

4.15 Transportation and Traffic

The purpose of this Section is to identify existing transportation and traffic network within the Project area, analyze potential impacts to transportation and traffic associated with the development of the proposed Project, and identify mitigation measures that would avoid or reduce the significance of any identified impacts. Thresholds of significance for the impact analysis are derived from Appendix G of the 2011 *CEQA Guidelines*.

4.15.1 Environmental Setting

Regional Setting

The proposed Project is located within the eastern Mojave Desert in San Bernardino County. The transportation system in this area is composed primarily of an interconnected network of local roads and State and interstate highways. Regional access to the Project area is provided by Interstate 40 (I-40) via National Trails Highway (also known as Old US 66) from the north, and Interstate 10 (I-10) via State Route (SR) 62 or SR 177 (also known as Desert Center Rice Road) from the south. U.S. Route 95 (US 95) is a north-south interstate highway that provides a link between I-10 and I-40 east of the proposed Project area. US 95 connects to I-40 to the north at Parker Junction and to I-10 to the south at Vidal Junction, which is approximately 20 miles east of the southern extent of the proposed Project, where the ARZC intersects the CRA. **Figure 4.15-1** shows regional and local roadways in the vicinity of the proposed Project.

Regional Roadways

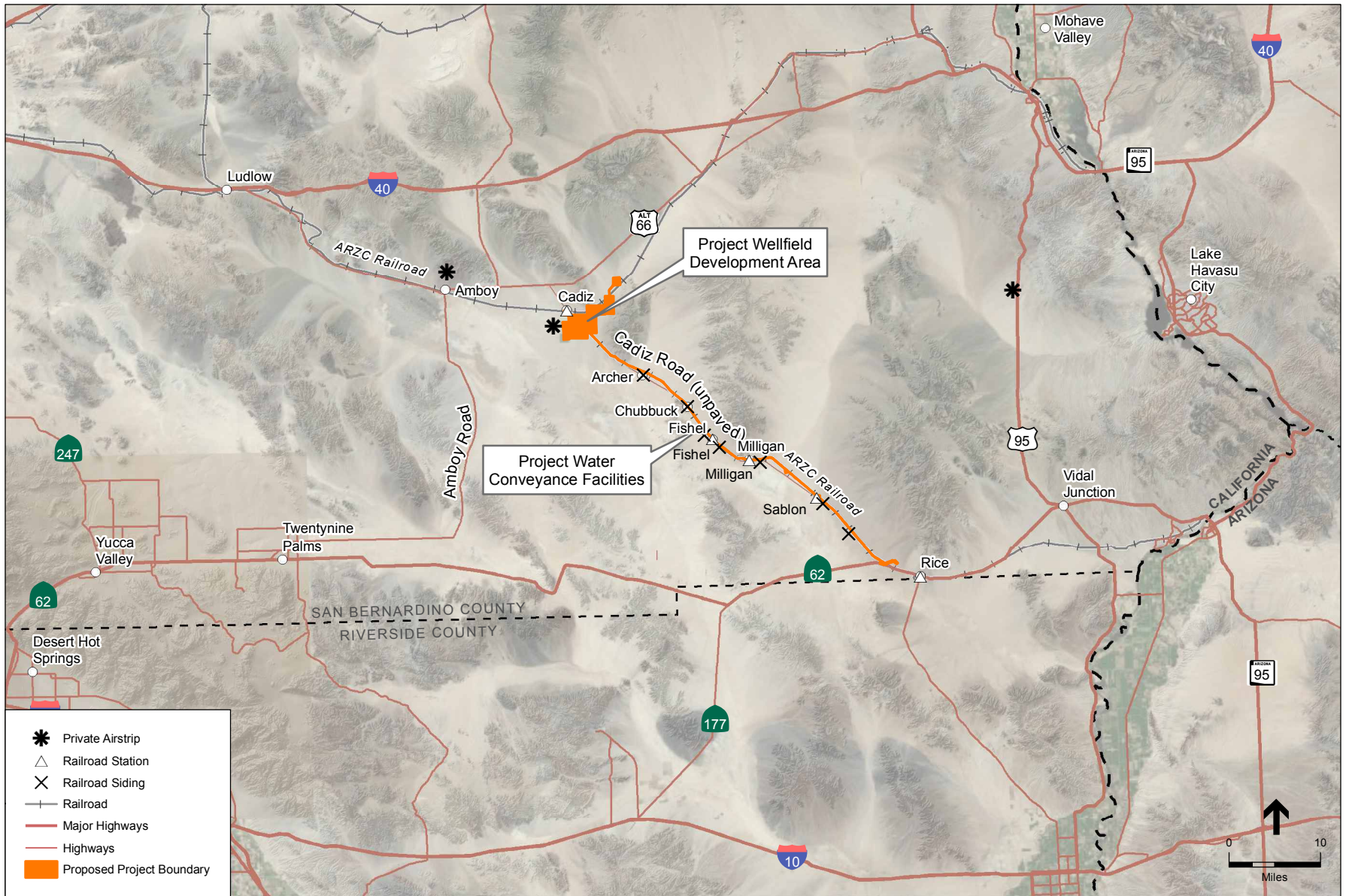
Twentynine Palms Highway (SR 62) is a four-lane State highway that originates at an intersection with I-10 in Riverside County, south of the Morongo Valley. SR 62 travels northeast through the town of Yucca Valley, the community of Joshua Tree, and the City of Twentynine Palms before reaching the intersection with Cadiz-Rice Road. It continues east, past Cadiz-Rice Road, along the southern edge of the San Bernardino County line before ending at Parker Dam Road and the Arizona State Line.

Needles Freeway (I-40) runs along an east-west alignment approximately 20 miles north of the Project site, originating at an intersection with I-15 just east of Barstow and continuing east to the Arizona State Line. I-40 is a major trucking route, providing access to Los Angeles to the west and Flagstaff, Arizona and beyond to the east.¹

National Trails Highway (US 66) originates at an interchange with I-15 in the City of Victorville, and continues north and east to its terminus at Lenwood Road in the community of Lenwood, just southwest of the City of Barstow.² National Trails Highway runs east and west through the Project area and is located approximately 4 miles north of the Project site.

¹ County of San Bernardino, *San Bernardino County 2007 General Plan Program Final Program Environmental Impact Report*, February 2007, pages IV-145, IV-169, IV-142.

² County of San Bernardino, *San Bernardino County 2007 General Plan Program Final Program Environmental Impact Report*, February 2007, pages IV-145, IV-169, IV-142.



SOURCE: Bing Maps, 2010; ESRI, 2010; Cadiz Inc., 2010; and ESA, 2010

Cadiz Valley Water Conservation, Recovery, and Storage Project

Figure 4-15.1

Regional Transportation Network

San Bernardino Freeway (I-10) travels east-west across the southern edge of the Valley Region in San Bernardino County. This freeway provides access to Los Angeles to the west and Arizona and beyond to the east.⁵ I-10 is approximately 35 miles south of the Project site.

U.S. Route 95 (US 95) is a rural highway that travels along the eastern border of San Bernardino County. This roadway provides a connection between Las Vegas, Nevada, I-15, I-40, and I-10.³ US 95 runs north-south approximately 20 miles to the east of the Project area.

Local Setting

Roadways

Several arterials in the Project area serve regional as well as local needs, although most of the local roadways are unimproved and experience minimal traffic volumes. Amboy Road is a two-lane paved road that connects the National Trails Highway at Amboy (approximately 15 miles west of Cadiz) to Twentynine Palms. Kelbaker Road is a two-lane north-south paved road connecting National Trails Highway to I-40. Unimproved Cadiz-Rice Road runs northwesterly from SR 62 at Freda to National Trails Highway just north of Cadiz, generally following the alignment of the ARZC rail line. Cadiz-Rice Road currently carries approximately 46 trips per day.⁴

Railroads

Current railroad transportation in the area consists of the BNSF and ARZC rail lines. The BNSF rail line closely follows the east-west alignment of National Trails Highway. In the Project vicinity, these rail lines pass through Ludlow, Amboy, Cadiz, and Needles. East of Needles, the BNSF rail line continues into Arizona. The BNSF rail line is a main line facility used for long distance and transcontinental shipments. Activity on this rail line is frequent and cannot be disrupted.

The BNSF rail line connects with the ARZC rail line at Cadiz. The ARZC rail line extends southeast from Cadiz to Phoenix, Arizona. In the Project area, the ARZC railroad track runs northwest/southeast, closely following the alignment of Cadiz-Rice Road. ARZC stations and/or sidings, including Cadiz, Milligan, Freda, and Rice are shown in Figure 4.15-1. The ARZC schedules one train into the Cadiz area daily, Sunday through Friday, to interchange cars with the BNSF system. Extra trains move in and out of the Cadiz area on an as-needed basis, usually two to four times per week. Trains may be using the ARZC rail line at any time of day, depending on that day's scheduling.

Amtrak has two routes that travel through San Bernardino County. The route closest to the Project area is the Southwest Chief near I-40 to the north. The Southwest Chief operates daily

³ County of San Bernardino, *San Bernardino County 2006 General Plan Program Draft Program Environmental Impact Report*, September 2006, page IV-145.

⁴ Eloy Ruvalcaba, San Bernardino Department of Public Works, *Phone conversation with ESA* October 20, 2010.

between Los Angeles and Chicago and stops in four cities in San Bernardino County – San Bernardino, Victorville, Barstow, and Needles.⁵

Airports

There is a private airstrip located on Cadiz Property, just north of the existing agricultural operations. Regionally, there is a private airstrip located in the community of Amboy, approximately 12 miles west and north of the Project site and at the Iron Mountain Pumping Plant approximately 40 miles south on the CRA. The nearest general aviation airport is located in Twentynine Palms.⁶

Existing Traffic Conditions

Traffic Volumes and Levels of Service

Traffic counts were conducted by San Bernardino County in order to examine roadway conditions related to congestion and delay. Roadway conditions were analyzed based on Average Daily Trips (ADT), Level of Service (LOS)⁷, and Volume to Capacity (V/C) data. The ADT and LOS data were provided by the San Bernardino County Public Works Department (see **Table 4.15-1**). In accordance with the San Bernardino County Congestion Management Plan (CMP), LOS standards require that all CMP segments within the Desert Area (as described in the CMP) operate at LOS C or better.⁸

Table 4.15-2 depicts the ADT and LOS for the major roadways in the Project area, based on data collected between 2006 and 2010 for the roadway segments located nearest to the Project site.

4.15.2 Regulatory Framework

The development and regulation of the transportation network in the Project vicinity primarily involves state and local jurisdictions. Applicable State and local laws and regulations related to traffic and transportation issues are discussed below.

State

California Department of Transportation

There are currently over 10,000 miles of roadways located within San Bernardino County. These facilities fall under the jurisdiction of one of three levels of governmental agencies responsible for construction and maintenance of roadway infrastructure. Caltrans manages interregional

⁵ County of San Bernardino, *San Bernardino County 2006 General Plan Program Draft Program Environmental Impact Report*, September 2006, pages V-12, VI-I.

⁶ Metropolitan Water District of Southern California and Bureau of Land Management, *Cadiz Groundwater Storage and Dry-Year Supply Program Final Environmental Report and Final Environmental Impact Statement, Volume I*, September 2001, page 5-119.

⁷ LOS is a quality measure describing operational conditions within a traffic stream, generally in terms of service measures such as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

⁸ County of San Bernardino, *San Bernardino County 2006 General Plan Program Draft Program Environmental Impact Report*, September 2006, pages V-12, VI-I.

**TABLE 4.15-1
 LEVEL OF SERVICE DEFINITIONS**

LOS Rating	Description	Unsignalized Intersections Delay (sec)	Volume to Capacity Ratio
A	Free Flow. No approach phase is fully used by traffic and no vehicle waits longer than one red indication. Insignificant delays.	0-10	0.00-0.599
B	Stable Operation. An occasional approach phase is fully used. Many drivers begin to feel somewhat restricted within platoons of vehicles. Minimal delays.	> 10-15	0.60-0.699
C	Stable Operation. Major approach phase may become fully used. Most drivers feel somewhat restricted. Acceptable delays.	> 15-25	0.70-0.799
D	Approaching Unstable. Drivers may have to wait through more than one red signal cycle. Queues develop but dissipate rapidly, without excessive delays.	> 25-35	0.80-0.899
E	Unstable Operation. Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. Significant delays.	> 35-50	0.90-0.999
F	Forced Flow. Represents jammed conditions. Intersection operates below capacity with several delays; may block upstream intersections.	> 50	≥ 1.000

SOURCE: Transportation Research Board, *Highway Capacity Manual*, 2000, page 16.

**TABLE 4.15-2
 LOCAL ROADWAY SERVICE LEVELS**

Roadway	ADT	LOS
SR 62	1600	A
I-40	11,300	A
National Trails Highway	540	A
I-10	23,000	A
US 95	2,500	B
Amboy Road	826	A
Kelbaker Road	520	A
Cadiz-Rice Road	46	A

SOURCE: Eloy Ruvalcaba, San Bernardino Department of Public Works, *Phone conversation with ESA*, October 20, 2010.

transportation facilities, including management and construction of the California highway system, and is responsible for maintaining approximately 1,240 miles of roadway throughout the County. This total includes six federal (Interstate) freeways, two federal (U.S.) highways, and 18 State highways. In addition, Caltrans is responsible for permitting and regulation of the use of State roadways. SR 62 is the only roadway that falls under Caltrans' jurisdiction in the Project area.

Caltrans' construction practices require temporary traffic control planning "during any time the normal function of a roadway is suspended."⁹ In addition, Caltrans requires that permits be obtained for transportation of oversized loads, transportation of certain materials, and construction-related traffic disturbances. Caltrans regulations would apply to the transport of construction materials via the California Highway System, in this case SR 62.

California Public Utilities Commission

The CPUC has safety jurisdiction over freight railroads, inter-city passenger railroads (both high speed and conventional speed), commuter railroads, rail transit systems (both light and heavy), and all highway rail crossings. The CPUC has designated its Consumer Protection and Safety Division (CPSD) as the division responsible for implementing the CPUC's rail safety programs operating near the Project site.

Regional

Southern California Association of Governments

On May 8, 2008, the SCAG adopted its 2008 RTP. The 2008 RTP presents the transportation vision for the SCAG region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The RTP focuses on maintaining and improving the transportation system through a balanced approach and considers system preservation, operation, and management, improved coordination between land-use decisions and transportation investments, and strategic expansion of the system to accommodate future growth.

County

San Bernardino County Department of Public Works

The San Bernardino County Department of Public Works is responsible for maintaining approximately 2,830 miles of both paved and unpaved roadways primarily located in unincorporated areas of the County. These facilities range in classification from major arterial highways to local streets. The Cadiz-Rice road that follows the ARCZ railroad is a County road.¹⁰

San Bernardino Associated Governments

The SANBAG serves in the capacity of County Transportation Committee and is responsible for allocating and programming state and federal funds for regional transportation projects throughout the County. SANBAG also serves as the County Transportation Authority and is responsible for administering the CMP. SANBAG also serves as the Service Authority for Freeway Emergencies.

⁹ Federal Highway Administration, *Manual on Uniform Traffic Control Devices for Streets and Highways*, November 2003.

¹⁰ County of San Bernardino, *San Bernardino County 2006 General Plan Program Draft Program Environmental Impact Report*, September 2006, pages V-12, VI-1.

Congestion Management Program (CMP)

The CMP in San Bernardino County was created in June 1990 as a provision of Proposition 111. Under this proposition, urbanized areas with populations of more than 50,000 would be required to undertake a congestion management program that was adopted by a designated Congestion Management Agency (CMA). As stated earlier, SANBAG was designated as the CMP by the County Board of Supervisors. The closest applicable city with the population nearing 50,000 is the City of Indio.¹¹

4.15.3 Impact and Mitigation Analysis

Significance Criteria

Based on the *CEQA Guidelines*, Appendix G, a project may be deemed to have a significant effect on the environment with respect to agricultural and forest resources if it would:

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

Methodology

Increased traffic volumes estimated for project construction and operation were compared with existing roadway conditions and State and County thresholds of significance.

Groundwater Conservation and Recovery Component

Consistency with Regulations for Circulation System Performance

Significance Threshold

Would the proposed Project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all

¹¹ City of Indio, *Pop-Facts: Demographic Quick Facts 2011 Report*, May 2011, page 1.

modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Impact Analysis

Roadways

Applicable transportation plans and policies include the San Bernardino County Congestion Management Program, SCAG's RTP, and the Circulation Element of the San Bernardino County General Plan. The San Bernardino County General Plan's alternative transportation-related goals and policies pertain to long-term land use and transportation planning. The Project would not result in significant increases of traffic once construction is completed since the Project would not require a substantial number of on-site workers and only minimal maintenance trips on local roadways including the Cadiz-Rice road. Therefore, the Project would not conflict with the San Bernardino County CMP, the Circulation Element of the San Bernardino County General Plan, or SCAG's Regional Transportation Plan.

The Project would increase traffic on local roadways during construction, though the local roadways currently have very little traffic as the greater Project area is sparsely populated. Construction of the Groundwater Conservation and Recovery Component of the Project is expected to last up to 2 years. The primary impacts from the movement of construction trucks would include short-term and intermittent impacts on roadway capacities due to slower moving vehicles. Traffic-generating construction activities would consist of the arrival and departure of construction workers, trucks hauling equipment and materials to the construction site, the hauling of excavated soils, and importing of new fill. Trucks leaving roadways onto construction sites would slow any traffic and could result in hazards to fast moving traffic on the sparsely used roads. If lane closures or flagmen are required to manage traffic during delivery of construction equipment, an encroachment permit from Caltrans would be necessary.

Construction traffic would exit the feeder highways (SR-62 or US-66) and follow existing paved and unpaved access roads to the construction sites. Some new access roads may need to be constructed or improved to provide access to heavy machinery. These roads would be entirely within Cadiz Property, Metropolitan property, or the ARZC railroad easement. No new at-grade railroad crossings would be constructed. The Cadiz-Rice road and existing railroad crossings would be utilized for site access.

During any given work shift, approximately 240 workers and 25 pieces of heavy equipment would be required for construction (see Table 3-3). The total number of workers and pieces of heavy equipment operating at one time would vary depending on the construction schedule developed by the construction contractors. Most workers would stay at the worker housing areas provided on Cadiz Property during the work week and commute out of the area on the weekends. The number of trips per day during the week including worker commute and truck deliveries would not be expected to exceed 100 round trips per day (i.e., 100 coming and 100 going). This is a conservative estimate of a busy day; actual daily auto trips would likely be considerably fewer. The addition of 100 daily round trips on SR-62 or US-66 would not significantly increase average daily traffic counts on those highways. Furthermore, although construction would increase traffic

on Cadiz-Rice road considerably, the level of service is currently so low that delays would not be anticipated. The road would remain passable to non-Project traffic at all times.

Some equipment and crew/employees needed for construction would originate from Desert Center, Morongo Valley, and Twentynine Palms, but the majority of the large equipment would be delivered from the San Bernardino area, Barstow, or Needles. Trucks transporting this equipment and construction employees would be expected to use SR 62 and either Cadiz-Rice Road or the loop around Amboy Road. Trucks transporting this equipment and construction crews would be expected to use Cadiz-Rice Road via I-40 and National Trails Highway.

In summary, the Project would not increase average daily trips on local highways considerably or cause delays on local county roads such as the Cadiz-Rice road. Construction related traffic would slow to exit SR-62 near the Cadiz-Rice road exit and at the Amboy exit on US-66 and may briefly affect through-traffic speeds. Traffic control measures, including turn-off lanes may be necessary to avoid impacts to high speed traffic. Implementation of Mitigation Measures **TR-1 through TR-4** would ensure that construction-related traffic impacts would be less than significant. With implementation of mitigation, construction would not conflict with the San Bernardino County CMP, the Circulation Element of the San Bernardino County General Plan, or SCAG's Regional Transportation Plan.

Railroads

Construction materials and equipment, particularly oversized loads (e.g., pipe segments) may be delivered to the construction site via the BNSF Railroad and dropped off at the intersection with the ARZC rail line. Equipment and materials would then be delivered to construction sites using either the existing ARZC rail system or by truck. Coordination with the ARZC and BNSF Railroad would be required. Currently, the BNSF rail line is used frequently during the day. The ARZC rail line is used a few times per day. Shipments on the BNSF and the ARZC rail lines would not substantially increase the overall number of trains running on the BNSF or ARZC rail lines, but may add a few trains per day during peak delivery periods.

Part of the wellfield manifold system would cross under the BNSF rail lines, and the water conveyance pipeline would cross under the ARZC rail line multiple times. Construction at rail line crossings would be either by jack and bore or conventional tunnel with ribs and lagging or lineal plate. All construction operations at rail line crossings would be coordinated with the affected railroad companies to ensure that normal operations would not be affected.

Mitigation Measures

TR-1: A Traffic Control Plan shall be implemented that includes the following elements:

- Identify hours of construction and hours for deliveries and include a discussion of haul routes;
- Identify all access restrictions, parking restrictions, and signage requirements on major roads (e.g., speed limit);
- Identify signage and flag men necessary at turn-off lanes on SR-62 and US-66 to avoid traffic hazards on fast moving roads;

- Include a plan to coordinate all construction activities with emergency service providers in the area at least one month in advance. Emergency service providers shall be notified of the timing, location, and duration of construction activities. All roads shall remain passable to emergency service vehicles at all times; and
- Arrange for a telephone resource to address public questions and complaints during Project construction.

TR-2: The construction contractor shall submit construction plans for construction within the railroad easement to the railroad owner and operator for their review and approval. Any plans to deliver materials on the rail lines shall be reviewed and approved by the railroad owner and operator. The construction contractor shall obtain approval from the railroad operator for material delivery and staging activities within the railroad right-of-way.

TR-3: During construction, all at-grade railroad crossings shall be clearly flagged and barricaded to ensure that all vehicular traffic comes to a full stop prior to crossing railroad tracks.

TR-4: The construction contractor shall implement mandatory railroad safety training and implement railroad safety measures requested by the railroad operator.

Significance Conclusion

Less than significant with mitigation.

Congestion Management Program / LOS Standard

Significance Threshold

Would the proposed Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Impact Analysis

LOS standards for roadways that are part of the San Bernardino County CMP network are intended to regulate long-term traffic increases resulting from the operation of new development. The CMP's LOS standard requires that all CMP segments operate at LOS C or better. Local roadways in the Project vicinity all have LOS A or B ratings. Project operations, which would result in a negligible increase in maintenance trips to the Project site per day, would not affect LOS standards on roads in the Project vicinity. Construction activities could increase daily trips by 100 round trips per day. This amount of trips would not be sufficient to reduce LOS on any local roadway below LOS C.

The proposed Project would not introduce facilities that would conflict with an applicable congestion management program or cause a significant increase in traffic that would negatively impact the surrounding roadway network. Implementation of the traffic control/management plan and other measures described above in Mitigation Measures **TR-1 through TR-4** would ensure that the Project would have a less than significant effect on congestion.

Mitigation Measures

Implement Mitigation Measures **TR-1 through TR-4.**

Significance Conclusion

Less than significant with mitigation.

Air Traffic

Significance Threshold

Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Impact Analysis

During construction of the Groundwater Conservation and Recovery Component there may be a slight increase in air traffic at the Cadiz airstrip due to travel by Project staff and contractors. Currently the airstrip is used a few times per month. The Amboy airstrip, which is located approximately 10 miles northwest of the site, would not be affected since the Cadiz airstrip could accommodate all air transportation needs of the Project. The increase is estimated to be less than five flights per week (i.e., four arriving and four leaving), which would not change established air traffic patterns. Once the Project is constructed, ongoing use of the Cadiz airstrip would be similar to existing conditions. This slight, temporary increase in air traffic would not result in substantial safety risks and impacts would be considered less than significant.

Furthermore, the Project would not change air traffic patterns because there are no structures proposed to be constructed within the Project site that would be tall enough to encroach into or physically affect existing air traffic patterns

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

Traffic Hazards

Significance Threshold

Would the proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Analysis

The Project would not construct or modify roadways or alter the existing regional circulation system. Therefore, it would not introduce hazardous design features into the existing environment. Currently, the Cadiz Property accommodates agricultural vehicles. During certain

times of year, traffic on the site already increases substantially as a result of an increase in the number of workers arriving to harvest or plant crops. Vehicles using highways and roadways in the Project vicinity to transport workers, equipment, and materials during construction would have slower movements and larger turning radii compared to personal vehicles. Installation of pipelines within the ARZC ROW would require installation of the pipeline within the existing railroad easement and is not anticipated to cause road closures. Implementation of the traffic control/management plan and other measures described above in Mitigation Measures **TR-1 through TR-4** would ensure that the Project would have a less than significant effect.

Mitigation Measures

Implement Mitigation Measures **TR-1 through TR-4**.

Significance Conclusion

Less than significant with mitigation.

Emergency Access

Significance Threshold

Would the proposed Project result in inadequate emergency access?

Impact Analysis

The Project would not impede traffic in the Project area and would not create obstacles to emergency service providers since no road or lane closures would be necessary. The nearest fire station is the Wonder Valley fire station, located approximately 33 miles west of the Project site. The average fire response time to the Project site is 35 minutes to one hour depending on where the emergency is located on the Cadiz-Rice road. Police protection services are provided by SBCSD's Morongo Basin Station, located 78 miles west of the Project site. The average police response time is one hour. Mitigation Measure **TR-1** requires coordination with emergency service providers at least one month prior to construction within roadways that might affect emergency response times. Adherence to this mitigation measure would reduce any potential impacts regarding emergency services to less than significant levels.

Mitigation Measures

Implement Mitigation Measure **TR-1**.

Significance Conclusion

Less than Significant with mitigation.

Public Transit, Bicycle, or Pedestrian Facilities

Significance Threshold

Would the proposed Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact Analysis

There are no bus stops, sidewalks, or bike routes located near the Project area. The Project area is located in a remote desert area. The closest community is Chambless approximately five miles north and Amboy approximately 15 miles northwest of the proposed wellfield. Therefore, no impacts to these types of facilities would occur.

Mitigation Measures

None required.

Significance Conclusion

No impact.

Imported Water Storage Component

This component is analyzed on a programmatic basis.

Consistency with Regulations for Circulation System Performance

Significance Threshold

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

Impact Analysis

Construction of the spreading basins, pipeline extension, and expanded wellfield for the Imported Water Storage Component would take approximately 12 months to complete. Similar to the Groundwater Conservation and Recovery Component, the primary impacts from the movement of construction trucks would include short-term and intermittent impacts on roadway capacities due to slower moving vehicles and the larger turning radii of construction trucks, compared to passenger vehicles. Roads providing access to construction sites would be constructed within Cadiz Property. An access road to the proposed spreading basins would need to be constructed that would include crossing the BNSF railroad tracks. No new crossings would be constructed. The locations of the spreading basins would dictate the location of the new access roads. Implementation of Mitigation Measures **TR-1 through TR-4** would reduce impacts of construction worker trips and material deliveries to less than significant levels.

Construction-related traffic during activities at the existing natural gas pipeline would be limited and short-term, but could create intermittent impacts on roadway capacities as a result of larger slower moving vehicles. Implementation of Mitigation Measure **TR-1** would ensure impacts remain less than significant.

Mitigation Measures

Implement Mitigation Measures **TR-1 through TR-4**.

Significance Conclusion

Less than significant with mitigation.

Congestion Management Program / LOS Standard

Significance Threshold

Would the proposed Project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Impact Analysis

The Imported Water Storage Component would not conflict with an applicable congestion management program or cause a significant increase in traffic that would negatively impact the surrounding roadway network. Construction of the expanded wellfield, recharge basins, and existing natural gas pipeline appurtenances would temporarily require workers to commute to the site, but the impact to level of service in the local roadways would be similar to or less than the Groundwater Conservation and Recovery Component. Implementation of the traffic control/management plan and other measures described above in Mitigation Measures **TR-1 through TR-4** would ensure that the Project would have a less than significant effect on congestion.

Mitigation Measures

Implement Mitigation Measures **TR-1 through TR-4**.

Significance Conclusion

Less than significant with mitigation.

Air Traffic

Significance Threshold

Would the proposed Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Impact Analysis

During construction of the Imported Water Storage Component there may be a slight increase in air traffic at the Cadiz airstrip due to travel by Cadiz staff and contractors. This increase is estimated to be less than two flights per week, which would not change established air traffic patterns. The Amboy airstrip, which is located approximately 10 miles away, would not be affected. This slight, temporary increase in air traffic would not result in substantial safety risks. Also no buildings or structures are anticipated to be constructed which would interfere with air traffic.

Mitigation Measures

None required.

Significance Conclusion

Less than significant.

Traffic Hazards

Significance Threshold

Would the proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact Analysis

The Imported Water Storage Component would not introduce hazardous design features into the existing environment. Regarding the hazard created by construction activities occurring in proximity to area roadways and rail lines, implementation of the traffic control/management plan and other measures described above in Mitigation Measures **TR-1 through TR-4** would ensure that the Project would have a less than significant effect.

Mitigation Measures

Implement Mitigation Measures **TR-1 through TR-4**.

Significance Conclusion

Less than significant with mitigation.

Emergency Access

Significance Threshold

Would the proposed Project result in inadequate emergency access?

Impact Analysis

The Imported Water Storage Component would not impede traffic in the Project area and would not create obstacles to emergency service providers since no road or lane closures would be necessary. Implementation of Mitigation Measure **TR-1**, which requires coordination with

emergency service providers at least one month prior to construction, would reduce any potential impacts regarding emergency services to less than significant levels.

Mitigation Measures

Implement Mitigation Measure **TR-1**.

Significance Conclusion

Less than significant with mitigation.

Public Transit, Bicycle, or Pedestrian Facilities

Significance Threshold

Would the proposed Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Impact Analysis

There are no bus stops, sidewalks, or bike routes located near the Project area. The Project area is located in a remote desert area. The closest community is Chambliss approximately 5 miles north. Amboy is approximately 15 miles northwest of the proposed wellfield. Therefore, no impacts to these types of facilities would occur.

Mitigation Measures

None required.

Significance Conclusion

No impact.

Mitigation Measure Summary Table

Table 4.15-3 on the following page presents the impacts and mitigation summary for Transportation and Traffic.

**TABLE 4.15-3
 IMPACTS AND MITIGATION SUMMARY**

Proposed Project Impact	Mitigation Measure	Significance Conclusion
Groundwater Conservation and Recovery Component		
Consistency with Regulations for Circulation System Performance	TR-1 through TR-4	Less than significant with mitigation
Congestion Management Program/ LOS Standard	TR-1 through TR-4	Less than significant with mitigation
Air Traffic	None required	Less than significant
Traffic Hazards	TR-1 through TR-4	Less than significant with mitigation
Emergency Access	TR-1	Less than significant with mitigation
Public Transit, Bicycle, or Pedestrian Facilities	None required	No impact
Imported Water Storage Component		
Consistency with Regulations for Circulation System Performance	TR-1 through TR-4	Less than significant with mitigation
Congestion Management Program/ LOS Standard	TR-1 through TR-4	Less than significant with mitigation
Air Traffic	None required	Less than significant
Traffic Hazards	TR-1 through TR-4	Less than significant with mitigation
Emergency Access	TR-1	Less than significant with mitigation
Public Transit, Bicycle, or Pedestrian Facilities	None required	No impact