plan Update on U.S. 101 Between S.R. 255 in Arcata and 6th Street in Eureka.

### ***Mitigation***

**Mitigation Measure 3.5.3.2.c.** Modify Policy C-P17 to demonstrate support for the implementation of Caltrans U.S. 101 Eureka-Arcata Corridor Improvement Project, in a manner consistent with the General Plan Update.

**C-P17. Highway Improvements.** Encourage state and federal highway improvements that promote safety and connectivity for all users, especially for communities with highway arterials. **The County supports a strategy for safety and operational improvements to the U.S. Highway 101 Safety Corridor that is implemented in a manner consistent with the General Plan.**

### ***Level of Significance after Mitigation***

The future U.S. 101 LOS benefits resulting from Mitigation Measure 3.5.3.2.c cannot be definitively determined or tested at this time. In addition, improvements that would involve construction outside of the existing highway cross-section would be within an area that contains significant environmental constraints. Implementation of the Highway 101 Safety Corridor improvements within the General Plan Update planning period would be unlikely. Therefore, with

implementation of Mitigation Measure 3.5.3.2.c, impacts related to the future capacity of U.S. 101 would be reduced, but not necessarily to a less-than-significant level. This would be a **significant and unavoidable impact**.

### **Impact 3.5.3.2-2: Unacceptable LOS on U.S. 101/Broadway, City of Eureka**

Implementation of the General Plan Update will result in increased traffic that will cause U.S. 101/Broadway in the City of Eureka to operate at LOS D in 2028 and 2040, which is the minimum acceptable LOS on U.S. 101 in urban areas in Caltrans District 1.

U.S. 101 within the City of Eureka consists of Broadway between 6<sup>h</sup> Street (south of the one-way couplet) to Herrick Avenue, where the freeway begins. The travel demand model projects that Broadway will operate at LOS D in 2028 and 2040. Broadway is a four-lane, north-south urban principal arterial highway in a mixed land use area. From approximately 800 feet south of the Kmart Traffic Signal to Washington Street, Broadway has a TWLTL. The Broadway corridor is approximately 3 miles in length. The Transportation Concept Report for this facility indicates that Broadway operates at a signalized unstable flow, which means that signalized intersections control level of service, and some intersections within the segment experience unstable flow at peak hour.

The collision rate at certain locations along Broadway reaches as high as four times the statewide average when compared to similar facilities. The corridor also experiences significant traffic congestion and poor mobility for all modes of transportation. The options for improvement include various capacity enhancements, such as added lanes or improved coordination (e.g. signal timing); freeing up capacity by converting trips from vehicles to other modes; and diverting trips to alternative routes, potentially including a bypass. Adding lanes to US 101 is generally infeasible as the route runs through areas that are fully built out, leaving little available space to create new lanes without taking land from adjacent properties. While limited relief could be achieved through optimized signal timing, changes in traffic patterns occur routinely and signal timing should therefore be modified as necessary to reflect such changes (City of Eureka General Plan Update Mobility Policy Paper (<http://www.eureka2040gpu.com/Links/pdfs/Mobility%20Policy%20Paper%203-23-15.pdf>)).

### ***Analysis of Relevant General Plan Update Policies***

The General Plan Update Circulation Element includes the following policy relating to a minimum LOS standard on U.S. 101: C-P5, Level of Service Criteria, which directs that the County shall strive to maintain a LOS "C" on all roadway segments and intersections, except for any portion of U.S. 101, where LOS "D" would be acceptable. This policy further states that Level of Service improvements for automobiles should not adversely affect Level of Service and/or Quality of Service for other modes of transportation, if possible. See Impact 3.5.3.12.c-1 above, for a discussion of how Policies C-P6 Jurisdictional Coordination and Integration, and C-P7 Joint Use of Traffic Model, lessen potential impacts.

### ***Conclusion***

The traffic model projects that buildout of the General Plan Update, in conjunction with the implementation of city general plans within the County, would result in traffic levels that would reduce the LOS of the U.S. 101 Broadway corridor at or below "D," which is the General Plan update LOS standard and the LOS concept established by Caltrans for this facility. Therefore, this would be a potentially significant impact.

### *Mitigation*

**Mitigation Measure 3.5.3.2.d.** A Circulation Element policy shall be added to direct the County to participate in joint planning for the Broadway corridor:

**C-Px, U.S. 101/Broadway Corridor.** The County shall participate in joint planning for capacity improvements relating to the U.S. 101/Broadway corridor with HCAOG, Caltrans, and the City of Eureka.

### *Level of Significance after Mitigation*

Based on the forecasts of the 2028 and 2040 travel demand model, the LOS on this section of US 101 will reach LOS D as a result of the implementation of city general plans within the County. The benefits to LOS of future Caltrans capacity improvements to U.S 101 cannot be definitively determined or tested at this time and no funding source has been identified. However, with implementation of Mitigation Measure 3.5.3.1.d, impacts related to the future capacity of U.S 101 would be reduced and LOS D is considered acceptable on U.S. 101. This impact is **less than significant**.

### **Impact 3.5.3.2.-3: Unacceptable LOS on Main St, Between 7th St and 13th Street, Fortuna**

Implementation of the General Plan Update will result in increased traffic that will cause Main Street between 7<sup>th</sup> Street and 13<sup>th</sup> Street to operate at LOS D in 2028 and 2040.

Main Street and Fortuna Boulevard (North and South) in Fortuna are the former alignment of U.S. 101, prior to the construction of the freeway along the western edge of the City. The segment of Main Street between 7<sup>th</sup> St and 16<sup>th</sup> Street comprises the downtown portion of Fortuna and has been upgraded to provide bulbouts and other features that improve the pedestrian experience and provide protected parking areas. This section of Main Street will slightly exceed the County's LOS C standard but is not a candidate for improved capacity. The City of Fortuna General Plan Draft EIR determined that no additional lanes would be needed in this area, however it states that the 9<sup>th</sup> Street and Main Street and 12<sup>th</sup> Street and Main Street intersections will drop to F in 2030, and includes a mitigation measure for a signalized new left-turn land to east and west approaches to the 9<sup>th</sup> Street and Main Street intersection. Intersection improvements at 12<sup>th</sup> and Main also required. After mitigation, these intersections will drop to D. Policy TC-1.2 says LOS D is acceptable on Main Street.

### *Analysis of Relevant General Plan Update Policies*

See the discussion of Impact 3.5.3.2.-4 above for a discussion of General Plan Update Circulation Element policies relating to minimum LOS standards and jurisdictional coordination.

### *Conclusion*

Based on the travel demand model, growth projected to occur during General Plan Update planning period in conjunction with the growth in the cities within the County would reduce the LOS of the segments of Main Street in Fortuna, between 7<sup>th</sup> Street and 13<sup>th</sup> Street to LOS D. However, any mitigation involving capacity improvements, typically include the addition of travel lanes, and this would mean adding lanes to areas that are largely built out, leaving little available space to create new lanes without taking land from adjacent properties. or degrade the desired downtown amenities in the area. Therefore, this impact would be **significant and unavoidable**.

#### **Impact 3.5.3.2-4: Unacceptable LOS on Kenmar Road between U.S. 101 NB Ramps and S. Fortuna Blvd, Fortuna**

Growth projected to occur during the General Plan Update planning period in conjunction with the growth in the cities within the County will result in increased traffic that will cause Kenmar Road between U.S. 101 NB ramps and S. Fortuna Blvd. to operate at LOS D or below in 2028 and 2040. The minimum acceptable LOS on U.S. 101 in urban areas in Caltrans District 1 is LOS D.

Kenmar Road is located in the City of Fortuna and extends from South Riverwalk Drive to Rohnerville Road. The portion of Kenmar Road from U.S. 101 to South Fortuna Boulevard currently operates at a LOS "D" according to the travel demand model. Based on the Fortuna General Plan EIR, the intersection with Eel River Drive currently operates at a LOS "C", and the southbound 101 off-ramp to Kenmar is currently at an LOS "E". By 2028 and 2040, the travel demand model projects that the Kenmar Road from U.S. 101 to South Fortuna Boulevard road segment will degrade to LOS "D".

The Fortuna General Plan EIR identifies the following mitigation programs that will improve the operation of this segment and related intersections: South Fortuna Boulevard-Ross Hill Road/Kenmar Road - implement right-turn overlap phasing on both Kenmar Road approaches; Kenmar Road/Eel River Drive - the northbound Eel River Drive approach will need to be widened to provide a right-turn lane; Kenmar Road/U.S. 101 North Ramps - signalize and operate with permitted left-turn phasing (no additional lanes would be needed); Kenmar Road/U.S. 101 South Ramps - signalize, add a right-turn lane on the eastbound approach and operate with permitted left-turn phasing. Upon implementation of these improvements this segments and associated intersections would operate at LOS "C" or better.

#### ***Analysis of Relevant General Plan Update Policies***

See the discussion of Impact 3.5.3.2.-4 above for a discussion of General Plan Update Circulation Element policies relating to minimum LOS standards and jurisdictional coordination. In particular, the General Plan Update Circulation Element includes the following policy relating to minimum LOS standards, C-P5, Level of Service Criteria, which strives to maintain a LOS "C" on all roadway segments, except for any portion of U.S. 101, where Level of Service D would be acceptable. See Impact 3.5.3.12.c-1 above, for a discussion of how Policies C-P6 Jurisdictional Coordination and Integration, and C-P7 Joint Use of Traffic Model, lessen potential impacts.

#### ***Conclusion***

Based on the travel demand model, the 2028 and 2040 forecasts of growth projected to occur during the General Plan Update planning period in conjunction with the growth in the cities within the County indicate that, the LOS on this section of Kenmar Road would be reduced to LOS D. The City of Fortuna General Plan identifies a series of mitigations intended to improve the future operation of the Kenmar Road/Eel River Drive, Kenmar Road/U.S. 101 North Ramps, and Kenmar Road/U.S. 101 South Ramps to LOS "C". LOS benefits resulting from mitigation measures contained in the City of Fortuna General Plan Update DEIR cannot be definitively determined or tested at this time; impacts related to the future capacity of Kenmar Road would be reduced, but not necessarily to a less-than-significant level. Therefore, as the full implementation of these mitigation measures may not be sufficiently effective, and implementation of the mitigation is the jurisdiction of the City of Fortuna and not Humboldt County, this impact would be **significant and unavoidable**

### Impact 3.5.3.3 Regional Level of Service Standard

Implementation of the General Plan Update would generate levels of development that result in increased traffic volumes on roads within the County that could Conflict with an applicable regional level of service standard.

This impact analysis addresses item “b” of the significance standards listed in Appendix G of the CEQA Guidelines as provided in Section 3.5.2 above. Pursuant to these criteria, the proposed County General Plan Update would have a significant impact if it would:

- c) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

The Humboldt County Association of Governments (HCAOG) is the Regional Transportation Planning Agency for Humboldt County. There is no regional congestion management agency in Humboldt County. The HCOAG Regional Transportation Plan (RTP) was adopted in 2014, The RTP does not establish level of service standards for roadway or multi-modal facilities.

The HCAOG Regional Transportation Plan ( Variety in Rural Options of Mobility, HCAOG 20-Year Regional Transportation Plan 2014 Update, [http://hcaog.net/sites/default/files/vroom\\_adopted\\_w\\_8.5x11\\_maps\\_0.pdf](http://hcaog.net/sites/default/files/vroom_adopted_w_8.5x11_maps_0.pdf)) Policy HR-11 states that level of service (LOS) standards are to be used to measure the performance of all regionally significant roadways that contribute to the regional transportation network. Objectives that are intended to carry out this policy call for the development and maintenance of a list of regionally significant roadways with established minimum acceptable LOS for each, and periodic traffic volume counts to determine whether minimum LOS levels are being maintained. A second objective calls for the traffic volume LOS to be coordinated with other bicycle and pedestrian LOS to achieve balanced multi-modal use of roadways.

Table HR-1 on page HR-2 of the RTP lists regionally significant streets roadways that are identified by members of city and County staff (the list of regionally significant roads in the unincorporated area identified by County staff is presented herein under the heading Major County Roads in 3.5.1 Transportation/Traffic -Environmental Setting). Given that Policy HR-11 includes an objective to establish a list of regionally significant roadways, it is not clear if the list in Table HR-1 is the official HCOAG list or if it represents an intermediate step towards establishing such a list. In addition, the 2014 RTP does not establish a regional LOS standard. Nonetheless, it is clear from Impact 3.5.3.1 above that projected growth during the General Plan Update planning period would result in additional traffic congestion and contribute to reductions in the level of service on County roads, state highways, and city streets.

#### ***Analysis of Relevant General Plan Update Policies***

The following proposed Circulation Element policies are intended to reduce roadway congestion on County roads, state highways, and city streets and to facilitate coordination with HCAOG, Caltrans, and the seven cities. Policy C-P6, Jurisdictional Coordination and Integration, directs the County to use HCOAG, formal Memorandums of Understanding, and informal project level cooperation to integrate countywide transportation planning and implementation efforts. Currently, the County and each city maintain their own roadway standards. Policy C-P7, Joint Use of Traffic Models, would direct the County to integrate transportation planning and analysis through joint use of area-wide traffic models such as the Greater Eureka Area Travel Demand

Model (GEATM). Implementation Measure C-IM4, Regional Coordination, directs the County to support and participate in joint circulation system and land use planning with HCOAG, affected cities, Caltrans, and other transportation agencies and providers.

The GPU does establish a level of service criteria for County roads. Pursuant to Policy C-P5, Level of Service Criteria, the County shall strive to maintain Level of Service C operation on all roadway segments and intersections, except for U.S. 101, where Level of Service D shall be acceptable. This policy also states that Level of Service and/or Quality of Service for automobiles should not adversely affect Level of Service and/or Quality of Service for other modes of transportation, if possible. In addition, Policy C-P4, Mitigation Measures, requires that development with potentially significant impacts as determined by CEQA review be conditioned to proportionally mitigate such impacts through payment of impact fees, construction of on-site and off-site improvements, and dedication of rights-of-way, or a combination of impact fees, improvements and dedications.

### ***Conclusion***

As noted above, the growth projected to occur during the General Plan Update planning period has the potential to exceed level of service standards for certain roads and highways. The HCAOG Regional Transportation Plan does not specify a level of service standard for designated roads or highways, nor does any other HCAOG adopted document. The policies, standards and implementation measures listed above under Impact 3.5.3.2, address this impact and would require that transportation demand measures or road improvements are implemented in a timely manner so as to avoid deterioration in levels of service. However, this EIR cannot guarantee that transportation management programs would be implemented or would be completely successful, and that capacity related roadway improvements could feasibly be constructed. Therefore, this is a **potentially significant impact**.

### ***Mitigation***

Mitigation Measure 3.5.3.2.a will add an implementation measure that involves using best available traffic information, and working with other agencies to implement a coordinated traffic management strategy to plan and prioritize transportation demand measures and roadway improvements to reduce roadway congestion along such roadways, which will help reduce this impact as well.

### ***Level of Significance after Mitigation***

Mitigation 3.5.3.2a establishes a program for congestion relief by planning cooperatively with HCAOG, Caltrans, applicable cities, HTA, or other agencies to implement a coordinated traffic management strategy to plan and prioritize transportation demand measures and roadway improvements to reduce roadway congestion along such roadways and to use of a Countywide traffic impact fee program to support project implementation. These programs have the potential to reduce future congestion. However, potential congestion relief projects have not been identified, and coordination between affected agencies has not yet occurred. Therefore, the benefits to LOS of future capacity improvements cannot be definitively determined or tested at this time; therefore, with implementation of these mitigation measures, future capacity related impacts would be reduced, but not necessarily to a less-than-significant level. This impact would remain **significant and unavoidable**.

### Impact 3.5.3.4: Air Traffic

Implementation of the general plan would allow new development and associated traffic that could pose safety risks due to conflicts with airport operations or potential exposure of new development to airport hazards.

This impact analysis addresses item “c” of the significance standards listed in Appendix G of the CEQA Guidelines as provided in Section 3.5.2 above. Pursuant to these criteria, the proposed General Plan Update would have a significant impact if it would:

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Humboldt County contains eight general-aviation airports (Dinsmore, Samoa, Garberville, Hoopa, Kneeland, Murray, Rohnerville, and Shelter Cove), and one commercial service primary airport. The Humboldt County Airport Land Use Commission has established airport land use compatibility plans for each airport, except Samoa Field. The plans describe the allowable land uses and development standards for each airport compatibility zone.

Impact 3.7.2.5, Airport Safety Hazards, in Chapter 3.7, Hazards and Hazardous Materials, analyzes the extent to which the implementation of the General Plan Update would locate land uses within an airport land use plan or within two miles of an airport, which would result in a safety hazard for people residing or working in the project area. This safety hazards analysis described the proposed land use designations around airports and found that certain land use designations would conflict with the Airport Land Use Compatibility Plan. Impact 3.7.2.5 included several mitigation measures that would require that the proposed land use designations or allowable densities be changed in a manner consistent with the Airport Land Use Compatibility Plan, or that an overlay be applied to limit residential density and employment intensity to levels consistent with the Airport Land Use Compatibility Plan.

Residential and commercial growth during the General Plan Update planning period would likely generate additional passenger and cargo air travel within the County. However, the proposed General Plan Update does not contemplate land uses that would require any changes to air traffic patterns.

Pursuant to state and federal regulations, Humboldt County prepares an Airport Master Plan for each airport that it operates that evaluates safety risks. The Airport Master Plan is a 20-year comprehensive study that describes the short-, medium- and long-term development plans of an airport and its facilities. The master plans also contain an Airport Layout Plan that provides a graphic representation of the current conditions and the future long-term planned development for an airport as well as a capital improvement program that addresses how the master plan is to be implemented.

The Arcata-Eureka Airport Master Plan Report (September 2005) for the California Redwood Coast – Humboldt County Airport contains of future airport operations forecasts. Currently, commercial service is provided by United Express and Pen Air. The Arcata-Eureka Airport Master Plan projects that aircraft operations at the California Redwood Coast – Humboldt County Airport will increase from 49,000 in 2004 to 55,000 in 2024, a 12 percent increase. Passenger enplanements are projected to increase from 98,453 in 2004 to 167,000 in 2024. However, the slowing local economy since those projections may have an influence on future passenger travel growth rates.

Aircraft operations at the Dinsmore, Garberville, Murray Field, and Rohnerville airports are expected to increase by between 15 and 18 percent between 2010 and 2025 according to Table AS3 Aviation Activity Forecast – Annual Operations, of the Regional Transportation Plan Aviation Systems Element. Samoa Field, Hoopa Airport, and Shelter Cove Airport are not anticipated to experience increases in aircraft operations in the next 20 years. The airport master plans identify the improvements if any that may be required to accommodate future aircraft operations.

### ***Analysis of Relevant General Plan Update Policies***

The following proposed Safety Element policies are intended to ensure that implementation of the General Plan Update does not result in a change in air traffic patterns or an increase in traffic levels or a change in location that results in substantial safety risks. Safety Element Policy S-P21, Development Compatibility, encourages the ALUC to review the Airport Land Use Compatibility Plans (ALUCP) at least every five years to ensure the ALUCP accurately defines planning areas around airports, to establish land use policies and standards appropriate for the public safety and protection of airport operations, and to amend the General Plan to be consistent with changes to the ALUCP. Standard S-S14, Airport Land Use Compatibility Plan, requires that development within the jurisdiction of Airport Land Use Compatibility Plans (ALUCP) conform to the policies and standards of the ALUCP. Policy S-P22, Airport Land Use Compatibility Criteria, directs the County to regulate and plan land use around airports according to the Airport/Land Use Safety Compatibility Criteria (Safety Element Table 14-A), which is required to be consistent with the ALUCP. Policy S-P24, Airport Safety Combining Zone, indicates that airport safety combining zones are to be used within airport influence areas to ensure consistent application of the Airport Land Use Compatibility Criteria matrix. Policy S-P23, Obstruction-free Approach Surfaces, allows the maintenance of obstruction-free approach surfaces at all airports identified on the Approach and Clear Zone plans consistent with FAA requirements to be principally permitted. Also, Humboldt County Code Section 333-1 regulates building heights near airports.

### ***Conclusion***

The Safety Element policies and standards identified above along with the established airport land use compatibility plans would protect future operations of the airports and provide for the safety and compatibility of adjacent land uses. Because future land uses and development would continue to be subject to the established airport land use compatibility plans regulations and policies, this impact would be **less than significant**.

### ***Mitigation***

None required.

### **Impact 3.5.3.5: Road Safety**

Implementation of the proposed General Plan Update would result in increased vehicle, pedestrians, and bicyclists trips on roadways within the unincorporated area, thereby increasing hazards to roadway users.

This impact analysis addresses item “d” of the significance criteria described in Section 3.5.2 above. Pursuant to these criteria, the proposed General Plan Update would have a significant impact if it would:

- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Table 3.5-6, General Plan Update Circulation System Improvements, lists a series of additional road segments that are planned as part of the General Plan Update. The General Plan Update Circulation Diagram contains general illustrations of the proposed alignments for these roadways; however, designs have not yet been prepared. Changes in the alignment of these routes should be expected. New County roadways would be designed and constructed to meet the requirements of the Caltrans Highway Design Manual and/or AASHTO standards, which is consistent with federal highway standards. It is presumed therefore that roadway design would not create additional safety hazards. Other roads that are proposed by applicants to serve their projects would be constructed to meet County roadway standards contained in the Appendix to Title III, Division 2, of the Humboldt County Code Establishing Subdivision Design and Improvement Standards and Chapter 2, Emergency Access, of the Humboldt County Fire Safe Regulations; Title III - Land Use and Development---Division 11; the Humboldt County Design Manual; AASHTO; and the Caltrans Highway Design Manual.

### ***Analysis of Relevant General Plan Update Policies***

The General Plan Update supports a safe and efficient transportation system that accommodates automobiles, trucks, transit buses, bicycles, pedestrians, and the mobility-challenged population. Circulation Element Goal C-G1, Circulation System Safety and Functionality, defines a General Plan Update circulation system that is safe, efficient circulation system to all cities, communities, neighborhoods, recreational facilities, and adjoining regions. The Circulation Element contains policies to ensure that roadway design reduces roadway safety hazards and accommodate multi-modal users.

The Circulation Element includes policies and standards that that relate to safe circulation facilities for all transportation modes. C-P25, Multimodal Level of Service (LOS) and Quality of Service Standards (QOS), directs the County to use objective methods and criteria to formulate Level of Service (LOS) and Quality of Service (QOS) standards which consider “walkability audits” and “bikeability audits” suitable for the locality, to assess and plan the multi-modal quality and capacity of County roads and intersections. Policy C-P31, Design Standards for All Pathways, requires that design standards appropriate to urban, suburban, rural and remote character shall be used by the County Public Works Department for the design and construction of pedestrian and bicycle facilities. In addition, Policy C-P32, Traffic Calming, directs the County to use traffic calming measures, where feasible and appropriate, as a means of providing safe pedestrian and bicycle access.

Circulation Element Standard C-S5, Prioritizing Roadway Capital Expenditures, directs the County to use objective criteria to prioritize roadway capital expenditures and directs the County to develop criteria to reflect consideration of information such as accident data and traffic engineering safety analysis for safety projects, and LOS and QOS measures for congestion relief projects.

Specific policies that address existing transportation safety issues include Circulation Element Policy C-P17, Highway Improvements, which indicates that Humboldt County supports a strategy for safe and connective improvements. Policy C-P24, Investment in Improvements, requires that the County’s Capital Improvement Plan be consistent with the County-Wide Transportation Plan and that the level of service and quality of service for all users not be diminished when expanding roadway capacity for motorized circulation, and encourages road resurfacing

projects to provide improved access and safety for bicycles. Policy C-P29, Removal of Obstacles in Pathways, would require that, where feasible and consistent with the County-Wide Transportation Plan, new pathways and sidewalks be free of obstacles such as utility poles and mailboxes, and that existing sidewalks or pathways be widened or otherwise designed to provide the least amount of obstruction to users where obstacles are unavoidable. In addition, Policy C-P18, County Feedback to School Districts Regarding Transportation Planning, directs the County to provide feedback to school districts with new school site locations or other significant changes to school facilities or operations, to give advice on mitigating traffic impacts and promote multi-modal school site access.

For new development, Policy C-P4, Mitigation Measures, requires that development with potentially significant circulation impacts as determined by CEQA review be conditioned to proportionally mitigate such impacts through the payment of impact fees, construction of on-site and off-site improvements, and dedication of rights-of-way, or a combination thereof. The Land Use Element Rural Lands Chapter Policy RL-P5, Road Constraints and Rural Development, requires that rural zoning densities and subdivision approvals reflect road constraints identified by the County Public Works Department. This policy specifies that subdivisions may be allowed where roads can be feasibly improved to minimum County standards at the time of subdivision, or incrementally through road improvements from future development. Implementation measure RL-IM2, Identification of Substandard Roads, directs the County to coordinate with area emergency service providers to inventory and map road segments that do not meet subdivision road standards or State Responsibility Area Fire Safe standards. Such a measure constitutes a major undertaking and requires identification of a funding source.

### ***Conclusion***

The proposed General Plan Update Circulation Element has as its first goal to provide safe and efficient circulation system to all cities, communities, neighborhoods, recreational facilities, and adjoining regions, and contains policies to ensure that roadway design reduces roadway safety hazards and accommodates multi-modal users. The General Plan Update would prioritize improvements that address existing safety problems and design of new improvements to meet appropriate standards. Therefore, General Plan Update impacts relating to hazards to roadway users as a result of the General Plan Update would be **less than significant**.

### ***Mitigation***

None required.

#### **Impact 3.5.3.6: Inadequate Emergency Access.**

This impact analysis addresses item “e” of the significance criteria described in Section 3.5.2 above. Pursuant to these criteria, the proposed General Plan Update would have a significant impact if it would:

- e) Result in inadequate emergency access.

Inadequate emergency access and egress can occur as a result of an incomplete or not fully interconnected roadway network, such as inadequate roadway widths or turning radii, dead end or gated roads, one-way roads, or single ingress and egress routes. The lack of a comprehensive road network can result in traffic congestion or blocked routes which can limit the responsiveness of emergency service providers or trap residents trying to evacuate during an emergency. In addition, inadequate roadway widths and turning radii and one-way roads can

impair emergency access and cause delays in response. Gated communities can also obstruct access for emergency vehicles and hinder egress for residents evacuating in the event of an emergency such as a fire. The County also has several low water bridges or crossings that affect access in winter months.

The Humboldt County road network is comprised of highways and state routes, arterials, collectors, and local public, private, and fire access roads. Many neighborhoods and residential areas in McKinleyville and the unincorporated area surrounding the City of Eureka have been developed on cul-de-sacs or have small network of local roads that are served by a single access road. As indicated above, the lack of multiple connection points limits the ability of residents to evacuate in the event of an emergency and limits the ability of emergency responders to render prompt assistance. A major problem is gates on secondary access roads where residents may not know that there is a secondary access road since the gate is typically closed. The McKinleyville and Eureka Community Plans circulation maps identify road extensions and new connectors intended to improve circulation and that would provide better emergency access.

There are 25 roadway extensions or planned connectors that are intended to improve circulation and emergency access within the McKinleyville area. The Humboldt Hill area may be the largest unincorporated urbanized area with a single access. Approximately 2,200 people who live along Humboldt Hill Road have only one access road. The proposed Circulation Diagram contains 5 new connectors that would improve emergency access in the Humboldt Hill area, including: a connection from Loma at King Salmon Drive to London (Connector 40); the Aspen Road Extension to Loma; the Mesa Avenue Extension to Connector 40; a new connection from Humboldt Hill to Tompkins Hill (Connector 42); and a connection from the Barry Property to Connector 42.

Within rural areas, there are many communities and inhabited areas with only one access road, and sometimes old logging roads that are gated and can be used as emergency evacuation routes. Unless these roads are open at all times, such routes may not be known to all residents or emergency responders and can therefore not be relied upon for secondary access.

The Fire Safe Regulations (Title III, Land Use and Development, Division 11) apply to subdivisions and other new development within the State Responsibility Area, which covers most of the unincorporated County. The Fire Safe Regulations require that new road and street networks, whether public or private, provide for safe access for emergency wildland fire equipment and civilian evacuation, and provide unobstructed traffic circulation during a wildfire emergency. The Fire Safe Regulations specify road width, surface, grade, radii, turnouts and turnarounds, the maximum length of dead-end roads, as well as specify standards for driveways and gated entrances. Roadway standards for new development are also specified in Appendix to Title III, Division 2, of the Humboldt County Code establishing subdivision design and improvement standards. New County roadways would be designed and constructed to meet the requirements of the AASHTO standards, and/or Caltrans Highway Design Manual, which is consistent with federal highway standards.

### ***Analysis of Relevant General Plan Update Policies***

The General Plan Update includes policies, standards and implementation measures intended to ensure adequate emergency access to the new development planned under the General Plan Update. Rural Land Chapter of the Land Use Element Policy RL-P5, Road Constraints and Rural Development, requires that rural zoning densities and subdivision approvals reflect road constraints identified by the County Public Works Department and allows subdivisions where

roads can be feasibly improved to minimum County standards at the time of subdivision, or incrementally through road improvements from future development. Rural Lands Implementation Measure RL-IM2, Identification of Substandard Roads, directs the County to coordinate with area emergency service providers to inventory and map road segments that do not meet subdivision road standards or State Responsibility Area Fire Safe standards; assess the feasibility of achieving minimum standards through the Public Works Capital improvement program or through incremental road improvements provided by future development; and where adequate access cannot be achieved by these methods, place an overlay zone over the affected area restricting further residential subdivision.

Circulation Element Standard C-S1, Functional Classifications, states that roadway classifications and standards are shown in General Plan Circulation Element Table 7-B and further specified in the Subdivision Regulations. Circulation Element Implementation Measure C-IM1, Countywide Transportation Plan, directs the County to adopt a clear plan for the development and improvement of multi-modal transportation infrastructure, which will include a review and update of roadway, pedestrian, and bicycling facility standards in the Humboldt County Roadway Design Standards Manual, Title III—Land Use and Development Division 2 Subdivision Regulations, and other appropriate ordinances. This standard and implementation measure would ensure that current roadway standards continue to be implemented and are updated as needed.

### ***Conclusion***

The implementation of these General Plan Update policies, standards and implementation measures would help ensure that adequate emergency access is in place to serve planned development or that development density would be limited to a level consistent with available access. These policies, standards and programs, in concert with existing standards, would reduce the likelihood that implementation of the General Plan Update would result in inadequate emergency access below a threshold of significance. Therefore, General Plan Update impacts relating to inadequate emergency access would be **less than significant**.

### ***Mitigation***

None required.

### **Impact 3.5.3.7: Conflict with Multi-Modal Policies, Plans, or Programs**

Implementation of the General Plan Update would result in new development and contain new policies that could conflict with regional multi-modal transportation plans, or otherwise decrease performance or safety of multi-modal facilities.

This impact analysis addresses item “f” of the significance criteria described in Section 3.5.2 above. Pursuant to these criteria, the proposed General Plan Update would have a significant impact if it would:

- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The HCAOG Regional Transportation Plan (RTP) would be the most appropriate multi-modal policy, plan, or program against which to compare the General Plan Update in regard to

potential conflicts. The overall goal of the RTP is to develop, operate, and maintain a well-coordinated, balanced, countywide multimodal transportation system that is safe, efficient, and provides good access to all cities, communities, and recreational facilities, and into adjoining regions. A balanced multimodal transportation system includes but is not limited to highway, public transit, aviation, marine, railroads, recreation, bicycle, pedestrian, and utility systems. The RTP establishes policies to meet this goal, which include preserving the road system, encouraging interconnectivity, linking inter-county systems, promoting a multimodal transportation system, and promoting transportation system management.

Other County multi-modal plans include the 1978 Humboldt County Trails Master Plan, which contained policies intended to develop an accessible trails network as shown on trails maps; provide safe bicycle and pedestrian trails to schools, when it is determined that inadequate access exists; encourage development of trails with varying lengths and difficulty through diverse terrain, scenery, and points of attraction; and blend trails into the natural environment to reduce environmental disruption. The County also participated in the preparation of the Manila Community Transportation Plan, 2005, that documents the technical details of existing and future traffic conditions and provides details regarding projects to address existing problems and enhance mobility for Manila.

HCAOG has also prepared the Humboldt County Coordinated Public Transit Human Services Transportation Plan, 2016, which identifies unmet transit needs and identifies strategies to address them. Other HCAOG plans that address public transit, bicycle, or pedestrian facilities include the Regional Pedestrian Needs Assessment, 2008, and the Humboldt County Regional Trails Master Plan, 2010. Each of these plans evaluates existing multi-modal transportation facility conditions and identifies and prioritizes future facility needs.

Transit service is available to portions of about two-thirds of the inland and coastal Community Planning Areas within the County, and serves up to 55 percent of the unincorporated area population. However, not all residents of these Community Planning Areas live within walking distance of bus stops. Community Planning Areas served by transit are concentrated in and around Humboldt Bay, with service also available within Community Planning Areas north and south along U.S 101 between Trinidad and Garberville, and east along S.R. 299 to Willow Creek. The Transportation-Disadvantaged Populations Report found that “there is generally good transit access to those services in the Humboldt Bay region with the exception of a few areas with concentrated populations (such as south of Eureka and between Eureka and Arcata). Another notable gap between transit access and population concentration is in the Carlotta-Hydesville area. Generally, in rural areas where transit services are more costly and challenging to provide, analysis indicates very limited service.” Table 6-1, Identified Needs and Strategies/Projects, on Page 56 of the Humboldt County Coordinated Public Transit Human Services Transportation Plan, contains a series of strategies to address unserved or underserved areas, in particular: “Provide transit, or develop feeder route systems(s) that would link to main routes for the farther-out communities with low populations. Unserved communities identified: Between Eureka and Arcata along Old Arcata Road, (Freshwater, Bayside, Jacoby Creek), Samoa, Ferndale, Orick, McKinleyville, Bridgeville.”

### ***Analysis of Relevant General Plan Update Policies***

The General Plan Update includes policies, standards and implementation measures intended to ensure consistency between the General Plan Update and regional multi-modal transportation plans. Circulation Element Goal C-G3, Interagency Cooperation, envisions coordinated planning between the County transportation system service providers and HCAOG for improved system design, development, operations, and maintenance.

Policy C-P2, Consideration of Land Uses in Transportation Decision Making, requires that land use and transportation decisions be based on a comprehensive planning approach that considers existing land uses, principally permitted land uses and future land development as proposed in adopted County plans and plans of other governmental agencies. Policy C-P6, Jurisdictional Coordination and Integration, directs the County to use HCOAG, formal Memorandums of Understanding, and informal project level cooperation to integrate countywide transportation planning and implementation efforts. Policy C-P22, Public Transit, requires that the County support the implementation of guiding goals, policies, and objectives of the Public Transit and Paratransit Service Element of the Regional Transportation Plan as amended, to the extent they are consistent with the General Plan. Policy C-S8, Pedestrian and Bicycle System, requires that a County adopted Pedestrian and Bicycle System Plan consistent with the RTP shall identify trails and routes considered a part of County maintained circulation system. This standard further states that development projects proposed on lands that include a County maintained trail or route may be required to dedicate easements or make improvements.

In addition to policies that require the County to coordinate its multi-modal planning and projects with the RTP, the Circulation Element contains additional policies that are intended to improve the capacity of multi-modal transportation facilities. Policy C-P23, Public Transit Service, requires the County to coordinate and integrate with public transportation providers so that a full range of travel patterns and connectivity with other modes of transportation can be supported.

Policy C-P25, Multimodal Level of Service (LOS) and Quality of Service Standards (QOS), directs the County to use objective methods and criteria to formulate Level of Service (LOS) and Quality of Service (QOS) standards which consider "walkability audits" and "bikeability audits" suitable for the locality, to assess and plan the multi-modal quality and capacity of County roads and intersections. Standard C-S7, Transit, Bicycle, and Pedestrian Quality/Level of Service Standards, requires that bicycle and pedestrian Quality of Service and Level of Service Standards be specified in county code and that Transit Level of Service standards specified in the Public Transit Service Element of the Regional Transportation Plan as amended, be utilized in land use planning. Implementation Measure C-IM12, Pedestrian and Bicycle System Plan, requires that the Public Works Department prepare a Pedestrian and Bicycle System Plan consistent with the Regional Transportation Plan and incorporate standards into the Subdivision Regulations.

Implementation Measure C- IM11, Transit Service to East, South and North County, directs the County to pursue funding and partnerships with the Humboldt Transit Authority, Native American tribes, and non-profit transportation organizations to establish and sustain transit services to rural communities. Air Quality Element Policy AQ-P1, Reduce Length and Frequency of Vehicle Trips, directs the County to reduce the length and frequency of vehicle trips through land use and transportation policies by encouraging mixed-use development, compact development patterns in areas served by public transit, and alternative modes of travel.

### ***Conclusion***

The proposed policies contained in the General Plan Update are supportive of the RTP, and encourage the consideration of transportation impacts in land use decision making and coordination with HCAOG and transportation service providers. Therefore, the General Plan Update would not conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted by HCAOG.

A significant portion of planned development is outside areas served by transit providers. Approximately 200 acres of land planned for medium density residential uses is more than ¼ mile from existing transit stops, but could be served with the establishment of additional transit stops along existing nearby routes or the extension of existing routes. However, these conditions would not decrease the performance or safety of public transit, bicycle, or pedestrian facilities. Therefore, General Plan Update impacts relating to multi-modal policies, plans, or programs would be **less than significant**.

***Mitigation***

None required.