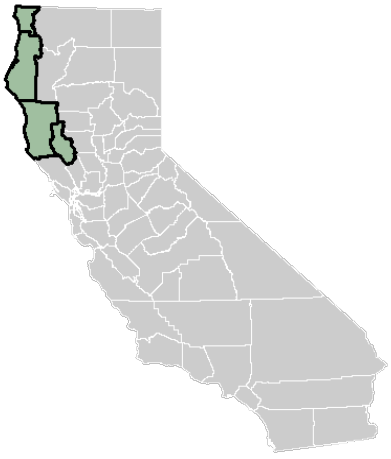
Transportation Concept Report

State US 199

District 1

May 2017

Caltrans District 1



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California Department of Transportation

Providing a Safe, Sustainable, Integrated and Efficient Transportation System to Enhance California's Economy and Livability

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ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Government Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process for District 1 is primarily composed of three parts: the District System Management Plan (**DSMP**), the DSMP Project List, and the Transportation Concept Report (**TCR**). The District-wide DSMP is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The DSMP Project List is a list of planned and partially programmed transportation projects used to recommend projects for funding. The TCR is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. These System Planning products are also intended as resources for stakeholders, the public, regional agencies, and local agencies.

TCR Purpose

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20-25 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements, and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

A draft copy of this TCR has been circulated to our transportation partners in Del Norte County including the Del Norte Local Transportation Commission and several Native American Tribes with interest along the route. The draft TCR was circulated to other functional units within District 1 for compliance and compatibility with District and statewide directives and policies. Input was received and revisions made as appropriate.

EXECUTIVE SUMMARY

US Route 199 is a United States numbered Highway that begins at its junction with US Route 101 north of Crescent City, and ends at its junction with Interstate 5 in Grants Pass in Southern Oregon. US 199 is a principal arterial that serves both interregional and interstate traffic.

US 199 traverses Jedediah Smith Redwoods State Park, part of the Redwood National and State Park system, and much of the route follows the wild and scenic Smith River. Furthermore, US 199 is designated as a Forest Service Scenic Byway through the Smith River National Recreation Area (most of the length of the route in District 1.)

CONCEPT SUMMARY

US 199 is divided into four segments in District 1 for planning purposes. Segments 1 and 3 are a 2-lane conventional highway, Segment 2 is a 4-lane conventional highway, and Segment 4 is a 2-lane conventional highway and expressway. The 20-25 year facility concept and the post 25-year facility concept includes improvements necessary to accommodate Surface Transportation Assistance Act (STAA) trucks. These improvements include curve improvement and shoulder widening. Jedediah Smith Redwoods State Park in Segment 1 prevents improvements for STAA access because of old growth redwood trees and other natural resources in close proximity to the roadway. Improvements to State Route (SR) 197 will allow STAA trucks to bypass the park. These projects are ready for construction; however, as of writing there is a legal challenge to improvements for STAA trucks due to environmental concerns. The 20-25 year system operations and maintenance concept includes maintenance of the existing facility with safety improvements and rehabilitation as necessary.

Segment	Segment Description	Existing Facility	20-25 Year Ultimate Facility Concept	20-25 Year System Operations and Management Concept	Post 25 Year Concept
1 PM 0.506-14.636	US Route 101 to Eastern Limit of Gasquet	2L-C	2L-C	Safety Improvements as Identified, Maintenance and Rehabilitation	2L-C
2 PM 14.636-19.719	Eastern Limit of Gasquet to Middle Fork Smith River Bridge	4L-C	4L-C	Safety Improvements as Identified, Maintenance and Rehabilitation	4L-C
3 PM 19.791-27.115	Middle fork Smith River Bridge to Near Idlewild	2L-C	2L-C Widening for STAA Trucks	Safety Improvements as Identified, Maintenance and Rehabilitation	2L-C
4 PM 27.115-36.408	Near Idlewild to the California/Oregon Border	2L-C/E	2L-C/E	Safety Improvements as Identified, Maintenance and Rehabilitation	2L-C/E

C – Conventional Highway, E – Expressway, L – Lane
PM – Post Mile

CONCEPT RATIONALE

The corridor concept serves as a guide for long range planning of route improvements. It protects the State's investment in US 199, while recognizing financial and environmental constraints, which will not allow the programming of extensive improvements for all State highways.

The concept for US 199 was selected based on the Route's role as a principal arterial roadway expected to show low growth and development.

Proposed Projects and Strategies

- Safe STAA Access: A series of projects along US 199 at PM 20.5-20.9, PM 23.92-24.08, PM 25.55-25.65, PM 22.7-23.0, and PM2 6.3-26.5 will address STAA access and allow STAA trucks to access the north coast of California from I-5 and Grants Pass.

Strategies Developed to Achieve and Maintain the Corridor Concept

- Safety: Safety is the highest priority of Caltrans and our regional partners. Necessary safety improvements will be made as needs are identified.
- Maintenance and Rehabilitation: Maintain and rehabilitate as necessary. Consideration should be given to widening in conjunction with pavement rehabilitation projects where necessary to provide adequate paved shoulder width for both motorized and non-motorized traffic. Bridge replacement or rehabilitation, storm damage and operational improvement projects will also be considered as necessary.
- Cooperation with Transportation Partners: District 1 appreciates the cooperation of its transportation partners in the development of this Transportation Concept Report, and looks forward to continuing cooperation to achieve the selected concept.

CORRIDOR OVERVIEW

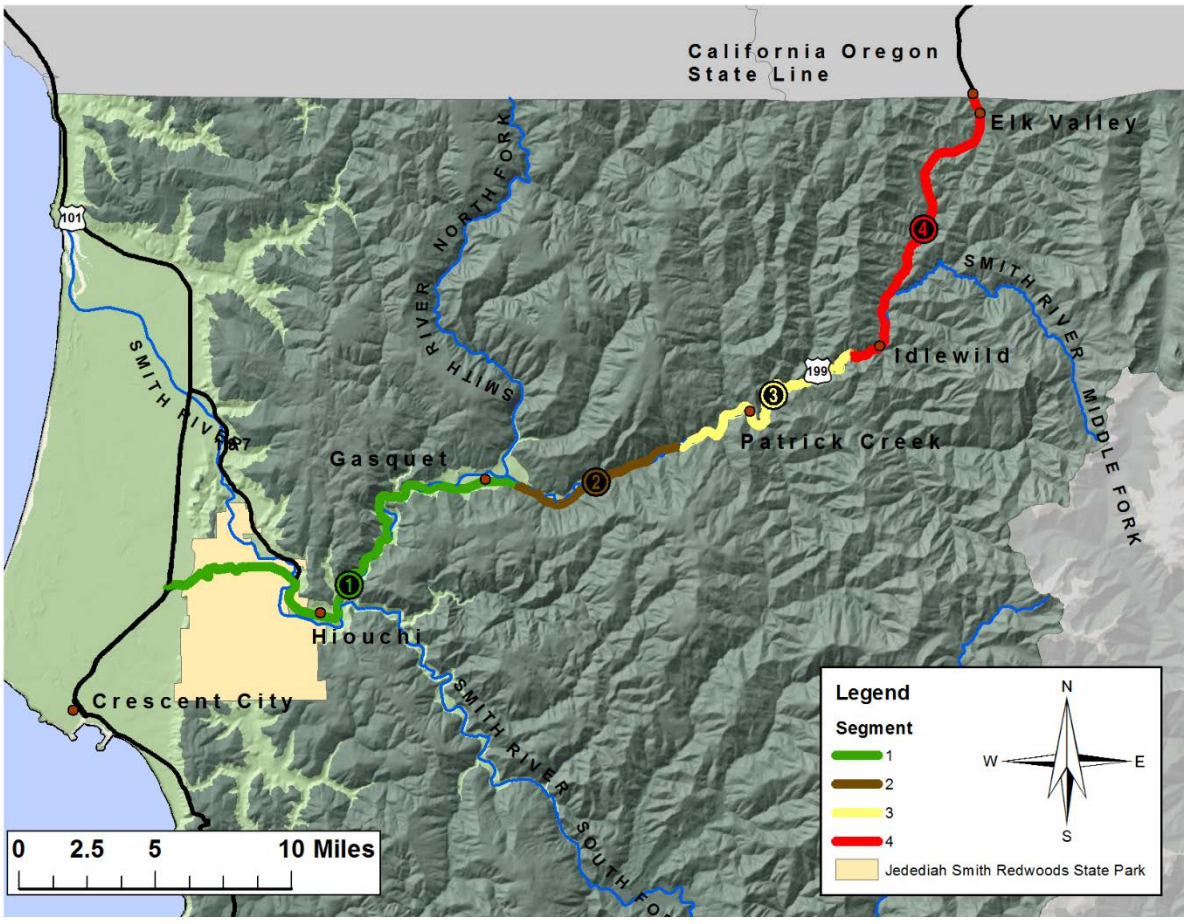
ROUTE SEGMENTATION

US Route 199 (US 199) in District 1 has been divided into 4 segments for system planning purposes. The first segment, approximately 14.6 miles long, starts at the US 101 and US 199 interchange and continues to the Eastern Limit of the town of Gasquet. Segment 2, approximately 5.2 miles long, begins at the Eastern limit of Gasquet and ends west of Patrick Creek. Segment 3, approximately 7.3 miles long, begins west of Patrick Creek and continues to near Idlewild. The final segment, approximately 9.3 miles in length, begins near Idlewild, and continues to the California/Oregon State line. Table 1 below describes the segment location and post mile description. Figure 1 below presents a map of US 199 segments.

Table 1 US 199 Segments

Segment	Location Description	County_Route_Beg. PM	County_Route_End PM
1	US Route 101 to Near Gasquet	DN-199-0.506	DN-199-14.636
2	Near Gasquet to West of Patrick Creek	DN-199-14.636	DN-199-19.791
3	West of Patrick Creek to Near Idlewild	DN-199-19.791	DN-199-27.115
4	Near Idlewild to the California/Oregon Border	DN-199-27.115	DN-199-36.408

DN – Del Norte, PM – Post Mile



Route Location:

In District 1, US 199 is a north-south route that travels northeast through most of northern Del Norte County. US 199 begins at the junction with Route 101 north of Crescent City, travels through the Jedediah Smith Redwoods State Park (JSRSP), and follows the Smith River most of the way to the California Oregon Border. The portion of US 199 in District 1 is approximately 36.4 miles in length (DN-199-0.506/36.408).

Route Purpose:

US 199 connects the northern California coast to southern Oregon and I-5. The route serves the JSRSP, as well as a handful of small rural communities. Additionally, it serves both recreational and goods movement traffic.

Major Route Features:

Within District 1, US 199 is a Principal Arterial 2-4 Lane conventional highway and expressway. US 199 proceeds along the Smith River, a federally designated Wild & Scenic River. Recreational locations along US 199 include JSRSP, and Patrick Creek.

Table 2 US 199 Route Designations and Characteristics

Segment #	1 PM 0.506-14.636	2 PM 14.636-19.719	3 PM 19.791-27.115	4 PM 27.115-36.408
California Freeway & Expressway System	Yes	Yes	Yes	Yes
National Highway System	Yes	Yes	Yes	Yes
Strategic Highway Network	No	No	No	No
Scenic Highway	Eligible	Eligible	Eligible	Eligible
Interregional Road System	Yes	Yes	Yes	Yes
Priority Interregional Highway	No	No	No	No
Federal Functional Classification	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
Goods Movement Route	Yes	Yes	Yes	Yes
Truck Designation	California Legal Advisory Route. KPRA 30ft.	California Legal Advisory Route. KPRA 30ft.	California Legal Advisory Route. KPRA 30ft.	California Legal Advisory Route. KPRA 30ft.
Rural/Urban/Urbanized	Rural	Rural	Rural	Rural
Regional Transportation Planning Agency	Del Norte Local Transportation Commission	Del Norte Local Transportation Commission	Del Norte Local Transportation Commission	Del Norte Local Transportation Commission
Local Agency	Del Norte County	Del Norte County	Del Norte County	Del Norte County
Tribes	Tolowa Dee-ni' Nation, Elk River Rancheria	Tolowa Dee-ni' Nation, Elk River Rancheria	Tolowa Dee-ni' Nation	Tolowa Dee-ni' Nation
Air District	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD
Terrain	Rolling	Rolling	Rolling	Mountainous

KPRA – King-Pin to Rear- Axle
NCUAQMD – North Coast Unified Air Quality Management District

COMMUNITY CHARACTERISTICS

According to the 2014 American Community Survey, Del Norte County has a total population of 27,212, with approximately 63.3% white, 3.3% African American, 6.9% Native American, and 3.4% Asian, 19.1% Hispanic or Latino, and 3.8% two or more races. Of those residents, 14.2% are over the age of 65, 64.4% between the age of 18 and 65, and 21.3% are under the age of 18.[1] Per capita and median household income is approximately 63% and 73% of the state average respectively. Additionally, according to the 2015 Caltrans Economic Forecast the unemployment rate Del Norte County was 9.3%.

LAND USE

US 199 runs entirely through rural lands consisting of sparsely populated unincorporated communities, timber lands, and forest. Jedediah Smith Redwood State Park in segment 1 and Patrick Creek in Segment 3 provide recreation areas and camping. Additionally one general aviation airport exists in close proximity to US 199: Ward field in Gasquet. Table 3 below describes the general land use by segments around US 199.

Table 3 Land Use Along US 199

Segment	Land Use
1 (PM 0.506-14.636)	*State Park/Rural Residential/Open Space*
2 (PM 14.636-19.719)	*Open Space*
3 (PM 19.791-27.115)	*Open Space*
4 (PM 27.115-36.408)	*Open Space*

Land Use description taken from County of Del Norte General Plan, Land Use Section.

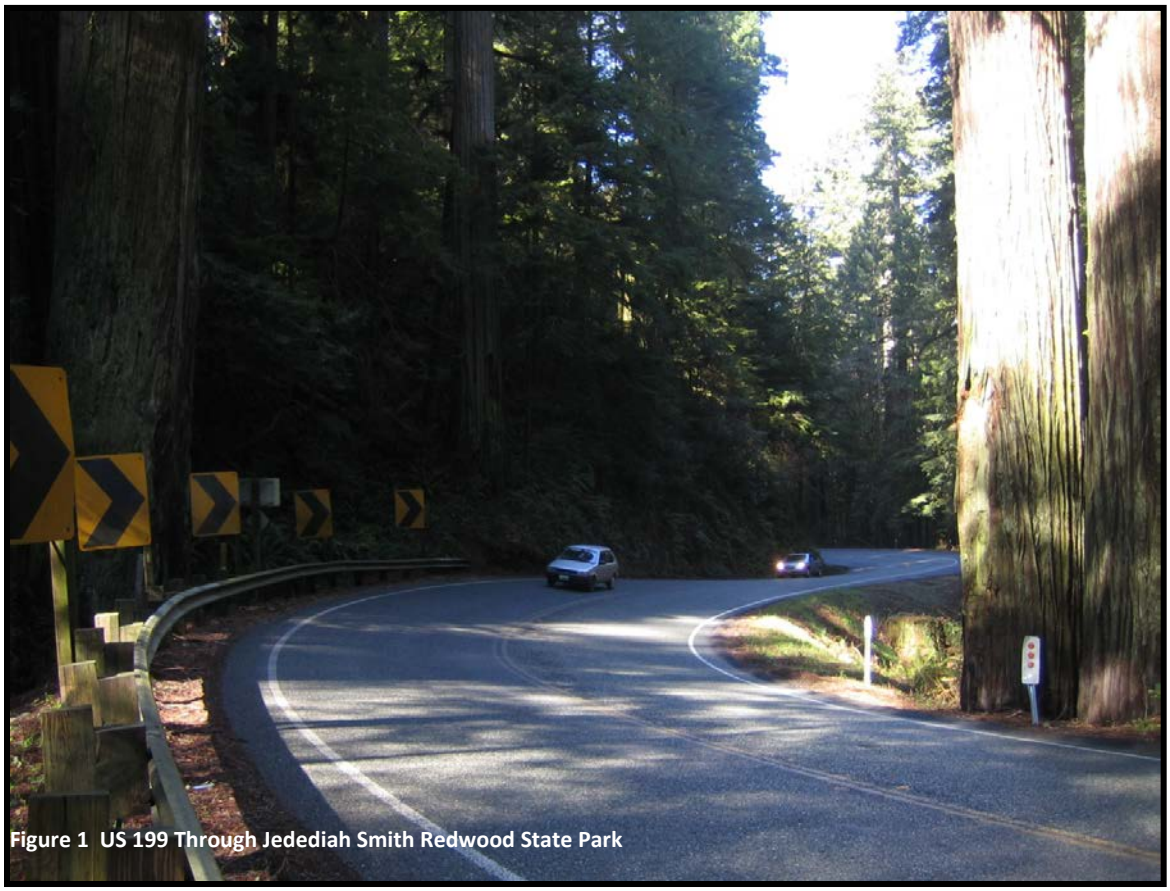


Figure 1 US 199 Through Jedediah Smith Redwood State Park

[1] Note: Demographics include population incarcerated in Pelican Bay State Prison

SYSTEM CHARACTERISTICS

US 199 is a two to four lane conventional highway and expressway in District 1. Segment 1 is a two lane conventional highway with a varying median, and is striped for no passing approximately 98% of the segment. Segment 2 is a four lane conventional highway with a continuous paved and striped median. Segment 3 is a two lane conventional highway with no median, and is striped for no passing approximately 95% of the segment. Segment 4 is a two lane conventional highway (PM 27.115 to 28.189) and expressway (PM 28.189 to 34.408) with paved and striped median, and is striped for no passing approximately 78% of the segment. Segment 4 contains the Collier Tunnel (PM 33.516 to PM 33.873) and the Collier Tunnel Safety Roadside Rest Area (PM 33.40). The California Department of Food and Agriculture operates the Redwood Highway Border Station south of the California Oregon State Line near PM 35.77.

The 20-25 year and post 25 year concept facility does not have any planned capacity improvements and will have the same characteristics as the base year. Various Transportation Management System elements are suggested for the horizon year including changeable message signs and vehicle speed feedback signs.

Table 4 US 199 System Characteristics

Segment #	1 (PM 0.506-14.636)	2 (PM 14.636-19.719)	3 (PM 19.791-27.115)	4 (PM 27.115-36.408)
Existing Facility				
Facility Type	Conventional Highway	Conventional Highway	Conventional Highway	Conventional Highway/Expressway
General Purpose Lanes	2 (TWLTL through Gasquet)	4	2	2
Lane Miles	29.272	20.62	14.648	18.586
Centerline Miles	13.939	5.155	7.324	9.293
Median Width	0-28 ft.	4ft.	0ft.	0-4ft.
Median Characteristics	Separated Grades, Paved striped, Continuous TWLTL through Gasquet	Paved, Striped Median	Striped	Paved Striped, Median
Passing Lanes	None	None	2	4
Concept Facility				
Facility Type	Conventional Highway	Conventional Highway	Conventional Highway	Conventional Highway/Expressway
General Purpose Lanes	2	4	2	2
Lane Miles	29.272	20.62	14.648	18.586
Centerline Miles	13.939	5.155	7.324	9.293
Passing Lanes	None	None	2	3
Post 25 Year facility				
Facility Type	Conventional Highway	Conventional Highway	Conventional Highway	Conventional Highway/Expressway
General Purpose Lanes	2	4	2	2
Lane Miles	28.26	20.332	14.648	18.586
Centerline Miles	14.13	5.083	7.324	9.293
Passing Lanes	None	None	10%	44%
TMS Elements				
TMS Elements(BY)	None	None	None	None
TMS Elements(HY)	Changeable Message signs, Vehicle Speed Feedback Sign			Changeable Message Sign

BY – Base Year HY – Horizon Year TMS – Traffic Management System TWLTL – Two Way Left Turn Lane

BICYCLE FACILITY

US 199's bicycle facilities are limited to existing shoulder and lane width. Shoulders on the Route currently vary between 0 and 11 feet. Due to the curvilinear alignment of US 199, there are many guardrail locations along the route. For many of these areas, the guardrail can create a smaller space for a bicyclist.

At the Collier Tunnel (PM 33.516-33.813), cyclists traveling through the tunnel can activate a flashing beacon and warning sign to alert drivers to their presence.

Table 5 US 199 Bicycle Facilities

Segment	Location Description	Bicycle Access Prohibited	Facility Type	Outside Paved Shoulder Width	Facility Description	Posted Speed Limit
1 PM 0.506-14.636	US Route 101 to Near Gasquet	*No*	*Unsigned Class III*	*0-11ft.*	*Sections with paved, unpaved, or no shoulder*	*50/55mph.*
2 PM 14.636-19.719	Near Gasquet to West of Patrick Creek	*No*	*Unsigned Class III*	*4ft.*	*Continuous 4ft. paved shoulder*	*55/65mph*
3 PM 19.791-27.115	West of Patrick Creek to Near Idlewild	*No*	*Unsigned Class III*	*0-8ft.*	*Sections with Paved shoulder (0-8ft) or no shoulder*	*55 mph*
4 PM 27.115-36.408	Near Idlewild to the California/Oregon Border	*No*	*Unsigned Class III*	*4ft.*	*Continuous 4ft. paved shoulder*	*55 mph*

Figure 2 Touring cyclists on Segment 3 of US 199

PEDESTRIAN FACILITY

Pedestrian facilities on US 199 are limited to existing highway shoulders, as noted in the following Pedestrian Facility table:

Table 6 US 199 Pedestrian Facilities

Segment	Location Description	Pedestrian Access Prohibited	Sidewalk Present	Crossing Distance	Facility Description	Alternative Facility
1 PM 0.506-14.636	US Route 101 to Near Gasquet	*No*	*No*	*30-100ft.*	*Shoulder with varying width, mostly paved*	*No*
2 PM 14.636-19.719	Near Gasquet to West of Patrick Creek	*No*	*No*	*60 ft.*	*Shoulder, varying width, mostly paved*	*No*
3 PM 19.791-27.115	West o Patrick Creek to Near Idlewild	*No*	*No*	*22-48 ft.*	*Shoulder, varying width, mostly unpaved*	*No*
4 PM 27.115-36.408	Near Idlewild to the California/Oregon Border	*No*	*No*	*38ft.*	*Shoulder with varying width, paved*	*No*

TRANSIT FACILITY

US 199 is served by Redwood Coast Transit (RCT). RCT US 199 provides transit service to communities along US Route 101 and US 199 from Crescent City to Gasquet.

Table 7 US 199 Transit Facilities

Segment	Mode	Name	Route End Points	Headway	Operating Period	Stations (on US 199)		Bikes Allowed on Transit
						Cities & Communities	Postmiles	
1	*Traditional Bus*	*RCT US 199*	*Crescent City to Gasquet*	*Five hours*	*Mon- Sat*	*Crescent City, Jedediah Smith Redwood S.P. Hiouchi, and Gasquet*	*0.506-14.636*	*Yes*
1-4	*Traditional Bus*	*Southwest Point*	*Klamath Falls - Brooking*	*One roundtrip Daily*	*Mon.-Sun.*	*Gasquet*	*0.506-36.408*	*Yes*

FREIGHT

Generally, freight volumes on US 199 are between 17.5 percent and 22 percent of the total vehicle volume. This high percentage indicates this is an important freight route between Oregon and the north coast of California.

Currently, US 199 can only serve California Legal trucks with a King Pin to Rear Axle of 30ft. or less. Projects have been programmed to upgrade the existing facility to accommodate Surface Transportation Assistance Act (STAA) truck lengths through widening and curve realignment. Improvements have been delayed due to a legal challenge based on environmental concerns.

Table 8 US 199 Freight Characteristics

Freight Generator	Location	Mode	Major Commodity/ Industry	Comments/Issues
US 101	*Rural Communities along US 199*	*Truck*	*General freight*	*General Goods for communities along US 199*
I-5	*I-5 in Medford Oregon*	*Truck*	*General Freight*	*General Goods for communities along 199*

**US 199 can currently only accommodate California Legal Trucks with a KPRA length of less than 30 feet.*

ENVIRONMENTAL CONSIDERATIONS


Figure 3 Smith River South Fork

US 199 within District 1 travels through old growth redwood forest, follows the Smith River, and proceeds through a mountainous region with dense forest. Primary environmental considerations for US 199 include: Soil Stability and Landslides/Rockslides, Wild and Scenic River (Smith River), Historical and archeological resources, Endangered, Threatened and Rare Species.

The California Natural Diversity Database lists several species in the vicinity of US 199 that have various endangered, threatened, or rare status. Additionally the Database lists species that are of special interest to Department of Fish and Wildlife. These are included in the table below. This table is not comprehensive of all rare or sensitive species that may exist near the highway, but rather is used to provide a brief overview of the environmental considerations and species near the highway.

Scientific Name	Species	Federal Status	California Status	CDFW Status	Rare Plant Rank[2]
Plethodon elongatus	Del Norte Salamander	None	None	SSC	–
Rhyacotriton variegatus	Southern Torrent Salamander	None	None	SSC	–
Ascaphus truei	Pacific Tailed Frog	None	None	SSC	–
Rana aurora	Northern Red-Legged Frog	None	None	SSC	–
Rana boylii	Foothill Yellow-Legged Frog	None	None	SSC	–
Oceanodroma furcata	Fork-Tailed Storm-Petrel	None	None	SSC	–
Pelecanus occidentalis californicus	California Brown Pelican	Delisted	Delisted	Fully Protected	–
Pandion haliaetus	Osprey	None	None	Watch List	–
Elanus leucurus	White-Tailed Kite	None	None	Fully Protected	–
Accipiter gentilis	Northern Goshawk	None	None	SSC	–
Charadrius alexandrinus nivosus	Western Snowy Plover	Threatened	None	SSC	–
Brachyramphus marmoratus	Marbled Murrelet	Threatened	Endangered	None	–
Cerorhinca monocerata	Rhinoceros Auklet	None	None	Watch List	–
Fratercula cirrhata	Tufted Puffin	None	None	SSC	–
Strix occidentalis caurina	Northern Spotted Owl	Threatened	Candidate Threatened	SSC	–
Cypseloides niger	Black Swift	None	None	SSC	–
Poecile atricapillus	Black-Capped Chickadee	None	None	Watch List	–
Acipenser medirostris	Green Sturgeon	Threatened	None	SSC	–
Oncorhynchus clarkii clarkii	Coast Cutthroat Trout	None	None	SSC	–
Oncorhynchus mykiss irideus	Steelhead – Klamath Mountains Province Dps	None	None	SSC	–

[2] Rare plant ranking are summarized as follows:
1 = Rare in California and elsewhere; 2 = Rare in California, but not elsewhere; 3 = More information is needed
A = Presumed extirpated or extinct; B = Rare, threatened, or endangered
0.1 = Seriously threatened in California; 0.2 = Moderately threatened in California; 0.3 = Not very threatened in California

Scientific Name	Species	Federal Status	California Status	CDFW Status	Rare Plant Rank [2]
Oncorhynchus mykiss irideus	Steelhead – Northern California Dps	Threatened	None	SSC	–
Oncorhynchus mykiss irideus	Summer-Run Steelhead Trout	None	None	SSC	–
Oncorhynchus kisutch southern OR/northern CA coasts ESU	Coho Salmon	Threatened	Threatened	Non	–
Eucyclogobius newberryi	Tidewater Goby	Endangered	None	SSC	–
Martes caurina humboldtensis	Humboldt Marten	None	None	SSC	–
Pekania pennanti	Fisher – West Coast Dps	Proposed Threatened	Candidate Threatened	SSC	–
Emys marmorata	Western Pond Turtle	None	None	SSC	–
Speyeria zerene hippolyta	Oregon Silverspot Butterfly	Threatened	None	None	–
Arabis mcdonaldiana	Mcdonald's Rockcress	Endangered	Endangered	None	–
Lilium occidentale	Western Lily	Endangered	Endangered	None	–
Ramalina thrausta	angel's hair lichen	None	None	None	2B.2
Erythronium revolutum	coast fawn lily	None	None	None	2B.2
Rosa gymnocarpa var. serpentina	Gasquet rose	None	None	None	1B.3
Monotropa uniflora	ghost-pipe	None	None	None	2B.2
Sanguisorba officinalis	great burnet	None	None	None	2B.2
Pinguicula macroceras	horned butterwort	None	None	None	2.2
Erythronium howellii	Howell's fawn lily	None	None	None	1B.3
Boechera koehleri	Koehler's stipitate rockcress	None	None	None	1B.3
Usnea longissima	Methuselah's beard lichen	None	None	None	2B.2
Fissidens pauperculus	minute pocket moss	None	None	None	1B.2
Gilia capitata ssp. pacifica	Pacific gilia	None	None	None	1B.2
Packera bolanderi var. bolanderi	seacoast ragwort	None	None	None	2B.2
Silene serpentinicola	serpentine catchfly	None	None	None	1B.2
Prosartes parvifolia	Siskiyou bells	None	None	None	1B.2
Castilleja elata	Siskiyou paintbrush	None	None	None	2B.2
Viola primulifolia ssp. occidentalis	western white bog violet	None	None	None	1B.2
Piperia candida	white-flowered rein orchid	None	None	None	1B.2
Moneses uniflora	woodnymph	None	None	None	2B.2

CDFW – California Department of Fish and Wildlife SSC – Species of Special Concern

Senate Bill 857 concerning fish passages was enacted into law effective January 1, 2006. The bill requires that Caltrans incorporate fish passage assessments into project design when funding decisions are made, and to complete an additional assessment prior to construction. These assessments must be submitted to the Department of Fish and Wildlife (CDFW). For programmed projects that affect a stream or stream crossing where anadromous[3] fish currently or historically have been found, Caltrans is required to ensure that an assessment of potential barriers to fish passage be completed prior to project design;

a) If any barrier exists, its remediation shall be included in the project design; and,
b) New projects shall be constructed so as not to create new barriers.

[3] Anadromous fish: fish that hatch in freshwater, migrate to the open ocean, and return to freshwater to spawn

According to the 2005 District 1 Pilot Fish Passage Assessment Study, US 199 has five fish passage barriers within the 100 priority sites in District 1, and 20 overall. The five priority sites are listed in the table below, and the remaining 15 sites are listed in Appendix A.

Route	Post Mile	PAD[4] ID	Stream Name	Priority Rank	Tributary to	Barrier Status	Project Name	Project Status
199	31.31	707137*	Griffin Creek	15	Middle Fork Smith River	Partial Barrier	Del Norte County Culvert Rehabilitation	Draft 2016 SHOPP
199	2.56	707139	Clarks Creek	28	Lower Smith River	Partial Barrier	Del Norte County Culvert Rehabilitation	Draft 2016 SHOPP
199	30.33	721857	Tributary to Griffin Creek	41	Griffin Creek/ Middle Fork Smith River	Partial Barrier	N/A	N/A
199	34.04	712954	Broken Kettle Creek	49	Illinois River	Total Barrier	N/A	N/A
199	34.79	712955	Tributary to Broken Kettle Creek	71	Illinois River	Total Barrier	N/A	N/A

* This location is listed on the "Priority Fish Passage Barriers for Remediation" list in the *2015 Fish Passage Annual Report to the Legislature*

A Project Initiation Document (PID) was prepared in June 2015 for culvert rehabilitation along US 199. Included in this PID are Griffin Creek and Clarks Creek fish passage remediation. This project has been programmed into the 2016 SHOPP.

Naturally occurring asbestos (NOA) is a potential problem on US 199. A large area of known NOA deposits extends through US 199's alignment, generally from PM13-19.8. Aerially Deposited Lead is not expected to be a concern on this route because of the historically low traffic volumes. As US 199 traverses large forested areas, climate change impacts such as drought may increase the chances of wildfires in the future. US 199 is a crucial corridor for interstate travel to the north coast, and closure will have adverse effects on north coast communities. It is also crucial that US 199 be maintained for use by wildland firefighters when necessary.

[4] Passage Assessment Database

CORRIDOR PERFORMANCE

Traffic volumes are generally low on US 199, with higher volumes on the segment that intersects with Route 101. Corridor performance for US 199 is summarized in the following table:

Table 9: US 199 Corridor Performance

Segment #	1 (PM 0.506-14.636)	2 (PM 14.636-19.719)	3 (PM 19.791-27.115)	4 (PM 27.115-36.408)
Basic System Operations				
Annual Average Daily traffic (Base Year)	4000	2900	2900	2900
AADT* (Horizon Year)	4600	3340	3340	3340
LOS Method	HCM	HCM	HCM	HCM
LOS (BY)**	D	A	D	D
LOS (HY)**	D	A	D	D
LOS Concept	None	None	None	None
Daily Vehicle Miles Traveled (BY)	56500	14750	21250	26950
DVMT (HY)	65000	17000	24450	31050
Truck Traffic				
Annual Average Daily Truck Traffic (BY)	720	700	700	700
AADTT (HY)	830	800	800	800
Total Trucks (% of AADT) (BY)	18%	24%	24%	24%
5+ Axle AADT (BY)	75	75	75	75
5+ Axle Trucks (as % of AADT) (BY)	1.88%	2.58%	2.58%	2.58%
Peak Hour Traffic Data				
Peak Hour Direction	S	S	S	S
Peak Hour Time of Day	NA	NA	NA	NA
Peak Hour Directional Split (BY)	60%	60%	60%	60%
Peak Hour Volume (BY)	530	410	410	410
Peak Hour Volume (HY)	610	470	470	470
Peak Hour VMT (BY)	7490	2080	3000	3810
Peak Hour VMT (HY)	8620	2390	3440	4370

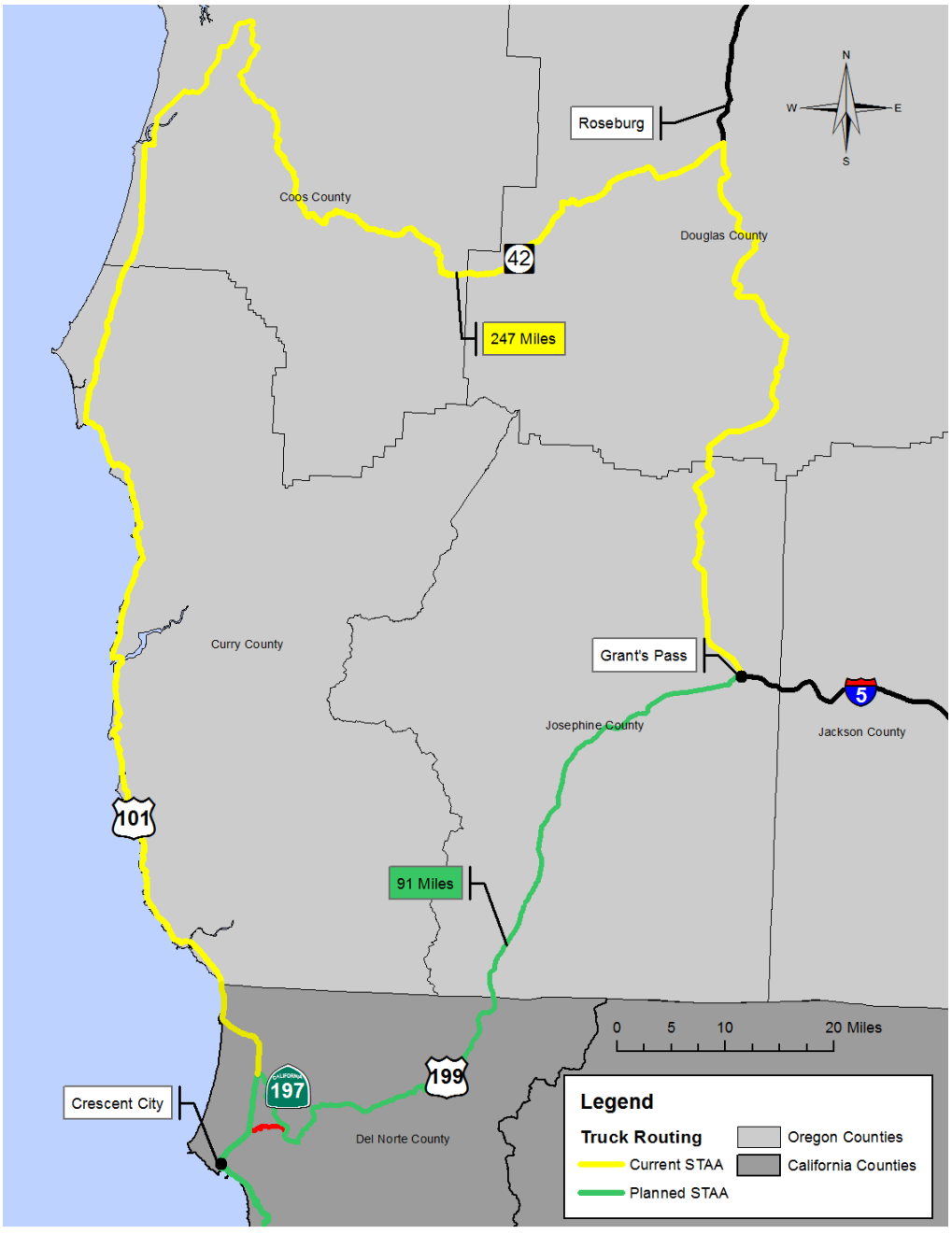
AADT – Annual Average Daily Traffic
BY – Base Year (2014)
HY – Horizon Year (2035)
LOS – Level Of Service
HCM – Highway Capacity Manual 2010
DVMT – Daily Vehicle Miles Traveled
AADTT – Annual Average Daily Truck Traffic
VM – Vehicle Miles Traveled
LOS – Level of Service, NA – Not Available
** Traffic information is from 2014, projected to base year 2015, and horizon year 2035*
***Caltrans District 1 2013 growth factors were used for traffic volume projections*

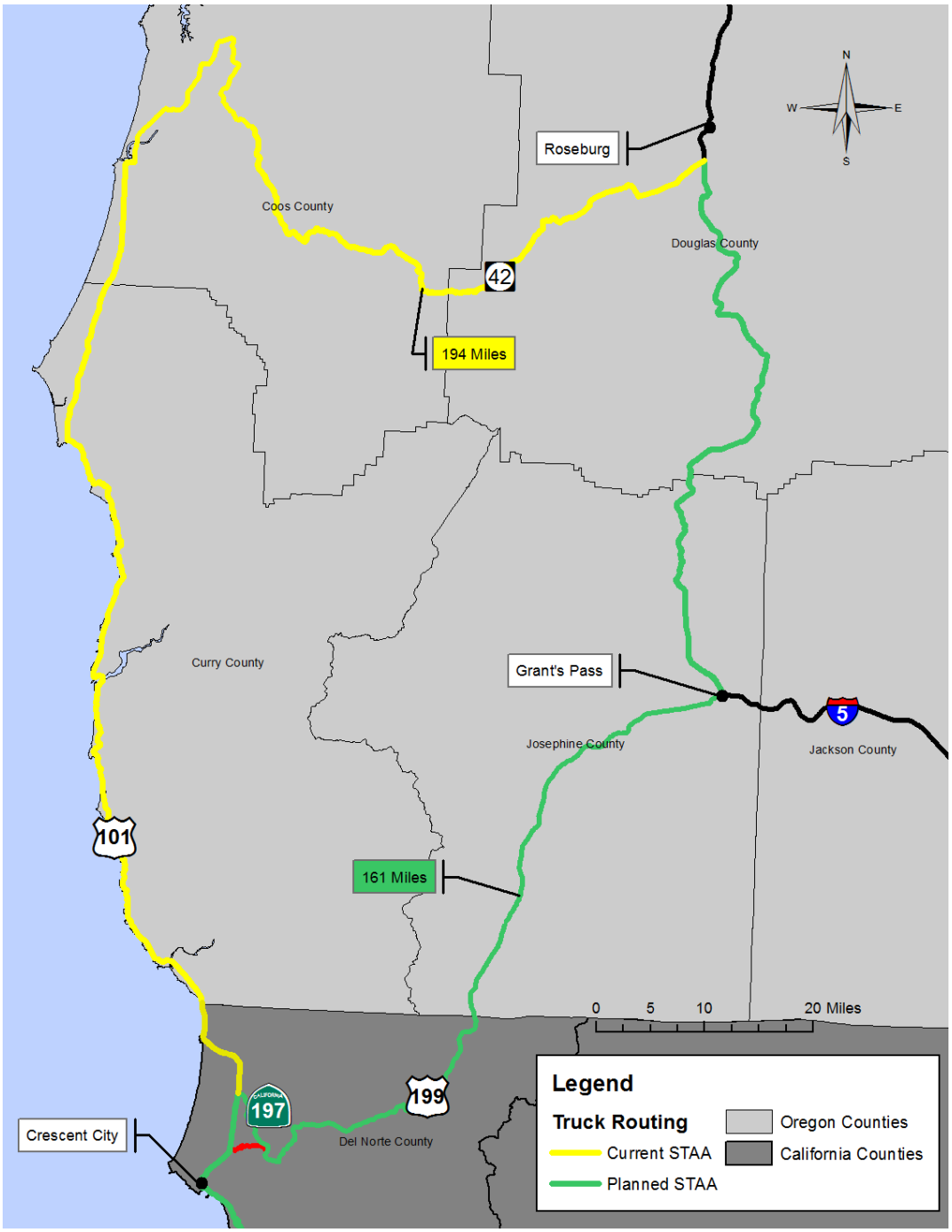
ADDITIONAL TOPICS

197/199 Safe STAA Access

A series of projects have been programmed to facilitate STAA trucks on US 199 and 197. These projects, collectively called the 197/199 Safe STAA Access, will address curve and width issues that are currently preventing STAA trucks from traveling on SR 197 and US 199, with the exception of the JSRSP. Currently, only trucks with a kingpin to rear axle length of 30 feet or less are allowed on US 199. The project was scheduled to begin construction in the spring and fall of 2014; however, these projects have been stalled by litigation due to environmental concerns.

US 199 provides the most direct access to I-5 in Oregon. The following maps illustrates the mileage difference between the current STAA route, and the STAA route after programmed improvements on US 199 and SR 197 are completed.





KEY CORRIDOR ISSUES

Key issues for US 199 include:

- Safe STAA access. US 199 has the potential to be a goods movement link between I-5 and the northern coast of California with STAA accommodation.

CORRIDOR CONCEPT

CONCEPT RATIONALE

US 199 traffic volumes not anticipated to grow significantly over the next 20 years due to its rural nature and low traffic volumes. Thus US 199 is expected to continue as a 2-4 lane conventional highway and expressway. No capacity improvements are planned, but operational improvements and system preservation projects are programmed along the route, including the Safe STAA Access project.

PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

The following projects are programmed to meet the Facility Concept:

Segment	Description	Planned or Programmed	Location	Source	Purpose	Implementation Phase
3	Safe STAA Access	Programmed	Patrick Creek Narrows PM20.5-20.9, 23.92-24.08, 25.55-25.65	STIP RIP	STAA Access	Short Term
3	Safe STAA Access	Programmed	Washington/Narrows PM22.7-23.0, 26.3-26.5	2014 SHOPP	STAA Access	Short Term

STIP – State Transportation Improvement Program
RIP – Regional Improvement Program
SHOPP – State Highway Operation and Protection Program

In addition to these projects, safety and storm damage restoration projects totaling 17.965 million dollars are programmed in the 2014 State Highway Operations and Protection Program (SHOPP).

PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT

The facility concept will be achieved once the programmed STAA improvements are constructed. Following concept completion, maintenance of the roadway will include rehabilitation as needed, and safety improvements made as they are identified.

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APPENDICIES

APPENDIX A: FISH PASSAGE LOCATIONS

Route	Post Mile	PAD[5] ID	Stream Name	Tributary to	Barrier Status
199	1	712961	Tributary to Jordan Creek	Lower Smith River	Total
199	1.98	712968	Tributary to Clarks Creek	Lower Smith River	Unknown
199	3	712967	Tributary to Smith River	Lower Smith River	Partial
199	8.97	712962	Tributary to Smith River	Middle Fork Smith River	Total
199	10.04	712957	Tributary to Smith River	Middle Fork Smith River	Total
199	12.86	712960	Marys Creek	Middle Fork Smith River	Partial
199	15.58	712956	Tributary to Smith River	Middle Fork Smith River	Total
199	18.04	712963	Tributary to Smith River	Middle Fork Smith River	Total
199	31.22	707136	Tributary to Griffin Creek	Middle Fork Smith River	Partial
199	31.81	712959	Tributary to Griffin Creek	Middle Fork Smith River	Total
199	32.26	712956	Tributary to Griffin Creek	Middle Fork Smith River	Total
199	32.55	712966	Tributary to Griffin Creek	Middle Fork Smith River	Total
199	33.89	707138	Tributary to Broken Kettle Creek	Illinois River	Total
199	34.64	712964	Tributary to Broken Kettle Creek	Illinois River	Total
199	34.94	712965	Tributary to Broken Kettle Creek	Illinois River	Total

Fish Passage locations taken from the 2005 Caltrans District 1 Pilot Fish Passage Assessment Study and the passage assessment database.

[5] Passage Assessment Database

APPENDIX B: GLOSSARY OF TERMS AND ACRONYMS

Acronyms

AADT	Annual Average Daily Traffic
AADTT	Annual Average Daily Truck Traffic
BY	Base Year
HY	Horizon Year
DSMP	District System Management Plan
DVMT	Daily Vehicle Miles Traveled
HCM	Highway Capacity Manual 2010
KPRA	Kingpin to Rear Axle
LOS	Level of Service
NA	Not Available
NOA	Naturally Occurring Asbestos
PM	Post Mile
RCT	Redwood Coast Transit
RIP	Regional Improvement Program
SHOPP	State Highways Operation and Protection Program
SHS	State Highway System
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
TCR	Transportation Concept Report
TMS	Traffic Management System
VMT	Vehicle Miles Traveled

APPENDIX C: DEFINITIONS

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location to location throughout the State in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Base year – The year that the most current data is available to the Districts.

Bikeway Class I (Bike Path) – Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger Rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

Concept LOS – The minimum acceptable LOS over the next 20-25 years

Conceptual – A conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a financially constrained plan and is not currently programmed.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Type – The facility type describes the state highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Freight Generator – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

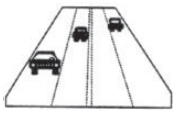
Headway – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

Horizon Year – The year that the future (20 years) data is based on.

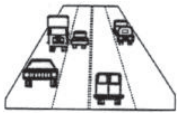
ITS – Intelligent Transportation System improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in

vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:



LOS A describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

System Operations and Management Concept – Describe the system operations and management elements that may be needed within 20-25 years. This can include Non-capacity increasing operational improvements (Auxiliary lanes, channelization, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic (e.g. HOV lane to HOT lane), TMS Field Elements, Transportation Demand Management, and Incident Management.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – Is a part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a district or statewide standard.

Planned– A planned improvement or action is a project in a long-term financially constrained plan, such as an approved Regional Transportation Plan (RTP or MTP) or Capital Improvement Plan.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a county to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is realigned, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

Programmed – A programmed improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program.

Route Designation –A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System,

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density.

APPENDIX D: RESOURCES

WORKS REFERENCED

1. 2012 Transportation Concept Report Guidelines
2. November 1999 US 199 Route Concept Report, Caltrans District 1
3. 2002 California State Highway Log, District 1
4. CRS Maps (functional classification) (http://www.dot.ca.gov/hq/tsip/hseb/crs_maps/)
5. 2013 Traffic Volumes on California State Highways (http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm)
6. Interregional Road System ((http://www.leginfo.ca.gov/cgi-bin/displaycode?section=shc&group=00001-01000&file=250-257
7. Freeway and Expressway System
8. (http://www.leginfo.ca.gov/cgi-bin/displaycode?section=shc&group=00001-01000&file=250-257)
9. State Scenic Highways (http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm)
10. Truck Network Map (http://www.dot.ca.gov/hq/traffops/trucks/truckmap/truck-route-list.xlsx)
11. 2013 Amended Humboldt County Regional Transportation Plan (http://hcaog.net/sites/default/files/complete_2008_rtp_w_amendments.pdf)
12. Humboldt Regional Bicycle Plan Update 2012 (http://hcaog.net/sites/default/files/bike_plan_2012_full_final.pdf)
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17. CA Natural Diversity Database (http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp)
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24. Caltrans District 1 Pilot Fish Passage Assessment Study (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=10468)
25. Passage Assessment Database (https://map.dfg.ca.gov/bios/?al=ds69