2016 Regional Transportation Plan

Del Norte Local Transportation Commission

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Del Norte County
2016 Regional Transportation Plan

Report Prepared for:

Del Norte County Local Transportation Commission

1301 B Northcrest Drive #16
Crescent City, CA 95531

The RTP guides transportation investments in Del Norte County. This RTP covers the 2016-2036 period. It is updated ever 4 years.

Report Prepared by:

GREEN DOT transportation solutions

117 Meyers Street, Suite 120
Chico, CA 95928
(530) 895-1109

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1 Introduction

1.1 About the Del Norte Local Transportation Commission

The Del Norte Local Transportation Commission (DNLTC) is the designated Regional Transportation Planning Agency (RTPA) for Del Norte County. The DNLTC is comprised of six commissioners, three each appointed by the Crescent City, City Council and the Del Norte County Board of Supervisors. Del Norte County is located within the jurisdictional boundaries of Caltrans District 1, located in Eureka. The DNLTC, along with Caltrans District 1, fulfills the transportation planning responsibilities for Del Norte County. One of the main responsibilities of the DNLTC is the preparation and approval of the Regional Transportation Plan.

1.2 About the Regional Transportation Plan

1.2.1 Purpose of the Plan

The Regional Transportation Plan (RTP) serves as the guide to the **development of a coordinated and balanced multi-modal regional transportation system** that is financially constrained to the local, State, and Federal revenues anticipated over the twenty-year life of the plan. Transportation improvements in the 2016 RTP are identified in the short-range (2016 – 2026) and long-range (2027 – 2036). The coordinated effort brought the County, Caltrans, Crescent City, governmental resource agencies, commercial and agricultural interests, Tolowa Dee-ni' Nation, Elk Valley Rancheria, Resighini Rancheria, Yurok Tribe, Crescent City Harbor District, Border Coast Regional Airport Authority, and citizens into the planning process. The RTP documents the policy direction, actions, and funding plan designed to maintain and improve the regional transportation system using the following methods:

- Provide an assessment of the current modes of transportation and examine the potential for new travel options within the region.
- Identify projected growth areas and future improvements for travel and goods movement.
- Identify and document specific actions necessary to address the region's mobility and accessibility needs, and establish short-term and long-term goals to facilitate these actions.
- Provide information for the Regional Transportation Improvement Program (RTIP), the Interregional Transportation Improvement Program (ITIP), and the Federal Transportation Improvement Program (FTIP).
- Identify and integrate public policy decisions made by local, regional, State, and Federal officials regarding transportation funding.
- Promote consistency between the California Transportation Plan (CTP), the RTP, and other plans developed by Cities, Counties, districts, Tribal Governments, and State and Federal agencies in response to Statewide and interregional transportation needs and issues.
- Employ performance measures that monitor the effectiveness of the transportation improvement projects in meeting the intended goals.
- Provide a forum for participation and cooperation, and facilitate partnerships that reconcile transportation issues which transcend boundaries.

- Include Federal, State and local agencies, Tribal Governments, the public and elected officials in discussions and decision-making early in the transportation planning process.

The Del Norte Local Transportation Commission (DNLTC) prepared this 2016 RTP update based on these objectives consistent with the 2010 California Regional Transportation Plan Guidelines (RTP Guidelines), CTC, revised April 7, 2010.

1.2.2 RTP Elements

RTPs must include the following three elements:

- The **Policy Element** (Chapter 3) describes the transportation issues in the region, identifies and quantifies regional needs expressed within both a short- and long-range framework, and maintains internal consistency with the financial element fund estimates. Related goals, objectives, and policies are provided along with performance indicators and measures.
- The **Action Element** (Chapter 4) identifies projects that address the needs and issues for each transportation mode in accordance with the policy element.
- The **Financial Element** (Chapter 5) identifies the current and anticipated revenue sources and funding strategies available to fund the planned transportation investments described in the action element. The intent is to define realistic funding constraints and opportunities.

1.2.3 New Planning Requirements

The latest RTP Guidelines (2010) incorporate the recent planning stipulations of Assembly Bill 32 and Senate Bill 375. These bills encourage regional greenhouse gas (GHG) emission reductions from passenger vehicles and light duty trucks through changes in transportation and land use. The 2010 RTP Guidelines also set forth a uniform transportation planning framework for investments throughout the state that identifies federal and state growth and development of vital transportation infrastructure with adherence to the latest Federal Highway Bill: Fixing America's Surface Transportation Act (FAST Act).

1.3 RTP PLANNING PROCESS

1.3.1 Inter-Agency Coordination and Planning Consistency

The DNLTC is served by the Technical Advisory Committee (TAC) which provides technical advice to the Del Norte Local Transportation Commission. The eight members of the TAC are appointed by the DNLTC and include representatives from the following entities:

- Two from the City of Crescent City
- Two from the County of Del Norte
- California Highway Patrol
- Caltrans
- Redwood Coast Transit Authority
- Yurok Tribe

Additionally, the DNLTC is served by the Social Services Transportation Advisory Council (SSTAC) whose members are appointed by the DNLTC and represent seniors, people with disabilities, and persons of limited means regarding transit matters.

1.3.2 Coordination with Other Plans and Studies

During development of the 2016 RTP update, existing plans, policy documents and studies addressing transportation in Del Norte County were reviewed. These documents are listed below:

- Del Norte Regional Transportation Plan 2011
- Del Norte General Plan Circulation Element (2003)
- Crescent City General Plan (2001)
- Del Norte County Short-Range Transit Plan (2014)

- Coordinated Public Transit – Human Service Transportation Plan (2015)
- Final Public Participation Plan (2013)
- Wild Rivers Regional Blueprint Plan (2009)
- Annual Unmet Transit Needs
- Active Transportation Plan (2015)
- Ten-Year State Highway Operation and Protection Plan (2008/09 through 2017/18)
- STIP Fund Estimate, Caltrans (2016)
- California Transportation Plan 2040
- California Strategic Highway Safety Plan (SHSP) (2015)
- Climate Adaptation and Stormwater Management Plan (2015)
- Transportation Emergency Preparedness Initiative (2013)

1.3.3 Transportation/Land Use Integration

This RTP is consistent with the County's General Plan Circulation Element, which supports the development and maintenance of an efficient, safe, and effective road system. The Circulation Element also supports an integrated multi-modal system consistent with demand and available resources, as well as the study of orderly growth of both the Del Norte County Airport and the Crescent City Harbor. The goals of the General Plan circulation element are consistent with the goals outlined in the Policy Element.

This RTP recognizes the importance of integrating land use planning and transportation planning to create a more efficient system. Future development should occur in areas which will be the easiest to develop without high public service costs, have the least negative environmental impact, and which will not displace or endanger the region's critical natural resources. This approach will result in lower cost for improvements and increased operational efficiency of the existing transportation system because it will be sized to reflect more compact growth near existing or planned services. Compact growth leads to healthier lifestyles, as access to bicycle and pedestrian facilities grow congruently. Additionally, aligning bicycle and pedestrian facilities with growth can help implement complete streets which increase livability and reduce traffic demand within the region by encouraging alternative modes. The complete street concept is supported and encouraged in this RTP and the California Transportation Plan 2040.

1.3.4 Participation and Coordination

The DNLTC coordinated with many other groups during the RTP development process. The DNLTC plans for the regional transportation system in coordination with regional stakeholders. During the development of the RTP the following entities were contacted for information and solicited for input:

- Area One Agency on Aging
- County and District School Superintendent
- Crescent City Harbor
- Crescent City/Del Norte County Chamber of Commerce
- Del Norte Healthcare District
- Del Norte Solid Waste Management Authority
- Redwood Coast Transit
- Sutter Coast Hospital
- Adjacent County RTPAs (Curry, Jackson, Siskiyou, Humboldt)
- Tribal Entities (Yurok Tribe, Resighini Rancheria, Elk Valley Rancheria, Tolowa Dee-ni' Nation)
- California Highway Patrol
- Caltrans District 1
- Border Coast Regional Airport Authority
- Redwood State and Federal Parks

For a comprehensive list of stakeholders contacted, see Appendix A.

1.3.5 Public Participation

Involvement by citizens and interest groups is encouraged at both the planning and project levels. This involvement includes individual contact with stakeholders, Tribes, and resource agencies, public meetings, public notice of review periods, public surveys, public hearings, and advisory committees. These procedures are consistent with the 2010 RTP Guidelines and the Del Norte Local Transportation Commission Public Participation Plan and Policy (2013).

A total of nine meetings with stakeholders and the general public were held throughout the RTP development process. Maps and information regarding projects identified in the RTP were made available for review at meetings. To keep the community informed on RTP developments, a project-specific page was created on the DNLTC website (http://www.dnltc.org/2016-regional-transportation-plan/). This webpage, as well as the social media outlets utilized by the DNLTC (Facebook and Twitter) were used to inform the public on upcoming meetings, distribute and advertise the transportation survey, provide links to relevant planning documents (including the Draft and Final RTP), and provide necessary contact information for public feedback. In addition, the public was informed of upcoming meetings through front page headlines, newspaper ads and a local radio station.

Specific groups and stakeholders, including economic interests and Native American Tribal Governments were invited to individual meetings through mail. Table 1.1 (below) is a meeting summary of all coordinated meetings regarding development of the RTP.

Table 1.1
Meeting Summary

Date	Meeting
July 28, 2015	Project- Kick off
September 9, 2015	Technical Advisory Committee
October 26, 2015	Caltrans
October 27, 2015	Crescent City
October 27, 2015	County of Del Norte
October 27, 2015	Tolowa Dee-ni' Nation
October 28, 2015	Border Coast Airport Authority
October 28, 2015	Elk Valley Rancheria
January 6, 2016	Community Meeting
January 27, 2016	Community Meeting
January 28, 2016	Technical Advisory Committee
March 17, 2016	Del Norte Local Transportation Commission
November 7, 2016	Technical Advisory Committee
November 10, 2016	Del Norte Local Transportation Commission

See Appendix B for public outreach materials, including the DNLTC Public Participation Plan.

1.4 COORDINATION WITH DEL NORTE COUNTY RESOURCE AGENCIES

The draft RTP and CEQA environmental document and checklist was distributed to various governmental and resource agencies through the State Clearinghouse process. Agencies were either provided a review copy of documents, or a copy of the Notice of Availability saying where the documents could be viewed—in person and on the internet.

1.5 COORDINATION WITH CALIFORNIA STATE WILDLIFE ACTION PLAN

Projects identified in the 2016 Regional Transportation Plan are evaluated at the project level through the CEQA and NEPA processes (if applicable). However, the long term goals identified in the Policy Element of this plan consider many of the stressors defined in the State Wildlife Action Plan.

Del Norte County straddles two separate conservation management ecoregions within the North Coast and Klamath Province, as identified by the California State Wildlife Action Plan (SWAP): "Northern Coastal and Montane Riparian Forests and Woodlands" and "Pacific Northwest Conifer Forests". The SWAP identifies sensitive species, habitat stressors and suggested conservation goals and actions for each of the ecoregions within the Provinces. According to the SWAP, the major stressors within Del Norte County conservation units are as follows:

- Agricultural and Forestry Effluents
- Annual and Perennial Non-timber Crops
- Climate Change
- Fire and Fire Suppression
- Household Sewage/ Urban Wastewater
- Introduced Genetic Material
- Invasive Plants/Species
- Livestock, Farming and Ranching
- Logging and Wood Harvesting
- Parasites/Pathogens/Diseases
- Roads and Railroads
- Wood and Pulp Plantations

For a complete list of species of special concern, key stressors and actions suggested for wildlife management in the North Coast and Klamath region, see Appendix C.

1.6 NATIVE AMERICAN TRIBAL GOVERNMENT CONSULTATION AND COORDINATION

There are four federally recognized Tribal entities in Del Norte County. Cooperative planning between Tribes, regional and local agencies and Caltrans varies from Tribe to Tribe. Some of the region's Tribes are regular participants in regional planning efforts, including the Yurok Tribe who has a regular position on the Technical Advisory Committee. Three of the four of the region's Tribes participated in the development of this regional transportation plan, including the Yurok Tribe, Elk Valley Rancheria and the Tolowa Dee-ni' Nation. All tribal entities were contacted to discuss transportation deficiencies, system improvements ideas, and Tribal project lists for inclusion. Table 1.2 lists the contact information for the Tribes involved. The Resighini Rancheria was not responsive to a request for involvement.

Table 1.2
Federally Recognized Tribes in Del Norte County

Name	Mailing Address
Yurok Tribe	190 Klamath Blvd PO Box 1027 Klamath, CA 95548
Elk Valley Rancheria	2332 Howland Hill Rd. Crescent City, CA 95531
Tolowa Dee-ni' Nation	140 Rowdy Creek Road Smith River, CA 95567
Resighini Rancheria	P.O.Box 529 Klamath, CA 95548

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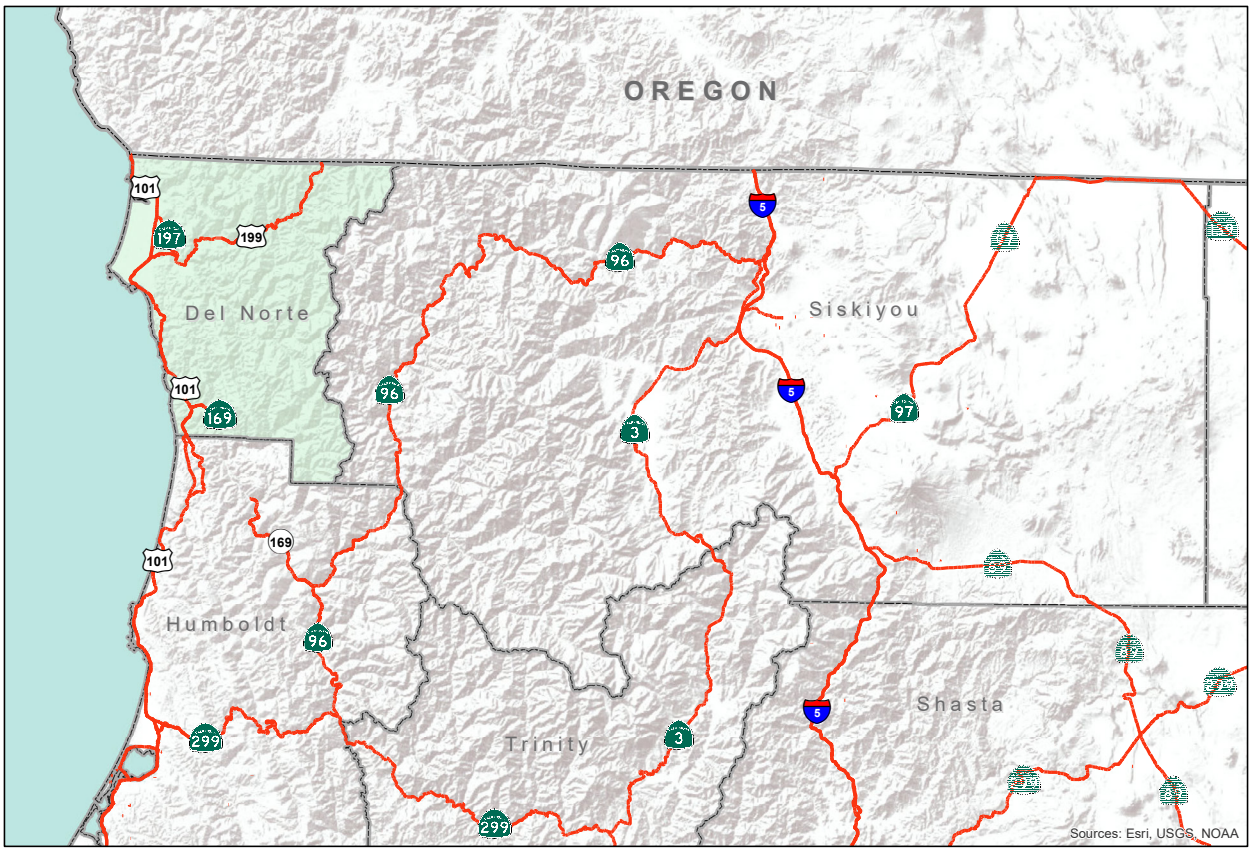
2 Existing and Future Conditions

2.1 About Del Norte County

2.1.1 Location

Del Norte County is located in the northwestern corner of California, approximately 374 miles northwest of Sacramento and 330 miles southwest of Portland, Oregon. Del Norte County is bound by Siskiyou County to the east, Curry and Josephine Counties (Oregon) to the north, Humboldt County to the south, and the Pacific Ocean to the west. Del Norte County is comprised of approximately 1,006 square miles and is characterized by varied geography with elevations between sea level and over 6,400 feet in the Klamath mountain range. Del Norte's geography consists of extensive coastline to the west and mountainous terrain with dense redwood forests to the east. The County contains two major rivers: the Smith River, which extends from the Six Rivers National Forest to the Pacific Ocean at the northwestern corner of the County, and the Klamath River, which extends from Klamath Lake in Oregon through the Six Rivers National Forest and to the Pacific Ocean at the southwestern corner of the County. The County contains one incorporated city (Crescent City), six unincorporated communities (Smith River, Gasquet, Klamath, Fort Dick, Bertsch-Oceanview, and Hiouchi), and four federally recognized tribal entities (Yurok Tribe, Resighini Rancheria, Tolowa Dee-ni' Nation and Elk Valley Rancheria). Del Norte County is susceptible to severe weather and natural disasters, including tsunamis and flooding during major rain events.

Figure 2.1 - Del Norte County Location



2.2 DEMOGRAPHICS

2.2.1 Population

The US Census reported the population for Del Norte at 27,507 in 2000 and 28,610 in 2010. The California Department of Finance reported the January 2015 population at 28,051, slightly below the 2010 population report. The population reports for both the County and the City of Crescent City include the inmate population of Pelican Bay State Prison. As seen in Table 2.1, over 60% Del Norte County residents live in unincorporated areas of the County. The lone incorporated city, Crescent City is the population center of the County. Excluding inmate population, Crescent City has seen an overall increase in population by an average 2.98% between 2010 and 2015, which is similar to the County decline of 521 residents between 2013 and 2015.

Table 2.1
Population Distribution

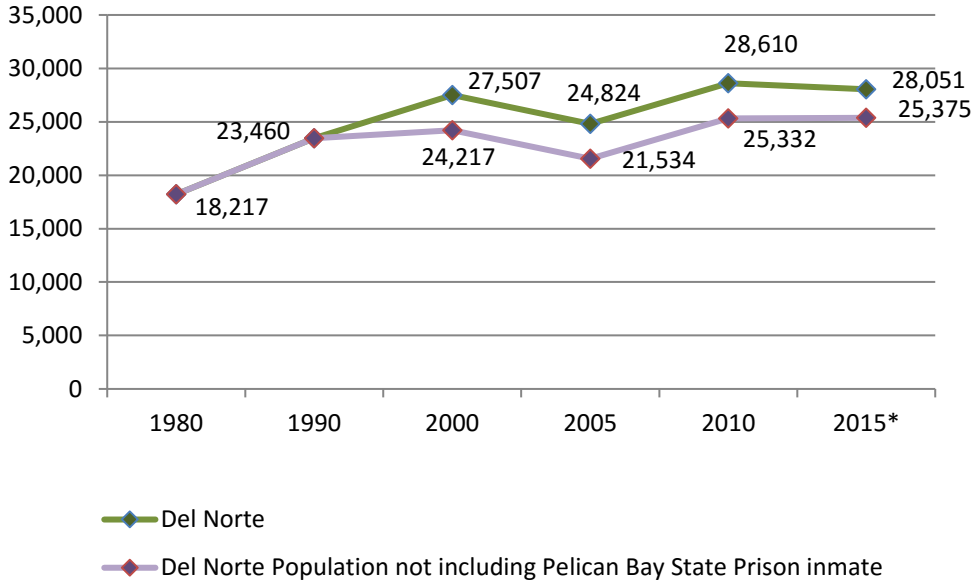
	Population					Percent Change	
	2000[1]	2010[2]	2012[3]	2013[3]	2015[5]	2010-2013	2010-2015
Crescent City	4,006	7,643	7,560	7,470	6,889	-0.75%	-1.97%
Crescent City (without inmate population)	716	4,365	4,583	4,755	4,234	2.98%	-0.60%
Pelican Bay State Prison[4]	3,290	3,278	2,977	2,715	2,655	-5.73%	-3.80%
Crescent City North CDP	4,028	X	X	X	X	X	X
Klamath	651	779	1,049	937	X	6.76%	X
Gasquet	X	661	530	514	X	-7.41%	X
Hiouchi	X	301	390	344	X	4.76%	X
Bertsch-Oceanview	2,238	2,436	2,513	2,624	X	2.57%	X
Smith River	X	866	911	878	X	0.46%	X
Unincorporated	16,584	15,924	15,543	15,590	X	-0.70%	X
Del Norte County (without inmate population)	**24,217**	**25,332**	**25,519**	**25,642**	**25,376**	0.41%	0.03%
Del Norte County Total	27,507	28,610	28,496	28,357	28,031	-0.29%	-0.40%

Sources: (1) US Census 2000; (2) US Census 2010; (3) American Community Survey 5-year Population Estimates; (4) California Department of Corrections Month Population Reports (5) California Dpeartment of Finance E-1 Reports

2.2.2 Historic Population Growth

As seen in Figure 2.2, the Del Norte County population grew an average of 0.55% annually between 1980 and 2015. This population figure includes the inmate population of Pelican Bay State Prison. When the inmate population is excluded from the population count, Del Norte County has seen an overall growth of .41% between 2010 and 2015 with a small population decline between 2000-2005 and 2013-2015.

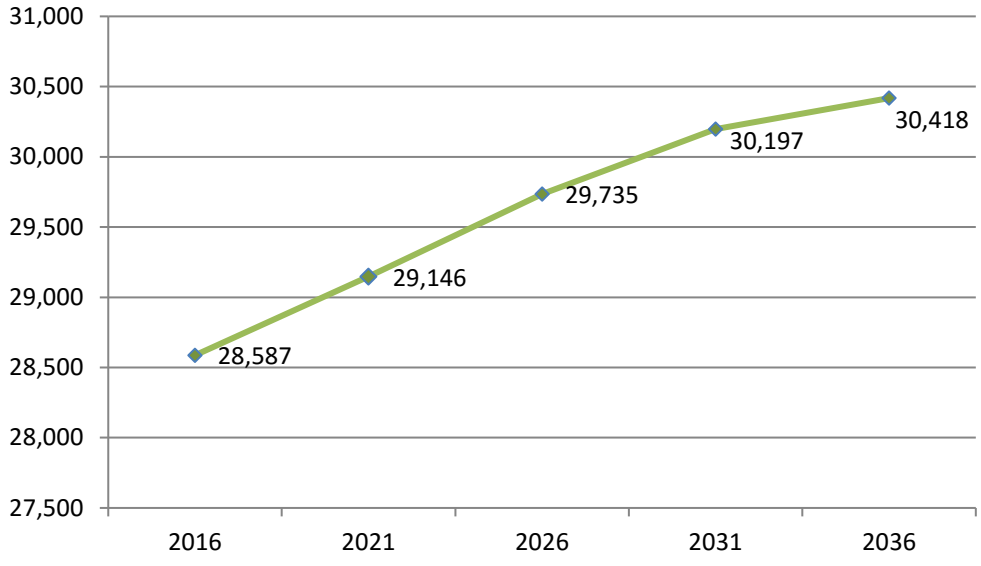
Figure 2.2
Del Norte County Historical Population Growth



2.2.3 Future Population

According to the Department of Finance Population Projection reports, population growth is expected to remain steady and grow by an average of .31% annually between 2016 and 2036.

Figure 2.3
Del Norte County Population Forecast



Source: Department of Finance P-1 Report

2.2.4 Demographics

As seen in Table 2.2, Del Norte County is predominantly white (75.3%). However, there is a large Hispanic and Native American demographic. The 65+ demographic for Del Norte County is growing at a faster rate than the national and state average. This demographic currently accounts for 13.5% of the population and is expected to reach 20.8% of the total population by 2060.

Table 2.2
Del Norte County Demographics 2013

	Total	White	Hispanic	Pacific Islander	Asian	African American	American Indian	Age 65+
No. of people	28,357	21,356	5,217	100	709	908	1,316	4,026
Percent	100.0%	75.3%	18.4%	0.4%	2.5%	3.2%	4.6%	14.2%

Source: American Community Survey (ACS) 5-year Estimates (2009-2013)

2.3 SOCIOECONOMIC CONDITIONS

Transportation needs stem from travel demand, which is influenced by current socioeconomic conditions including the number of households, employment, transportation network, the intensity and location of development and employment centers, and recreation needs.

2.3.1 Housing

The total number of housing units in Del Norte County reached 11,245 in 2013 (Table 2.3). This represents an average 0.26% annual percent increase between 2010 and 2013. Most housing growth has occurred in unincorporated areas in the County which had an annual growth rate of 12.8% between 2010 and 2013.

Table 2.3
Del Norte County Housing Units

	2010	2013	Percent Change
Del Norte County	**11,186**	**11,245**	0.26%
Crescent City	1,906	2,068	2.8%
Crescent City North	1,992	N/A	N/A
Gasquet	384	329	-4.8%
Klamath	406	485	6.5%
Bertsh-Oceanview	1,008	968	-1.3%
Smith River	363	360	-0.3%
Hiouchi	166	169	0.6%
Unicorporated	4,961	6,866	12.8%

Source: US Census 2010, American Community Survey 2013

2.3.2 Employment

According to the California Department of Economic Development, approximately 9,950 people comprised the Del Norte County September 2015 labor force. Of this number, 6.9% were unemployed. The unemployment rate for Del Norte County is just above the California unemployment rate of 6.3%, and has been declining since its peak of 14.3% in March 2012. Based on the Caltrans Economic Forecast, employment growth in Del Norte County is anticipated to be moderate and reasonably commensurate with population and housing growth estimates at just over 10% growth through 2036.

According to the American Community Survey, the median income in 2013 for Del Norte County residents was $37,909, well below the California State median income of $61,094. Pelican Bay State Prison is the largest employer in the County, accounting for over 1,400 jobs. Other major employers are detailed in Table 2.4.

Table 2.4
Major Employers in Del Norte County

Name	Location	Industry	Employed
Bess Maxwell Elementary School	Crescent City	Schools	50-99
College of the Redwoods	Crescent City	Schools	50-99
Crescent City Nursing and Rehab	Crescent City	Nursing & Convalescent Homes	100-249
Crescent Elk Middle School	Crescent City	Schools	50-99
Dahlstrom & Watt Bulb Farm Inc.	Smith River	Nurseries - Plants Trees 7 Etc	50-99
Del Norte County Health Dept.	Crescent City	County Government-Public Health	100-249
Del Norte County High School	Crescent City	Schools	50-99
Del Norte County Unified School	Crescent City	Schools	50-99
Del Norte Sheriff's Office	Crescent City	Government Offices - County	50-99
Elk Valley Casino	Crescent City	Casino	100-249
Hambro Forest Productions	Crescent City	Building Materials	100-249
Home Depot	Crescent City	Home Centers	50-99
Joe Hamilton Elementary	Crescent City	Schools	50-99
Lucky 7 Casino	Smith River	Casinos	100-249
Mary Peacock Elementary School	Crescent City	Schools	50-99
Open Door Cmnty Health & DNTL	Crescent City	Clinics	50-99
Redwood Elementary School	Crescent City	Schools	50-99
Redwood National Park	Crescent City	Museums	50-99
Safeway	Crescent City	Grocers-Retail	50-99
Sutter Coast Hospital	Crescent City	Hospitals	250-499
Wal-mart	Crescent City	Department Stores	100-249
Yurok Tribe	Klamath	Native American Reservations & Tribes	100-249
Pelican Bay State Prison	Crescent City	Corrections Facility	1400

Source: California Employment Development Department (EDD); *California Department of Corrections

2.3.3 Commuting Patterns

According to the American Community Survey (ACS) 2011-2014, Del Norte County is a net importer of labor (i.e. more residents in the labor force commute to work inside the county than leave for work). Over the last ten years, the disparity of Del Norte County's labor force commuting inside the county versus outgoing commuters has increased. Many out-of-county residents commute to Del Norte County to work at Pelican Bay State Prison located in Crescent City. The majority of Del Norte residents that work outside of the county commute to Curry County, Oregon for work (see Table 2.5).

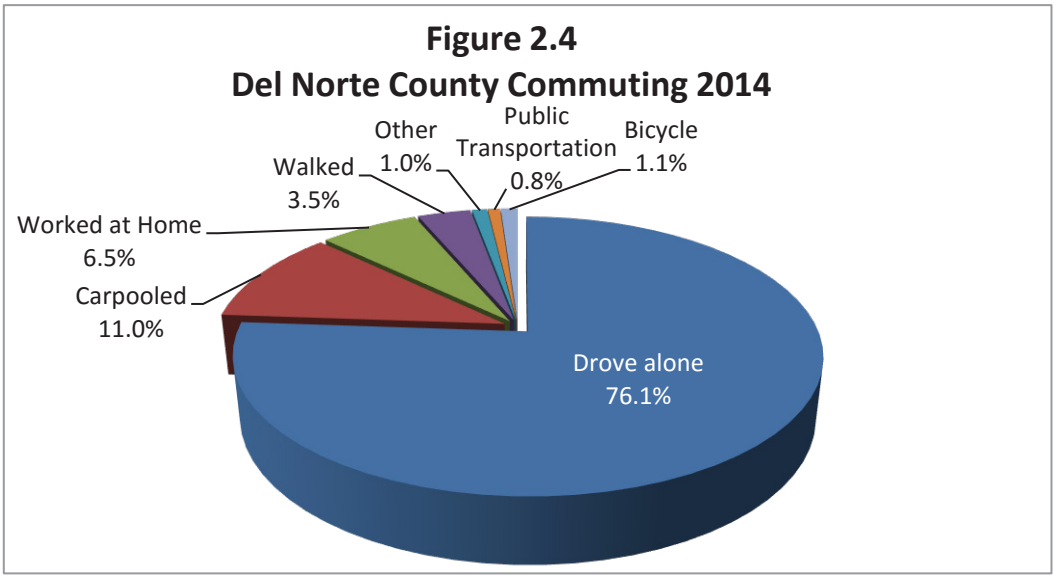
Table 2.5
Commuting Characteristics for Del Norte County

Employment Location	Count
Del Norte Residents Commuting Out of County	
Curry County, Oregon	301
Humboldt County, California	102
Siskiyou County, California	12
Douglas County, Oregon	9
Out of County Residents Commuting to Del Norte County	
Curry County, Oregon	593
Humboldt County, California	287
Shasta County, California	67
Josephine County, California	49
Coos County, California	36
Jackson County, Oregon	19

2.3.4 Mode of Travel

Travel in Del Norte County is primarily automobile-oriented due to the rural nature of the local communities, low development density, and limited options for non-auto modes of travel. According to the American Community Survey, 76.1% of Del Norte County commuters drove to work alone in the region in 2014 (Figure 2.4) – an increase share relative to the 74% surveyed in Del Norte County in 2000. The share of telecommuters increased from 3.6% in 2000 to 6.5% in 2014. Conversely, the mode share of commuters using active transportation and public transportation slightly decreased between 2000 and 2014.

Figure 2.4
Del Norte County Commuting 2014



2.3.5 Land Use

Crescent City is the population center in the County. Population density in Crescent City (2,252 persons/ square mile) is significantly higher than the average for the County (28 persons/ square mile). Land use in Crescent City is primarily open space, with a large proportion of residential and commercial. A special Harbor-related land designation is used for land surrounding the Crescent City Harbor. Just north of Crescent City, Pelican Bay State Prison accounts for 275 acres in Crescent City (the prison is a non-contiguous annexation of Crescent City) and has had a major impact on the transportation network since opening in 1989 due to increased demand on the existing system.

A large proportion of land in Del Norte County is designated open space or wilderness area and is managed by local, State, and Federal entities. The USDA Forest Service manages a large proportion of land in the Klamath Mountains including the Six Rivers National Forest. The National Park Service and California Department of Parks and Recreation also manage a large share of Del Norte County including the Redwood National and State Park. The California Department of Fish and Wildlife and California State Lands Commission also manage land in the County. According to the 2012 Census of Agriculture there are 18,168 acres of agriculture land in Del Norte California. Cropland, pastureland, and woodland are the primary agriculture land found in Del Norte County.

2.4 ROADWAY TRANSPORTATION NETWORK IN DEL NORTE COUNTY

As shown in Table 2.6, there are a total of 782.44 maintained road miles in Del Norte County with 737.47 of those miles within rural areas and 44.97 miles in urban areas. The federal government owns and maintains 313 miles of US Forest Service and National Park Service road miles. The County of Del Norte, Caltrans and Crescent City own and operate 301, 92 and 22 miles of roadway respectively. The Bureau of Indian Affairs and Native American Tribes own and operates 3.8 and 2.4 miles of roadway respectively.

Table 2.6
Del Norte Roadway Facilities 2013

Jurisdiction	Rural Road Miles	Urban Road Miles	Total Miles
Crescent City	6.74	15.41	22
Del Norte County	282.32	18.89	301
US Forest Service	175.11	X	175
National Park Service	138.48	X	138
State Highways	81.39	10.68	92
State Park Service	47.22	X	47.2
Bureau of Indian Affairs	3.8	X	3.8
Indian Tribal Nation	2.4	X	2.4
Total Maintained Miles	**737.47**	**44.97**	**782.44**

Source: California Public Road Data 2013

Figure 2.6 displays the major roadways in Del Norte County along with their functional classification. The following provides a narrative description of each classification, as identified by the Federal Highway Administration. Table 2.7 identifies some of the region's significant regional roadways on the designated California Road system. The general function and development characteristics of the current classification system are described in the following section.

2.4.1 Road Classification

Arterials provide the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control. The arterials identified in Del Norte are integrated inter-county roads connecting Del Norte to surrounding counties and cities. US 101, US 199, SR 197, and West Washington Blvd are arterials identified in Del Norte County.

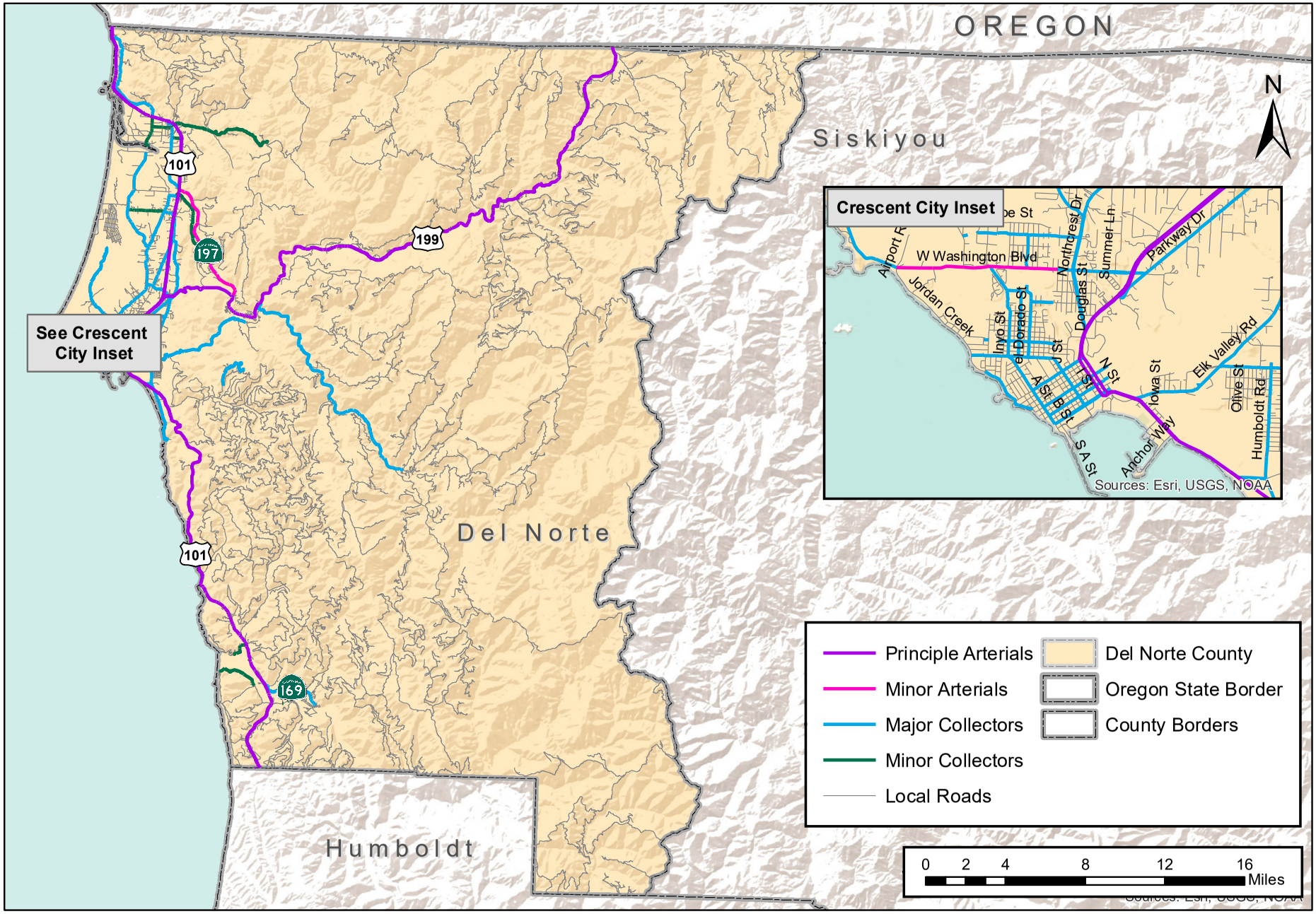
Collectors provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials. The Federal Highway Administration further delineates collectors into major and minor collectors. Major collectors connect to arterials or regional destinations, and minor collectors generally connect local roadways to major collectors. Major collectors in Del Norte County serve primarily intra-county travel serving smaller communities and countywide trip generators, such as schools, shopping centers and recreational destinations, and trip lengths may be comparable to those of minor arterials in low density areas. Major collectors are detailed in Table 2.7.

Local Roads provide access to adjoining properties and primary residences. There is virtually no through traffic.

Table 2.7
County Roadways

Arterials		
Minor		**Principle**
SR 197		US 101
W Washington Blvd		US 199
Collectors		
Major		
Northcrest Drive	Enderts Beach Road	Humboldt Road
East Washington Blvd	Sandmine Road	SR 169
Parkway Drive	South Fork Road	Lake Earl Drive
3rd Street	Front Street	Howland Hill Road
Old Mill Road	Elk Valley Road	Madison Ave
Small Ave	Arlington Drive	W Harding Ave
Fred Haight Drive	Pebble Beach Drive	Elk Valley Cross Rd.
Oceanview Dr	Cooper Ave	Glenn Street
Kings Valley Road	Pacific Ave	El Dorado Street
Wonder Stump Road	Inyo Street	9th Street
Lower Lake Rd	5th Street	H Street
Newton B Drury Scenic Parkway	A Street	Bald Hills Road
Ehlers Way	Klamath Boulevard	
Minor		
Wilson Lane	Terwer Riffle Road	Moorhead Road
Rowdy Creek Road	Klamath Beach Road	Sarina Road
First Street	Requa Road	PJ Murphy Rd.
Douglas Park Dr.	South Bank Road	

Source: Federal Highway Administration California Road System Classification



ROADWAY FUNCTIONAL CLASSIFICATION

Figure 2.5

2.4.2 State and Federal Highways

The two state highways and the two federal highways in Del Norte County are shown in Figure 2.6. A summary description is provided below:

State Route 169 is a north-south 2-lane major collector that runs approximately 3.52 miles between US 101 in the unincorporated community of Klamath and Terwer Riffle Road in the unincorporated community of Klamath Glen within the boundaries of the Yurok Reservation. SR 169 resumes again in Humboldt County for another 19 miles along the Klamath River within the boundaries of the Yurok reservation. These two sections are currently disconnected but both serve as important routes for the Yurok Tribe. This is the only available route to access Klamath Glen. The Average Annual Daily Traffic (AADT) for all sections of this route in Del Norte County was 1,294 for 2014.

State Route 197 is a north-south 2-lane minor arterial that runs approximately 6.7 miles parallel to the Smith River from US 101 at Fort Dick to US 199 near Hiouchi. The 2015 AADT for SR 197 is 2,050.

US 199 is a northeast-southwest 2 lane principle arterial beginning in Crescent City and ending in Grants Pass, Oregon. US 199 runs for approximately 80 miles (36.4 in Del Norte County) and has an AADT count of 2,981 for all segments in Del Norte County in 2014. US 199 is the primary eastbound route connecting US 101 and Crescent City to Interstate 5 in Josephine County, Oregon. This route is a critical route for goods movement and connectivity.

US 101 is a north-south principle arterial that runs through California, Oregon, and Washington along the west coast of the United States for approximately 1,540 miles. Approximately 46 miles is in Del Norte County. The majority of the highway is 2 lanes with one 4 lane freeway segment north of Crescent City with an AADT of 10,281 for all segments in Del Norte County for 2014. Sections of US 101 are designated as a State of California Scenic Byway. This route is an important north-south connection for the County, as it is one of two routes Del Norte County that connect with surrounding counties. This route is a critical route for goods movement and connectivity.

2.4.3 City and County Roads

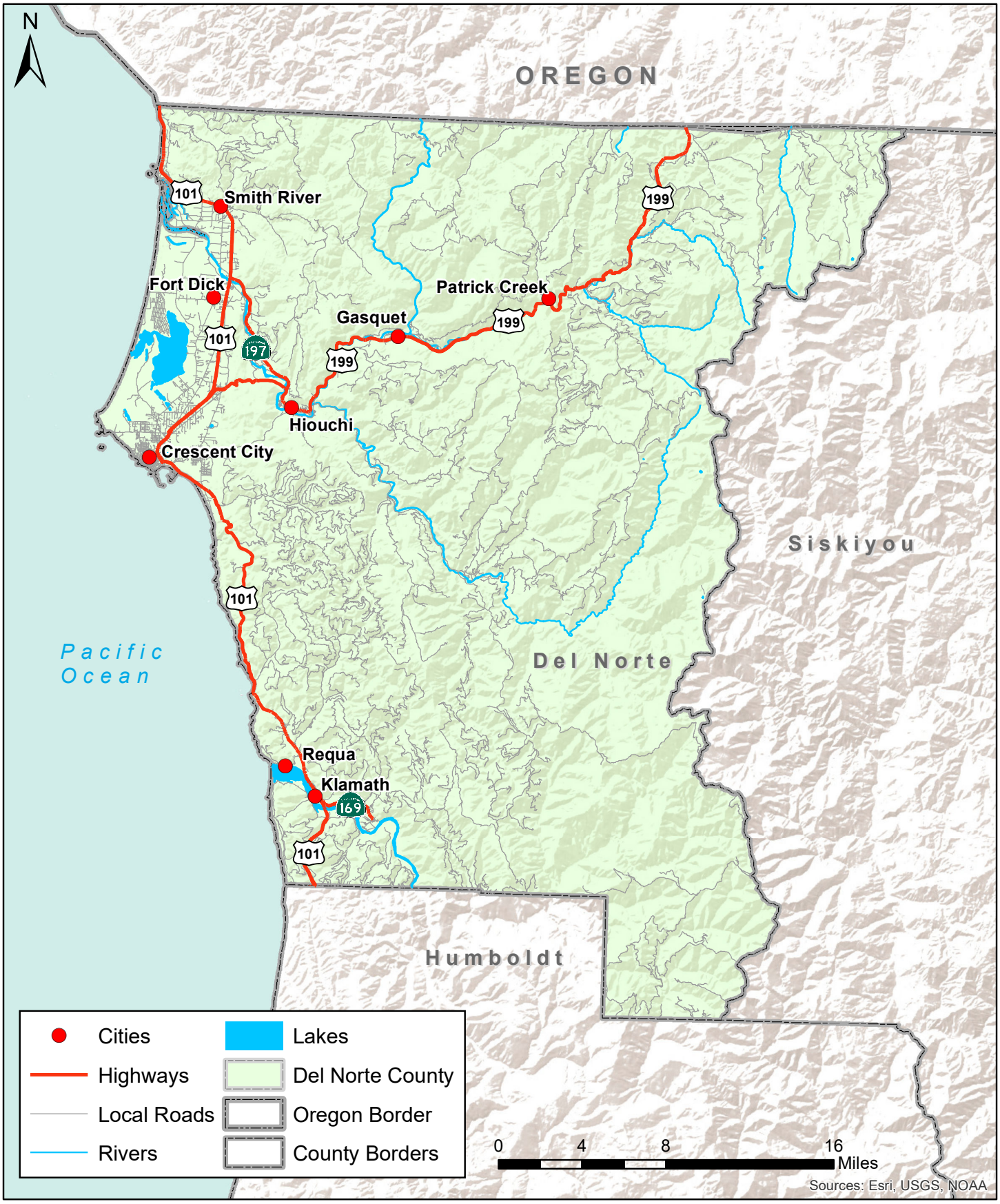
According to California Public Road Data 2013, Del Norte County is responsible for maintaining approximately 301 miles of roadway with a Daily Vehicle Miles of Travel (VMT) at 156.36. Crescent City is responsible for maintaining approximately 22 miles of roadway with a VMT of 41.34.

2.4.4 Forest Service Roads

USDA Forest Service, which manages the Six Rivers National Forest, maintains approximately 175 miles of roadway in Del Norte County. National and State Parks Services and the Bureau of Indian Affairs also maintain many roadways in the County.

2.4.5 Tsunami Evacuation Routes

Coastal areas in Del Norte County are especially susceptible to tsunamis. Past tsunamis include the 1964 tsunami which destroyed a large portion of the Crescent City Harbor and Crescent City itself. More recently, the 2011 tsunami caused extensive damage to the Crescent City Harbor. Evacuation assembly points and evacuation routes for Del Norte County are detailed in Table 2.8. Residents are advised to seek refuge 100 feet above sea level or two miles inland. Additionally, residents are advised to prepare for evacuation by knowing evacuation routes and assembly points and traveling to them via foot. Evacuation maps for the tsunami hazard zones can be viewed at: http://preparedelnorte.com/tsunami-zones/index.html.



STATE AND FEDERAL HIGHWAYS

Figure 2.6

Table 2.8 Tsunami Evacuation Routes		
Place	**Route**	**Assembly Points**
Crescent City	US 101	Del Norte High School
	Elk Valley Road	Oceanview Baptist Church
	9th Street	Crescent Elk School
	A Street	
	C Street	
	H Street	
Smith River	First Street	Ship Ashore
	Pala Rd.	
Fort Dick	Kellogg Rd.	Redwood School
	Morehead Rd.	
	Moseley Rd.	
	Lower Lake Dr.	
Klamath	No assembly points or evacuation routes. Community members are told to evacuate to high ground via foot.	
Source: Prepare Del Norte		

2.5 ROADWAY OPERATIONS

2.5.1 Baseline Vehicle Miles of Travel

Vehicle miles of travel (VMT) is a general but robust measure of vehicle activity. VMT measures the extent of utilization a transportation network experiences by motorists. Although it is not a good indicator of congestion, it is a great indicator of overall vehicle activity, identifying bottlenecks or high delay "hotspot" locations. VMT is commonly applied on a per-household or per-capita basis and is a primary input for regional air quality analyses and for developing VMT rates for safety analysis. Per Senate Bill 743 (Steinberg, 2013), VMT is now the basis for transportation impact identification and mitigation under the California Environmental Quality Act (CEQA). However, jurisdictions must also ensure consistency with current land use plans, some of which still utilize Level of Service as a primary metric.

VMT data is annually reported as part of the Federal Highway Performance Monitoring System (HPMS) program. The HPMS program uses a sample based method that combines traffic counts stratified by functional classification of roadways by volume groups to produce sample based geographic estimates of VMT. HPMS VMT estimates are considered "ground truth" by the 1990 Federal Clean Air Act Amendments (November 15, 1990). HPMS VMT estimates are used to validate baseline travel demand models and to track modeled VMT forecasts over time. HPMS VMT estimates are reported for each county by local jurisdiction, state highway use, and other state/federal land roadways e.g., State Parks, US Bureau of Land Management, US Forest Service, US Fish and Wildlife Service[1].

Estimates of countywide VMT for Del Norte County for the three most recent years available (2011-2013) are provided in Table 2.9. As shown, VMT has oscillated from year to year with no discernable growth trend during this three year period. Dramatic changes in VMT within the unincorporated County and on State/Federal/Tribal owned roadways can be attributed to roadway mile inventory changes (e.g., new or abandoned roadways).

1 HPMS VMT estimates are sample based. Due to smaller sampling requirements at the sub-county level of geography and in federal air quality attainment areas, desired 90/10 confidence level estimates of VMT are typically not attained in more rural areas of the state.

Table 2.9 Del Norte County Vehicle Miles of Travel				
Jurisdiction	2011 VMT	2012 VMT	2013 VMT	2014 VMT
Crescent City	41,040	41,340	41,340	41,980
Del Norte County	179,290	156,360	156,360	158,390
State Highway System	417,810	423,960	428,040	421,590
State/Federal/Indian	13,720	13,830	19,330	99,180
Total	**651,860**	**635,490**	**645,070**	**721,140**
Source: Highway Performance Monitoring System				

2.5.2 Future Vehicle Miles of Travel

In 2012-13 Caltrans District 1 commissioned the development of the Del Norte County Travel Demand Model (DNCTDM) using the TransCAD modeling platform. Development of the DNCTDM gave Caltrans in-house capability to generate new technical information pertinent to the understanding of Del Norte County's travel behavior and transportation network performance. This information is critical to the development, updating and monitoring of regional transportation plans, as well as the analysis of specific transportation projects, development projects, strategies, policies and issues.

Generally, the model addresses the questions of future demand for travel. This entails estimating how many trips the average person will make, the purpose of their trips, points of trips departure and desired destinations, mode of travel and path selection. When this travel demand information is compared to existing and future travel supply (i.e., route alignment and capacities of existing and proposed highway and transit networks), Caltrans obtains an understanding of the transportation network's performance characteristics (vehicle speeds, volume – capacity relationships, travel time, VMT, travel related fuel consumption and vehicle emissions). Ultimately, these technical analyses allow estimates of how socio-economic changes (e.g., population changes, land use development) will impact travel demand in the County. Furthermore, consequences of future changes, or absence of change, to the transportation network itself (e.g., roadway closures, building new roadways, improving existing roadways or doing nothing at all) can be analyzed. More detailed information regarding the DNCTDM model is described in the Model Development Report Del Norte County Travel Demand Model (February, 2013).

Based on demographic growth projections of 12.6% for population, housing and employment respectively (2010-2040), countywide VMT growth is projected to increase from 645,070 to approximately 838,000 or by 28.67%. The rate of VMT growth within Crescent City will be roughly half of the countywide rate of growth (0.47% annual average growth versus 0.84%). Absolute VMT growth and VMT per capita statistics out to 2040 are provided in Table 2.10. Percentage growth estimates are provided in Table 2.11. These VMT growth projections and per capita metrics can provide a benchmark for evaluating the efficiency of future development and growth patterns in Del Norte County.

2.5.3 Baseline Traffic Volumes

Whereas VMT is a regional performance measure, traffic volumes provide an indication of the daily or hourly utilization of a given roadway facility. This level of utilization can then be evaluated relative to the ability of the roadway to accommodate the traffic to yield an assessment of the quality of service experienced by the motoring public who use the facility.

The source of the existing condition roadway volumes in Del Norte County are from the most recently published Caltrans traffic volumes for state highways (2014). Additionally as part of this RTP update, the DNLTC performed traffic counts for over 60 roadway segments during November and December 2015.

As seen in Figure 2.7, US 101 experiences the highest Annual Average Daily Traffic (AADT) in Del Norte County

Table 2.10
Del Norte County Travel Metric

Jurisdiction	2011 HPMS	2010 DNCTDM Model	2040 DNCTDM Model
Total VMT	651,860	651,368	838,109
Total Trips	n/a	102,035	118,471
Average Trip Length (mi)	n/a	6.38	7.07
Per Capita VMT		22.85	27.13
Crescent City (Local Roads Only)		6.08	6.57
Crescent City (Local Roads + SHS)		10.61	11.47
Unincorporated County (Local Roads Only)		6.81	7.3
Unincorporated County (Local Roads + SHS)		27.19	32.74
Vehicle Hours of Travel (VHT)		14,640	18,513
Travel Data Source: Del Norte County Travel Demand Model			
Population Source: Department of Finance			

Table 2.11
Del Norte County Travel Growth

VMT Growth	Jurisdiction	Percent Change
Projected VMT Growth (2010-2040)	Countywide	28.67%
AAGR VMT Growth (2010-2040)	Countywide	0.84%
Projected VMT Growth (2010-2040)	Crescent City	15.20%
AAGR VMT Growth (2010-2040)	Crescent City	0.47%
Projected VHT Change (2010-2040)	Countywide	26.45%
Source: Del Norte County Travel Demand Model		

(see Figure 2.8 for AADT on other Del Norte highways). US 101 and US 199 are the main routes for goods movement, tourism, and local travel in the county. Truck traffic accounts for up to 15% of traffic on some sections of US 101 and up to 18.5% of traffic on some sections of US 199. Many sections of Federal and State highways have experienced traffic count declines between 2010 and 2015, likely due to the small population decline in the County.

2.5.4 Future Traffic Volumes

The Del Norte County Travel Demand Model was used to generate future traffic volumes. However, before "raw" travel model output is considered suitable for operational determinations, post-processing adjustments must be performed. The recommended procedure is based on the NCHRP Report 255, 1982. NCHRP-255 adjustments entail using model generated link-based growth factors (computed variation between base year and forecast year model link volumes) to adjust baseline traffic counts to reflect future conditions. For each roadway analyzed, traffic growth estimates were post-processed using the traffic count data described above. For reporting purposes, forecasted volumes are rounded to the nearest ten.

As seen in Figure 2.7, US 101 experiences the highest Annual Average Daily Traffic (AADT) in Del Norte County (see Figure 2.8 for AADT on other Del Norte highways). These forecasts do not reflect peak season or peak weekend traffic conditions which are primarily dominated by interregional traffic.

Figure 2.7
Average Annual Daily Traffic Counts (AADT), US 101, Existing (2014) and Future (2035)

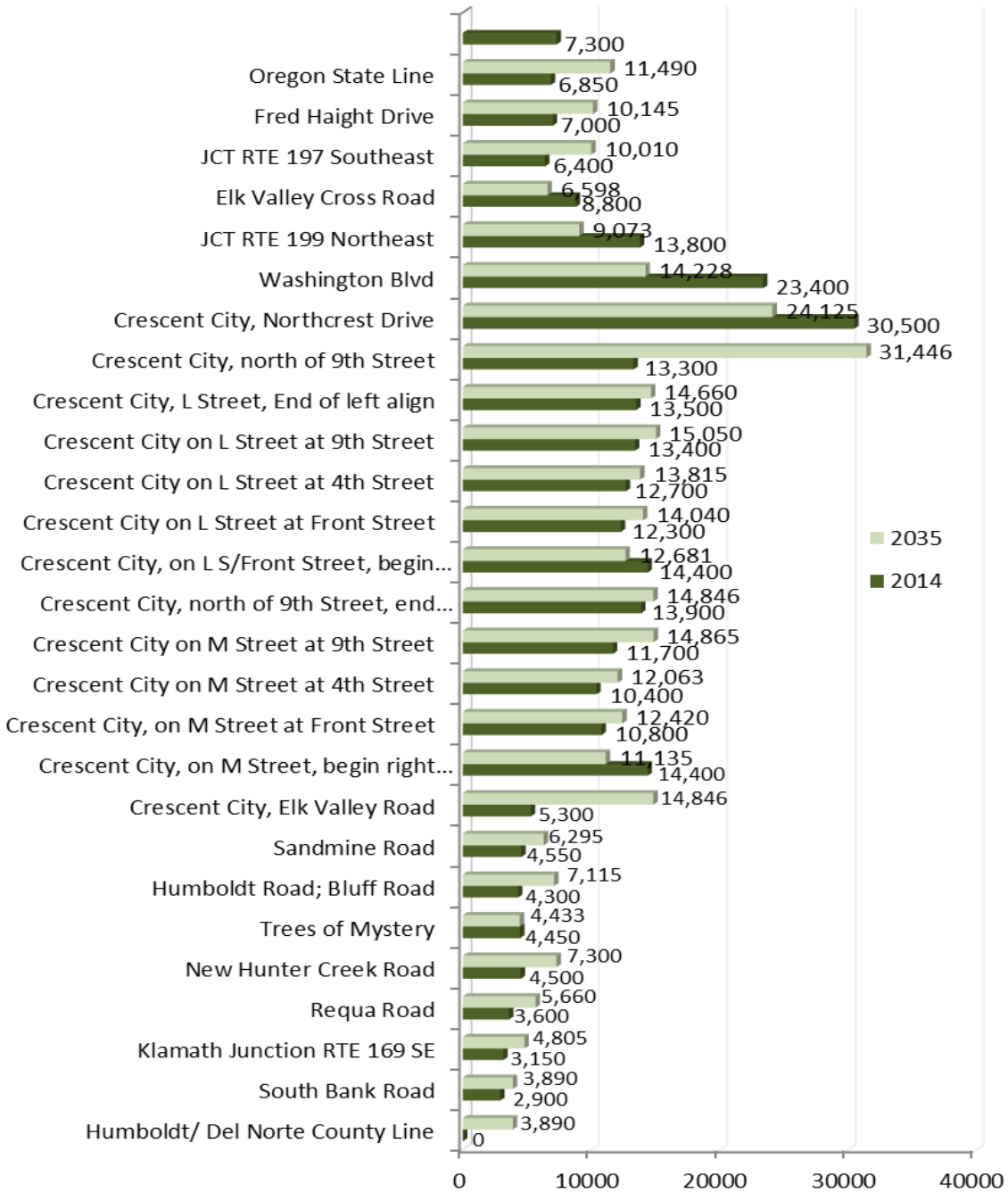
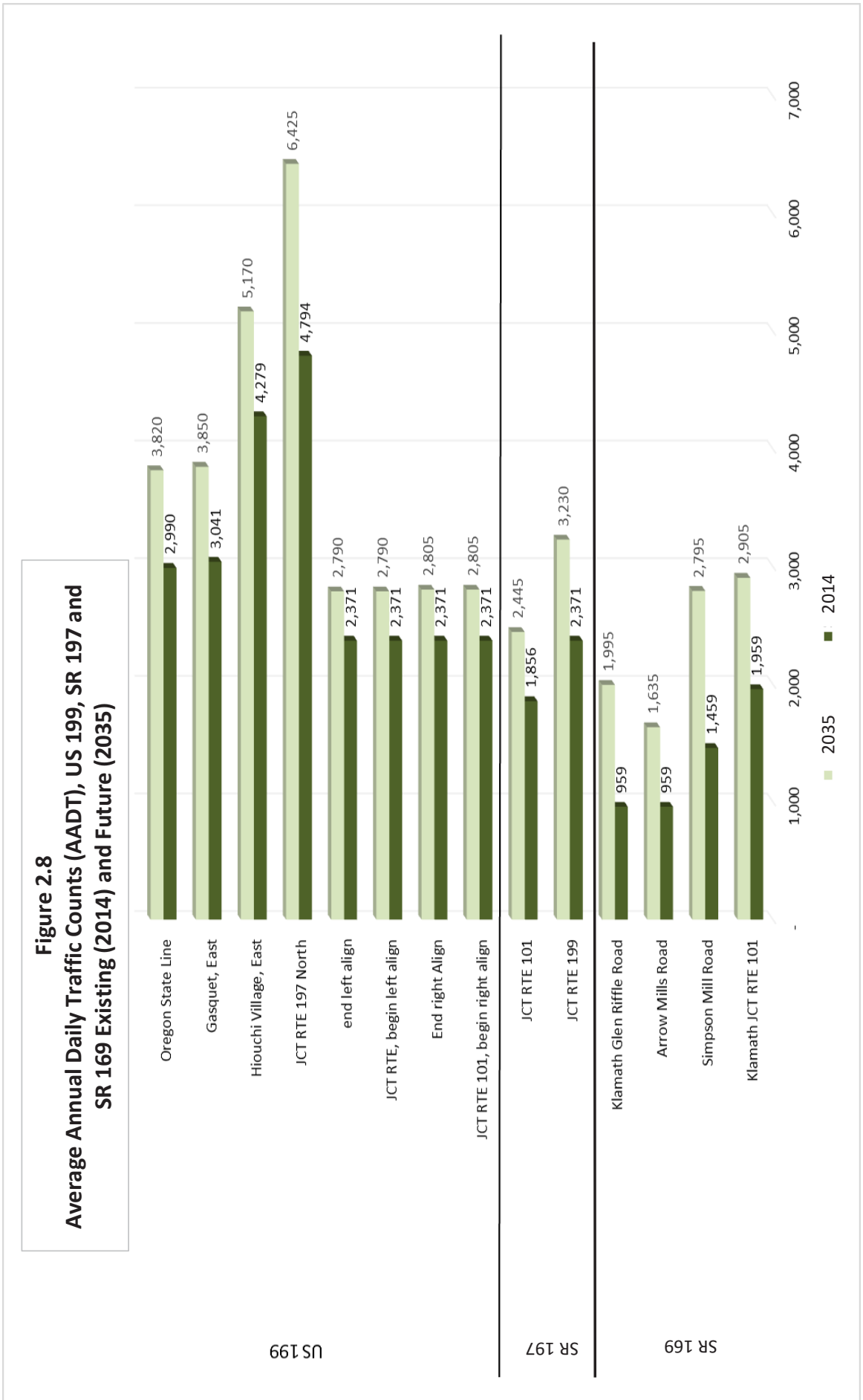


Figure 2.8
Average Annual Daily Traffic Counts (AADT), US 199, SR 197 and SR 169 Existing (2014) and Future (2035)



2.5.5 Level of Service

Level of Service (LOS) is used to rate a roadway segment's traffic flow characteristics, and acts as an indicator of roadway performance. LOS assists in determining when roadway capacity needs improvement, using a scale of A through F (Table 2.12). LOS values A through C are considered to be acceptable, although some situations allow for LOS D and E in areas of short peak traffic impacts. LOS for rural highways is largely determined by roadway geometry factors, such as grades, vertical and horizontal curves, and the presence for passing opportunities. In mountainous topography roadway LOS can be low, even absent substantial traffic volumes.

Table 2.12
LOS Definitions/Characteristics

LOS	Description
A	Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream
B	Stable flow, but the presence of others in the traffic stream begins to be noticeable
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interaction with others in the traffic stream
D	Represents high density, but stable flow
E	Represents operating conditions at or near the capacity level
F	Represents forced or a breakdown in traffic flow

Source: Highway Capacity Manual- Transportation Research Board 2010

Table 2.13
Maximum Daily Volume Thresholds for Rural Highways

Classification	LOS				
	A	B	C	D	E
4-Lane Major Freeway	25,400	41,600	58,400	71,000	79,200
2-Lane, Class I Highway	1,200	3,700	7,600	13,600	21,000
2-Lane, Class II Highway	1,700	4,100	8,200	16,600	21,200
Rural Principal Arterial (2 lane)	2,600	5,900	10,300	16,900	20,200
Rural Minor Arterial (2 lane)	1,200	3,300	6,400	11,000	15,500
Rural Major Collector (2 lane)	1,300	3,900	7,500	12,600	16,900
Rural Minor Collector (2 lane)	1000	3,000	5,500	8,750	11,200
Rural Local Road	600	2,000	3,500	4,900	5,500

Based on the 2010 Highway Capacity Manual, which provided maximum peak hour flows. The values in this table were converted to daily travel using the peak period percent (approximately 10 percent) for these facilities.

2.5.6 Existing and Forecasted Level of Service

Traffic predictions were made based on the Del Norte County population predictions. The Department of Transportation reported an average annual growth at 0.31%. The population in Del Norte County has declined slightly between 2010 and 2013; however, it is expected to slowly grow for the next 20 years. AADT and Level of Service (LOS) predictions remain at acceptable levels for most roadways in Del Norte County. Sections of US 101, especially in Crescent City, will experience the greatest decline in LOS. Figures 2.9 and 2.10 show the LOS values and AADT counts for 2015 and 2036, respectively. Table 2.14 shows LOS values on State and Federal routes, and 2.15 show AADT and LOS values for select County routes.

State and Federal Routes

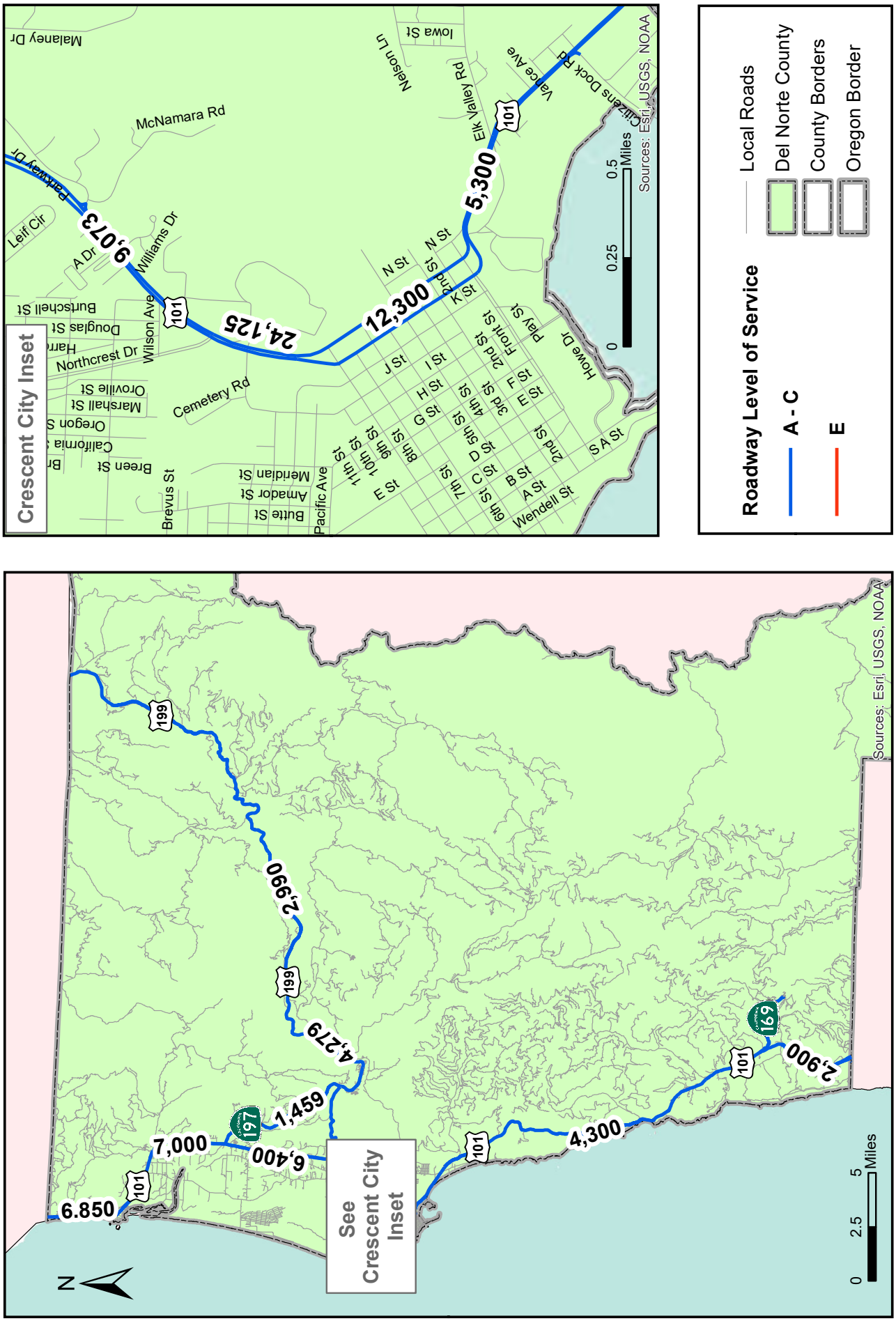
Table 2.14
Average Annual Daily Traffic (AADT) Volumes

Route		LOS	
		2014	2036
101	Humboldt/ Del Norte County Line	B	C
	South Bank Road	B	C
	Klamath Junction RTE 169 SE	B	C
	Requa Road	B	C
	New Hunter Creek Road	B	C
	Trees of Mystery	B	B
	Humboldt Road; Enderts Beach Road	B	C
	Sandmine Road	B	C
	Crescent City, Elk Valley Road	C	C
	Crescent City, on M Street, begin right align	C	C
	Crescent City, on M Street at Front Street	C	C
	Crescent City on M Street at 4th Street	C	C
	Crescent City on M Street at 9th Street	C	C
	Crescent City, north of 9th Street, end right align	C	C
	Crescent City, on L S/Front Street, begin left align	C	C
	Crescent City on L Street at Front Street	C	E
	Crescent City on L Street at 4th Street	C	A
	Crescent City on L Street at 9th Street	C	E
	Crescent City, L Street, End of left align	C	D
	Crescent City, north of 9th Street	E	E
	Crescent City, Northcrest Drive	E	D
	Washington Blvd	C	A
	JCT RTE 199 Northeast	B	B
	Elk Valley Cross Road	B	A
	JCT RTE 197 Southeast	B	D
	Fred Haight Drive	B	D
	Oregon State Line	B	D
169	Klamath JCT RTE 101	B	C
	Simpson Mill Road	B	C
	Arrow Mills Road	A	C
	Klamath Glen, Terwer Riffle Road	A	C
197	JCT RTE 199	B	B
	JCT RTE 101	B	B
199	JCT RTE 101, begin right align	A	A
	End right Align	A	A
	JCT RTE, begin left align	A	A
	end left align	A	A
	JCT RTE 197 North	B	C
	Hiouchi, East	B	C
	Gasquet, East	B	C
	Oregon State Line	B	C

Select County Routes

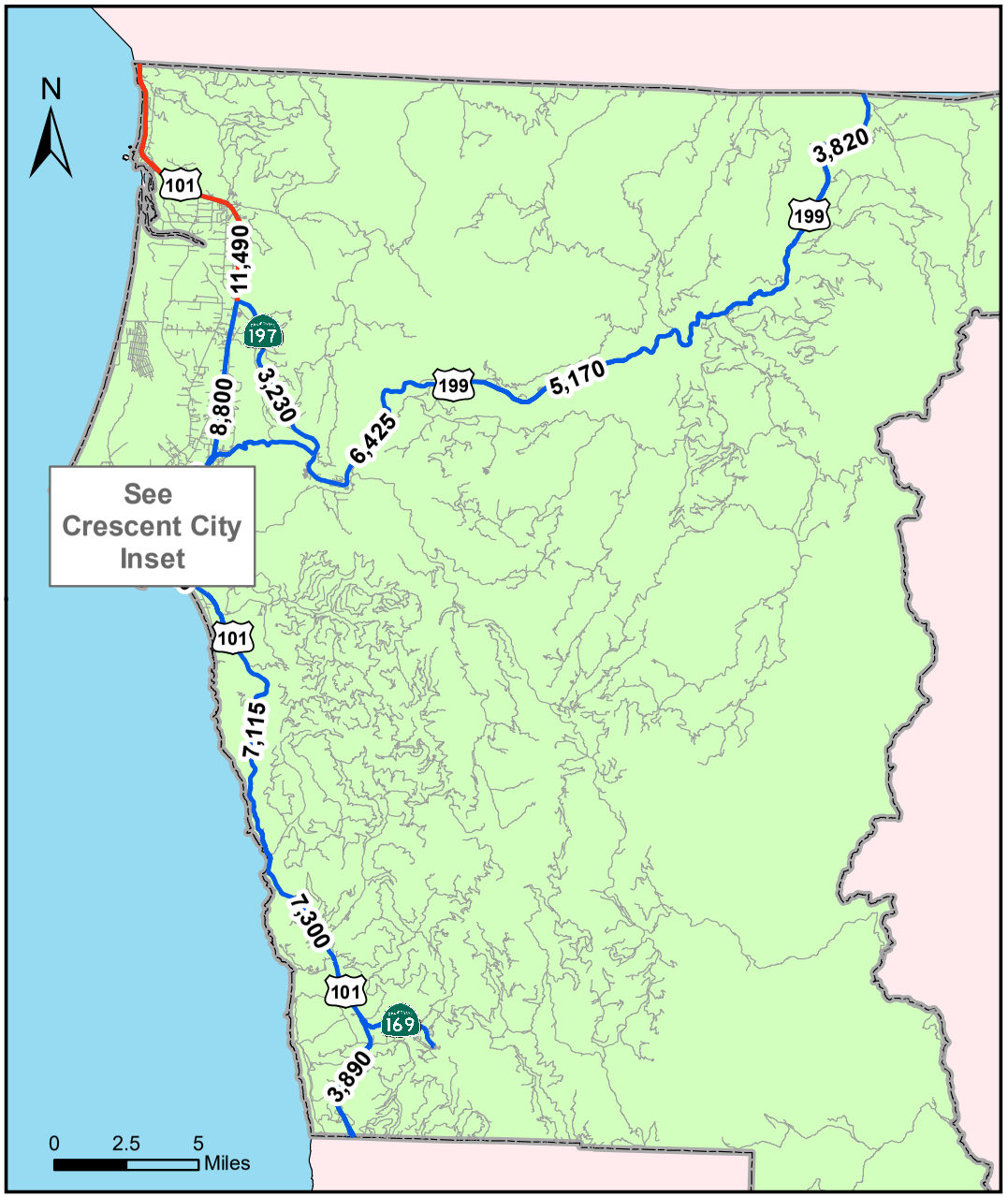
Table 2.15
Unincorporated County: Average Annual Daily Traffic (AADT) Volumes

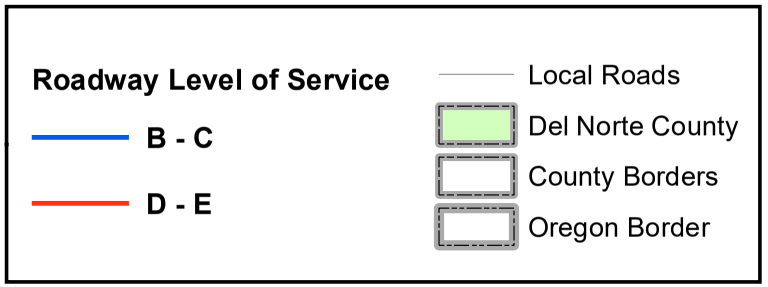
Roadway	Location	ADT Volume		LOS	
		2013 - 2015	2036	2015	2036
Lake Earl Drive	S of Rock Billy Dr.	4,145	4,300	C	C
Kings Valley Rd.	N of S. Kraft Dr.	720	1,115	A	A
Elk Valley Cross Rd.	E of Iowa St.	5,214	5,840	C	D
Washington Blvd.	E of Summer Ln.	7,170	8,200	D	D
Northcrest Dr.	N of E Washington Blvd.	10,961	11,880	A	A
Washington Blvd.	E of Northcrest Dr.	7,745	8,635	D	D
Burtschell St.	N of shopping center access	925	925	C	C
Washington Blvd.	E of Harrold St.	8,920	9,805	D	D
Northcrest Dr.	N of Old Mill Rd.	6,433	6,725	D	D
Summer Lane	N of Summer Ln.	4,325	4,435	D	D
Washington Blvd.	W of Parkway Dr.	5,695	6,800	C	D
Parkway Dr.	NE of Park Place	2,820	3,060	B	C
Boulder Rd.	W of Railroad Ave.	900	955	A	A
Sandmine Rd.	E of US 101	1,550	1,555	C	C
Howland Hill Rd.	W of Temple St.	2,855	2,905	B	B
Elk Valley Cross Rd.	N of Howland Hill Rd.	1,795	2,185	B	B
Howland Hill Rd.	E of Elk Valley Cross Rd.	3,540	3,600	C	C
Elk Valley Cross Rd.	N of Clyde St.	2,400	2,910	B	B
Elk Valley Cross Rd.	W of Cunningham Ln.	2,360	2,720	B	B
Wonderstump Rd.	N of Star Trek Dr.	440	550	A	A
Oceanview Dr.	S of Spyglass Rd.	285	360	A	A
Lake Earl Drive	N of Bachelor Rd/Maeghan Wy.	2,620	2,795	B	B
Morehead Dr.	E of Bolen Ln.	1,130	1,195	B	B
Fred D Haight Dr.	N of Wilson Ln.	1,450	1,580	B	B
Fred D Haight Dr.	S of US 101	1,275	1,565	A	B
Union St.	W of Elk Valley Cross Rd.	45	85	A	A
Washington Blvd.	W of Summer Ln.	8,060	9,140	D	D
Lake Earl Drive	Between Bachelor Rd./Maeghan Wy. and Purdy Ln.	2,600	2,775	B	B
Washington Blvd.	W of US 101 SB Ramps	7,955	9,035	D	D



AVERAGE DAILY TRAFFIC VOLUMES AND ROADWAY LEVEL OF SERVICE - EXISTING CONDITIONS

Figure 2.9





AVERAGE DAILY TRAFFIC VOLUMES AND ROADWAY LEVEL OF SERVICE - 2036 CONDITIONS

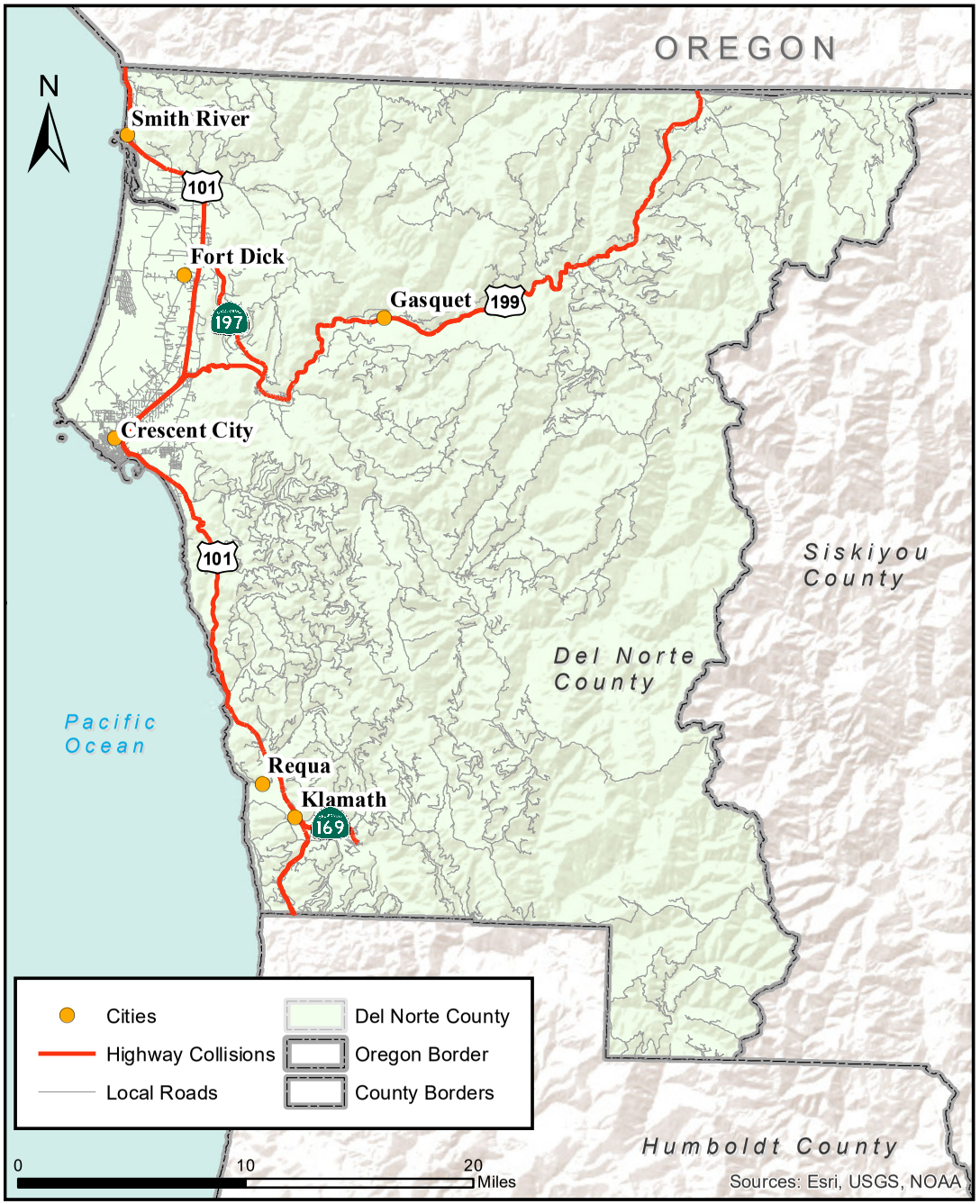
Figure 2.10

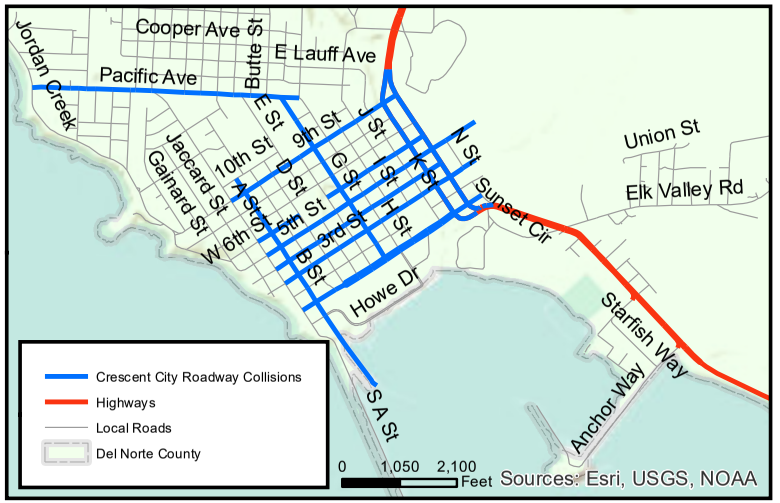
2.5.7 Collision Summary

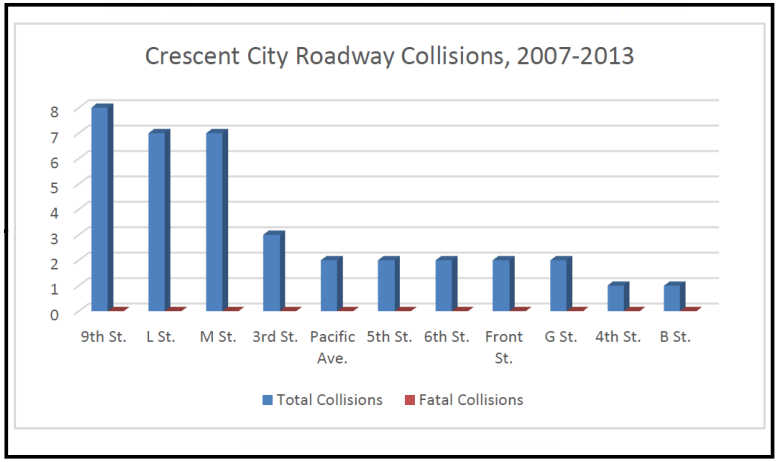
In order to monitor the safety needs in the region, a seven year summary of collisions on Federal and State routes was compiled (Table 2.16). The majority of collisions occur on US 101 and US 199. The total number of fatal collisions (42) is spread fairly evenly over the seven year period. Figure 2.11 shows some collision data. For more detailed location data, please refer to the most current Statewide Integrated Traffic Records System managed by the California Highway Patrol (http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp).

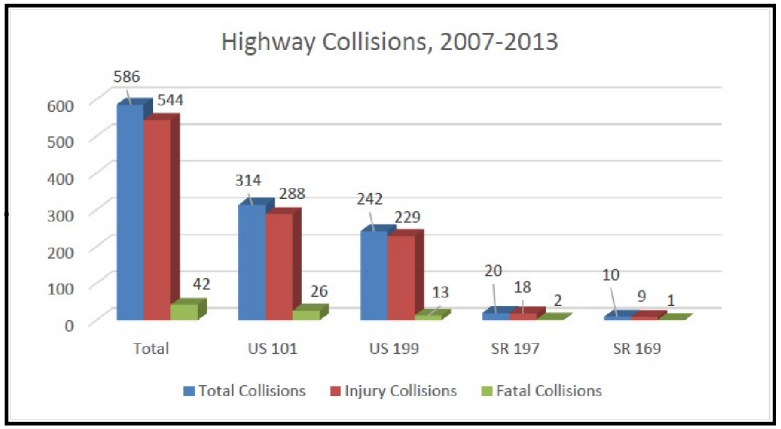
Table 2.16
Collision Summary, 2007-2013

Year	Route	Total Collisions	Fatal Collisions	Injury Collisions	Victims Killed/Injured
2007	US 101	54	7	47	81
2007	US 199	28	0	28	40
2007	SR 197	3	1	2	5
2007	SR 169	1	0	1	5
Total		**86**	**8**	**78**	**131**
2008	US 101	52	2	50	78
2008	US 199	41	1	40	57
2008	SR 197	3	0	3	3
2008	SR 169	0	0	0	0
Total		**96**	**3**	**93**	**138**
2009	US 101	52	4	48	71
2009	US 199	39	2	37	54
2009	SR 197	3	0	3	4
2009	SR 169	3	0	3	3
Total		**97**	**6**	**91**	**132**
2010	US 101	62	3	59	84
2010	US 199	36	2	34	58
2010	SR 197	7	0	7	9
2010	SR 169	2	0	2	4
Total		**107**	**5**	**102**	**155**
2011	US 101	43	5	38	71
2011	US 199	46	3	43	71
2011	SR 197	2	0	2	2
2011	SR 169	3	1	2	4
Total		**94**	**9**	**85**	**148**
2012	US 101	40	2	38	67
2012	US 199	39	2	37	51
2012	SR 197	0	0	0	0
2012	SR 169	0	0	0	0
Total		**79**	**4**	**75**	**118**
2013	US 101	11	3	8	17
2013	US 199	13	3	10	21
2013	SR 197	2	1	1	3
2013	SR 169	1	0	1	1
Total		**27**	**7**	**20**	**42**









Collision Summary, 2007 - 2013

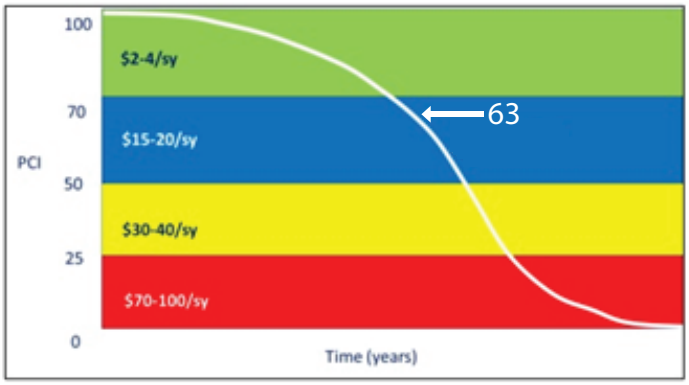
Figure 2.11

2.5.8 Pavement Conditions

Due to limited funds, many roadways have pavement conditions that are in need of repair. The average Pavement Condition Index (PCI) for roadways in Del Norte County is 63 (California Local Streets & Roads Needs Assessment 2014 Update). PCI values range from 0-100, and optimally, pavement improvements will occur when PCI reaches around 66. As PCI rating gets lower, preventative pavement repair costs increase exponentially. With a PCI of 70 or above, preventative maintenance is relatively inexpensive at about $4.60-$4.85/square yard. For PCI between 50 and 70, repair costs go up to about $18.05-$18.80/square yard. Once PCI goes below 50 repair costs rise to $28.45-$29.73/ square yard, and can go up to almost $70/square yard for roads that deteriorate to the point of needing a total reconstruction.

The PCI in Del Norte County is just above PCI scores deemed "at risk" (PCI of 58). Once pavement reaches this condition, it tends to deteriorate at a faster rate and should be addressed as quickly as possible. Many of the projects listed in Chapter 4 are roadway rehabilitation and directly address pavement deterioration in the region.

Figure 2.12 Pavement Condition Index Time/Cost Chart



2.6 TRANSIT

2.6.1 Redwood Coast Transit Authority (RCTA)

Redwood Coast Transit Authority (RCTA) is the designated transit system for Del Norte County. The RCTA has seven fixed routes that operate within Del Norte County as well as to Humboldt County and Curry County in Oregon. Routes 1, 2, 3, 4, 10 and 199 provide service throughout the county. Route 20 provides service to Arcata in Humboldt County. Operation hours are Monday through Friday, with limited hours on Saturday. Routes are detailed in Figure 2.13.

Fares for local routes 1, 2, 3, and 4 are $1.00 for the general public and $.75 for seniors and people with disabilities. Fares for routes 10 and 199 are $1.50 for everyone. Fares for route 20 are $1.50 for service within Del Norte County, $5.00 for service within Humboldt County, and $30.00 for service between Del Norte and Humboldt Counties.

Ridership for the Redwood Coast Transit increased steadily between 2006 and 2012 from 66,890 annual passengers in 2006 to 154,550 annual passengers in 2012. However, due to cuts in the RCTA budget in 2012, all routes experienced service reductions and decreased ridership between 2012 and 2013 (Table 2.17). Service reductions include cutting operation hours and eliminating service on certain holidays. Subsequently, annual ridership decreased to 134,537 riders in 2013. Ridership between 2012 and 2013 is detailed in Table 2.17.

Table 2.17 Del Norte County Transit Ridership				
Route	**Destination**	**Begins**	**Ends**	**Ridership 2012/13**
Fixed Route Service Total				-10.8%
Route 1	Parkway/ El Dorado	7:30am	5:53pm	-0.8%
Route 2	A/ Inyo/ Washington	7:00am	6:27pm	-8.8%
Route 3	Northcrest	8:00am	6:24pm	-20.4%
Route 4	Bertsch/ Howland Hill	7:30am	6:53pm	-14.10%
Route 10	Del Norte Coast/ Klamath	6:30am	6:15pm	-6.10%
Route 20	Smith River/ Arcata	6:45am	9:30pm	-21.40%
Route 199	Crescent City/ Gasquet	7:15am	6:25pm	-2.20%
Dial-a-ride		7:00am	7:00pm	-18.8%
Source: Redwood Coast Transit Authority 2012/13 Annual Report				

2.6.2 Dial-A-Ride

The Redwood Coast Transit Authority also offers public transit via the Dial-A-Ride service. This service operates Monday through Friday with limited hours on Saturday. Dial-A-Ride serves the area between Smith River and Arcata in Humboldt County. Dial-A-Ride offers same day curb-to-curb service for $2.50 (senior and disabled) or $5 (general public). The fare is reduced to $1.50 for seniors and people with disabilities for reserving tickets one day in advance.

Dial-A-Ride ridership has decreased from 18,826 one-way passenger trips in FY 2009/10 to 15,985 one-way passenger trips in FY 2011/12, which calculates to a loss of over 2,841 passengers. Vehicle service hours for both the Dial-A-Ride and the regular fixed route system have decreased by over 1,000 hours for FY 2012/13.

2.6.3 Yurok Tribe Transit Service

The Yurok Tribal Transit Services provides public transportation services operated by the Yurok Tribe Transportation Department. This service provides transit for the communities of Klamath, Crescent City, Weitchpec, Wautec, and Tulley Creek. There is a Dial-A-Ride Service and regular morning (7AM-8:30AM) and evening (5PM-6:15PM) pick-up times for the following community destinations:

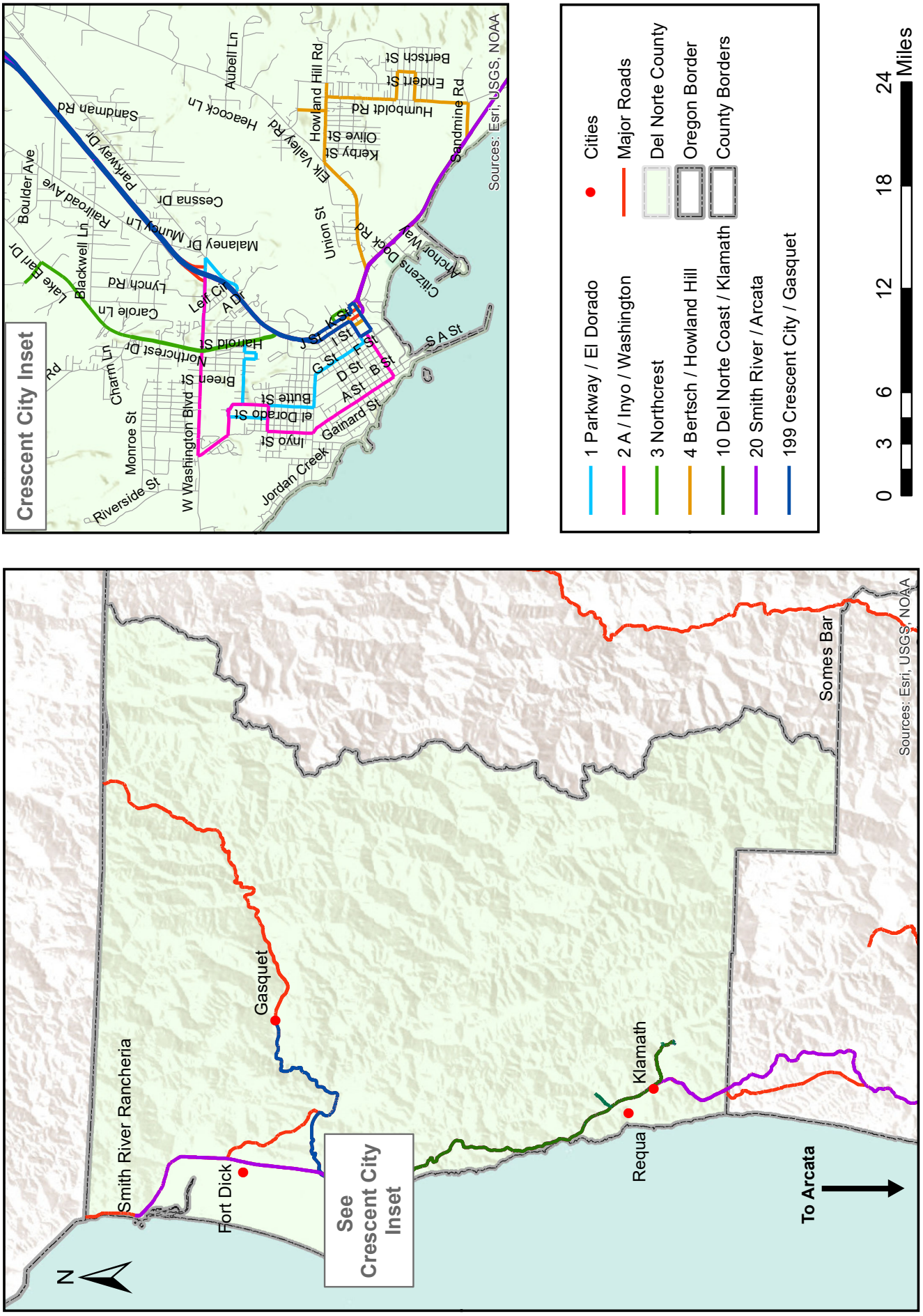
- Pem-mey in Klamath (7:10AM)
- Home Depot, Crescent City (7:45AM and 5:45PM)
- Elk Valley Community Center, Crescent City (7:45AM and 5:38PM)
- Yurok Tribal Office, Klamath (8:23AM, 5:05PM, and 6:15PM)

The fare for the Yurok Tribal Transit Service (YTTS) is $1.00 per trip, per passenger. Additionally, the YTTS provides a free trip for elders and assistants for shopping, business, or personal needs once a month. The YTTS is an important transit systems for the Tribal community as many members live in isolated areas and have limited means of transportation.

2.7 INTER-AGENCY CONNECTIONS WITH OTHER PROVIDERS

2.7.1 Amtrak

Amtrak does not currently have direct routes to surrounding towns and even major destinations. Del Norte County residents must use the Amtrak Thruway Bus Connecting Service to connect to the “Coast Starlight” rail route in Klamath Falls. The Coast Starlight runs from Vancouver, BC to Los Angeles, CA and travels through Seattle, Portland, Sacramento and San Francisco. The greater Amtrak network can be accessed from stations in Seattle, Portland, Sacramento and Los Angeles.



Redwood Coast Transit Routes

Figure 2.13

2.7.2 Greyhound

There are no Greyhound Stations located in Del Norte County. There is Greyhound service in Arcata in Humboldt County which departs at 9:35AM once daily for San Francisco. The station in Arcata is accessible to Del Norte County residents by public transportation through the Redwood Coast Transit.

2.7.3 Curry County Public Transit

Curry County Transit provides a fixed route service called the Coastal Express, as well as a demand-response service. The Coastal Express serves the US 101 corridor from Smith River in northern Del Norte County through Bandon, Coos Bay and North Bend in Oregon. There are four daily timed transfers between the Coastal Express and Redwood Coast Transit in Smith River.

2.7.4 SouthWest POINT

SouthWest POINT is a transit system that provides service to southern Oregon and provides connections directly to Del Norte residents through stops in Smith River, Crescent City and Gasquet. Through Southwest POINT, Del Norte residents can travel to Medford, Grants Pass, Wolf Creek, Cave Junction, Ashland and Klamath Falls. Many other transit systems can be accessed through the SouthWest POINT destinations.

2.7.5 Humboldt Transit Authority

The Humboldt Transit Authority operates several transit systems that serve the Humboldt County region: Arcata Mad River Transit System (AMRTS), Eureka Transit Service (ETS), Redwood Transit System (RTS), the Willow Creek Transit Service and the Southern Humboldt Transit Systems (SHTS). Of these transit systems, AMRTS, ETS and RTS provide interregional connections in Del Norte County.

Arcata Mad River Transit System (AMRTS) provides a connection from the Redwood Coast Transit Route 20 destination of Arcata. AMRTS provides hourly services to major destinations within Arcata, including Humboldt State University, medical facilities, and shopping centers. Similarly, Eureka Transit Service (ETS) provides inter-city travel throughout Eureka for arrivals from Del Norte County that can be accessed through the Route 20 stop in Arcata.

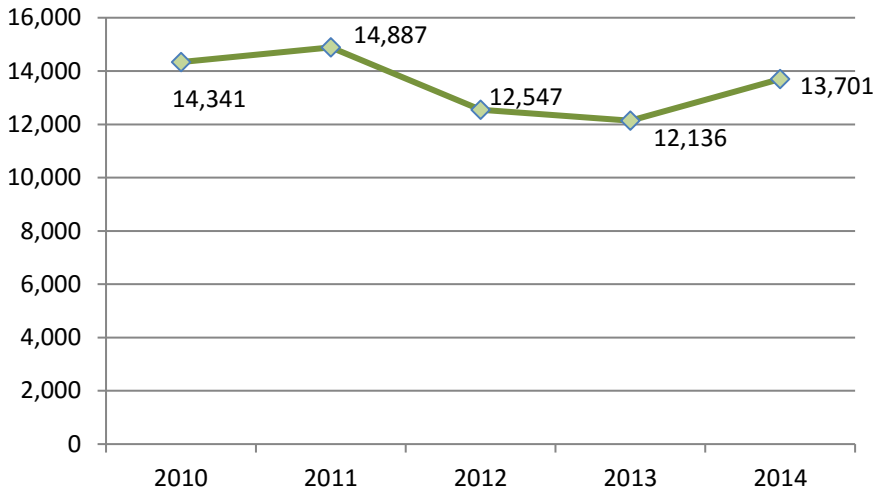
2.8 AVIATION

2.8.1 Jack McNamara Field

Jack McNamara Field is located in unincorporated Crescent City and is operated by the Border Coast Regional Airport Authority (BCRAA). The BCRAA is a Joint Powers Authority with a Board of Directors comprised of representatives from Del Norte County, the City of Crescent City, the Elk Valley Rancheria, the Tolowa Dee-ni' Nation, the City of Brookings (Oregon), and Curry County (Oregon). In September 2015, the Del Norte County Regional Airport began offering commercial flights between Portland and Crescent City twice daily through a partnership with PenAir and Alaska Airlines. Del Norte County Regional Airport is the only airport to provide commercial airline passenger service and is the only airport with an Instrumental Landing System (ILS) in the County. It is eligible for FAA Primary Entitlement funding. One car rental company is located onsite. The total number of enplanements for the Del Norte County Regional Airport were relatively steady from 2010-2014; however, SkyWest Airlines withdrew from the market in April 2015 and enplanements dropped precipitously. Peninsula Airways began serving Crescent City on a code share agreement with Alaska Airlines to and from Portland International Airport in September 2015 and enplanements have been steadily increasing since. See Figure 2.14 for detailed information on enplanements.

The Del Norte County Regional Airport finished construction on the expansion of the runway safety area funded through the Federal Aviation Administration (FAA) grant program and the Oregon Department of Transportation in 2015. The Del Norte County Airport is pursuing a terminal expansion set for construction in 2017 to meet the future demand of travel.

Figure 2.14
Jack McNamara Airport Annual Enplanements



Source: Federal Aviation Administration

2.8.2 Other Airports

In addition to the Del Norte County Regional Airport (Jack McNamara Field), the County has two other public airports. The Ward Field Airport in Gasquet and the Andy McBeth Airport in Klamath Glen.

Ward Field

The Ward Field Airport is located between the Smith River and US 199 in the unincorporated community of Gasquet. Ward Field is a public general aviation non-NPAIS facility. This airport serves as an alternate landing for non-commercial aircrafts if Jack McNamara Field is fogged in. Additionally, the airport can be used in emergency situations, such as firefighting or medical evacuations. Redwood Coast Transit Route 199 serves the Gasquet Community and associatively, Ward Field Airport.

Andy McBeth

The Andy McBeth Airport is located within the unincorporated community of Klamath Glen. The facility is a public general non-NPAIS facility with no services available. This airport is used primarily by private pilots and emergency responders.

2.9 GOODS MOVEMENT

The most effective movement of goods within, in, and out of Del Norte County is trucks. The US and State Highway system forms the foundation for goods movement with local pick-up and delivery using the comprehensive roadway network. The main goods movement corridors in and out of Del Norte County include US 199/SR 197 providing access to Josephine County, Oregon to the north and east and US 101 providing access to Humboldt County to the south and Curry County, Oregon to the north.

2.10 MARITIME TRANSPORTATION AND WATER RESOURCES

The Crescent City Harbor is located in the unincorporated area of Crescent City. Commercial fishing and tourism are the primary economic activities found in the Harbor, and represent an important sector of the Del Norte regional economy. There are currently around 80 commercial fishing vessels berthed at the harbor. The Harbor has been severely damaged several times due to tsunamis. Following the 2011 tsunami, the Crescent City

Harbor was rebuilt to be tsunami-resistant and is the only such facility on the west coast. The new tsunami-resistant harbor is built to withstand a 50-year tsunami event. The Crescent City Harbor District manages the harbor and is seeking more transient vessels and tenants at the Harbor. In addition to commercial fishing, the Crescent City Harbor is an important place for tourism. Eight restaurants, four hotels and an art gallery attract tourists to the harbor area.

2.11 NON-MOTORIZED FACILITIES

2.11.1 California Coastal Trail

The California Coastal Trail (CCT) is a 1,200 mile network of public trails for pedestrians, hikers, equestrians and wheelchair users along the California coast. The CCT spans 15 counties throughout California, including 16 sections in Del Norte County. The CCT is not fully connected throughout California, nor is it in Del Norte County. The trail links downtown businesses, the Crescent City Harbor, and Elk Valley Road. There are plans to develop the remaining unconnected portion of the trail, from South Beach Road to Pebble Beach Road.

2.11.2 Pacific Coast Bicycle Route

The Pacific Coast Bicycle Route (PCBR) is the most significant bike route in Del Norte County. The PCBR is approximately 1,830 miles following the west coast of US and Canada, extending from Vancouver, British Columbia to Imperial Beach at the California/Mexico Border. This route is designated as Class II and III and runs parallel to US 101 in Del Norte County, along Sarina Road, 1st Street, Fred Haight Drive, Lake Earl Drive, and Northcrest Drive. An alternative scenic route along Washington Boulevard and Pebble Beach Drive can also be utilized. The PCBR is a significant asset to the region and supports recreational, economic and tourism success.

The 2015 Pacific Coast Bike Route Survey summarizes the findings of the survey of 535 PCBR bicyclists and its predominant needs. The survey found that the most common and highest-ranked issue bicyclists found on the PCBR was narrow roads in need of wider shoulders. Survey respondents also noted that the segment of US HWY 101 just south of Crescent City (between Hamilton Road and Wilson Creek) was one of three “problem areas” along the route, and the only problem area identified in Del Norte County. This segment was identified as difficult due to extremely narrow shoulders, aggressive and unfriendly drivers, high volumes of traffic, steep terrain and debris.

2.11.3 Bicycle

In addition to the PCBR, there are bicycle facilities present at all locations of the California Coastal Trail in Del Norte County. The majority of existing bicycle facilities in Del Norte County are designated Class III bikeways-shared use with pedestrians and motor vehicle traffic. The American Community Survey 2013 reported that 39% of Del Norte residents and 54% of Crescent City residents have a travel time to work less than 10 minutes. Despite short travel times, biking remains an underutilized mode of travel in the County. Short commute times indicate that an improved bicycle network may encourage a mode shift from automobile to bicycle.

2.11.4 Pedestrian

Although a contiguous sidewalk network is the safest way for pedestrians to travel, establishing a complete sidewalk network can be difficult or impractical for rural areas. Many communities in Del Norte County lack appropriate pedestrian facilities, including sidewalks, signage and crosswalks. Even incorporated Crescent City lacks a contiguous sidewalk network.

2.11.5 Coast to Coast Trail

The Coast to Crest Trail is a hiking trail extending east from Crescent City through the Klamath Mountains to Harrington Peak at the crest of Siskiyou and Del Norte County. The trail is approximately 50 miles through Del Norte County and connects to an adjoining trail in Siskiyou County that leads to the Pacific Crest Trail.

2.12 Connectivity Issues

The rural nature of Del Norte County inherently creates connectivity challenges involving roadways, transit, and non-motorized transportation.

2.12.1 Roadways

The major roadways for interregional travel within and through Del Norte County are US 101 and US 199. US 101 connects Del Norte County to Brookings, OR to the north and Eureka/Arcata and San Francisco to the south. US 199 connects county residents to Grants Pass, OR. US 199 also connects with Interstate-5 (I-5) in Grants Pass, offering access throughout the west coast.

The County is physically isolated from most of California by the mountainous terrain covering much of the County. From the Del Norte population center, Crescent City, I-5 is approximately 85 miles via US 199.

2.12.2 Transit

In recent years, Redwood Coast Transit Authority (RCTA) costs in Del Norte County have decreased by 3.7%, but have not kept pace with reduced service hours and passenger decreases (see Table 2.17). This has resulted in a diminished transit system with reduced access for users both within and out of the County. In particular, travel from Del Norte County to Humboldt County costs users $30/per day, making this cost prohibitive for anyone who travels to Eureka/Arcata often for employment, educational opportunities, or healthcare.

The nearest Greyhound station is located in Arcata. The only departure time from this station is at 9:35 am. Route 20 of the Redwood Coast Transit Authority arrives in Arcata at 9:30 am and 9:30 pm. Therefore, it is not feasible for Del Norte County residents to connect to the Greyhound station via transit for interregional travel without paying for overnight lodging in Arcata.

Although many small, rural communities are served by the RCTA, residents without vehicles may have a difficult and unsafe trip reaching the closest transit stop. Communities along Route 10 from Crescent City to Klamath, Route 20 from Smith River to Arcata and Route 199 from Crescent City to Gasquet are located along either US 101 or US 199, and do not have access to adequate pedestrian or bicycle facilities. People utilizing non-motorized transportation modes to reach transit stops must cross or travel along a major highway without the safety of intersection controls, crosswalks, sidewalks or bicycle lanes.

Table 2.18
System-wide Transit Performance Measures

Performance Data and Indicators	Base Year	Audit Period			% Change FY 2012-2015
	FY 2012	FY 2013	FY 2014	FY 2015	
Operating Cost	$1,181,406	$1,110,035	$1,121,300	$1,137,599	-3.7%
Total Passengers	154,614	134,539	131,548	136,793	-11.5%
Vehicle Service Hours	20,917	18,923	19,278	19,603	-6.3%
Vehicle Service Miles	434,988	398,383	403,449	406,127	-6.6%
Employee FTE's	19	18	18	18	-5.3%
Passenger Fares	$193,581	$193,821	$199,346	$208,817	7.9%
Operating Cost per Passenger	$7.64	$8.25	$8.52	$8.32	8.8%
Operating Cost per Vehicle Service Hour	$56.48	$58.66	$58.16	$58.03	2.7%
Operating Cost per Vehicle Service Mile	$2.72	$2.79	$2.78	$2.80	3.1%
Passengers per Vehicle Service Hour	7.4	7.1	6.8	7.0	-5.6%
Passengers per Vehicle Service Mile	0.36	0.34	0.33	0.34	-5.2%
Vehicle Service Hours per Employee	1,100.9	1,051.3	1,071.0	1,089.1	-1.1%
Average Fare per Passenger	$1.25	$1.44	$1.52	$1.53	21.9%
Far Recovery Ratio	16.39%	17.46%	17.78%	18.36%	12.0%
Source: Annual Fiscal & Compliance Audits; State Controller's Reports; RCTA Reports					

2.12.3 Aviation

Jack McNamara Field is the primary airport in Del Norte County, and the only airport in the county to offer commercial flights. Flights are available at Jack McNamara Field, with 14 weekly round-trip flights between Crescent City and Portland, OR. Current prices range from around $250 - $350 and over $500 for same-week flights. From Portland, travelers can connect to other destinations.

2.12.4 Goods Movements

US 101 and US 199/SR 197 are critical goods movement routes for the region, but limit access for industry standard trucks. The limited options for regional and interregional goods movement pose a significant constraint to the region's economy and mobility. A number of projects identified in the Action Element of the RTP will improve goods movement in the region when implemented.

2.12.5 Non-Motorized Transportation

The California Coastal Trail, which is used by residents and tourists alike, is not fully connected throughout the County. The trail links downtown businesses, the Crescent City Harbor, and Elk Valley Road.

Crescent City is the only community in the County with an established sidewalk network. However, the sidewalks throughout the City need improvements for gap closures, connectivity and Americans with Disabilities. Crescent City has identified many projects in this RTP to address pedestrian improvements. The City and Caltrans are cooperatively making improvements for pedestrians along US 101 through the City.

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3 Policy Element

The purpose of the Policy Element of the RTP is to provide guidance to regional transportation decision makers and to promote consistency among Federal, State, regional, and local agencies. As required by the State of California, the Policy Element must:

- Describe transportation issues in the region.
- Identify and quantify regional needs expressed within both short- and long-range planning horizons.
- Maintain internal consistency with the Financial Element and fund estimates.

This chapter provides goals, objectives and policies to assist in setting transportation priorities.

3.1 GOALS, POLICIES, AND OBJECTIVES

The goals, objectives and policies for each component of the Del Norte County regional transportation system are discussed below. They cover both short-range (0-10 years) and long-range (11-20 years) desired outcomes. They are consistent with the policy direction of the DNLTC, the Del Norte County General Plan Circulation Element (2003), the California Strategic Highway Safety Plan, and the California Transportation Plan (CTP 2040).

The comprehensive goals, objectives and policies that have been developed for this RTP meet the needs of the region and are consistent with the regional vision and priorities for action. These objectives are intended to guide the development of a transportation system that is balanced, multi-modal and will maintain and improve the quality of life for residents and visitors of Del Norte County.

3.2 STATE HIGHWAYS AND REGIONAL ROADWAYS

3.2.1 Primary Issues:

With low traffic volumes and minimal population growth, expanding the traffic capacity of roadways is not a priority. Safety and operational improvements and maintenance of the existing system to ensure connectivity are of central importance. According to the Caltrans 10-year collision analysis between 2002 and 2012, all but one highway segment analyzed had total collision rates higher than the statewide average for similar facilities. The collision rates ranged from 1.1 times to 2.9 times greater than the statewide average for similar facilities. Addressing such high collision rates is an important step to address the overall safety of the region. In addition to safety, maintaining regional roadways and connectivity to Humboldt County, Curry County and Josephine County is a critical concern for the region.

3.2.2 Goal 1: Provide and maintain a safe, efficient, and convenient countywide roadway system.

3.2.2.1 Objective: Identify and prioritize improvements to the roadway system.

3.2.2.1.1 Policy:

Prioritize roadway projects according to pavement condition and safety and operational deficiencies, including required maintenance and repair, in the most cost-effective manner given available resources.

3.2.2.2 Objective: Maintain roadways at acceptable safety standards.

3.2.2.2.1 Policy:

Identify and eliminate unsafe conditions on state highways and regionally significant roadways and intersections.

3.2.2.3 Objective: Employ Intelligent Transportation System (ITS) strategies when feasible and cost effective.

3.2.2.3.1 Policy:

The DNLTC will consider implementation of Intelligent Transportation Systems (ITS) technologies for individual modes based on availability and funding.

3.2.2.4 Objective: Implement improvement projects which will increase the walkability, bikeability and attractiveness of downtown areas.

3.2.2.4.1 Policy:

Caltrans and local agencies will pursue traffic calming and streetscape projects in the downtown Crescent City area.

3.2.2.5 Objective: Improve funding availability from State and Federal resources.

3.2.2.5.1 Policy:

Advocate for increased funding for projects in the Del Norte region.

3.2.2.5.2 Policy:

Existing roads should be maintained and upgraded as a priority over the construction of new roads to new areas except when the public benefit clearly outweighs overall costs.

3.2.2.5.3 Policy:

Improve project competitiveness by building solid project foundations through planning and project development efforts.

3.3 LOCAL ROADS

3.2.1 Primary Issues:

Pavement maintenance and safety improvements continue to be the highest priorities for the local road system.

3.3.2 Goal 2: Upgrade and improve roadways in order to preserve the existing County roadway system.

3.3.2.1 Objective: Improve overall pavement condition ratings to a Pavement Surface Evaluation Rating (PASER) rating of 8.0 or better (~80 PCI) so as to reduce the need for expensive roadway reconstruction projects over the long-term.

3.3.2.1.1 Policy:

Develop a Pavement Management Plan and roadway inspection schedule as recommended in the Pavement Management System and Roadway Data Analysis Report.

3.3.2.1.2 Policy:

Prioritize roadway maintenance projects based on pavement condition data obtained from the Pavement Management System and Roadway Data Analysis Report, the overall regional importance of the local roadway, and cost effectiveness.

3.3.2.2 Objective: Accept new roads into the locally maintained road system only when they meet the criteria established by the City or County and when financial means exist.

3.4 PUBLIC TRANSIT

3.2.1 Primary Issues:

Ridership for the Redwood Coast Transit Authority has substantially declined in recent years. This ridership decline is largely due to a decline in revenue hours which has impacted all routes, including the Dial-A-Ride service. There is still a portion of the population that relies on public transit for work, commercial, educational or medical purposes. According to the American Community Survey, approximately 2% of residents have no vehicle available to them, 21.5% of residents have disabilities, 14.2% are 65 years or older and 21.8% are below the poverty level. These demographics rely on transit at higher rates than other members of the public. Maintaining an efficient transit system is crucial to the overall transportation network. There has been an indication of a need for transit connections to larger cities such as Medford, Redding, Eugene, Portland and San Francisco for medical purposes. In terms of transit capital improvement needs, there is an indicated need for passenger amenities including benches, signage and shelters.

3.4.2 Goal 3: Provide for the mobility needs of County residents, visitors and employees through transit services within the financial constraints of state and federal transit funding.

3.4.2.1 Objective: Tailor public transportation and transit service provisions to the area's population characteristics.

3.4.2.1.1 Policy:

Implement recommendations from the Short Range Transit Development Plan for the Redwood Coast Transit Authority. Update the plan as necessary.

3.4.2.1.2 Policy:

Implement strategies and recommendations outlined in the Coordinated Public Transit-Human Services Transportation Plan (2015) to address the unmet transit needs of the public. Update the plan as necessary.

3.4.2.1.3 Policy:

Consider transit services first in areas where the greatest operational efficiencies exist (i.e., dependent needs, recreational areas).

3.4.2.1.4 Policy:

Include the Yurok Tribe, Elk Valley Rancheria, Resighini Rancheria and Tolowa-Dee-ni' Nation in the planning process.

3.4.2.2 Objective: Provide life-line transportation for transit-dependent people.

3.4.2.2.1 Policy:

The DNLTC will conduct a minimum of one public hearing annually to consider and take testimony on unmet transit needs prior to expending LTF funds.

3.4.2.2.2 Policy:

Ensure that public transit services are compliant with the Americans with Disabilities Act.

3.4.2.3 Objective: As funding permits, develop transit service as an effective alternative transportation mode choice.

3.4.2.3.1 Policy:

Support transit projects that serve visitors and residents for commute and recreation trip purposes and that enhance economic development.

3.4.2.3.2 Policy:

Encourage coordination of inter- and intra-county transit service.

3.5 AVIATION

3.5.1 Primary Issues:

Continued improvements for redevelopment of the regional terminal facilities at the Del Norte County Airport (Jack McNamara Field) are necessary for the pursuit of economic and development opportunities, including the region's goal to increase tourism. At a minimum, maintenance of general aviation facilities is necessary. Expansion of the commercial facilities at Jack McNamara Field will promote tourism and economic opportunities and is generally supported by stakeholders and residents.

3.5.2 Goal 4: Maintain safe and efficient commercial and general aviation facility.

3.5.2.1 Objective: Promote the safe, orderly and efficient use of airport and air space and compatible land uses as addressed in the updated Airport Land Use Plan.

3.5.2.1.1 Policy:

Support land use decisions that discourage or prevent development in the vicinity of the airport that may present significant public safety issues.

3.5.2.1.2 Policy:

Implement Airport Capital Improvement Projects as funding allows, with priority for projects that improve the safety of the airport.

3.6 GOODS MOVEMENT

3.6.1 Primary Issues:

Freight movement is a crucial function of the roadway network in Del Norte County as the region does not have a rail line nor a deep-water shipping port. Trucking is the primary method of goods movement in the County and generates a significant portion of traffic volume along the state highway system. The predominant goods movement routes in the region include US 101 to Curry County, Oregon and Humboldt County and US 199/SR 197 to Interstate 5 in Grants Pass, Oregon.

3.6.2 Goal 5: Provide for the safe and efficient movement of regional and interregional goods.

3.6.2.1 Objective: Minimize conditions that restrict the movement of goods in and out of the County.

3.6.2.1.1 Policy:

Place a high level of importance on maintenance projects which will ensure efficient goods movement.

3.6.2.1.2 Policy:

Support projects that improve safety for all users on goods movement routes.

3.6.2.1.3 Policy:

Design roadways using current design practices.

3.7 NON-MOTORIZED TRANSPORTATION

3.7.1 Primary Issues:

There is a need to enhance bicycle and pedestrian facilities for recreationalists, tourists and residents in Del Norte County. Wider shoulders, especially on US 101, bicycle lanes, sidewalks and crosswalks will improve safety and connectivity between community destinations and intra-county travel (i.e. Coast to Caves and Coast to Crest Trails). U.S. 199 and Dr. Fine Bridge on US 101 near Smith River are examples of roadways without shoulders. This discourages the use of active modes of transportation as well as the use of the trails that extend from these facilities.

3.7.2 Goal 6: Provide a safe, convenient and efficient non-motorized transportation system that is part of a balanced overall transportation system.

3.7.2.1 Objective: Provide a pedestrian and bikeway system that emphasizes safety.

3.7.2.1.1 Policy:

Prioritize improvement projects which will increase bicycle and pedestrian safety along corridors and intersections frequently used by school children, recreational cyclists, commuter cyclists/pedestrians and visitors.

3.7.2.2 Objective: Integrate pedestrian and bikeway facilities into existing and future transportation networks.

3.7.2.2.1 Policy:

Implement recommendations of the adopted Active Transportation Plan (2015).

3.7.2.2.2 Policy:

Incorporate non-motorized facilities when implementing improvements or new developments to the existing roadway network.

3.7.2.2.3 Policy:

Prioritize roadway and street designs that avoid bicycle-auto, pedestrian-auto and bicycle-pedestrian conflicts.

3.7.2.2.4 Policy:

Prioritize active transportation projects that enhance the connectivity of the existing non-motorized system.

3.7.2.2.5 Policy:

Implement "Complete Streets" policies that foster equal access by all users in roadway design.

3.7.3 Goal 7: Promote alternative transportation.

3.7.3.3 Objective: Encourage active transportation facilities where possible.

3.7.3.3.1 Policy:

Support the projects listed in the adopted Active Transportation Plan (2015).

3.7.3.3.2 Policy:

Pursue discretionary funding, where applicable, in order to implement projects that support a well-balanced transportation system.

3.7.3.3.3 Policy:

Improve funding availability from State and Federal resources.

3.8 RECREATIONAL TRAVEL

3.8.1 Goal 8: Support recreational travel by making it safe, easy and inviting.

3.8.1.1 Objective: Increase safety along US 101 and US 199, the main routes for travelers and tourists in the County.

3.8.1.1.1 Policy:

Support improvements to US 101 that address stability problems at Last Chance Grade.

3.8.1.1.2 Policy:

Support projects that improve safety and accessibility for recreational travelers on US 101 and US 199/SR 197.

3.9 AIR QUALITY AND ENVIRONMENT

3.9.1 Primary Issues:

In California, transportation accounts for 41.2 percent of Greenhouse Gas (GHG) emissions. Transportation strategies to reduce GHG emissions include reducing, managing, and eliminating non-essential trips, through smart land use, ITS, demand management, and market-based manipulation strategies. It is important that the County transportation and land use decision-makers pursue projects that adhere to adopted state strategies and regional efforts to reduce greenhouse gas emissions.

3.9.2 Goal 9: Ensure sensitivity to the environment in all transportation decisions.

3.9.3 Goal 10: Include climate change strategies in transportation investment decisions.

3.9.3.1 Objective: Promote transportation policies and projects that minimize impacts to the natural environment.

3.9.3.1.1 Policy:

Conduct environmental review consistent with the CEQA and NEPA (as appropriate) for individual projects as they advance to the implementation stage of development.

3.9.3.1.2 Policy:

Avoid areas of sensitive habitats for plants and wildlife when constructing transportation facilities whenever feasible.

3.9.3.2 Objective: Ensure that transportation projects do not contribute to increased vehicle emissions.

3.9.3.2.1 Policy:

Prioritize and recommend transportation projects that minimize vehicle emissions while providing cost-effective movement of people and goods.

3.9.3.2.2 Policy:

Promote projects that can be demonstrated to reduce air pollution, such as active transportation projects, transit improvements and alternative fuel programs.

3.9.3.2.3 Policy:

Meet the standards of the California Clean Air Act and the Federal Clean Air Act and amendments in coordination with the local Air Pollution Control District when developing plans.

3.9.3.3 Objective: Reduce or maintain GHG emissions from transportation related sources in Del Norte County.

3.9.3.3.1 Policy:

Comply with state and federal climate change regulations and standards.

3.9.3.3.2 Policy:

Consider GHG emissions as part of every transportation capital improvement project decision.

3.9.3.3.3 Policy:

Pursue projects with positive GHG impacts that are realistic given the rural nature of Del Norte County, including transit programs, ridesharing programs, bicycle and pedestrian improvements, ITS strategies and maintenance of existing roadways to reduce vehicle emissions.

3.10 PROJECT CONSISTENCY FOR FUNDING

Funding program eligibility criteria include requirements that the projects be consistent with the goals, objectives, and policies of the RTP. Listed below (in no particular order) are project categories consistent with this RTP document:

- Projects that meet the needs of persons whose mobility is limited by inaccessible transportation systems.
- Transportation maintenance and preservation projects.
- Transit or roadway connections to urbanized areas which provide important medical and commercial services for Del Norte County residents.
- Projects to enhance the movement of agricultural, commercial and industrial goods.
- Projects that maintain the interregional integrity of the State Highway system.
- System management, demand management and other transportation control measures included in trip reduction ordinances and/or air quality attainment plans.

- Multi-occupant vehicle systems, such as public transit, ridesharing projects, and park-and-ride facilities.
- Bicycle and pedestrian projects.
- Transportation projects that facilitate higher density or mixed-use development, to the extent desired by local communities.
- Other projects that are shown to reduce congestion without construction of new facilities for single-occupant vehicles.
- Projects that reduce mobile source emissions without construction of new facilities for single-occupant vehicles.
- Proposals to improve transportation safety.
- Transportation projects that will contribute to a reduction in vehicle miles traveled per capita, while maintaining economic vitality and sustainability.

4 Action Element

This chapter presents a plan to address the needs and issues for each transportation mode, in accordance with the goals, objectives and policies set forth in the Policy Element. It is within the Action Element that projects and programs are prioritized as constrained (0-10 years) and unconstrained (11-20 years) transportation improvements, consistent with the identified needs and policies. The projects are based on the existing conditions, the forecasted future conditions, and the transportation needs as discussed throughout the Existing Conditions and Policy Element and are consistent with the Financial Element.

4.1 ACTION ELEMENT ASSUMPTIONS

In addition to the data discussed above, it is necessary to base the Action Element on a series of planning assumptions, as presented below:

- **Environmental Conditions** – No change is assumed in attainment status for air or water quality affecting transportation projects.
- **Travel Mode**- The private automobile will remain an important mode of transportation for residents and visitors. Public transportation will be a vital service for the elderly, low-income and for persons with mobility limitations. Bicycle and pedestrian travel has the potential for strong growth, for both recreational and utility purposes. This assumption is based on current mode shift trends and the approximately $290 million in active transportation projects identified in the Action Element of the RTP.
- **Changes in Truck Traffic**- The proportion of truck traffic on State highways will increase slightly during the planning period. Truck traffic will grow with respect to population growth, which is projected to slowly increase. Primary goods movement corridors are along US 101 and US 199/SR 197.
- **Recreational Travel**- Recreation-oriented travel will continue to have major impacts on State highways in the County as will intra-county visitor travel. US 101 is the primary visitor travel corridor and will continue to serve recreational travel throughout the planning period.
- **Transit Service**- Public transportation will continue to be a vital service for the elderly, low-income and for persons with mobility limitations.
- **Population Growth**- Del Norte County will experience steady but slow population growth. According to the Department of Finance, Del Norte County is expected to grow by an annual average of 0.31%. Population growth projections of neighboring counties are similar, and will not impact the region significantly.
- **Planning Requirements**- New State and Federal requirements with respect to climate change and GHG emissions will continue to shape the planning process in the future. This RTP is a dynamic document which will be updated as requirements change.
- **Emergency Preparedness**- Transportation and regional coordination will continue to play a vital role in emergency preparedness in Del Norte County.
- **Climate Change** – The region will continue to be affected by climate change. Particularly the impacts of sea level rise, storm surge and increasing storm water run-off. State and local agencies will utilize the guidance identified in the 2015 Climate Change and Stormwater Management Plan when developing transportation investment strategies.

4.2 PROJECT PURPOSE AND NEED

The RTP guidelines require that an RTP "provide a clearly defined justification for its transportation projects and programs". This requirement is often referred to as the Project Intent Statement or the Project Purpose and Need. Caltrans' Deputy Directive No. DD 83 describes a project's "Need" as an identified transportation deficiency or problem, and its "Purpose" is the set of objectives that will be met to address the transportation deficiency. Projects for each type of transportation mode are divided into financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short range periods (0-10 years) as demonstrated in the Financial Element. The financial constraint is defined as revenues that can reasonably be assumed to be available for identified projects. The unconstrained project list (11-20 years) is considered a longer term list of projects that would provide benefit to the region without a clearly identified and available funding source. It is prudent to develop projects in the long-range project lists in the event funding should become available. For Del Norte County, each project listed in the RTP project lists contributes to system preservation, capacity enhancement, safety, and/or multimodal enhancements. These broad categories capture the intended outcome for projects during the life of the RTP and serve to enhance and protect the "livability" of residents in the County.

4.3 REGIONAL PRIORITIES

4.3.1 Maintenance and Improvement Emphasis

In Del Norte County, the limited available funding is focused on maintaining existing facilities across all modes. Multimodal improvements for the transit system, aviation facilities, bikeway and pedestrian facilities, and the goods movement system will serve to implement a balanced multimodal transportation network, improve air quality, and help accommodate future travel demand in the region. Should a capacity increasing project become a regional priority, it shall be initiated only when fully or largely funded by revenue sources that otherwise could not be used for maintenance activities. Other capital projects can only be implemented after new funding sources become available to allow full funding of ongoing maintenance responsibilities. The County has limited capacity to fund large projects even when outside funding is available.

4.3.2 Maintain Connectivity

Maintaining the connections to Oregon via US 101 and US 199/SR 197 and to Humboldt County via US 101 is critical. These connections are important in supporting the economy, health and safety of the citizens and visitors to Del Norte County. Of special concern is the vulnerability of Last Chance Grade on US 101 south of Crescent City. This landslide prone area is being evaluated for a permanent solution and is identified as a top priority project in Chapter 6 of this Regional Transportation Plan. In addition to Last Chance Grade, US 199/SR 197 continue to have top priority projects for safety and goods movement identified in this plan.

4.4 TRANSPORTATION SAFETY

Addressing transportation safety in a regional planning document can improve health, the economy and quality of life issues for users of the transportation network. In the past, transportation safety has been addressed in a reactionary state. There is a need to establish methods to proactively improve the safety of the transportation network. In response to this, California developed a Strategic Highway Safety Plan (SHSP), which was most recently updated in 2015. This plan sets forth one primary safety goal: reduce roadway fatalities to less than one fatality per one hundred million vehicle miles traveled (VMT).

The SHSP focuses on 15 "Challenge Areas" with respect to transportation safety in California. For each Challenge Area, background data is provided, a specific goal is established, strategies are considered to achieve that goal, and institutional issues which might affect implementation of that goal are discussed. The SHSP includes 152

actions to implement the strategies listed in the Plan for the 15 Challenge Areas. The California SHSP Challenge Areas are summarized in Appendix D.

The policy element of this RTP includes safety goals and objectives that comply with the California Strategic Highway Safety Plan as well as the regional safety needs within the County. Transportation improvement projects that specifically address safety for all types of transportation modes are included in the project list tables in this chapter.

4.5 DEL NORTE COUNTY STRATEGIES TO PREPARE FOR CLIMATE CHANGE

Del Norte County is facing more hazardous weather and weather-related events in the coming decades due to climate change. Potential hazards to the transportation infrastructure include increased precipitation, rising sea levels and coastal storm surges, all of which are expected to increase in frequency and severity. Associated hazards that are likely to increase as a result are flooding and shoreline/coastal erosion. In addition, sea level is predicted to rise 55 inches along the California coastline by 2100. The Climate Change and Stormwater Management Plan (2015) identifies the local and state transportation assets in the region that are at risk due to climate change impacts within the timeframes of 2050 and 2100, and analyzes the cost of various options for adaptation.

The Climate Change and Stormwater Management Plan identified transportation assets likely to be affected by climate change in some way, and ranked them based on criticality. Critical roadways are routes that provide connectivity outside of the County, act as tsunami evacuation routes, are important to the health and human safety of residents and visitors to the region and/or routes that support the economic activity in the region.

Several adaptation options have been identified by the Climate Change Adaption Plan. The following list details these approaches and actions:

Defend

- Floodwalls
- Levees

Retreat

- Relocate Asset
- Mitigated Retreat

Accommodate

- Raise Asset Elevation
- Bridge Modifications
- Drainage Modifications

Changes to Policies or Practices

- Update Standard Details
- Increase Maintenance & Inspection Interval, Monitor Assets
- Adopt a Storm Drain Master Plan

It is estimated that local roadway assets recognized in the criticality ranking are in need of an estimated $30 million (2014 dollars) for maintenance and rehabilitation by 2030. The construction of levees and floodwalls represent a need of approximately $73 million by the year 2100. In order to adapt to the impacts of climate change, transportation project decisions are based on the most cost effective investment in the transportation system. These decisions are made using the findings from the Climate Change and Stormwater Management Plan (2015), in concert with regional coordination with transportation partners.

4.6 TRANSPORTATION SECURITY/EMERGENCY PREPAREDNESS

Transportation security and emergency preparedness addresses issues associated with large-scale evacuation due to a natural disaster or terrorist attack. In order for emergency preparedness to be fully effective, the transportation network must be multimodal. Tsunamis and earthquakes may destroy or compromise bridges or roadways, which is why evacuation by foot or bike should be considered, especially in the case of a tsunami. The best preventative measure for emergency preparedness would be to maintain and improve roadways, airport facilities, bicycle and pedestrian facilities and public transit services. The majority of short- and long-

range projects identified for the County have an emphasis on maintenance and operational improvement. In addition to maintaining facilities vital for safe evacuation in the region, emergency preparedness involves training and education, planning appropriate responses to possible emergencies, and communication with the County Office of Emergency Services.

The most likely emergency scenarios include forced evacuation due to tsunami, earthquake, wildfire, flood, or mudslides/landslides. Coastal areas and low elevation areas are especially vulnerable to the impacts of tsunamis. The City of Crescent City and the unincorporated communities of Crescent City, Klamath, Smith River, and Fort Dick all have significant portions of land within tsunami flood and evacuation zones. Further inland, communities near the Klamath and Smith River are vulnerable to flooding as a result of a tsunami, earthquake, or severe storm. Wildfires within the Six Rivers National Forest, which is densely wooded, threaten communities along US 199, and South Fork Road, such as Gasquet, Big Flat, and Rock Creek.

Efforts to educate and prepare Del Norte residents for natural disasters include the formation of evacuation routes and emergency assembly points for tsunami and flood hazard zones. These routes are identified within this RTP in Table 2.8. Tsunami and flood hazard zones are mapped and can be found online at the website: http://preparedelnorte.com/.

Prepare Del Norte is a public group intended to educate and prepare the public for natural disasters. The group offers educational classes and organizes volunteers in an effort to reduce the negative impacts of natural disasters. A community well informed of natural disaster protocol is more likely to keep a functioning, efficient and safe transportation network in the event of an emergency. Maintenance of designated evacuation routes should be given high priority to ensure safe and efficient evacuation and to reduce vulnerability to severe weather.

4.6.1 Coordinated Emergency Preparedness

The responsibility of mass evacuations rests with local agencies. Public transit plays a major role in evacuations, as they are equipped to transport many residents in the event of mass evacuation. Other public sector departments that play a role in emergency response include:

- Crescent City Office of Emergency Services
- Del Norte County Office of Emergency Services
- Del Norte County Sherriff's Department
- Police Department
- Fire Department
- Del Norte Unified School District
- Crescent City Harbor District
- Redwood Coast Transit
- Tribal entities: Tolowa Dee-ni' Nation, Elk Valley Rancheria, Yurok Tribe, Resighini Rancheria

4.7 PROJECT LISTS

As a method of developing responses to the transportation needs and issues discussed in the earlier portions of this document, this RTP includes a list of transportation system improvements for each mode of transportation applicable to Del Norte County. Projects for each type of transportation facility are divided into financially constrained and financially unconstrained improvements. Financially constrained projects are funded over the short- and long-range periods as demonstrated in the Financial Element. Determining exact construction costs of transportation projects is difficult, especially for long-range projects. For this reason, many of the projects in the unconstrained lists do not have construction year or total costs specified. Proposed transportation improvement projects and implementation status are listed in Tables 4.1 through 4.6 and are categorized by transportation type and funding status.

4.7.1 Constrained Roadway Improvement Projects (Appendix E)

Table 4.1 displays constrained roadway, bridge, complete streets, safety and active transportation projects for the region. The expected total cost is approximately $114,670,000 for the 10 year period 2016-2036. Rehabilitating roads, reconstructing bridges, and maintaining safe, interregional connectivity, are the most important projects for Del Norte County.

Table 4.1
Constrained Roadway Improvement Projects

Agency	Funding Source	Road	Description	Cost (1000s)	Year	RTP Goal	Performance Measure
Roadway Rehabilitation or Reconstruction							
County	Road Fund	**NA**	Area 8 - Fort Dick (Chip Seal)	$ 405	2020	1, 2, 5	5, 6
County	CDBG	**Harding Avenue**	Harding Avenue - Outside of City Limits- Sidewalk construction	$ 715	2016	1, 2, 5	2, 3, 5
County	CDBG	**Glenn Street**	Glenn Street - Small Street to Hamilton Avenue - Sidewalk construction	$ 702	2016	1, 2, 5	2, 3, 5
County	CDBG	**El Dorado Street**	El Dorado Street - Cooper Avenue to Pacific Avenue- Sidewalk construction	$ 440	2016	1, 2, 5	2, 3, 5
Caltrans	SHOPP	**US 199**	.4 mi. N of South Fork Road to .56 mi. S of Idlewild Maint. Station Rd.-High friction surface treatment	$ 2,130	TBD	1, 2, 5	5, 6
Caltrans	SHOPP	**US 101**	Near Crescent City 1.2 mi. N of Rudisill Rd-Reconst. Tieback Wall and Roadway - Last Chance Grade	$ 3,455	2016	1, 2, 5	1, 3, 5
Caltrans	SHOPP	**US 101**	10 mi. S of Rudisill Road-Repair roadway failures-Last Chance Grade	$ 4,396	2016	1, 2, 5	1, 3, 5, 6
Caltrans	SHOPP	**US 101**	10 mi. s of Crescent City at 2.8 mi. N of Mill Creek Park Ent.-Reconstruct roadway/log crossing repair	$ 8,000	2016	1, 2, 5	3, 5, 6
Caltrans	SHOPP	**US 101**	Near Crescent City, from 1 to 1.5 miles south to 0.2 miles north of Hamilton Road	$ 3,025	2016	1, 2, 5	5, 6
Caltrans	SHOPP	**US 101**	Near Crescent City at .6 mi. S of Hamilton Road-Reconstruct slipout/Stabilize roadway	$ 3,678	2016	1, 2, 5	3, 5, 6
Caltrans	SHOPP	**US 101**	Near Hiouchi 1 mi. N of South Fork Road-Smith River Curve Improvement	$ 3,445	2016	1, 2, 5	1, 3, 5, 6
Caltrans	SHOPP	**US 199**	Near Patrick Creek 2.6 mi. N of Patrick Creek Road-Middle Fork Wall	$ 3,015	2016	1, 2, 5	5, 6
Caltrans	SHOPP	**US 199**	Near Idlewild at Collier Tunnel Rest Area-Rest area Rehab	$ 1,499	2018	1, 2, 5	5, 6
Caltrans	SHOPP	**SR 197**	Near Fort Dick 1.3 mi. to .5 mi. S of Ruby Van Deventer Park-Widen Roadway	$ 955	2017-hold	1, 2, 5	1, 3, 5, 6
Caltrans	SHOPP	**SR 197**	At entrance to Ruby Van Deventer Park-Widening	$ 551	2017-hold	1, 2	1, 3, 5, 6
Caltrans	SHOPP	**US 199**	Near Patrick Creek .6 mi. N of Patrick Creek Rd. to 1.1 mi. N of Siskiyou Fork Rd.-Widen Roadway	$ 6,412	2017-hold	1, 2, 5	1, 3, 5, 6
Bridge Replacement or Rehabilitation							
County	HBP/Toll Credits	**Requa Road**	Hunter Creek Bridge (01C0011)	$ 6,535	2018	1, 2	3, 5, 6
County	HBP/Toll Credits	**Big Flat Road**	Hurdygurdy Creek Bridge (01C0031)	$ 2,818	2017	1, 2	3, 5, 6
Caltrans	SHOPP	**NA**	Various bridges-seismic retrofit	$ 2,515	2016	1, 2, 5	3, 5, 6
Caltrans	SHOPP	**US 199**	Near Gasquet 1.6 mi. N of Myrtle Creek .4 mi S of Patrick Creek Bridge-Patrick Creek Slipout	$ 1,704	2016	1, 2, 5	3, 5, 6
Caltrans	SHOPP	**US 101**	From .3 mi. N of Wilson Creek Bridge to 1.5 Mi. S of Hamilton Road-Reconstruct Drainage	$ 900	2018	1, 2, 5	3, 5, 6
Caltrans	SHOPP	**US 101**	8.8 mi. N of Crescent City-Smith River Overflow Bridge-Replace Dr. Fine Bridge	$ 53,173	2018	1, 2, 5	2, 5, 6
Complete Streets, Safety and Active Transportation							
County	CDBG	**El Dorado Street**	Bess Maxwell School SRTS Project	$ 1,076	2016	6, 7, 8, 9	2, 3
County	HSIP	**Parkway Drive**	Parkway Drive Safety Project	$ 332	2016	6, 7, 8, 9	2, 3
Crescent City	ATP	**Sunset Circle**	Sunset Circle Class 1 Bikeway	$ 800	2016	6, 7, 8, 9	2, 3
Crescent City	ATP	**Front Street**	A St. to L St. Pedestrian Improvements	$ 1,800	2018	6, 7, 8, 9	2, 3
Caltrans	STIP	**US 101**	US 101 Crescent City Gateway Traffic Calming Project (PA&ED + PS&E)	$ 194	2021	6, 7, 8, 9	2, 3
DNLTC	Regional	**NA**	Regional Bike Map	$ 10	2017	6, 7, 8, 9	2, 3
Total				**$ 114,670**			

4.7.2 Unconstrained Roadway Improvement Projects (Appendix F)

Projects listed in Table 4.2 are financially unconstrained. Projects include roadway construction, roadway rehabilitation, bridge replacement, complete streets, safety and active transportation projects. The total cost of the long-range, financially unconstrained projects is estimated at $178,548,000.

Table 4.2
Unconstrained Roadway Improvement Projects

Agency	Funding Source	Road	Description	Cost ($1000s)	Year	RTP Goal	Performance Measure
Roadway Reconstruction or Rehabilitation							
Caltrans	TBD	**US 101**	Last Chance Grade - Permanent Sollution from Wilson Creek to 9 miles west of Crescent City	TBD	TBD	1, 2, 5	1, 3, 5, 6
County	TBD	**Klamath Beach Rd.**	US Highway 101 to Coastal Drive	$ 19,000	TBD	1, 2	3, 5, 6
County	TBD	**Low Divide Road**	P.M. 0 to P.M. 5	$ 23,000	NA	1, 2	3, 5, 6
County	TBD	**Wonder Stump Rd.**	Star Trek Drive to US Highway 101	$ 3,690	NA	1, 2	3, 5, 6
County	TBD	**Elk Valley Road**	Howland Hill Road to Parkway Drive	$ 11,253	NA	1, 2	3, 5, 6
County	TBD	**Requa Road**	Requa Improvement Project - Requa Road and P.J. Murphy Memorial Drive	$ 15,770	NA	1, 2	3, 5, 6
County	TBD	**Requa Road**	US Highway 101 to P.J. Murphy Memorial Drive	$ 354	NA	1, 2	3, 5, 6
County	TBD	**PJ Murphy**	Requa Road to End	$ 652	NA	1, 2	3, 5, 6
County	TBD	**Pebble Beach Dr.**	Point St. George to Dale Rupert Road	$ 438	TBD	1, 2	3, 5, 6
County	TBD	**Washington Blvd.**	Inyo Street to Dale Rupert Road	$ 383	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 1 - Klamath (chip seal)	$ 245	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 2 - Bertsch Tract (chip seal)	$ 165	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 3 - Elk Valley & Parkway (chip seal)	$ 325	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 4 - Filkins Tract (chip seal)	$ 310	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 5 - West of Northcrest (chip seal)	$ 120	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 6 - East of Northcrest (chip seal)	$ 70	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 7 - Mid Lake Earl & Kings Valley (chip seal)	$ 140	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 9 - Smith River (chip seal)	$ 315	TBD	1, 2	3, 5, 6
County	Road Fund	**NA**	Area 10 - Hiouchi & Gasquet (chip seal)	$ 550	TBD	1, 2	3, 5, 6
County	TBD	**Lower lake Road**	Lake Earl Drive to Kellogg Road	$ 937	TBD	1, 2	3, 5, 6
County	TBD	**First Street**	Beckstead Road to Sarina Road	$ 276	TBD	1, 2	3, 5, 6
County	TBD	**Northcrest Drive**	Senior Center to Pine Grove School- Sidewalk construction	$ 500	TBD	1, 2	2, 3, 5
County	CDBG	**NA**	Roosevelt Tract- Drainage Improvements	$ 1,500	NA	1, 2	2, 3, 5
Crescent City	TBD	**A Street**	7th St, Pacific Ave Reconstruction	$ 1,100	TBD	1, 2	3, 5, 6
Crescent City	TBD	**Front Street**	A St. to L St., Revitalization (including subcomponents)	$ 600	TBD	1, 2	2, 3, 5
Crescent City	TBD	**Front Street**	a. Water Infrastructure Improvements	$ 750	TBD	1, 2	2, 3, 5
Crescent City	TBD	**Front Street**	B. Storm Drain Improvements	$ 900	TBD	1, 2	2, 3, 5
Crescent City	TBD	**Front Street**	c. Pedestrian Improvements	$ 3,200	TBD	1, 2, 6, 7, 8, 9, 10	2, 3, 5
Crescent City	TBD	**Front Street**	d. Transit Improvements (5310)	$ 400	TBD	1, 2	2, 4, 5
Crescent City	TBD	**Front Street**	e. B Street Roundabout Improvements	$ 2,000	TBD	1, 2	1, 3, 5, 6
Crescent City	TBD	**Front Street**	f. Roadway Reconstruction	$ 4,000	TBD	1, 2	1, 5, 6
Crescent City	TBD	**Front Street**	K St-Front St. to 3rd St. Reconstruction	$ 600	TBD	1, 2	3, 5, 6
Crescent City	TBD	**NA**	Various Roadway Microsurfacing	$ 1,000	TBD	1, 2	3, 5, 6
Crescent City	TBD	**Sunset Circle**	101 to Elk Valley, Reconstruction	$ 1,250	TBD	1, 2	3, 5, 6
Crescent City	TBD	**7th Street**	Pebble Beach to L St. Reconstruction	$ 2,000	TBD	1, 2	3, 5, 6
Crescent City	TBD	**8th Street**	Pebble Beach to L St. Reconstruction	$ 2,000	TBD	1, 2	3, 5, 6
Crescent City	TBD	**Howe Drive**	Stamps Way to B St., Rehabilitation	$ 450	TBD	1, 2	3, 5, 6
Crescent City	TBD	**Wendell Street**	4th Sr. to 9th St., Rehabilitation	$ 750	TBD	1, 2	3, 5, 6
Crescent City	TBD	**C Street**	5th St. to 9th St. , Rehabilitation	$ 600	TBD	1, 2	3, 5, 6
Crescent City	TBD	**D Street**	2nd St. to 9th St., Rehabilitation	$ 1,000	TBD	1, 2	3, 5, 6
Crescent City	TBD	**NA**	Roosevelt Tract Annexation Area- Reconstruct existing streets	$ 1,336	TBD	1, 2	3, 5, 6
Crescent City	TBD	**NA**	Other Annexation Areas- To be programmed	TBD	TBD	1, 2	3, 5, 6
Caltrans	SHOPP	**NA**	Various locations-Culvert Rehabilitation	$ 4,286	TBD	1, 2	3, 5, 6

Table 4.2
Unconstrained Roadway Improvement Projects

Agency	Funding Source	Road	Description	Cost ($1000s)	Year	RTP Goal	Performance Measure
Bridge Replacement or Rehabilitation							
County	TBD	**Ocean View Dr.**	Gilbert Creek Bridge (01C0008)	$ 3,538	TBD	1, 2	3, 5
County	TBD	**South Fork Road**	Middle Fork Smith River Bridge (01C0006)	$ 10,586	TBD	1, 2	3, 5
County	TBD	**Requa Road**	Salt Creek Bridge (01C0012)	$ 3,080	TBD	1, 2	3, 5
County	TBD	**Old Gasquet Toll Rod.**	Eighteen Mile Creek Bridge (01C0032)	$ 1,128	TBD	1, 2	3, 5
County	TBD	**Old Gasquet Toll Rd.**	West Fork Patrick's Creek Bridge (01C0033)	$ 2,924	TBD	1, 2	3, 5
County	TBD	**Chapman Street**	Hoppow Creek Bridge (01C0002)	$ 5,890	TBD	1, 2	3, 5
County	TBD	**Salk Creek Road**	Salt Creek Bridge (01C0020)	$ 1,216	TBD	1, 2	3, 5
Caltrans	SHOPP	**US 101**	Near Klamath, at Panther Creek Bridge and Hunter Creek Bridge - Replace Bridges	$ 17,183	TBD	1, 2, 5	3, 5
Complete Streets, Safety and ATP							
Crescent City	TBD	**Pebble Beach Dr.**	6th St. to 9th St. Pedestrian Improvements	$ 750	TBD	6, 7, 8, 9, 10	2, 3, 5
Crescent City	TBD	**NA**	Bicycle Racks- 8 locations	$ 8	TBD	6, 7, 8, 9, 10	2, 3, 5
Crescent City	TBD	**8th Street / K St.**	Class 2 Bike Lane	$ 60	TBD	6, 7, 8, 9, 10	2, 3, 5
Crescent City	TBD	**NA**	City Wide Priority Pedestrian Improvements	$ 1,500	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**First Street**	Smith River Elementary School Gap Closure Project	$ 1,500	TBD	6, 7, 8, 9, 10	2, 3, 5
County	CDBG	**Harrold Street**	Washington Boulevard to Wilson Avenue	$ 1,500	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Third Street**	Fred Haight Drive to Beckstead Road	$ 1,000	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Washington Blvd.**	Washington Park Gap Closure Project	$ 744	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**NA**	Hobbs Wall Trail - East End of Second Street to Howland Hill Road	$ 2,146	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Sarina Road**	US Highway 101 to First Street	$ 330	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**First Street**	Sarina Road to North Beckstead Avenue	$ 508	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Fred Haight Drive**	US Highway 101 South to First Street	$ 2,132	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Morehead Road**	Lake Earl Drive to Lower Lake Road	$ 1,221	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Elk Valley Cross Rd.**	US Highway 101 to Lake Earl Drive	$ 415	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Blackwell Lane**	Lake Earl Drive to Railroad Avenue	$ 614	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Ocean View Dr.**	US Highway 101 North to Indian Road	$ 1,749	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Ocean View Dr.**	US Highway 101 South to Indian Road	$ 1,947	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Alder Road**	Blackwell Lane to Lake Earl Drive	$ 396	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Kings Valley Road**	Wonderstump Road Extension to Rellim Road	$ 726	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Wonder Stump Rd.**	Yonkers Bridge to US Highway 101	$ 264	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Timbers Blvd.**	US Highway 101 to Fred Haight Drive	$ 297	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Gasquet Flat Rd.**	US Highway 199 to Middle Fork Road	$ 977	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Middle Fork Gasquet**	US Highway 199 to Gasquet Flat Road	$ 46	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Old Mill Road**	Northcrest Drive to Dillman Road	$ 436	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Endert's Beach Rd.**	US Highway 199 to End (National Park Service)	$ 997	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**South Fork Road**	Douglas Park Drive to Big Flat Road	$ 297	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Railroad Avenue Ext.**	Boulder Avenue to Elk Valley Cross Road	$ 2,000	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Rowdy Creek Rd.**	US Highway 101 to Smith River NRA	$ 38	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Lower Lake Road**	Lake Earl Drive to Pala Road	$ 120	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Kellogg Road**	Lower Lake Road to End (Kellogg Beach)	$ 30	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Old Mill Road**	Dillman Road to Lake Earl Wildlife Area	$ 20	TBD	6, 7, 8, 9, 10	2, 3, 5
County	TBD	**Riverside Street**	Washington Boulevard to End (Dead Lake)	$ 20	TBD	6, 7, 8, 9, 10	2, 3, 5
Caltrans	SHOPP	**US 101**	US 101 Crescent City Non Motorized Improvement Project	TBD	TBD	6, 7, 8, 9, 10	2, 3, 5
Total				**$ 178,548**			

4.7.3 Aviation Improvement Projects (Appendix G)

Table 4.3 presents aviation projects. The total cost for constrained aviation projects is estimated at $5,785,000, while unconstrained projects are estimated at $57,160,000.

Table 4.3
Aviation Improvement Projects

Description	Cost ($1,000)	Year	RTP Goals	Perf. Measures
Short-Term Aviation Project (1-10 Years)				
Ward Airport				
ALUCP Update (all airports)	$ 150	2018-19	4	3, 5
Perimeter Fencing	$ 250	2021	4	3, 5
Obstruction Clearance	$ 175	2016-2030	4	3, 5
Slurry Seal Runway & Apron	$ 175	2022	4	3, 5
McBeth Airport				
Obstruction Clearance - Runway 11 & 29	$ 150	2016	4	3, 5
Update Airport Layout Plan (ALP)	$ 50	2019	4	3, 5
Overlay and Restripe Runway 11/29	$ 250	2017	4	3, 5
Obstruction Clearance	$ 75	2016-2030	4	3, 5
McNamara Airport				
Part 139 Compliance Issues	$ 360	2016	4	3, 5
Part 77 Obstruction Clearance Permitting	$ 300	2016	4	3, 5
Part 77 Obstruction Clearance	$ 300	2017	4	3, 5
Install Precision Approach Path Indicator (PAPI)	$ 50	2016	4	3, 5
Ground Access Projects				
Taxiway Lighting	$ 3,500	2018-19	4	3, 5
Short-Term Total	**$ 5,785**			
Long-Term Aviation Projects				
Ward Airport				
Noise Study CDD	TBD	2016	4	3, 5
McNamara Airport				
Construct Terminal Parking Lot	$ 6,069	TBD	4	3, 5
Complete Final Design of Terminal Replacement	$ 1,900	TBD	4	3, 5
Reimbursable Agreements	$ 1,000	TBD	4	3, 5
Construct New Terminal Apron	$ 2,673	TBD	4	3, 5
Construct New Terminal Building (17,867 sq. ft.)	$ 16,391	TBD	4	3, 5
Design Runway Overlay Project	$ 250	TBD	4	3, 5
Overlay Runways 1237 & 1836	$ 8,822	TBD	4	3, 5
Acquire Property for Extension of Rwy 11/29	$ 1,400	TBD	4	3, 5
Design of Extension of Rwy 11/29 & Road Realignments	$ 600	TBD	4	3, 5
Realignment of Washington Blvd and Riverside Street	$ 1,000	TBD	4	3, 5
Extension of Rwy 11/29	$ 15,000	2022	4	3, 5
Acquire new larger Airport Rescue Fire Fighting (ARFF) vehicle (to meet requirements for larger aircraft)	$ 750	2022	4	3, 5
Ground Access Projects				
Design and construct RSA grading and filling projects	$ 1,305	TBD	4	3, 5
Long-Term Total	**$ 57,160**			

4.7.4 Transit Improvement Projects (Appendix H)

Table 4.4 presents transit improvement projects. The total cost for constrained transit projects is $1,662,000, and the estimated cost for unconstrained projects is $3,631,000.

Table 4.4
Transit Improvement Projects

Funding Source	Description	Cost ($1000s)	Year	RTP Goals	Performance Measures
Short Term Transit Projects					
1B-CTSGP	Security Improvements	$ 62	2016	3, 7, 9, 10	2, 4, 5
PTMISEA	Replace Buses (3)	$ 270	2016	3, 7, 9, 10	2, 4, 5
FTA 5311(f)	Replace Intercity Bus	$ 200	2017	3, 7, 9, 10	2, 4, 5
PTMISEA	Replace Buses (3)	$ 270	2018	3, 7, 9, 10	2, 4, 5
FTA 5311(f)	Replace Intercity Bus	$ 200	2018	3, 7, 9, 10	2, 4, 5
1B-CTSGP	Security Improvements	$ 59	2019	3, 7, 9, 10	2, 4, 5
PTMISEA	Replace Buses (3)	$ 401	2019	3, 7, 9, 10	2, 4, 5
FTA 5311(f)	Replace Intercity Bus	$ 200	2020	3, 7, 9, 10	2, 4, 5
Short-Term Totals		**$ 1,662**			**NA**
Long Term Transit Projects					
TDA/FTA	Continued vehicle replacement	$ 3,276	Various	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Mobile communications equipment	$ 75	Various	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Bus Shelter Improvements to Top Priority Locations	$ 65	Various	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Bus Pullout at Washington and Arlington	$ 36	TBD	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Bench at Northcrest @ Shop Smart	$ 1	TBD	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Passenger Facility Improvements to Top Priority Locations (landscape, trash receptacle, accessible pathway etc.)	$ 105	TBD	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Other Bus Shelter Improvements	$ 19	TBD	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Signage Improvements	$ 15	TBD	3, 7, 9, 10	2, 4, 5
TDA/FTA/STIP	Accessibility Improvements	$ 39	TBD	3, 7, 9, 10	2, 4, 5
Long-Term Totals		**$ 3,631**			

4.7.5 Tribal Improvement Projects (Appendix I)

The following table, Table 4.5, is the 20 year vision for the Elk Valley Rancheria, the Tolowa Dee-ni' Nation, and the Yurok Tribe. The total cost for tribal projects stands at $32,605,000; however this number is lower than the Tribal need, as many projects lack cost estimates.

Table 4.5
Tribal Improvement Projects

BIA #	Funding Source	Road	Project Name/Location	Year	Cost ($1000s)
Elk Valley Rancheria					
0088	IRR/HPP	**Sandmine Rd/ Humboldt Hill Rd**	Install Roundabout	2016	$ 2,700
	TBD	**Martin Ranch Road**	Construct Elk Ranch Road on the Martin Ranch	TBD	TBD
-	TBD	**Dale Rupert Road**	Construction - Improvements to Dale Rupert Road	TBD	TBD
-	TBD	**US 101**	At Sandmine Road - Construction - Improve left turn channelization for Southbound traffic on US 101	TBD	TBD
-	TBD	**US 101**	At Humboldt Road - Construction - Add declaration lane to US 101 for Northbound traffic turning right onto Humboldt Road	TBD	TBD
-	TBD	**US 101**	At Humboldt Road and Sandmine Road - construction - Add southbound acceleration lane from Humboldt and Sandmine Roads onto US 101	TBD	TBD
-	TBD	**Matthews Street, Norris Avenue and Howland Hill Rd**	Facilities - Cubs, gutters, sidewalks and lights	TBD	TBD
-	TBD	**US 199**	Construction - Construct alternate route to Last Chance Grade	TBD	TBD
Tolowa Dee-ni' Nation (Smith River Rancheria)					
3041	County	**South Indian Road**	US 101 to end - Roadway rehabilitation- overlay	2017	$ 253
3041	County	**North Indian Road**	US 101 to end - Roadway rehabilitation- overlay	2017	$ 127
-	TBD	**Lucky 7 Casino Access Road**	Relocate Lucky 7 Casino Access Road - Roadway Realignment	TBD	TBD
3041	TBD	**North Indian Road**	Construct Sidewalks	TBD	TBD
3074	TBD	**Oceanview Drive**	Roadway Rehabilitation- overlay	TBD	TBD
-	TBD	**Oceanview Drive**	Widen shoulder or construct separate pedestrian path along downhill side of road	TBD	TBD
3041	TBD	**South Indian Road**	Planting strip and unpaved pedestrian path along west side of road	TBD	TBD
D309	TBD	**1st Street**	Construct sidewalks from North Beckstead to Sarina Rd	TBD	TBD
101	TBD	**US 101**	North Indian Road to Mouth of Smith River Rd and US 101 South Gateway - South of Westbrook Lane to South of Rowdy Creek - Various gateway treatment and traffic calming measures	TBD	$ 2,750
101	TBD	**US 101**	Lake Earl Drive to Oregon Border - Various traffic calming improvements- turn pockets, raised delineators, warning signs, wrap fog lines around curb returns, skip lines	TBD	$ 2,750
-	TTP	**North and South Indian Rd**	N/S Indian Road & Mouth of Smith River Road	TBD	TBD
Yurok Tribe					
D7A0	County/TPP	**Requa Road**	Between Salt Creek Box Culvert Crossing and Hunter Creek Bridge - Raising of road prism and replacement of both creek crossing structures	TBD	$ 693
-	County/TPP	**NA**	Various County Maintained Roads - Repaving	Various	$ 10,689
169	TBD	**SR 169**	Pedestrian/bike paths, signage, shoulder widening	TBD	$ 5,108
D530	County/TPP	**Klamath Blvd.**	Resurface and restripe 1.12 miles with AC pavement	2015-16	$ 1,200
101	TBD	**US 101**	Additional pedestrian/bike paths, signage, shoulder widening beyond Klamath TE project	TBD	TBD
-	County/TPP	**Klamath Circle Road**	Resurface road and add striping	TBD	$ 600
-	County/TPP	**Klamath Beach Road**	KRe-pave existing road.	TBD	$ 1,000
-	County/TPP	**Hunter Creek Road**	Re-surface road	TBA	$ 3,000
-	TTP	**NA**	Klamath Transit Building - Yurok Transit Center building.	TBD	$ 1,100
-	Tribe/TTP	**NA**	Traditional Redwood Canoe Tours - Provide cultural tourism tours	2016-17	$ 400

4.8 TRANSPORTATION SYSTEMS MANAGEMENT

Transportation systems management (TSM) is a term used to describe low-cost actions that maximize the efficiency of existing transportation facilities and systems. Urbanized areas can implement strategies using various combinations of techniques. However, in rural areas such as Del Norte County, many measures that would apply in metropolitan areas are not practical.

With limited funding, Del Norte County must look for the least capital-intensive solutions. On a project basis, TSM measures are good engineering and management practices. Many are already in use to increase the efficiency of traffic flow and movement through intersections and along the interstate. Long-range TSM considerations can include:

- Signing and striping modifications.
- Parking restrictions.
- Installing or modifying signals to provide alternate circulation routes for residents.
- Re-examining speed zones on certain streets.

These types of actions will remain part of the RTP and General Plan planning process for the next 20 years.

4.9 INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

ITS, as defined in law, refers to the employment of "electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system." The implementation of ITS is a priority for the U.S. Department of Transportation. A key component of that nationwide implementation is the National ITS Architecture, a framework devised to encourage functional harmony, interoperability, and integration among local, regional, State, and Federal ITS applications. ITS includes technology improvements which enhance the safety and reliability of roadways. Common examples include Highway Advisory Radio (HAR) and Changeable Message Signs (CMS) which provide travelers roadway closure information on detours, road closures and weather conditions. CMS notifies travelers of seasonal roadway closures. The addition of HAR to Del Norte County regional transportation system would increase traveler reliability. Currently, Caltrans implements CMS along the State Highway System in Del Norte. The City of Crescent City and County of Del Norte maintains 26 call boxes under Service Authority for Freeway Emergencies (SAFE).

4.10 PROGRAM-LEVEL PERFORMANCE MEASURES

In 2015 the Rural County Task Force (RCTF) completed a study on the use of performance indicators for the 26 Regional Transportation Planning Agencies (RTPA) in California. This study evaluated the current statewide performance monitoring metrics applicability to rural and small urban areas. The study identified and recommended performance measures more appropriate for the unique conditions and resources of rural and small urban places, like Del Norte County. These performance measures, summarized in Table 4.1 are used to help select RTP project priorities and to objectively monitor how well the transportation system is functioning, both now and in the future. The RCTF study used for the following performance metrics were incorporated into the California Transportation Commission's (CTC) 2016 State Transportation Improvement Program (STIP).

The following criteria was used in selecting performance measures for the Regional Transportation Plan, ensuring feasibility of data collection and monitoring of performance of the transportation investments:

- Performance measures align with California State transportation goals and objectives.
- Performance measures continue to inform current goals and objectives of Del Norte County.
- Performance measures are applicable to Del Norte County as a rural area.
- Performance measures are capable of being linked to specific decisions on transportation investments.
- Performance measures do not impose substantial resource requirements on Del Norte County.
- Performance measures can be normalized to provide equitable comparisons to urban regions.

4.11 APPLICATION OF PERFORMANCE MEASURES

The program- level performance measures for rural/small urban communities are identified in Table 4.6 and are used to help select RTP project priorities and to monitor how well the transportation system is functioning, both now and in the future. The intent of each performance measure and their location within the RTP are identified on the following pages.

Table 4.6
Del Norte County RTP Program Level Performance Measures

Performance Measure	Performance Measure Indicator	Mode	Level	Data Source	Monitoring Frequency	RTP Goals
1. Transportation System Investment	Distressed Lane Miles • Total and percent • By jurisdiction	Roadway	NA	NA	Triannual	1, 2, 5, 9, 12
2. Preservation/ Service Fuel Use/ Travel Distance/ Time/ Cost	Pavement Condition Index • Local Roads	Roadway, trucks	NA	NA	2 years	1, 2, 5, 8, 12
3. Safety	Total Accident Cost • Per capita • Per VMT	Roadway, transit, people	NA	NA	Annual	1, 5, 6, 7
4. Mode Share/Split	Journey to work • Work trips/commute (Peak Periods) • Drive alone, carpool, transit, walk, bike	Roadway, transit, people	NA	NA	Triannual	1, 6, 7, 9, 11, 12
5. Transit	Total Operating Cost • Per revenue mile	Regional, corridor, mode	NA	NA	Annual	1, 3, 9, 12
6. Congestion/Delay/VMT	Vehicle Miles Travelled (VMT) • Per Capita • Area (County, jurisdiction, sub-region) • By Facility Ownership (State hwy; local, state, federal roads) • Local vs Tourist Congestion/Delay/Vehicle Miles Travelled (VMT) • Peak Hour Directional/ Bi-Directional Volume • Average Weekday Peak Hour Directional/ Bi-Directional Volume • Peak Month Peak our Directional/Bi Directional Volume • K (% of peak hour to ADT) • D (peak direction %) • Threshold volumes based on HCM 2010	Roadway	Regional, corridor, road segment	Highway Performance Monitoring System (HPMS), Caltrans Vehicle Volumes, Department of Finance(DOF) Annual Population Report Caltrans Vehicle Volumes, Roadway Capacities, Local Traffic Counts	Annual	1, 2, 5, 12
7.Land Use	Land use efficiency ---	People	NA	NA	2 years	10, 11, 12

4.11.1 Performance Measure 1 – Transportation Systems Investment

This performance measure monitors the condition of the roadway in Del Norte County, which can be used in deciding transportation system investment. Distressed lane miles should be monitored tri-annually. This performance measure should have a high level of accuracy and can be used indirectly for benefit/cost analysis by estimating the costs of bringing all roadways up to a minimum acceptable condition.

Desired outcome and RTP/State Goals:

- Safety.
- Accessibility.
- Return on Investment.
- RTP Goals: 1, 2, 5
- System Preservation.
- Productivity.
- Reliability.

4.11.2 Performance Measure 2 – Preservation/Service Fuel Use/Travel

Similar to Performance Measure 5, this performance measure monitors the condition of the roadway in Del Norte County through pavement condition. Pavement condition should be monitored every 2 years. This performance measure should have a high level of accuracy which can be indirectly used in estimating the costs of bringing all roadways up to a minimum acceptable condition.

Desired outcome and RTP/ State Goals:

- Safety.
- Accessibility.
- Productivity.
- RTP Goals: 1, 2, 5
- System Preservation.
- Reliability.
- Return on Investment.

4.11.3 Performance Measure 3 – Safety

This performance measure monitors safety through the total accident count, and should be monitored annually. To access this data, staff may be required to access secondary data sources. The data is reasonably accurate and can be used directly for benefit/cost analysis. The Statewide Integrated Traffic Records System (SWITRS), a database that collects and processes data gathered from collision scenes, can be used to monitor the number of fatal and injury collisions by location to see if added improvements are needed. For Counties that that do not track VMT on County roads, a comparison with the collision rate (collisions per 1,000,000 VMT) for Caltrans District 1 and the State on similar facilities does not exist. However, if the County does track the number collisions on local roads, these can be monitored to identify safety improvements.

Desired outcome and RTP/State Goals:

- Establish baseline values for the number of fatal collisions and injuries per AADT on select roadways over the past three years.
- Monitor the number, location, and severity of collisions. Recommend improvements to reduce incidence and severity.
- Work with Caltrans to reduce the number of collisions on Del Norte County State highways.
- Completion of projects identified in TCRs and RTP.
- RTP goals: 1, 6, 8

4.11.4 Performance Measure 4 – Mode Share/Split

This performance measure monitors transportation mode and mode share to understand how State and County roads function based on modes used. The data is reported as a trend over time from 2000 and does not require a large share of additional resources for monitoring. While data is reasonably accurate at the County level, it may have reduced accuracy in smaller counties. This performance measure cannot be used as a benefit/cost analysis.

Desired outcome and RTP/State Goals:

- Multimodal.
- GHG reduction.
- Efficiency.
- RTP Goals: 3, 4, 5, 6, 7, 8, 9, 10

4.11.5 Performance Measure 5 – Transit

This performance measure monitors the cost-effectiveness of transit in Del Norte County. This performance measure should be monitored annually. The RTP will emphasize projects and programs that maintain the Transportation Development Act (TDA) required fare box ratio of 10 percent or higher.

Desired outcome and RTP/State Goals:

- Increase productivity.
- Reduce the cost of operation/passenger.
- Increase efficiency.
- RTP Goals: 3, 7

4.11.6 Performance Measure 6 – Congestion/Delay/Vehicle Miles Traveled

This performance measure monitors how well State and County Roads are functioning based on peak volume/capacity and vehicle miles travelled (VMT). The data is reported annually and as a trend over time from the year 2000. Monitoring this performance measure requires minimal resources, as data regarding the State Highway system is readily available; however, broader coverage may require an effort by County and localities to conduct periodic traffic counts. Not all locations are reported annually in Caltrans Vehicle Reports; thus, there is the chance that individual locations may have out-of-date data. This performance measure is reasonably accurate for most locations and may be used in a cost/benefit analysis with additional calculations (travel time/delay as functions of V/C).

Desired outcome and RTP/State Goals:

- Measure overall vehicle activity and use of the roadway network.
- Maintenance and system preservation.
- Increase safety.
- Increase health based pollutant reduction, increase GHG reduction.
- RTP Goals: 1, 2, 5

4.11.7 Performance Measure 7 – Land Use

This performance measure monitors the efficiency of land use and is reported over time since 2000. Tourism is very important to the County in order to maintain and improve economic conditions, which is why monitoring land use efficiency is important. Accessing this data requires minimal resource requirements and should be monitored every 2 years, and has a high level of accuracy. This kind of data is not used for benefit/ cost analysis.

Desired outcome and RTP/State Goals:

- Land use efficiency.
- Coordinate with Caltrans on State highway projects to maintain State highways at acceptable maintenance levels and reduce lane miles needing rehabilitation.
- Recommend RTP projects to maintain roads at or above the minimum acceptable condition as set by the City of Crescent City or County of Del Norte.
- RTP Goals: 9, 10

5 Financial Element

The Financial Element is fundamental to the development and implementation of the RTP. This chapter identifies the current and anticipated revenue resources available to fund the planned transportation investments that are described in the Action Element, as needed to address the goals, policies and objectives presented in the Policy Element. The intent is to define realistic funding constraints and opportunities. This chapter presents a discussion of future regional transportation revenues and a comparison of anticipated revenues with proposed projects.

It is important to note that there are different funding sources for different types of projects. The County is bound by strict rules in obtaining and using transportation funds. Some funding sources are "discretionary," meaning they can be used for general operations and maintenance, not tied to a specific project or type of project. However, even these discretionary funds must be used to directly benefit the transportation system for which they are collected. For example, funds derived from gasoline taxes can only be spent on roads, and aviation fuel taxes must be spent on airports. State and federal grant funding is even more specific. There are several sources of grant funds, each designated to a specific type of facility (e.g. bridges or State Highways), and/or for a specific type of project (e.g. reconstruction or storm damage). This system makes it critical for eligible entities in the region to pursue various funding sources for projects simultaneously and to have the flexibility to implement projects as funding becomes available.

5.1 PROJECTED REVENUES

Projecting revenues and expenditures over a 20-year horizon is difficult because funding levels can dramatically fluctuate or be eliminated by legislation and policy changes. In addition, many projects are eligible for discretionary funds, which are nearly impossible to forecast, because they are allocated on a recurring competitive basis. Despite these variables, roadway, bridge, bicycle and pedestrian, aviation and transit revenues were forecasted over the next 20 years by using a variety of methods defined in the footnotes of Table 5.1.

Table 5.1 provides a summary of the projected federal, state, and local transportation funding sources and programs available to the Del Norte region for transportation facility improvements over the next 20 years. To project funding for the long range (11-20 years) we use the following assumptions:

- Revenues that have been historically constant and reliable are reflected through 2036 for all modes.
- State revenues are expected to be available at historical funding levels.
- Non-auto revenues are estimated based on historical levels.

Funding sources for roadway projects includes the State Transportation Improvement Program (STIP) which allocates funds for regional and local capital projects. The STIP is a five year funding program that is developed in two year cycles. Projects in the first 5 years of the 2016 RTP are consistent with the programmed projects and revenue projections in the 2016 STIP. The Regional Surface Transportation Program (RSTP) is also a potential funding source for preserving and enhancing eligible facilities, including roadway, bridge and tunnel projects. RSTP is allocated to counties based on a population formula. The Highway Safety Improvement Program (HSIP) and Federal Forest Reserves are other funding sources for roadway projects. HSIP is a federal aid program aimed to improve highway safety. Federal Forest Reserve funding comes from a 25% tax on logging revenues that is given back to the county in which the logging occurs.

The following Table 5.1 identifies projected revenues for Del Norte County.

Table 5.1
Projected Revenues from Federal, State, and Local Sources*

Revenue Category	Revenue (in 1000's) 2016 RTP			Revenue (in 1000's) 2011 RTP		
	Short-Range (1-10 yr)	Long-Range (11-20 yr)	Total	Short-Range (1-10 yr)	Long-Range (11-20 yr)	Total
State Transportation Improvement Program (STIP)[1]	$ 6,724	$ 15,463	$ 22,187	$ 30,894	$ 21,407	$ 52,301
Regional Surface Transportation Program (RSTP)[2]	$ 3,649	$ 3,783	$ 7,432	$ 3,471	$ 4,151	$ 7,622
Local Transportation Fund (LTF) [3]	$ 5,280	$ 5,474	$ 10,754	$ 5,822	$ 7,500	$ 13,322
State Transit Assistance (STA) [3]	$ 1,788	$ 1,854	$ 3,642	$ 2,332	$ 2,569	$ 4,901
Federal Transit Administration (FTA)[4]	$ 744	$ 771	$ 1,515	$ 1,898	$ 3,508	$ 5,406
Aviation Funding (AIP+Grant Funding)	$ 5,785	$ 104	$ 5,889	$ 51,909	$ 14,440	$ 66,349
Transit Farebox Revenue[5]	$ 1,740	$ 1,804	$ 3,544	$ -	$ -	$ -
Highway Bridge Program (HBP)[6]	$ 9,353	$ -	$ 9,353	$ 12,952	$ -	$ 12,952
Highway Safety Improvement Program (HSIP)	$ -	$ -	$ -	$ 744	$ -	$ 744
Active Transportation Program (ATP)[6]	$ 2,600	$ -	$ 2,600	$ 2,550	$ -	$ 2,550
Federal Forest Reserve[7]	$ 1,620	$ 1,680	$ 3,300	$ 949	$ -	$ 949
State Highway Operation and Protection Program (SHOPP)	$ 99,047	$ 21,469	$ 120,516	$ -	$ -	$ -
Total Transportation Revenue	**$ 138,330**	**$ 52,402**	**$ 190,732**	**$ 113,521**	**$ 53,575**	**$ 167,096**

**Long Range estimates are adjusted for inflation*

(1) Based on the average of the previous five STIP cycles and adjustied to reflect the negative 2016 STIP Fund Estimate.

(2) Based on Regional Surface Transportation Program Allocations for FY 2016/17 -2019/20.

(3) Based on Caltrans Transportation Development Act Guidebook Allocations for FY 2011/12- 2012/13.

(4) Based on numbers from the Short Range Transit Plan 2013.

(5)Based on numbers from the Redwood Coast Transit Authority Audit 2013.

(6) Estimate from project lists.

(7) Based on USFS Service Receipts FY 2014.

5.2 COST SUMMARY

Table 5.2 contains a summary of the RTP improvement costs identified for each modal category in the RTP. The numbers in red represent areas where project costs are greater than expected revenue. As can be seen in Table 5.2, funding shortfalls occur a number of times for the long range planning and programming of projects in Del Norte County. A total of approximately $300 million has been proposed for roadway, bridge, bike/pedestrian and aviation projects for the next 20 year RTP period. This only includes projects with cost estimates. Many projects, specifically in the long range project list do not have associated estimates. There is a funding shortfall of approximately $187 million over the 20 year RTP period; however, this shortfall does not include projects identified but lack cost estimate detail. Additional funding sources, like grants and appropriations, may be awarded to the region to decrease this funding shortfall.

Table 5.2
Revenue vs Costs by Mode

Project Type	Funding Source	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
		Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Roadway	STIP, RTSP, Forest Service Reserve, HSIP, SHOPP	$ 52,554	$ 25,212	$ 44,241	$ 133,003	$ 8,313	$ (107,791)
Bridge	HBP, SHOPP	$ 67,645	$ 17,183	$ 67,645	$ 45,545	$ -	$ (28,362)
Transit	LTF, STA, FTA, Transit Faresbox Revenue	$ 9,552	$ 9,904	$ 1,662	$ 3,631	$ 7,890	$ 6,273
Bicycle and Pedestrian	ATP, SHOPP	$ 2,794	$ 4,464	$ 2,794	$ 4,464	$ -	$ -
Airport Capital	Annual Distribution for Aviation, AIP	$ 5,785	$ 104	$ 2,794	$ 57,160	$ 2,991	$ (57,056)
Total		**$ 138,330**	**$ 56,866**	**$ 119,136**	**$ 243,803**	**$ 19,194**	**$ (186,937)**

5.2.1 Comparison of Roadway Costs to Expected Revenues

Table 5.3 compares the expected revenue for roadway projects to expected costs for the next 20 years. There is an estimated shortfall of $108 million for long-range roadway improvement projects.

Table 5.3
Comparison of Roadway Costs to Expected Revenue

	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Estimated Roadway Costs	$ 52,554	$ 25,212	$ 44,241	$ 133,003	$ 8,313	$ (107,791)

5.2.2 Comparison of Bridge Costs to Expected Revenues

Table 5.4 compares the expected revenue for bridge projects to expected costs for the next 20 years. The Highway Bridge Program will cover the cost of replacing or rehabilitating public highway bridges. Bridge conditions are checked regularly and conditions are reported. Bridges that are structurally deficient are eligible for HBP funding for rehabilitation or replacement.

Table 5.4
Comparison of Bridge Costs to Expected Revenue

	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Estimated Bridge Costs	$ 67,645	$ 17,183	$ 67,645	$ 45,545	$ -	$ (28,362)

5.2.3 Comparison of Transit Costs to Expected Revenues

There is a need for capital improvement projects in Del Norte County, including benches, covered shelters, increased signage, and the acquisition of new fleet vehicles. Transit improvement projects are expected to be limited in the both the short- and long-range.

Transit projects are funded under the Transit Development Act (TDA) which provides Local Transportation Funds (LTF) and State Transit Assistance (STA) for supporting public transportation. Funds are allocated based on population and transit performance.

Table 5.5
Comparison of Transit Costs to Expected Revenue

	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Estimated Transit Maintenance	$ 9,552	$ 9,904	$ 1,662	$ 3,631	$7,890	$6,273

5.2.4 Comparison of Bicycle and Pedestrian Costs to Expected Revenues

In order to complete the short and long term bicycle and pedestrian projects the County will need an estimated $4.5 million over the course of the next 20 years. Funding will come primarily from the Active Transportation Program (ATP) which is a highly competitive grant program which supports multi-modal, active transportation. Del Norte County anticipates approximately $2.6 million in funding for the short range periods.

Table 5.6
Comparison of Bikeway and Pedestrian Costs to Expected Revenue

	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Bicycle and Pedestrian	$ 2,794	$ 4,464	$ 2,794	$ 4,464	$ -	$ -

5.2.5 Comparison of Aviation Costs to Expected Revenues

The Federal Aviation Administration (FAA) allocates an annual aviation grant of $10,000 for airports eligible for the State Annual Credit Grant (Ward Field and Andy McBeth Airport). Jack McNamara (Del Norte County Airport) receives the more robust FAA Primary Entitlement funding available to airports with greater than 10,000 enplanements annually. The Aviation Improvement Program (AIP) is not reflected in the projected revenues. This is a competitive grant that supports airport improvement programs. Jack McNamara Airport has received generous AIP funds in the past, and is a viable funding source to decrease the funding shortfall of $63 million for airport improvement projects.

Table 5.7
Comparison of Aviation Costs to Expected Revenue

	Projected Revenue by Mode (in 1000s)		Projected Costs by Mode (in 1000s)		Difference (in 1000s)	
	Short Range	Long Range	Short Range	Long Range	Short Range	Long Range
Aviation	$ 5,785	$ 104	$ 2,794	$ 57,160	$ 2,991	$ (57,056)

6 Priority Projects

The top priority projects chapter was introduced into the Del Norte Regional Transportation Plan in 2011 in an effort to improve efficiency in decision making and compete for limited funding resources. A top priority project affects a significant portion of the region, helps meet the regional goals set forth in Chapter 3 of this regional plan, improves the baseline performance measures for the region, and can be identified as a cost effective investment of financial resources.

6.1 LAST CHANCE GRADE

Last Chance Grade is a 4-mile segment of US 101 located approximately 10 miles south of Crescent City. This section is prone to active geologic activity and consistent roadway movement resulting in landslides and road closures. This segment is deemed at risk for complete failure, which would cut off the County's connection to Humboldt County and to the rest of California. There are many identified projects associated with Last Chance Grade and many that have yet to be identified. Projects listed in the Action Element of this Regional Transportation Plan (Table 4.2) are targeted improvements to maintain the existing roadway configuration and protect it from further degradation. These projects total $7.8 million in the short range project list. Additionally, a permanent solution for Last Chance Grade is being developed by project partners that would provide a more reliable connection through the area, protect economic, environmental and cultural resources, and reduce maintenance costs.

6.2 US 101 CRESCENT CITY GATEWAY AND TRAFFIC CALMING PROJECT

This project will improve safety for all users and enhance non-motorized travel along and across US 101 in the transition zone between the lower speed urban Crescent City segment and the adjacent higher-speed rural highway segment of US 101 at the northern and southern City entry points. It will have a significant region-wide benefit as it improves safety for residents and visitors and aligns with the regional economic goals of promoting tourism. A Project Study Report and conceptual design was prepared in 2013 in which the preferred alternative project was estimated at $1.15 million. $194,000 has been identified in the short range project list (Table 4.2) for the preliminary project components (environmental and design). Construction funding has yet to be identified.

6.3 FRONT STREET REVITALIZATION PROJECT

Front Street is a priority project for the City of Crescent City as well as the region. This project will improve the functionality of Front Street from A Street to L Street for all transportation modes. The project has been stratified into 7 components, including; water infrastructure, storm drain, pedestrian improvements, bicycle improvements, transit improvements, B Street roundabout, and roadway reconstruction. All of these components combined will improve the quality of life for residents of Del Norte County as well as the attractiveness to tourists. This project is the catalyst to revitalizing the area. Cost estimates for the Front Street Project total $11.8 million as identified in the long range project list (Table 4.3).

6.4 REQUA ROAD

Requa Road and Patrick J. Murphy Memorial Drive are the primary access roads to the mouth of the Klamath River and the Klamath River Overlook in Redwood National Park. Of additional importance is the access Requa Road provides to important cultural, historic, recreational and economic opportunities for the Yuok Tribe, Del Norte County residents and visitors. This project is identified in the long range project list (Table 4.3) and has a cost estimate of $16 million.

6.5 ELK VALLEY ROAD

Elk Valley Road is in need of rehabilitation and a potential project has been identified from Howland Hill Road to Parkway Drive. This project is identified in the long range project list of the Regional Transportation Plan and is estimated to cost $11.2 million.

6.6 PEBBLE BEACH DRIVE BIKE/PED

Pebble Beach Drive is considered one of the most scenic roadways in Del Norte County and draws many tourists to the area. The City of Crescent City and the community have identified pedestrian and bicycle improvements that would improve access to this valuable resource. This project is also supported by the public as a high priority project in the recent Active Transportation Plan. The bicycle and pedestrian improvements are planned from 6 Street to 9th Street along Pebble Beach Drive and are estimated to cost $750,000.

6.7 WASHINGTON BOULEVARD (INYO TO DALE RUPERT)

Rehabilitation of Washington Boulevard from Inyo Street to Dale Rupert Road is considered a regionally significant project. The project is estimated to cost $380,000 and is identified in the long range project list in Table 4.3.

For Appendices, see Associated Document

Del Norte County
2016 Regional Transportation Plan

Report Prepared for:

Del Norte Local Transportation Commission

1301 B Northcrest Drive #16
Crescent City, CA 95531

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