



**Transportation Concept Report**  
**State Route 266**  
**District 9**  
**July 2014**



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**California Department of Transportation**

*Provide a safe, sustainable, integrated, and efficient transportation system  
to enhance California's economy and livability*

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**State Route 266  
Transportation Concept Report**

Prepared  
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July 2014

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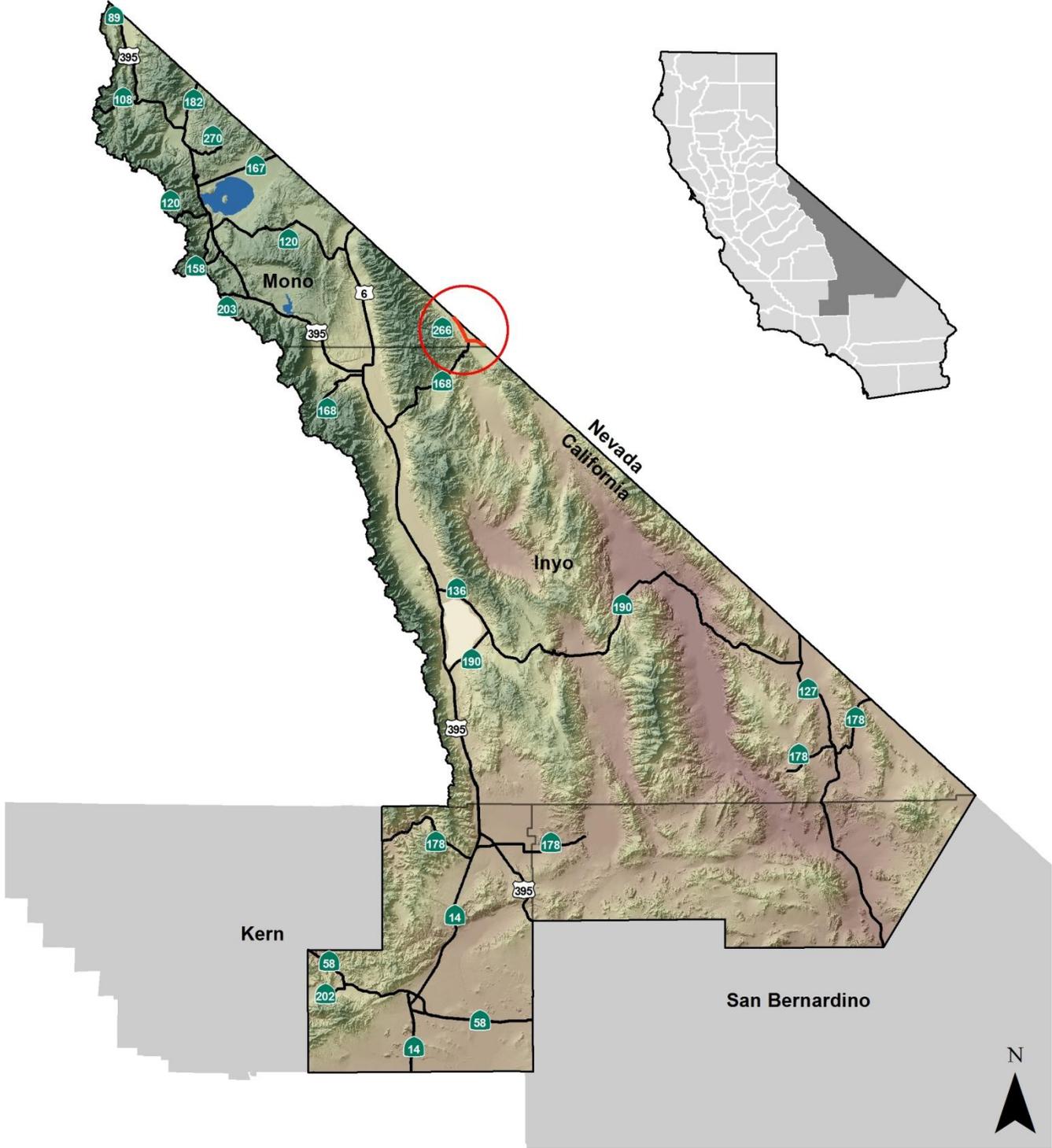
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# SR 266 LOCATION MAP

Caltrans District 9



## 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) (Gov. 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 is primarily composed of four parts: the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. The district-wide **DSMP** is strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TCR** is a planning document that identifies the existing and future route conditions as well as the needs for each route on the SHS. The **CSMP** is a complex, multi-jurisdictional planning document that identifies the needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, the public, and partner, regional, and local agencies.

### TCR Purpose

California's State Highway System requires 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

Internal and external stakeholder participation was sought throughout the development of the State Route (SR) 266 TCR. As information for the TCR was gathered, some stakeholders were contacted for input related to their particular specializations, verification of the data sources used, and the data's accuracy. Prior to document finalization, primary stakeholders were asked to review the document for consistency with existing plans, policies, and procedures. The process of including and working closely with stakeholders adds value to the TCR, allows for external input and ideas to be reflected in the document, increases credibility, and helps strengthen public support and trust.

Stakeholders in the SR 266 planning area are community members and agencies, including, but not limited to:

- Bureau of Land Management, Ridgecrest Field Office
- Caltrans Functional Units: Environmental, Local Assistance, Maintenance, Maintenance Engineering, Planning, Program/Project Management, Right-of-Way, Systems Planning and Traffic Operations
- Community of Oasis
- Mono County
- Mono County Local Transportation Commission
- Nevada Department of Transportation (NDOT)

## EXECUTIVE SUMMARY

SR 266 is a 12-mile-stretch of highway located in the southeastern corner of Mono County. The highway begins and ends on the California/Nevada State Line in the lower part of Fish Lake Valley. The daily traffic is composed primarily of agricultural goods movement out of the Community of Oasis and cross-state travel. SR 266 is an undivided, two-lane, conventional (2C) highway. Segment 1 of the route provides southbound access towards Las Vegas and the Southern Nevada region. Segment 2 provides access to the Community of Dyer and acts as an alternate route into the Owens Valley via its connection with US 6 in the event of an emergency closure or extreme weather conditions on SR 168. The environment surrounding the highway consists of high desert scrubland, agricultural fields, and open rangeland for cattle. Recent traffic data is analyzed throughout this document using 2012 as a base year (BY) and 2032 as a horizon year (HY) for projecting operational conditions.

### Concept Summary

Segment	Segment Description	Existing Facility	20-25 Year Capital Facility Concept	20-25 Year Facility Concept
1	California/Nevada State Line 0.23 miles west of Savinion Mining Road to Junction with SR 168 in Oasis.	2C	2C	Widen Shoulders, Maintenance
2	Junction with SR 168 in Oasis to California/Nevada State Line 0.38 miles northwest of White Wolf Canyon Road.	2C	2C	Widen Shoulders, Maintenance

### Concept Rationale

No significant growth or development is anticipated in the SR 266 corridor within the TCR's 20-25 year scope of concern. Both segments receive relatively low traffic volume and any increase in capacity is not foreseen within the near future. For these reasons, the highway is expected to remain a two-lane, conventional highway. Maintenance and basic operational enhancements like improved drainage and shoulder widening remain to be the primary focus for future projects along the highway.

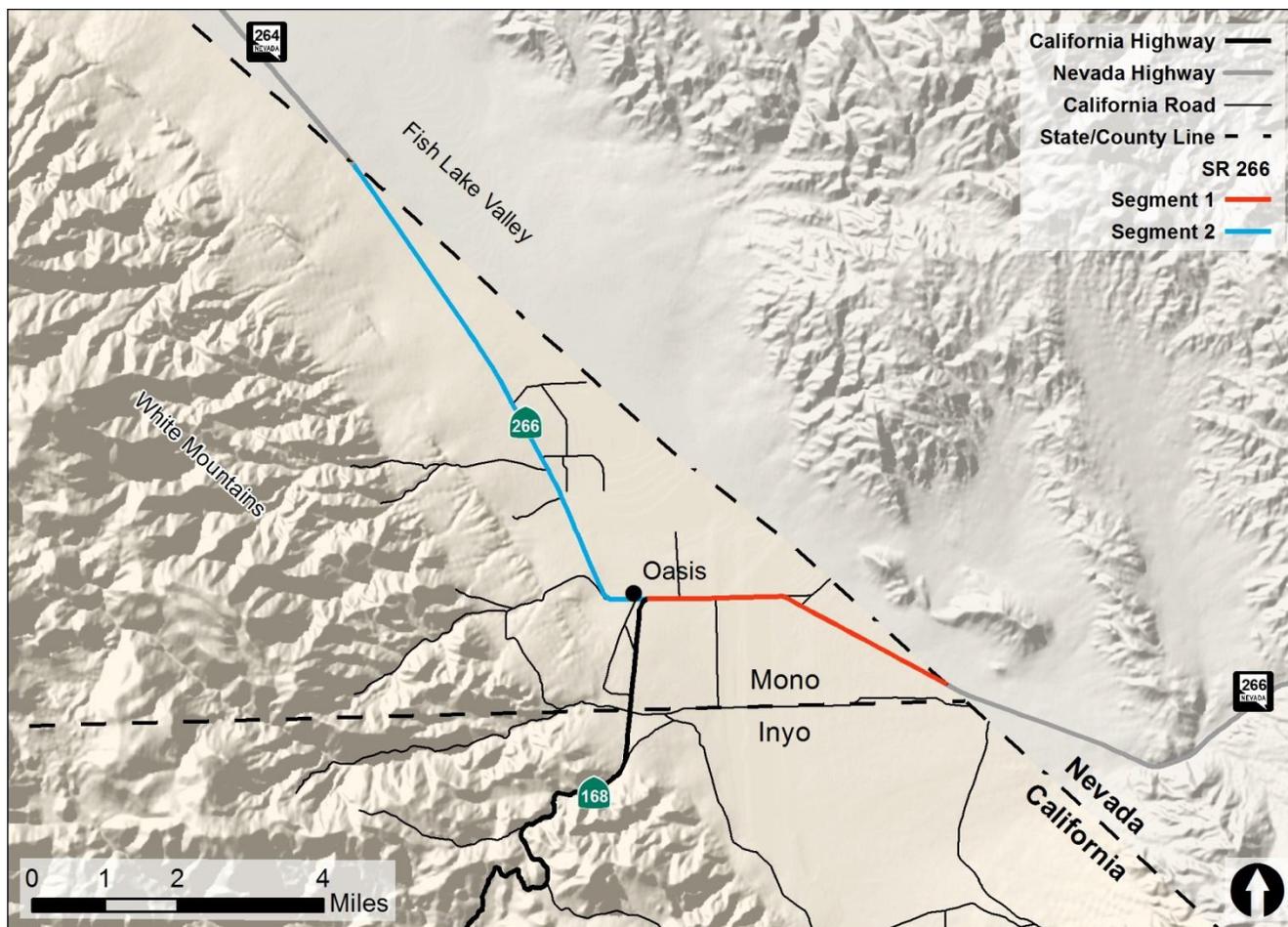
### Proposed Projects and Strategies

At the time of the TCR's 2014 update, a horizontal curve correction is programmed between PM 2.10 and 2.70 near the Community of Oasis and is scheduled to begin construction in the summer of 2014. Future route improvements will focus on keeping the highway maintained.

# CORRIDOR OVERVIEW

## ROUTE SEGMENTATION

Segment #	Location Description	County_Route_Beg. PM	County_Route_End PM
1	California/Nevada State Line 0.23 miles west of Savinion Mining Road to Junction with SR 168 in Oasis.	MNO_266_0.00	MNO_266_4.30
2	Junction with SR 168 in Oasis to California/Nevada State Line 0.38 miles northwest of White Wolf Canyon Road.	MNO_266_4.30	MNO_266_11.72



**SR 266 Segment Map**

## **ROUTE DESCRIPTION**

SR 266 originates as Nevada Route 264 at its intersection with US 95 in Nevada. It travels 40 miles west across Esmeralda County before crossing into District 9 at the state line and becomes California SR 266. The first segment of the District 9 portion of the route (PM 0.00 to 4.30) begins 0.23 miles west of Savinion Mining Road and continues west through Fish Lake Valley’s dry and flat desert scrubland. It reaches a junction with SR 168 in the small agricultural community of Oasis which provides access into Big Pine and the Owens Valley. As Segment 2 (PM 4.30 to 11.72) exits Oasis, it turns northwest up Fish Lake Valley where it ends at the state line, 0.38 miles northwest of White Wolf Canyon Road. SR 266 is the only highway in District 9 which breaks standard nomenclature procedures by designating an even-numbered route for a north-south oriented highway.



End of Route, PM 11.72 Looking Northbound



SR 168 Junction, PM 4.30 Looking Southbound

SR 266 serves two principal functions for the Eastern Sierra region. Segment 1 provides eastbound access into Nevada and is used by US Highway 395 travelers to reach southern Nevada. It is eligible for State Scenic Highway designation. Segment 2 provides northbound access into the Community of Dyer. This is a rural, two-lane highway that functions as a Minor Arterial along Segment 1 and as a Major Collector along Segment 2. Both segments serve trucks as a Terminal Access route under the Surface Transportation Assistance Act. Caltrans holds a maintenance agreement with NDOT to have them plow snow off of the highway when needed.

## **ROUTE DESIGNATION AND CHARACTERISTICS**

Segment #	1	2
Freeway & Expressway	No	No
National Highway System	No	No
Strategic Highway Network	No	No
Scenic Highway	Eligible	No
Interregional Road System	No	No
High Emphasis	No	No
Focus Route	No	No
Federal Functional Classification	Minor Arterial	Major Collector
Goods Movement Route	No	No
Truck Designation	STAA Terminal Access Route	STAA Terminal Access Route
Rural/Urban/Urbanized	Rural	Rural
Regional Transportation Planning Agency	Mono LTC	Mono LTC
Local Agency	Mono County	Mono County
Tribes	None	None
Air District	Great Basin Unified Air Pollution Control District (GBUAPCD)	GBUAPCD
Terrain	Flat	Flat

## COMMUNITY CHARACTERISTICS

Oasis is the only community located within the SR 266 corridor. It consists of a small group of private landowners who use their land for alfalfa production and cattle ranching. The Land Use Element of the *Mono County General Plan* cites protecting agricultural and natural resources as the only development goal for Oasis.

## LAND USE

SR 266 is surrounded by 4,200 acres of agricultural land on which alfalfa is the primary crop grown. The remainder of the surrounding land is designated for Resource Management and is overseen by the Bureau of Land Management’s (BLM) Ridgecrest office. The Ridgecrest office upholds land planning and management decisions using the *California Desert Conservation Area Plan* (CDCA) as its guiding document.

Segment	Place Type
1	Open Space, Rural
2	Open Space, Rural

## SYSTEM CHARACTERISTICS

SR 266 is an undivided, 2-lane, conventional highway for its entire length. The Right-of-Way is established by a combination of dedicated fee title, prescriptive right, and easement. Its width is 50 feet along Segment 1 and varies from 250 feet to 400 feet along Segment 2. With the exceptions of shoulder widening and general maintenance, SR 266 is a completed highway with no immediate plans for increased capacity. The pavement is in excellent condition according to the Caltrans Division of Maintenance’s Pavement Condition Survey but exhibits extensive block and thermal cracking ranging from 2” to 4” along Segment 1.

Segment #	1	2
<b>Existing Facility</b>		
Facility Type	C	C
General Purpose Lanes	2	2
Lane Miles	8.60	14.84
Centerline Miles	4.30	7.42
Shoulder Width	0-2 ft	0-2 ft
Median Width	0 ft	0 ft
Lane Width	12 ft	12 ft
Passing Lanes	0%	0%
Truck Climbing Lanes	0%	0%
Distressed Pavement	0%	0%
Current ROW	50 ft, fee title and prescriptive right	250 – 400 ft, easement
<b>Concept Facility</b>		
Facility Type	C	C
General Purpose Lanes	2	2
Lane Miles	8.60	14.84
Centerline Miles	4.30	7.42
Shoulder Width	4 ft	4 ft
Median Width	0 ft	0 ft
Lane Width	12 ft	12 ft
Passing Lanes	0	0
Truck Climbing Lanes	0	0

## **BICYCLE FACILITY**

Bicyclists are permitted to ride along both segments of SR 266. The shoulder width varies from 0 to 2 feet.

Seg	Post Mile	Location Description	Bike Access Prohibited	Facility Type	Outside Paved Shoulder Width	Facility Description	Posted Speed Limit
1	0.00-4.30	California/Nevada State Line 0.23 miles west of Savinion Mining Road to Junction with SR 168 in Oasis.	No	None	0-2 ft	Narrow Shoulder	65 mph.
2	4.30-11.72	Junction with SR 168 in Oasis to California/Nevada State Line 0.38 miles northwest of White Wolf Canyon Road.	No	None	0-2 ft	Narrow Shoulder	65 mph

## **PEDESTRIAN FACILITY**

Pedestrians are permitted to travel along the shoulders for both segments of SR 266. However, pedestrian traffic is minimal and pedestrian specific facilities do not exist.

Seg	Post mile	Location Description	Pedestrian Access Prohibited	Sidewalk Present
1	0.00- 4.30	California/Nevada State Line 0.23 miles west of Savinion Mining Road to Junction with SR 168 in Oasis.	No	No
2	4.30-11.72	Junction with SR 168 in Oasis to California/Nevada State Line 0.38 miles northwest of White Wolf Canyon Road.	No	No

## **ENVIRONMENTAL CONSIDERATIONS**

The purpose of this environmental scan is to identify environmental factors that may need future analysis in the project development process. This information does not represent all possible environmental considerations that may exist within the area surrounding the route. Any SR 266 project being considered for programming would require environmental clearance in compliance with all federal, state, and local environmental laws and regulations. The environmental factors identified are scaled (high=red, medium=yellow, or low=green) by district staff based on the probability of encountering such issues.

The following environmental factors were identified:

- Farmland/Rangeland:** Subject to the protection of sensitive resources, grazing and its support facilities including corrals, loading chutes, and water developments are allowed on the surrounding private and BLM lands. The CDCA categorizes these lands within the Perennial plant range type which is composed of woody shrubs and bunch grasses that are typically found 3,500 feet above sea level. Due to the more predictable winter precipitation rates in this range area, forage production is more consistent and is able to supply 963 Animal Unit Months (AUM) of forage for cattle within the Bar 99 and Oasis Ranch grazing lots. 80 additional AUMs are allocated toward maintaining the wild horse and burro populations within the Piper Mountain Herd Management Area. Additionally, SR 266 crosses over 4,200 acres of designated agricultural land from PM 1.10 to 1.35 and from PM 2.72 to 5.35. Alfalfa is the primary crop grown.

(Environmental Considerations continued)

- **Floodplain:** The Federal Emergency Management Agency has not designated any land surrounding SR 266 inside of any Special Flood Hazard Area. However, the highway does fall within an area of “moderate or minimal hazard” and is subject to flooding from severe storm activity or local drainage problems.
- **Air Quality:** Mono County is designated as an unclassified/attainment area for Ozone, Particulate Matter 2.5 and Carbon Monoxide as well as for Particulate Matter 10 outside of the Mono Basin. SR 266 falls within the Great Basin Valleys Air Basin under the management of the Great Basin Unified Air Pollution Control District.
- **Visual Aesthetics:** Segment 1 of the route is eligible to be included within the State’s Scenic Highway Program.
- **Geology/Soils/Seismic/Topography:** SR 266 lies on top of unconsolidated and semi-consolidated alluvial deposits from the Quaternary geologic period. Approximately 3,200 acres of land surrounding the SR 266/168 junction are estimated to contain anywhere from one to ten million cubic yards of saleable sand and gravel. The CDCA permits the extraction of these minerals subject to environmental assessment. The highway also travels through the California Geological Survey’s Fish Lake Valley fault zone where it crosses directly over a concealed trace for an active fault at PM 5.91. It falls within two Seismic Design Categories (SDC) under the National Earthquake Hazards Reduction Program (NEHRP). A little more than half of Segment 1 falls under SDC D2 (PM 0.00/2.66) which indicates areas that are susceptible to strong shaking. The remainder of the highway falls within SDC E (PM 2.66/11.72). This is the NEHRP’s highest earthquake hazard rating which indicates areas near major active faults that are capable of producing the most intense shaking. The topography is generally flat within Fish Lake Valley. SR 266 drops 205 feet from PM 0.00/11.72.
- **Waters and Wetlands:** There are 16 corrugated steel pipe culverts ranging from 18” to 24” in diameter dispersed along SR 266. 15 of them are located along Segment 2. The most recent inspection conducted in 2007 found these pipes to be in relatively good condition with health assessment ratings falling generally within the high 90s. These drainage devices allow for seven intermittent streams to cross underneath SR 266. One subsurface aqueduct crosses beneath the highway at PM 4.46 to feed an intermittent pond adjacent to the road. This aqueduct channels in water from Cottonwood Creek which flows down from the eastern slopes of the White Mountains.
- **Species Considerations:** The California Natural Diversity Database identifies two special status species within a 2,000 foot wide corridor centered along SR 266:
  - Swainson’s hawk, *Buteo swainsoni*,
    - California Endangered Species Act: Threatened,
  - Townsend’s big-eared bat, *Corynorhinus townsendii*,
    - California Endangered Species Act: Candidate Threatened
    - California Department of Fish and Wildlife: Species of Special Concern
- **Community Impacts/Environmental Justice:** SR 266 is flanked on both sides by established farms within the Oasis community. Any future transportation projects capable of significantly affecting the community’s land use or circulation should acquire the community’s input.

(Environmental Considerations continued)

S e g	Farmland/ Timberland	Floodplain	Air Quality			Visual Aesthetics	Geology/Soils/ Seismic	Waters and Wetlands	Special Status Species	Community Impacts/ Environmental Justice	
			Ozone	PM							CO
				2.5	10						
1	Med	Low	Unclassified/ Attainment	Unclassified/ Attainment	Unclassified/ Attainment	Unclassified/ Attainment	Med	Med	Low	Med	Med
2	Med	Low	Unclassified/ Attainment	Unclassified/ Attainment	Unclassified/ Attainment	Unclassified/ Attainment	Low	Med	Med	Low	Med

## CORRIDOR PERFORMANCE

SR 266 operates above the Concept Level of Service (LOS) for both the base year and the horizon year outlook. This can be attributed primarily to the low traffic volumes associated with this route in addition to the high passing opportunity and low number of access points found along the route.

Segment #	1	2
<b>Basic System Operations</b>		
AADT (BY)	200	140
AADT (HY)	333	224
AADT: Growth Rate/Year	1.03%	1.02%
LOS Method	Highway Capacity Manual	Highway Capacity Manual
LOS (BY)	A	A
LOS (HY)	A	A
LOS Concept	C	C
VMT (BY)	860	1,039
VMT (HY)	1,432	1,662
<b>Truck Traffic</b>		
Total Average Annual Daily Truck Traffic (AADTT) (BY)	12	4
Total Average Annual Daily Truck Traffic (AADTT) (HY)	21	8
Total Trucks (% of AADT) (BY)	6.00%	2.86%
Total Trucks (% of AADT) (HY)	6.17%	3.59%
5+ Axle Average Annual Daily Truck Traffic (AADTT) (BY)	5	0
5+ Axle Average Annual Daily Truck Traffic (AADTT) (HY)	6	0
5+ Axle Trucks (as % of AADT) (BY)	2.50%	0.00%
5+ Axle Trucks (as % of AADT) (HY)	1.88%	0.00%
<b>Peak Hour Traffic Data</b>		
Peak Hour Direction	Unknown*	Unknown*
Peak Hour Time of Day	Unknown*	Unknown*
Peak Hour Directional Split (BY)	50/50	50/50
Peak Hour VMT (BY)	215	148
Peak Hour VMT (HY)	358	158

\*Split data not acquired by Caltrans Traffic Data Branch.

## KEY CORRIDOR ISSUES

Highway standards have changed since the original construction of SR 266. This makes several instances of curve geometry and shoulder width below the current standard for state highways. The Oasis Curve Correction project is the most recent retrofit to enhance SR 266. In addition to realignment, it will widen the shoulders to four feet from PM 2.10 to 2.70. Efforts should be made in the future to widen shoulders on the remaining sections of the highway in order to develop consistency for all highway users. Drainage issues have occurred along the highway. A gap in the highway's most recent chip seal will require future maintenance from PM 1.50 to 3.50.

## CORRIDOR CONCEPT

### CONCEPT RATIONALE

No significant growth or development is anticipated within the SR 266 corridor during the TCR's 20-25 year scope of concern. Both segments receive relatively low traffic volume and any increase in capacity in the near future is not foreseen. Maintenance and basic operational enhancements remain to be the primary focus for future projects along the highway.

### PLANNED AND PROGRAMMED PROJECTS AND STRATEGIES

Seg.	Description	Planned or Programmed	Location	Source	Purpose	Implementation Phase
1	Oasis Curve Correction	Programmed	PM 2.10/2.70	Caltrans D-9	Operational Improvement	Summer 2014

### PROJECTS AND STRATEGIES TO ACHIEVE CONCEPT

There are several cattle guards located at PM 0.00 and PM 8.67. Both of these devices have fallen into poor working condition and, due to a buildup of overlays and chips seals, have sunken below the grade of the travel way. Both devices have become ineffective in keeping livestock off of the highway and should be removed in order to develop a more consistent road surface.

Seg.	Description	Location	Source	Purpose	Implementation Phase
1	Renumber highway to SR 168	0.00/4.30	Caltrans D-9	Operations	Long Term
1-2	Remove cattle guards	0.00 & 8.67	Caltrans D-9	Operations	Long Term
1-2	Widen Shoulders to a minimum five feet	0.00/2.10, 2.70/11.72	Caltrans D-9	Maintenance & Operations	Long Term
1-2	Install Rumble Strips	0.00/11.72	Caltrans D-9	Operations	Long Term
1-2	Improve obsolete/damaged drainage facilities	Various	Caltrans D-9	Maintenance & Operations	Long Term
1-2	Reclassify highway segment to unify highway type	Various	Caltrans D-9	Funding	Long Term

# APPENDICES

## APPENDIX A

### GLOSSARY OF TERMS AND ACRONYMS

#### Acronyms

**2C** – Two-Lane Conventional Highway  
**AADT** – Annual Average Daily Traffic  
**AADTT** – Annual Average Daily Truck Traffic  
**AUM** – Animal Unit Month  
**BLM** – Bureau of Land Management  
**BY** – Base Year  
**Caltrans** – California Department of Transportation  
**CDCA** – California Desert Conservation Area Plan  
**CDP** – Census-Designated Place  
**CESA** – California Endangered Species Act  
**CNPS** – California Native Plant Society  
**CNDDDB** – California Natural Diversity Database  
**CO** – Carbon Monoxide  
**DFW** – Department of Fish and Wildlife  
**ESA** – Endangered Species Act  
**ESTA** – Eastern Sierra Transit Authority  
**FEMA** – Federal Emergency Management Agency  
**FHWA** – Federal Highway Administration  
**HCM** – Highway Capacity Manual  
**HY** – Horizon Year  
**KPRA** – Kingpin-to-rear-axle distance  
**LOS** – Level of Service  
**LTC** – Local Transportation Commission  
**MNO** – Mono County  
**MPH** – Miles per Hour  
**N/A** – Not Applicable  
**NB** – Northbound  
**NEHRP** – National Earthquake Hazards Reduction Program  
**PM** – Post Mile or Particulate Matter  
**R** – (prefix to Post Mile) Realigned  
**R/W or ROW** – Right of Way  
**RTP** – Regional Transportation Plan  
**SB** – Southbound  
**SDC** – Seismic Design Category  
**SFHA** – Special Flood Hazard Area  
**SR** – State Route  
**SSC** – Species of Special Concern  
**STAA** – Surface Transportation Assistance Act  
**TCR** – Transportation Concept Report  
**US** – United States Highway  
**USFS** – United States Forest Service  
**USFWS** – United States Fish & Wildlife Service  
**VMT** – Vehicle Miles Traveled

## **Definitions**

**Annual Average Daily Traffic (AADT)** – 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. AADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

**Animal Unit Month (AUM)** – A measure for the amount of consumable forage for grazing animals. AUMs provide a standard measure in the issuance of grazing permits in order to properly manage and conserve the amount of forage production provided by the land. 1 AUM is measured as 26 pounds of forage dry matter per day; the estimated standard amount of food needed for a 1,000 pound cow.

**Attainment/Unclassified** – A status designation that the California Air Resources Board is required to apply to areas of the State which signifies either that pollutant concentrations do not violate the standard for that pollutant in that area or that data does not support either an attainment or nonattainment status.

**Base Year (BY)** – The year that the most current data is available to the districts.

**California Department of Fish and Wildlife (DFW) Nongame Wildlife Program** – A conservation program which categorizes sensitive bird, mammal, reptile and amphibian species for the purposes of resource assessment, research, conservation planning, recovery planning, permitting, and outreach activities.

**Fully Protected** species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the species

**Species of Special Concern** designates a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role;

is listed as Federally-, but not State-, threatened or endangered; meets the state definition of threatened or endangered but has not formally been listed;

is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status;

has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status.

**California Endangered Species Act (CESA) List** – A list of species determined to be “rare”, “threatened” or “endangered” by the California Fish and Game Commission under the California Endangered Species Act. Listing is based on present or threatened modification or destruction of habitat, competition, predation, disease, overexploitation by collectors, or other natural occurrences or human-related activities.

**Endangered** In serious danger of becoming extinct throughout all, or a significant portion, of a species' range due to one or more causes, including loss of habitat, over exploitation, competition, or disease.

**Threatened** Likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts

**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/pedestrian/transit facility, grade separation, and new managed lanes.

**Cattle Guard** – A type of obstacle used to prevent cattle and other livestock from passing along a road or railway while permitting the passage of vehicles and pedestrians. It consists of a depression in the road covered by a transverse grid of bars or tubes spaced far enough apart to deter livestock but close enough not to impede a wheel or foot.

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

**Conventional Highway** – A highway generally without controlled access. Grade separations at intersections or access control may be used at spot locations when justified.

**Easement** – A non-possessing interest held by one person in land of another.

**Facility Concept** – Describes the facility and strategies that may be needed within 20-25 years. This can include capacity increasing, state highway, bicycle/pedestrian/transit facility, non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, and transportation demand/incident management.

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

**Fee Title** – an absolute fee; a fee without limitation to any particular class of heirs or restrictions...; an inheritable estate.

**Functional Classification** – Guided by federal legislation, refers to a process by which streets and highways are grouped into classes or systems according to the character of the service that is provided, i.e. Principal and Minor Arterial Roads, Collector Roads, and Local Roads.

**Principal Arterial** A roadway that serves a large percentage of travel between cities and other activity centers, especially when minimizing travel time and distance is important. These roadways typically carry higher traffic volumes and are usually the route of choice for intercity buses and trucks.

**Interstate** A Principal Arterial roadway designed for mobility and long-distance travel. Characteristics include limited access, divided medians and emphasis on linking major urban areas of the United States.

**Other Freeway or Expressway** A Principal Arterial roadway with its directional travel lanes typically separated by some type of physical barrier, access and egress points that are limited to on- and off-ramp locations, and a very limited number of at-grade intersections. Abutting land uses are not directly served by this road type.

**Other Principal Arterial** A Principal Arterial roadway that serves major centers of metropolitan areas, provides a high degree of mobility and that can also provide mobility through rural areas. Abutting land uses can be directly served by this road type.

**Minor Arterial** A roadway that provides service for trips of moderate length, that serves geographic areas that are smaller than those served by the Principal Arterials, and that provides intra-community continuity and may carry local bus routes. In rural areas, Minor Arterials are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement.

**Collector** A roadway which gathers traffic from Local Roads and funnels it to the Arterial Network. Primarily serves intra-county travel rather than statewide and constitutes those routes on which predominant travel distances are shorter than on Arterial Routes.

**Major Collector** A Collector that is longer in length, having a lower density of connecting driveways, higher speed limits and greater intervals of spacing than Minor Collectors. These roadways can serve a higher volume of traffic.

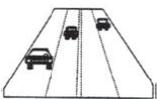
**Minor Collector** A Collector that is shorter in length, having a higher density of connecting driveways, lower speed limits and smaller intervals of spacing than Major Collectors. These roadways serve lower volumes of traffic.

**Local Road** A roadway not intended for long distance travel and that provides direct access to abutting land. This road type accounts for the largest percentage of all roadways in terms of mileage. Through traffic and Bus Routes are typically discouraged.

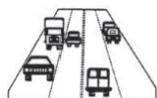
**Horizon Year (HY)** – The year that the future (20-25 years) data is based on.

**Interregional Road System Route (IRRS)** – A route that is a part of the IRRS system of highways and a subset of the Freeway and Expressway System that is outside of any urbanized area and provides access to, and links between, the State’s economic centers, major recreation areas, and urban and rural regions.

**Level of Service (LOS)** – 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.

**Nonattainment** – A designation that the California Air Resources Board is required to apply to areas of the State which signifies that a pollutant concentration violated the standard for that pollutant in that area at least once, excluding those occasions when a violation was caused by an exceptional event.

**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 Annual Daily Traffic (ADT). The lower values are generally found on roadways with low volumes.

**Planned Project** – A planned improvement or action is a project in a financially constrained section of a long term plan, such as an approved Regional Transportation Plan (RTP), Capital Improvement Plan, or bond measure program.

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

**Prescriptive Right** – title obtained in law by long possession.

**Programmed Project** – 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.

**Right of Way (ROW)** – Any strip or area of land granted by deed or easement for ... a designated use.

**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 are not limited to, National Highway System (NHS), Interregional Route System (IRRS), and Scenic Highway System.

**Rumble Strip** – The application of a series of equally-spaced grooves either mounted or applied inside the pavement of a road used to alert drivers that they are exiting the travel way through an audible rumbling.

**Rural** – According to the United States Census Bureau, rural consists of all territory, population, and housing units located outside Urbanized Areas (UAs) and Urbanized Clusters (UCs). UA and UC boundaries represent densely developed territory, encompassing residential, commercial, and other nonresidential urban land uses. A UA consists of densely developed territory that contains 50,000 or more people. A UC consists of densely developed territory that has at least 2,500 people but fewer than 50,000 people.

**Scenic Highway** – A highway that is located in an area of natural scenic beauty that is designated for special conservation treatment.

**Segment** – A portion of a facility between two points.

**Seismic Design Category (SDC)** – An earthquake hazard classification assigned to a structure based on its occupancy or use and on the level of expected soil modified seismic ground motion.

**A** denotes very small seismic vulnerability.

**B** denotes low to moderate seismic vulnerability.

**C** denotes moderate seismic vulnerability.

**D** denotes high seismic vulnerability.

**E and F** denote very high seismic vulnerability and near a major fault.

**Special Flood Hazard Area (SFHA)** – The land area covered by the floodwaters of the base flood on National Flood Insurance Program (NFIP) maps. These areas are subject to floodplain management regulations where the mandatory purchase of flood insurance applies.

**100-Year Flood Zone** – An area that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year.

**500-Year Flood Zone** – An area that will be inundated by a flood event having a 0.2-percent chance of being equaled or exceeded in any given year.

**Special Status Species** – Any species which is listed or proposed for listing under any of the ESA, CESA, ABC, DFG, IUCN, USFS or USFWS programs which tracks endangered or threatened species populations.

**Surface Transportation Assistance Act (STAA)** – A transportation funding and policy act which allows on a federally designated system of highways (National Network) and on Terminal Access Routes the use of semitrailers up to 48 feet in length with no KPRA restrictions and semitrailers up to 53 feet in length with certain KPRA restrictions.

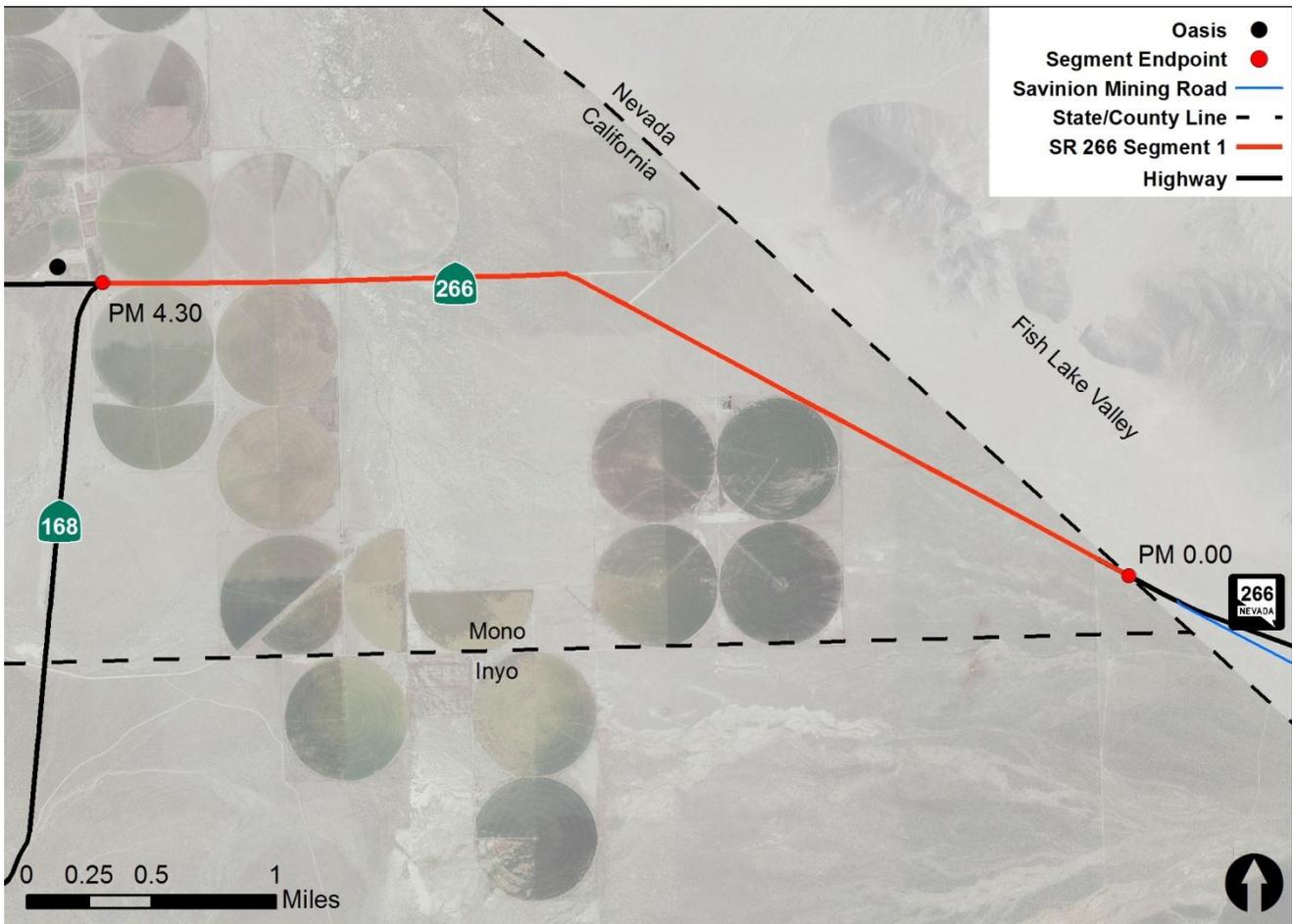
**System Operations and Management Concept** – Describes the system operations and management elements that may be needed within 20-25 years. This can include non-capacity increasing operational improvements (auxiliary lanes, channelizations, turnouts, etc.), conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, transportation demand management, and incident management.

**Terminal Access Route** – A route which provides STAA trucks access to truck terminals to unload freight.

**Vehicle Miles Traveled (VMT)** – The total number of miles traveled by motor vehicles on a road or highway.

**APPENDIX B  
FACTSHEETS**

**Segment 1: PM 0.00 – PM 4.30**



Segment 1 begins at the California/Nevada State Line 0.23 miles west of Savinion Mining Road. It crosses through flat scrubland until it junctions with SR 168 in Oasis. This is an undivided, two-lane conventional highway with a Minor Arterial classification. In addition to SR 168, the highway has access to various private and county roads. This segment is a Terminal Access Route for trucks under the Surface Transportation Assistance Act. Services such as food, lodging, and gasoline are not available along this segment.

Projects and Strategies to Achieve Concept				
Description	Location	Source	Purpose	Implementation Phase
Remove cattle guard	PM 0.00	Caltrans District 9	Operations	Long Term
Widen shoulders to a minimum five feet	PM0.00/2.10,2.70/4.30	Caltrans District 9	Operations	Long Term
Install rumble strips where appropriate	PM 0.00/4.30	Caltrans District 9	Maintenance and Operations	Long Term
Improve obsolete/damaged drainage facilities	Various	Caltrans District 9	Maintenance and Operations	Long Term
Reclassify highway segment to unify functional class type	Various	Caltrans District 9	Funding	Long Term
Renumber highway to SR 168	PM 0.00/4.30	Caltrans District 9	Operations	Long Term

(Segment 1 Factsheet continued)

<b>Route Designation and Characteristics</b>	<b>Freeway &amp; Expressway</b>	No
	<b>National Highway System</b>	No
	<b>Strategic Highway Network</b>	No
	<b>Scenic Highway</b>	Eligible
	<b>Interregional Road System</b>	No
	<b>High Emphasis</b>	No
	<b>Focus Route</b>	No
	<b>Federal Functional Classification</b>	Minor Arterial
	<b>Goods Movement Route</b>	No
	<b>Truck Designation</b>	STAA Terminal Access Route
	<b>Rural/Urban/Urbanized</b>	Rural
	<b>Regional Transportation Planning Agency</b>	Mono LTC
	<b>Local Agency</b>	Mono County
	<b>Tribes</b>	N/A
	<b>Air District</b>	Great Basin Unified Air Pollution Control District
<b>Terrain</b>	Flat	

<b>Environmental Considerations</b>	<b>Farmland/ Timberland</b>	Med		
	<b>Floodplain</b>	Low		
	<b>Air Quality</b>	<b>Ozone</b>	Unclassified/ Attainment	
		<b>PM</b>	<b>2.5</b>	Unclassified/ Attainment
			<b>10</b>	Unclassified/ Attainment
		<b>CO</b>	Unclassified/ Attainment	
	<b>Visual Aesthetics</b>	Med		
	<b>Geology/Soils/Seismic</b>	Med		
	<b>Waters and Wetlands</b>	Low		
	<b>Special Status Species</b>	Med		
<b>Community Impacts</b>	Med			

<b>Ped.</b>	<b>Pedestrian Access Prohibited</b>	No
	<b>Sidewalk Present</b>	No

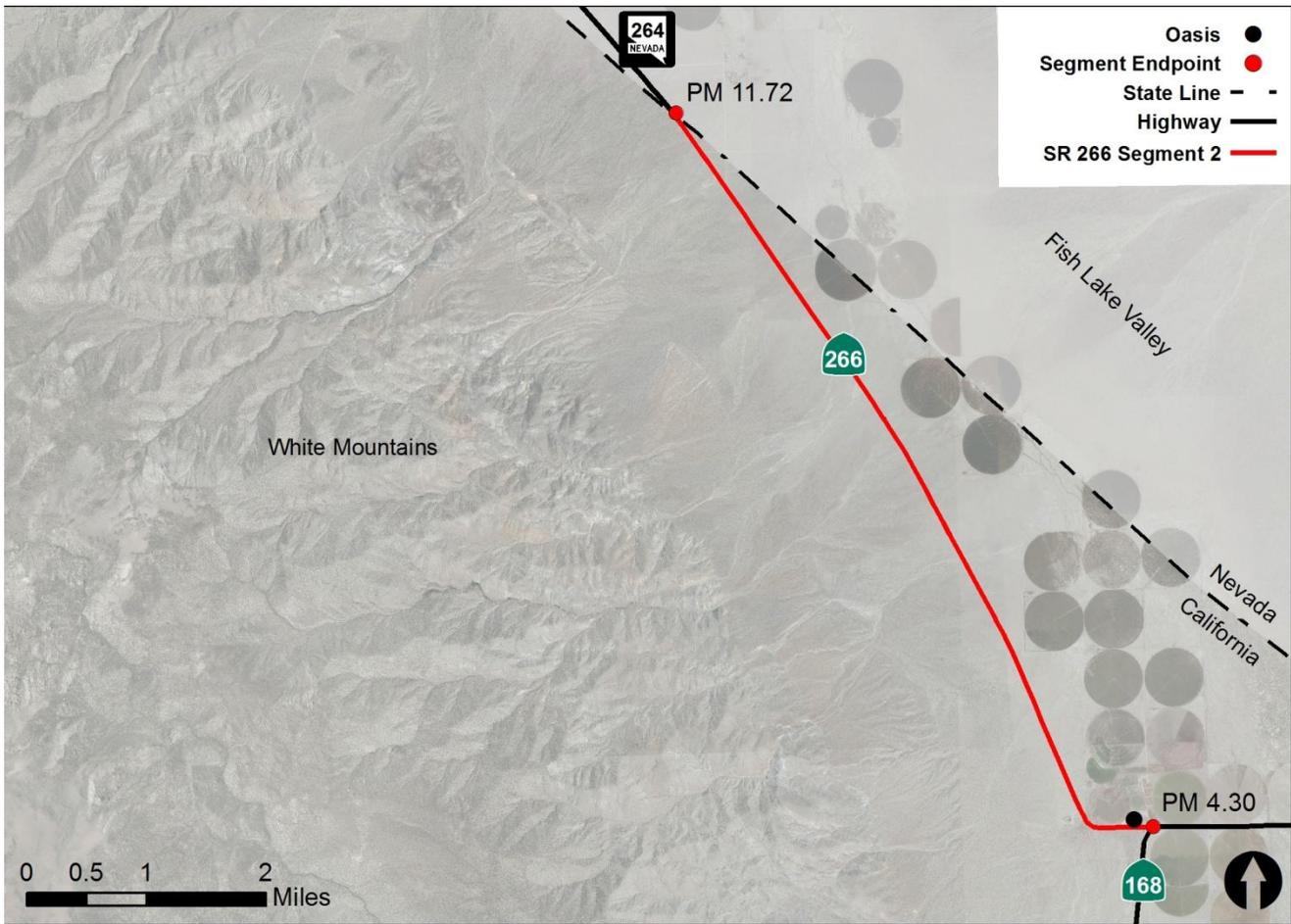
<b>System Characteristics</b>	<b>Facility Type</b>	C
	<b>General Purpose Lanes</b>	2
	<b>Lane Miles</b>	8.60
	<b>Centerline Miles</b>	4.30
	<b>Shoulder Width</b>	0-2 ft
	<b>Median Width</b>	0 ft
	<b>Lane Width</b>	12 ft
	<b>Passing Lanes</b>	0
	<b>Truck Climbing Lanes</b>	0
	<b>Distressed Pavement</b>	0%
<b>Current ROW</b>	50 ft, fee title and prescriptive right	

<b>Bicycle Facility</b>	<b>Post Mile</b>	0.00-4.30
	<b>Bicycle Access Prohibited</b>	No
	<b>Facility Type</b>	None
	<b>Outside Paved Shoulder Width</b>	0-2 ft
	<b>Facility Description</b>	Shoulder - Widening needed for Bike Route
	<b>Posted Speed Limit</b>	45 mph

<b>Corridor Performance</b>	<b>Basic Systems Operations</b>	<b>AADT (BY)</b>	200
		<b>AADT: Growth Rate/Year</b>	1.03%
		<b>LOS Method</b>	HCM
		<b>LOS (BY)</b>	A
		<b>LOS Concept</b>	C
	<b>Truck Traffic</b>	<b>VMT (BY)</b>	860
		<b>Total Average Annual Daily Truck Traffic (AADTT) (BY)</b>	12
		<b>Total Trucks (% AADT) (BY)</b>	6.00%
		<b>5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)</b>	5
	<b>Peak Hour Traffic Data</b>	<b>Peak Period Length</b>	1
		<b>Peak Hour Direction</b>	Unknown*
		<b>Peak Hour Time of Day</b>	Unknown*
		<b>Peak Hour Directional Split (BY)</b>	50/50
<b>Peak Hour VMT (BY)</b>		215	

\*Split data not acquired by Caltrans Traffic Data Branch.

## Segment 2: PM 4.30 – PM 11.72



Segment 2 begins at the SR 168 junction and travels through Fish Lake Valley which is located to the east of the White Mountains. The segment ends at the California/Nevada State Line, 0.38 miles northwest of White Wolf Canyon Road. This is an undivided, two-lane conventional highway with a Major Collector classification. This segment is a Terminal Access Route for trucks under the Surface Transportation Assistance Act. Services such as food, lodging, and gasoline are not available along this segment. The nearest location for these services is in the community of Dyer.

Projects and Strategies to Achieve Concept				
Description	Location	Source	Purpose	Implementation Phase
Remove cattle guard	PM 8.67	Caltrans District 9	Operations	Long Term
Widen shoulders to five feet	PM 0.00 – PM 11.72	Caltrans District 9	Operations	Long Term
Install rumble strips where appropriate	Various	Caltrans District 9	Maintenance and Operations	Long Term
Improve obsolete/damaged drainage facilities	Various	Caltrans District 9	Maintenance and Operations	Long Term
Reclassify highway segment to unify functional class type	Various	Caltrans District 9	Funding	Long Term
Renumber the State Highway to SR 264	PM 4.30 – PM 11.72	Caltrans District 9	Operations	Long Term

**(Segment 2 Factsheet continued)**

<b>Route Designation and Characteristics</b>	<b>Freeway &amp; Expressway</b>	No
	<b>National Highway System</b>	No
	<b>Strategic Highway Network</b>	No
	<b>Scenic Highway</b>	No
	<b>Interregional Road System</b>	No
	<b>High Emphasis</b>	No
	<b>Focus Route</b>	No
	<b>Federal Functional Classification</b>	Major Collector
	<b>Goods Movement Route</b>	No
	<b>Truck Designation</b>	STAA Terminal Access Route
	<b>Rural/Urban/Urbanized</b>	Rural
	<b>Regional Transportation Planning Agency</b>	Mono LTC
	<b>Local Agency</b>	Mono County
	<b>Tribes</b>	N/A
	<b>Air District</b>	Great Basin Unified Air Pollution Control District
<b>Terrain</b>	Flat	

<b>Environmental Considerations</b>	<b>Farmland/ Timberland</b>	Med		
	<b>Floodplain</b>	Low		
	<b>Air Quality</b>	<b>Ozone</b>	Unclassified/ Attainment	
		<b>PM</b>	<b>2.5</b>	Unclassified/ Attainment
			<b>10</b>	Unclassified/ Attainment
		<b>CO</b>	Unclassified/ Attainment	
	<b>Visual Aesthetics</b>	Low		
	<b>Geology/Soils/Seismic</b>	Med		
	<b>Waters and Wetlands</b>	Med		
	<b>Special Status Species</b>	Low		
<b>Community Impacts</b>	Med			

<b>Ped.</b>	<b>Pedestrian Access Prohibited</b>	No
	<b>Sidewalk Present</b>	No

<b>System Characteristics</b>	<b>Facility Type</b>	C
	<b>General Purpose Lanes</b>	2
	<b>Lane Miles</b>	14.84
	<b>Centerline Miles</b>	7.42
	<b>Shoulder Width</b>	0-2 ft
	<b>Median Width</b>	0 ft
	<b>Lane Width</b>	12 ft
	<b>Passing Lanes</b>	0
	<b>Truck Climbing Lanes</b>	0
	<b>Distressed Pavement</b>	0%
<b>Current ROW</b>	250 – 400 ft., easement	

<b>Bicycle Facility</b>	<b>Post Mile</b>	4.30-11.72
	<b>Bicycle Access Prohibited</b>	No
	<b>Facility Type</b>	None
	<b>Outside Paved Shoulder Width</b>	0-2 ft
	<b>Facility Description</b>	Shoulder - Widening needed for Bike Route
	<b>Posted Speed Limit</b>	60 mph

<b>Corridor Performance</b>	<b>Basic Systems Operations</b>	<b>AADT (BY)</b>	140
		<b>AADT: Growth Rate/Year</b>	1.02%
		<b>LOS Method</b>	HCM
		<b>LOS (BY)</b>	A
		<b>LOS Concept</b>	C
		<b>VMT (BY)</b>	1,039
	<b>Truck Traffic</b>	<b>Total Average Annual Daily Truck Traffic (AADTT) (BY)</b>	4
		<b>Total Trucks (% AADT) (BY)</b>	2.86%
		<b>5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)</b>	0
		<b>Peak Period Length</b>	1
	<b>Peak Hour Traffic Data</b>	<b>Peak Hour Direction</b>	Unknown*
		<b>Peak Hour Time of Day</b>	Unknown*
		<b>Peak Hour Directional Split (BY)</b>	50/50
<b>Peak Hour VMT (BY)</b>		148	

\*Split data not acquired by Caltrans Traffic Data Branch.

## APPENDIX C RESOURCES

- Bryant, W.A. (compiler), 2005, Digital Database of Quaternary and Younger Faults from the Fault Activity Map of California, version 2.0: California Geological Survey Web Page, <[http://www.consrv.ca.gov/CGS/information/publications/QuaternaryFaults\\_ver2.htm](http://www.consrv.ca.gov/CGS/information/publications/QuaternaryFaults_ver2.htm)> (12/18/13).
- California Department of Fish and Wildlife, California Natural Diversity Database, <<http://www.dfg.ca.gov/biogeodata/cnddb>>, 2013
- California Department of Fish and Wildlife, The Natural Resources Agency, Department of Fish and Game, Biogeographic Data Branch, California Natural Diversity Database, *Special Animals (898 taxa)*, January 2011
- California Environmental Protection Agency, Air Resources Board, Air Quality Data Branch, Planning and Technical Support Division, *National Ambient Air Quality Area Designations Maps for CO; Ozone, PM 2.5, PM 10*
- Caltrans, District 9, GIS Data Library
- Caltrans, District 9, Photolog, 2007
- Caltrans, District 9, Post Mile Log, 2007
- Caltrans, District 9, *State Route 266 Transportation Concept Report*, June 2008
- Caltrans, Division of Maintenance GIS, Pavement Condition Survey
- Caltrans, Division of Operations, Office of Traffic Engineering, Speed Zone Surveys
- Caltrans, Division of Research, Innovation and System Information (DRISI), California Road System (CRS) Maps
- Caltrans, Division of Transportation Planning
- Caltrans Traffic Data Branch, 2012 AADT & 2012 AADTT
- Caltrans, Traffic Accident Surveillance and Analysis System (TASAS)
- Mono County, Mono County Community Development Department, *Mono County General Plan*, 2009
- Mono County, Mono County Local Transportation Commission, *Mono County Regional Transportation Plan*, February 11, 2008
- National Academy of Sciences, Transportation Research Board, *Highway Capacity Manual 2010*
- United States Department of Homeland Security, Federal Emergency Management Agency, National Flood Insurance Program
- United States Department of the Interior, Bureau of Land Management, *The California Desert Conservation Area Plan*, amended 1980
- United States Geological Survey, Seismic Design Maps for International Residential Code (2006 & 2009), Coterminous US