

3.11 Transportation and Traffic

This section discusses the setting, regulatory framework and impacts and mitigation measures regarding traffic and transportation along the proposed project area. Temporary impacts related to project construction have been identified and analyzed throughout the section.

3.11.1 Setting

The proposed project is located in the Antelope Valley, including the cities of Lancaster and Palmdale, the Town of Rosamond, and unincorporated communities in Los Angeles and Kern Counties. The transportation system in the Antelope Valley is composed of an interconnected network of roadways, local transit systems, pedestrian and bicycle facilities, and railroads. State Route 14 transects the Antelope Valley from north to south, connecting all cities and communities within the project area. Several regional and major arterial boulevards, as well as an expressway traverse the Antelope Valley. The Antelope Valley Metrolink also runs through the Antelope Valley in a north/south direction.

Roadway Network

Regional access to the project area is provided by State Route (SR) 14, which connects the Antelope Valley to other regions of southern California via Interstate 5 and SR 395. Traffic volumes for SR 14 are highest around the southern portion of the project area between the Avenue S and Avenue L interchange and are lowest at the northernmost portion at Rosamond Boulevard (Caltrans, 2006). SR 14 and Sierra Highway would be used to transport construction materials, equipment, and workers to and throughout the project area. The roadway network in the project area is illustrated in Figure 2-1.

The proposed pipeline alignment runs along the following roadways:

Sierra Highway is a two-lane highway that runs parallel to SR 14 through the Antelope Valley. The Antelope Valley Metrolink Line runs directly parallel to Sierra Highway along its eastern side. Sierra Highway is considered a regional arterial between Avenue M and Avenue P and a major arterial south of Avenue P. Proposed pipeline construction would occur along Sierra Highway between Avenue R and Avenue M, and between Avenue D and Gaskell Road. An existing Palmdale class I bikeway, an adopted Palmdale Master Plan bikeway, and an existing Lancaster class I bikeway route combined run the length of the proposed pipeline.

Division Street is a two-lane north-south roadway. The proposed pipeline would run from Avenue K and connect to an existing pipeline. A new distribution pump station would also be constructed along Division Street at a point further north along the existing pipeline and Avenue E-8. An existing Lancaster class II bikeway route runs the length of the proposed pipeline.

Gaskell Road is an east-west roadway. The proposed pipeline would run from 140th Street West to the existing RWWTP.

Avenue H is a two-lane east-west roadway. The proposed pipeline would run between 60th Street West and 30th Street West.

Avenue K is a three-lane east-west roadway. The proposed pipeline would be constructed between 40th Street West and 20th Street East.

Columbia Way/Avenue M is considered a regional arterial and is a two-lane east-west roadway. The proposed pipeline would run along Avenue M, between Sierra Highway and 50th Street East. An adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

Rancho Vista Boulevard/Avenue P is a two-lane highway and is considered a major arterial. The proposed pipeline would be constructed from 25th Street West along Avenue P and terminating at the existing PWRP. A Los Angeles County bikeway and an adopted Palmdale Master Plan bikeway route combined run the length of the proposed pipeline.

Avenue P-8 is considered a major arterial and runs east-west.

Avenue R is a two-lane east-west roadway. The proposed pipeline would be constructed between Sierra Highway and 40th Street East. An adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

Avenue S is an east-west roadway. The proposed pipeline would be constructed along Avenue S, east of 40th Street East. Either a Los Angeles County bikeway or an adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

25th Street West/Highland Avenue is a two-lane north-south roadway. Between Avenue P and Summerwind Drive, this street is considered a Secondary arterial and a major arterial south of that until Elizabeth Lake Road. The proposed pipeline would be constructed between Avenue P and terminate at proposed Reservoir 2 along Elizabeth Lake Road. An adopted Palmdale Master Plan bikeway route runs through the southern half of the proposed pipeline.

Elizabeth Lake Road is a two-lane east-west roadway and is considered a major arterial. The proposed pipeline would be constructed along Elizabeth Lake Road, west of proposed Reservoir 2. An adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

30th Street West is a two-lane north-south roadway. The proposed pipeline would run from Avenue H and connect to an existing pipeline at Avenue F.

40th Street West is a north-south roadway and is considered a major arterial. The proposed pipeline would run west from Avenue K and end at proposed Reservoir 1 located at Avenue M.

Mojave Tropico Road is a north-south roadway. The proposed pipeline would run from proposed Reservoir 4 east to Mojave Tropico Road and south along Mojave Tropico Road to West Rosamond Boulevard. South of West Rosamond Boulevard, Mojave Tropico Road becomes 55th Street West. The proposed pipeline continues south along 55th Street West until Gaskell Road.

30th Street East is a north-south roadway. The proposed pipeline would run between Avenue L and Columbia Way/Avenue M.

40th Street East is a north-south roadway and is considered a major arterial. The proposed pipeline would connect with an existing pipeline at Avenue P-8 and terminate at proposed Reservoir 3. Proposed booster pump stations would be constructed on 40th Street East at the intersection of Avenue T and along the existing pipeline past Avenue P-8. An adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

50th Street East is considered an expressway and runs in a north-south direction. The proposed pipeline would be constructed along 50th Street East between Avenue P-8 and Columbia Way/ Avenue M. An adopted Palmdale Master Plan bikeway route runs the length of the proposed pipeline.

State Route 14 is a north-south state highway that passes through Palmdale and Lancaster and runs concurrently with State Route 138 from their junction in Palmdale to north of Lancaster. The pipeline would cross under State Route 14 at Gaskell Road, Avenue K, and Avenue P.

Public Transportation

According to the Antelope Valley Transit Authority (AVTA) several public transportation routes follow the proposed pipeline construction areas. Routes 1, 2, 3, 4, 7, 9, 12, and the Lake L.A. Express would be temporarily affected by construction of the proposed pipeline.

Bicycle and Pedestrian Transportation

Existing bikeways and newly-adopted Palmdale Master Plan bikeway routes are located throughout the Antelope Valley and along much of the proposed pipeline route, as described above.

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. The project area currently contains pedestrian facilities along most roadways within the Antelope Valley. In addition, the proposed project alignment would be constructed in roadways adjacent to schools within the Antelope Valley Union High School District, including Pete Knight High School near Avenue S, Palmdale High School near Avenue R, Highland High School near 25th Street West, and Antelope Valley High School near Division Street.

3.11.2 Regulatory Framework

State

California Department of Transportation (Caltrans)

Caltrans manages interregional transportation, including management and construction of the California highway system. In addition, Caltrans is responsible for permitting and regulation of the use of state roadways. The project area includes two roadways that fall under Caltrans' jurisdiction.

Caltrans' construction practices require temporary traffic control planning "during any time the normal function of a roadway is suspended" (FHWA, 2003). In addition, Caltrans requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbance. Caltrans regulations would apply to construction of the pipeline within and immediately adjacent to roadways, as well as the transportation of construction crews and construction equipment throughout the project area (Caltrans, 2004).

3.11.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR and consistent with Appendix G of the *CEQA Guidelines*, the proposed project would have a significant impact on transportation and traffic if it would:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system;
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads and 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 or incompatible uses;
- Result in inadequate emergency access;
- Result in inadequate parking capacity; or
- Conflict with adopted policies, plans, or programs supporting alternative transportation.

Impacts Discussion

Impacts to transportation and traffic resulting from construction and operation of the proposed project are discussed below. There would be no impacts to transportation or traffic due to the use of recycled water for any of the proposed end uses. Therefore, the discussion of impacts presented below focuses on construction and operation of physical project facilities and does not include recycled water end uses.

The construction and operation of the proposed project would not affect air traffic patterns, levels, or locations. For additional discussion of project impacts associated with airport land use compatibility plans, please refer to **Chapter 3.8, Land Use and Agriculture**. Construction and operation of the proposed project also would not alter current roadway designs. Therefore, no impact would result and these effects are not discussed further.

Project-level Impacts

Recycled Water Pipelines

Impact 3.11-1: Construction of the proposed pipelines could adversely affect traffic and transportation conditions in the project area. Less than Significant with Mitigation.

The proposed project would not introduce any new facilities to the project area that would generate long-term changes in traffic. Thus potential traffic and transportation effects would be confined to construction of the proposed facilities. Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any project roadways. The primary impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles.

Traffic-generating construction activities related to the construction of the pipelines would consist of the daily 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. Construction equipment used for the proposed project would include concrete trucks, back-hoes, paving equipment, and periodic delivery of pipes. Construction would include the transportation of oversize loads, such as trucks carrying pipes.

The proposed alignment would follow within and/or across several roadway rights-of-way. The placement of the pipeline in the roadways would temporarily disrupt existing transportation and circulation patterns. Impacts would include direct disruption of traffic flows and street operations. Construction in the paved right-of-way would result in a reduction in travel lanes. Construction work within and/or across high traffic volume regional arterials would affect traffic flow and operations at these locations.

Prior to pipeline construction, staging areas would be prepared for materials delivery, storage, and preparation prior to construction. Staging areas would be established in areas near construction zones that are easily accessible, and would likely be located every five miles along the pipeline corridor. The construction of the staging area would increase construction worker and truck trips along regional and local roads near the staging areas.

Mitigation Measures

Mitigation Measure 3.11-1a: The implementing agency's construction contractor shall prepare and implement a Traffic Control/Traffic Management Plan subject to approval by the appropriate local jurisdiction prior to construction. The plan shall:

- Identify hours of construction and hours for deliveries;
- Include a discussion of haul routes, limits on the length of open trench, work area delineation, traffic control and flagging;
- Identify all access and parking restrictions, pavement markings and signage requirements (e.g., speed limit, temporary loading zones);
- Maintain access to residence and business driveways at all times to the extent feasible; Minimize access disruptions to businesses and residences;
- Layout a plan for notifications and a process for communication with affected residents and businesses prior to the start of construction. Advance public notification shall include posting of notices and appropriate signage of construction activities. The written notification shall include the construction schedule, the exact location and duration of activities within each street (i.e., which lanes and access

- point/driveways would be blocked on which days and for how long), and a toll-free telephone number for receiving questions or complaints;
- 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;
 - Include a plan to coordinate all construction activities with the Antelope Valley Union High School District and Southern Kern Unified School District at least two months in advance. The Antelope Valley Union High School District and Southern Kern Unified School District shall be notified of the timing, location, and duration of construction activities. The implementing agencies shall require its contractor to maintain vehicle, pedestrian, and school bus service during construction through inclusion of such provisions in the construction contract. The assignment of temporary crossing guards at designated intersections may be needed to enhance pedestrian safety during project construction. Also the following provisions shall be met:
 - Pipeline construction near schools shall occur when school is not in session (i.e., summer or holiday breaks). If this is not feasible, a minimum of two months prior to project construction, the implementing agencies shall coordinate with the Antelope Valley Union High School District and Southern Kern Unified School District to identify peak circulation periods at schools along the alignment(s) (i.e., the arrival and departure of students), and require their contractor to avoid construction and lane closures during those periods;
 - A minimum of two months prior to project construction, the implementing agencies shall coordinate with the Antelope Valley Union High School District and Southern Kern Unified School District to identify alternatives to their Safe Routes to School program, alternatives for the school busing routes and stop locations, and other circulation provisions, as part of the Traffic Control/Traffic Management Plan;
 - Include the requirement that all open trenches be covered with metal plates at the end of each workday to accommodate traffic and access; and
 - Specify the street restoration requirements pursuant to agreements with the local jurisdictions.

Mitigation Measure 3.11-1b: The implementing agencies shall identify all roadway locations where special construction techniques (e.g., horizontal boring, directional drilling or night construction) will be used to minimize impacts to traffic flow.

Mitigation Measure 3.11-1c: The implementing agencies shall develop circulation and detour plans to minimize impact to local street circulation, including bikeways. This may include the use of signing and flagging to guide vehicles and cyclists through and/or around the construction zone.

Mitigation Measure 3.11-1d: The implementing agencies shall encourage construction crews to park at staging areas to limit lane closures in the public right-of-way.

Mitigation Measure 3.11-1e: Peak travel periods shall be avoided when considering partial road closures.

Mitigation Measure 3.11-1f: The implementing agencies shall consult with the Antelope Valley Transit Authority and the East Kern Regional Transit Express that connects to Lancaster at least one month prior to construction to coordinate bus stop relocations (if necessary) and to reduce potential interruption of transit service.

Significance after Mitigation: Less than Significant.

Impact 3.11-2: Construction of the proposed pipeline would have temporary effects on alternative transportation or alternative transportation facilities. Less than Significant with Mitigation.

The proposed project would have no long-term impact on demand for alternative transportation or on alternative transportation facilities (i.e., for transit and bicyclists). However, pipeline construction could slightly disrupt these alternate forms of transportation due to the proposed pipeline construction and partial lane closures.

Implementation of Mitigation Measures 3.11-1c and 3.11-1f would require the construction contractor to establish methods for minimizing construction effects on transit service. Specific requirements that may be included in the traffic control/traffic management plan are identified under Mitigation Measures 3.11-1c and 3.11-1f. Implementation of Mitigation Measure 3.11-1c would ensure potential impacts associated with temporary disruptions to bikeways would be mitigated to a less than significant level. Implementation of Mitigation Measure 3.11-1f would ensure potential impacts associated with temporary disruptions to transit service would be mitigated to a less than significant level.

Mitigation Measures

Implementation of Mitigation Measures 3.11-1c and 3.11-1f.

Significance after Mitigation: Less than significant.

Impact 3.11-3: Parking demand would temporarily increase during construction of the proposed pipeline. Less than significant.

Construction of the proposed pipeline would create a temporary demand for parking for construction workers and construction vehicles. Temporary parking locations would be planned in advance and would be located at designated staging areas along the pipeline alignment. Impacts would be considered less than significant.

Mitigation Measures

None required.

Program-Level Impacts

Pump Stations, Storage Reservoirs and Recycled Water End Use

Impact 3.11-4: Construction and operation of the proposed pump stations, storage reservoirs, and groundwater recharge basins could adversely affect traffic and transportation conditions in the project area. Less than Significant with Mitigation.

The construction of the proposed storage reservoirs, pump stations, and groundwater recharge basins would not generate long-term changes in traffic. Thus potential traffic and transportation effects would be confined to construction of the proposed facilities. Construction-generated traffic would be temporary and therefore would not result in any long-term degradation in operating conditions or level of service on any project roadways. The primary impacts from the movement of construction trucks would include short-term and intermittent lessening of roadway capacities due to slower movements and larger turning radii of the trucks compared to passenger vehicles.

Maintenance of the storage reservoirs, pump stations, and groundwater recharge basins would require routine maintenance trips and inspections. Maintenance activities would not increase substantially and therefore would not affect traffic in the project area.

Mitigation Measures

Implementation of Mitigation Measures 3.11-1a through 3.11-1f.

Significance after Mitigation: Less than significant.
