

3.7 Transportation and Traffic

This section describes the existing traffic conditions in the action area and the applicable regulations, and also evaluates potential impacts resulting from the North Bay Water Recycling Program (NBWRP) construction and operation activities on the traffic conditions. The Impacts and Mitigation Measures section defines significance criteria used for the impact assessment and presents a discussion of potential project-related impacts. Determination of significance of impacts in this EIR/EIS apply only to CEQA, not to NEPA.

3.7.1 Setting

Regional Roadways

Regional access to the NBWRP's service areas (i.e., on Interstate and State freeways and major highways) varies from area to area, but in general, the Napa-Sonoma-Novato region connects with areas to the northeast via *Interstate 80 (I-80)*, with areas to the northwest and southwest via *U.S. Highway 101 (U.S. 101)*, with areas to the north via *State Route (SR) 12 and SR 29*, and with areas to the southeast via *SR 4 and I-580*.¹ Regional access is also provided by three state highways, *SR 37, SR 116 and SR 221*, each of which would be used to transport construction materials, equipment, and workers to and throughout action areas. The action areas are illustrated in figures in **Chapter 2, Project Description**.

LGVSD and Novato SD

SR 37 is a four-lane divided highway with a mix of at-grade intersections and freeway-like interchanges. In the Novato SD Service Area, *SR 37* connects with Atherton Avenue via ramps. At the Atherton Avenue interchange, *SR 37* has an annual average daily traffic (ADT) of about 36,000 vehicles and a peak month ADT of about 38,500 vehicles (Caltrans, 2008).²

SVCS

SR 12 is a two-lane highway that passes through the service area. *SR 12* widens to include turning lanes in both directions at its intersection with Watmaugh Road, and widens to four lanes plus turning lanes in both directions at its intersection with Leveroni Road – Napa Road. The current travel pattern within the City of Sonoma is dominated by *SR 12*, which passes through downtown Sonoma and includes portions of Broadway, West Napa Street, and the Sonoma Highway. *SR 12* has an annual ADT that ranges from about 10,000 to 13,000 vehicles (a peak month ADT ranging from about 11,000 to 13,500 vehicles (Caltrans, 2008).

¹ Although not located within the NBWRP area, *SR 4* and *I-580* are described to define the general characteristics of the Regional Roadway system.

² The peak-month daily traffic volume represents average conditions for the month of heaviest traffic flow; the Caltrans publication does not identify the specific month in which these higher traffic volumes occur.

SR 116 is a two-lane highway that traverses the western border of the service area. On Arnold Drive, SR 116 has an annual ADT of about 15,000 vehicles and a peak month ADT of about 16,000 vehicles (Caltrans, 2008).

Napa SD

SR 221 is a four-lane divided highway that connects SR 29 with Imola Avenue (SR 121) at an at-grade intersection. At the Imola Avenue intersection, SR 221 has an annual average daily traffic (ADT) of 35,500 vehicles and a peak month ADT of 37,000 vehicles (Caltrans, 2008).

The local and county roadways that border, cross, or may be used to access the project corridor are described below. Some roadways would be affected by pipeline construction, while others would be used for access throughout project construction.

Local Roadways and Public Transit

LGVSD

Local Roadways

Nave Drive is a two-lane roadway that connects U.S. 101 with Main Gate Road, State Access Road, and North Hamilton Parkway. There are bike lanes, but no on-street parking, and Golden Gate Transit buses run on this road.

Main Gate Road is a two-lane roadway with 39 feet of pavement width (some segments with raised 11-foot-wide median). Its name changes to **Palm Drive** at the bridge over railroad tracks, continuing up to Hangar Avenue. This road serves as a bike route, has no on-street parking, and accommodates Golden Gate Transit buses and the Hamilton Field shuttle.

State Access Road is a two-lane roadway with a center two-way left-turn lane. There are bike lanes, but no on-street parking, and no public transit on this road.

North Hamilton Parkway is a two-lane roadway, with a center two-way left-turn lane. There are bike lanes, but no on-street parking, and Golden Gate Transit buses run on this road.

Hangar Avenue is a two-lane roadway, with a center two-way left-turn lane. There are bike lanes, but no on-street parking, and Golden Gate Transit buses and the Hamilton Field shuttle run on this road.

Oakwood Drive (North and South) is a two-lane roadway with 22 feet of pavement width. There are no bike facilities or on-street parking (though cars are parked on the sidewalk).

Public Transit

The action area is served by the following two Golden Gate Transit bus routes (GGBHTD, 2009):

Route 49 (Local Route) runs on Main Gate Road and North Hamilton Parkway, every hour between 6:00 AM and 9:00 PM (weekdays) and 7:00 AM to 8:00 PM (weekends).

Route 58 (Commuter Route) runs on Main Gate Road and North Hamilton Parkway, with four weekday morning runs to San Francisco between 6:25 and 7:40 AM, and three weekday afternoon runs from San Francisco between 5:25 and 6:25 PM.

In addition, the Hamilton Field Association free shuttle operates on Main Gate Road, Palm Drive, and Hangar Avenue during weekday commute periods (6:00 to 9:00 AM, and 4:00 to 7:00 PM).

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths are paved trails that are separated from the roadways. Bike lanes are lanes on roadways that are designated for use by bicycles by striping, pavement legends, and signs. Bike routes are roadways that are designated for bicycle use with signs, but no separate lane width. All local roads described above have either striped bike lanes or signed bus routes.

Pedestrian facilities in the action area include sidewalks, crosswalks, and pedestrian signals at signalized intersections.

Novato SD

Local Roadways

Atherton Avenue is a two-lane roadway with an interchange with U.S. 101. The pavement width at “H” Lane is about 39 feet. There are bike lanes, but no on-street parking, and no public transit service on this road.

“H” Lane is a two-lane roadway with a pavement width that ranges from about 18 to 24 feet. It connects Atherton Avenue to Bugeia Lane. There are no bike facilities or on-street parking.

Olive Avenue is a two-lane roadway, with varying pavement widths and character. From Redwood Boulevard to Rose Court, the pavement ranges from 32 to 54 feet wide, with striped bike lanes, and areas of on-street parking and other areas with no parking. At Rose Court (to Atherton Avenue), the road narrows to 24 feet wide, with no on-street parking and the bike lane changes to a signed bike route. There is no public transit on Olive Avenue.

Redwood Boulevard is predominantly a four-lane, divided, roadway with bike lanes, varying provision for on-street parking, and Golden Gate Transit bus routes. It narrows to two lanes south of Scottsdale Pond Park, as it winds through a residential neighborhood and connects with South Novato Boulevard.

San Marin Drive is a four- to six-lane, divided, roadway. There are bike lanes, but no on-street parking, and Golden Gate Transit bus routes run on this road.

Rowland Boulevard is a four-lane, divided, roadway from east of South Novato Boulevard to Vintage Way, and two lanes (40 feet wide) west of South Novato Boulevard and south of Vintage Way. There are bike lanes, varying provision for on-street parking, and Golden Gate Transit bus routes on this road.

Vintage Way is a four-lane, divided, roadway that borders the Vintage Oaks Mall. There are bike lanes, but no on-street parking, and Golden Gate Transit bus routes run on this road.

South Novato Boulevard varies from a two-lane road with a two-way left-turn lane, to a four-lane, divided roadway. There are bike lanes, but no on-street parking, and Golden Gate Transit bus routes run on this road.

Hill Road is a two-lane road with on-street parking that passes through residential and commercial areas. There are no delineated bike lanes or Golden Gate Transit service along this road.

Arthur Street is a four-lane road that passes through residential and commercial areas. There are no delineated bike lanes, on-street parking capabilities, or Golden Gate Transit routes along this road.

Public Transit

The action area is served by the following eight Golden Gate Transit bus routes (GGBHTD, 2009).

Route 51 (Local Route) runs on Redwood Boulevard, Rowland Boulevard, and Vintage Way, every hour between 7:00 AM and 8:30 PM (weekdays only).

Route 52 (Local Route) runs on Redwood Boulevard, Rowland Boulevard, Vintage Way, and South Novato Boulevard, every hour between 7:00 AM and 7:00 PM (weekdays) and 7:35 AM to 8:45 PM (weekends).

Route 54 (Commute Route) runs on Redwood Boulevard, San Marin Drive, and South Novato Boulevard, with weekday morning runs to San Francisco between 4:40 and 7:30 AM, and weekday afternoon runs from San Francisco between 4:00 and 8:30 PM.

Route 56 (Commute Route) runs on San Marin Drive, with five weekday morning runs to San Francisco between 5:35 and 7:20 AM, and six weekday afternoon runs from San Francisco between 4:45 and 7:05 PM.

Route 58 (Commute Route) runs on Redwood Boulevard, with four weekday morning runs to San Francisco between 6:25 and 7:40 AM, and three weekday afternoon runs from San Francisco between 5:25 and 6:25 PM.

Route 70 (Basic Route) runs on Redwood Boulevard, primarily every hour between 5:15 AM and 12:30 AM (weekdays) and 5:25 AM to 12:30 AM (weekends).

Route 71 (Local Route) runs on Redwood Boulevard, every 30 to 60 minutes between 6:35 AM and 8:25 PM (weekdays), with three weekend runs to San Francisco between 7:00 AM to 10:20 AM, and five weekend runs from San Francisco between 11:25 AM and 7:30 PM.

Route 80 (Basic Route) runs on Redwood Boulevard, every hour between 4:55 AM and 1:25 AM (weekdays) and 5:00 AM to 1:25 AM (weekends).

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths are paved trails that are separated from the roadways. Bike lanes are lanes on roadways that are designated for use by bicycles by striping, pavement legends, and signs. Bike routes are roadways that are designated for bicycle use with signs, but no separate lane width. All local roads described above, except “H” Lane, have either striped bike lanes or signed bus routes.

Pedestrian facilities in the action area include sidewalks, crosswalks, and pedestrian signals at signalized intersections.

In addition, the NBWRP alignment on Olive Avenue would be constructed adjacent to the Olive Elementary School (Novato Unified School District [NUSD]). In the vicinity of the school, there are yellow school route crosswalks and the appropriate traffic control signs (i.e., speed control and school warning signs). Also, NUSD operates school buses on roadways along the project alignment.

SVCS

Local Roadways

First Street West is a two-lane roadway. First Street West fronts the town plaza and provides diagonal parking, mid-block crossings, and sidewalks, with a pavement width of about 63 feet. Between the town plaza and the bike path, the pavement narrows to about 31 feet, with on-street parking and sidewalks.

Napa Street is an east-west roadway, named West Napa Street (and designated SR 12 – Sonoma Highway) west of Broadway. On the road segment affected by the project (adjacent to the town plaza), West Napa Street has four lanes and provides on-street parking and sidewalks.

Broadway is a four-lane roadway with a center left-turn lane from Napa Street south to MacArthur Street; it is designated SR 12 – Sonoma Highway. Broadway has on-street parking and sidewalks in this commercial area. South of MacArthur Street at the Sonoma Valley and Creekside Continuation High School, Broadway becomes a two-lane roadway with a center left-turn lane and then varies between a three- and four-lane roadway with a center left-turn lane until Napa Road. South of Napa Road, Broadway becomes a two-lane roadway with a pavement width of about 30 feet at its narrowest point, and no on-street parking.

Leveroni Road is a two-lane roadway with a pavement width of about 30 feet. Parking is not permitted. Leveroni Road becomes Napa Road east of Broadway.

Specht Road is a two-lane (dead-end) roadway with a pavement width of about 25 feet.

Watmaugh Road is a two-lane roadway with a pavement width of about 30 feet, except for the bridge, which is about 20 feet in width.

Arnold Drive is a two-lane roadway with a pavement width of about 40 feet. Parking is permitted along some segments. Bicycle lanes are present south of Craig Avenue.

Napa Road is a two-lane roadway with shoulders. East of Fifth Street East, on-street parking is not permitted. The pavement width is about 60 feet. Napa Road becomes Leveroni Road west of Broadway.

Denmark Road is a two-lane roadway that connects East Eighth Street with Napa Road. On-street parking is not permitted and shoulders are not present. The pavement width is about 20 feet.

Eighth Street East is a two-lane roadway with a pavement width of about 40 feet. On-street parking is permitted and shoulders are discontinuous.

Hyde Street is a two-lane roadway with a pavement width of about 15 to 20 feet. On-street parking is not permitted and shoulders are not present.

Duhig Road, Ramal Road, Buchli Station Road are two-lane roadways. On-street parking is not permitted and shoulders are not present.

Public Transit

The action area is served by the following five Sonoma County Transit bus routes that provide service throughout the City of Sonoma, and between the City of Sonoma and the surrounding cities (SCTA, 2008a). The main transfer station in Sonoma is located in the town plaza at Napa Street and Broadway.

Route 30 operates on Broadway (on the segment between MacArthur Street and Napa Street) on an irregular schedule on weekdays (6:15 AM to 9:40 PM) and four runs between 9:00 AM and 7:10 PM weekends.

Route 32 (local) operates on Broadway (on the segment between MacArthur Street and Napa Street), West Napa Street, Leveroni Road, and Arnold Drive every 45 minutes on weekdays between 8:15 AM and 4:25 PM, and every 90 minutes on Saturday between 9:00 AM and 5:15 PM.

Route 34 (express) operates weekdays on Leveroni Road and Broadway, with one morning run ending at the Sonoma Plaza at 8:00 AM, and two afternoon commute runs leaving the Sonoma Plaza at 4:35 and 5:30 PM.

Route 38 operates weekdays on West Napa Street, Broadway, Leveroni Road, and Arnold Drive, with one morning run arriving at the Sonoma Plaza at 6.25 AM, and one evening commute run arriving at the Sonoma Plaza at 7:05 PM.

Route 40 operates weekdays on Broadway, Leveroni Road, and Arnold Drive on an irregular schedule between 7:00 AM and 7:25 PM.

In addition to fixed-route transit services, Sonoma County Paratransit provides service in the action area, operating on demand and providing curb-to-curb transportation for individuals with disabilities.

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths are paved trails that are separated from the roadways. Bike lanes are lanes on roadways that are designated for use by bicycles by striping, pavement legends, and signs. Bike routes are roadways that are designated for bicycle use with signs, but no separate lane width. Within the vicinity of the project site, there are bike lanes on Arnold Drive and Broadway.

The Countywide Bicycle Advisory Committee and Sonoma Bicycle Advisory Committee support bicycle- and pedestrian-related development in the action area and surrounding vicinity. The Sonoma County Transit Authority's (SCTA) *Draft 2009 Countywide Transportation Plan for Sonoma County* indicates that bike lanes are planned on Arnold Drive (from SR 116 to Petaluma Avenue) and on Leveroni Road from Arnold Drive to Highway 12 (SCTA, 2008b).

A multi-use path provides pedestrian and bicycle access along an old railroad right-of-way north of Spain Street. The path has a pavement width of approximately 10 feet with clear shoulders on each side. The path crosses roadways at marked crosswalks.

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. The project corridor currently contains pedestrian facilities along most roadways within the City of Sonoma.

In addition, the NBWRP alignment would be constructed in Broadway adjacent to the Sonoma High School and Creekside Continuation High School (Sonoma Valley Unified School District [SVUSD]). In the vicinity of the schools there are yellow school route crosswalks and the appropriate traffic control signs (i.e., speed control and school warning signs). Also, SVUSD operates school buses on roadways along the project alignment.

Napa SD

Local Roadways

Roadways affected by the projects in the Napa SD Service Area are generally two-lane roads, with pavement widths of about 24 feet, with no bike facilities, on-street parking, or public transit. These include the following: **4th Avenue, Coombsville Road – Wild Horse Valley Road, 3rd Avenue – North 3rd Avenue, East 3rd Avenue, Biava Lane, 1st Avenue, North Avenue, Hagan Road, Loma Heights Road, La Londe Lane, and Olive Hill Lane**. Exceptions to the above character of road are as follows:

Magnolia Drive is a four-lane, divided, roadway. There is on-street parking, but no public transit service on this road.

Imola Avenue is a four-lane roadway between SR 29 and Soscol Avenue (designated SR 121), and a two-lane roadway east of Soscol Avenue. The pavement width on the two-lane portion of the road varies from 24 to 30 feet. There are no bike facilities or on-street parking, but a portion of Imola Avenue has public transit service.

Kreuzer Lane, Kirkland Avenue, and 2nd Avenue are two-lane roadways, with a pavement width of about 20-22 feet. There is no on-street parking or public transit service on these roads.

Public Transit

Imola Avenue, west of Granada Street, accommodates Napa County VINE Bus Route 2, which runs hourly between 6:50 AM and 6:50 PM (NCTPA, 2007).

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths, bike lanes, and bike routes. Bike paths are paved trails that are separated from the roadways. Bike lanes are lanes on roadways that are designated for use by bicycles by striping, pavement legends, and signs. Bike routes are roadways that are designated for bicycle use with signs, but no separate lane width. None of the local roads described above have bike facilities.

Pedestrian facilities in the action area include sidewalks and pedestrian signals at signalized intersections.

In addition, the NBWRP alignment would be constructed in roadways adjacent to three schools located in the Napa Valley Unified School District (NVUSD), including Mount George Elementary School on 2nd Avenue, Silverado Middle School on Coombsville Road, and Wintun School on Wintun Court off Imola Avenue. In the vicinity of the schools, there are yellow school route crosswalks and the appropriate traffic control signs (i.e., speed control and school warning signs). Also, NVUSD operates school buses on roadways along the project alignment. Similarly, the Napa County Children's Center, Napa County Community School, and Napa Infant Preschool Program are also located in the action area on Imola Avenue.

3.7.2 Regulatory Framework

State

The California Department of Transportation (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 action areas include several roadways that fall under Caltrans' jurisdiction (i.e., U.S. 101 and SR 37 in Novato; SR 12, SR 116, and SR 121 in Sonoma; and SR 29, SR 121, and SR 221 in Napa).

Caltrans' construction practices require temporary traffic control planning during any time the normal function of a roadway is suspended (Caltrans, 2006). 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 action area (Caltrans, 2007).

Local

The local general plans, policies, and regulations associated with impacts to transportation and traffic within the affected jurisdictions are presented in **Appendix 3.7** of this EIR/EIS.

3.7.3 Environmental Consequences/ Impacts

Significance Criteria

The thresholds for determining the significance of impacts for this transportation and circulation analysis are based on the environmental checklist in Appendix G of the *CEQA Guidelines*. These thresholds also encompass the factors taken into account under NEPA to determine the significance of an action in terms of its context and the intensity of its effects.

A project would normally result in an impact on transportation and circulation if it would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system. The direct impacts of project construction would not be long-term, ongoing effects. Occasional post-construction maintenance activities would briefly affect only local road segments and would constitute a less-than-significant impact. The duration of potentially significant impacts related to short-term disruption of traffic flow and increased congestion generated by construction vehicles would be limited to the period of time needed to complete construction of the project components. Therefore, mitigation measures identified in this EIR/EIS are focused on reducing the short-term project construction effects; long-term mitigation measures are not needed.

For this analysis, the project would be considered to have a significant impact on transportation and circulation if it would:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;
- Substantially impede access to local streets or adjacent uses, including access for emergency vehicles;
- Substantially affect alternative transportation or alternative transportation facilities; or
- Result in inadequate parking capacity.

In addition to the above-listed criteria, the following criteria are derived from common engineering practice to apply to the project-specific analysis presented herein:

- Substantially increase traffic safety hazards due to increased traffic volumes; or
- Cause substantial damage or wear of public roadways by increased movement of heavy vehicles

This analysis relies upon available information and field reconnaissance of roadway characteristics (e.g., pavement widths and existence of on-street parking). Impacts to traffic and circulation that would result from increases in traffic volumes, loss of travel lanes and/or parking areas, and potential safety effects associated with construction were evaluated. Construction characteristics, including proposed manpower and equipment, location of construction, and rate of construction were used to conservatively determine the potential number of vehicles that could be required for the NBWRP.

Several of the criteria included in Appendix G of the CEQA guidelines do not apply to this analysis and are not used, as explained below.

Exceedance of LOS Standards Established by the County Congestion Management Agency. As discussed above, long-term operation of any project facility is anticipated to be similar to the existing traffic and circulation conditions within the action area, with the addition of a minimal increase in maintenance worker trips. Increases in traffic volumes generated by construction projects end when construction activities end. As such, county LOS standards are not used to judge potential project impacts presented herein.

Air Traffic Patterns. NBWRP facilities would not affect air traffic patterns of nearby airports. Construction equipment would not exceed height restrictions within this area. Therefore, the NBWRP would not alter air traffic patterns nor result in substantial safety risks associated with airport operations.

Increased Hazards Due to a Design Feature or Incompatible Uses. The NBWRP would not include new design features (e.g., new facilities or obstructions within public roadways) or alterations of existing features (e.g., road realignment). In addition, traffic generated by the NBWRP would be compatible with the mix of vehicle types (autos and trucks) currently using action area roads. Therefore, the NBWRP would not result in hazards caused by a design feature or incompatible use.

Conflicts with Adopted Policies, Plans, or Programs Supporting Alternative Transportation. The NBWRP would not directly or indirectly eliminate alternative transportation corridors or facilities (e.g., bike paths, lanes, bus turnouts, etc.) both because of facility locations and because of the short-term nature of construction activities where potential effects could occur. In addition, the NBWRP would not include changes in policies or programs that support alternative transportation. Therefore, the NBWRP would not conflict with adopted policies, plans, or programs supporting alternative transportation.

Environmental Consequences/Impact Analysis

Impact 3.7.1: Temporary Congestion and Delays. Project construction activities could adversely affect traffic and transportation conditions in the action area. (Less than Significant with Mitigation)

Trip Generation – Overview

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. The pipelines would be located in the paved cross-section of several public roadways.

Assuming up to two construction crews of 10 workers per day for pipeline construction (10 workers per day for construction of storage facilities, and 5 workers per day for construction of booster pump stations), construction worker trips traveling to and from the work sites would not exceed 30 round trips (60 one-way trips) per day (i.e., 40 one-way commute trips, and 20 one-way midday trips). Accounting for the delivery of construction components (which would be shipped on demand to the project site and the staging areas throughout the construction period), based on earthwork quantities (excavation and backfill), and assuming a haul load of 10 cubic yards per truck, the peak number of off-site construction truck trips would range up to the following:

- Pipelines: about 25 to 45 truck round trips (50 to 90 one-way truck trips) per work day (tied to a range of maximum construction rate of 200 feet per day for paved roadways, and 400 feet per day for open land).
- Storage Facilities: about 60 truck round trips (120 one-way truck trips) per work day.
- Booster Pump Stations: about 10 truck round trips (20 one-way truck trips) per work day.

Project Impact – Common to All Facilities

Phase 1 would include construction associated with approximately 47 miles of new pipeline, new storage facilities, and treatment upgrades at existing WWTPs. Phase 1 would not introduce any new uses to the project corridor that would generate noticeable long-term changes in traffic; operational traffic would be limited to infrequent trips by maintenance personnel and by vehicles delivering chemicals to treatment plants. 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.

Proposed hours of construction are between 8:00 AM and 7:00 PM; no construction would occur between 10:00 PM and 7:00 AM, unless stipulated (in coordination with responsible jurisdiction) that night construction could be used to minimize impacts to traffic flow. Most project-related hauling and deliveries would be dispersed throughout the day, thus lessening the effect on peak-hour traffic. Project truck traffic occurring weekdays during the hours of 7:00 to 9:00 AM and 4:00 to 6:00 PM would coincide with peak-period traffic, and therefore, would have the greatest potential to impede traffic flow. As specified in **Mitigation Measure 3.7.1b**, below, the deliveries would be restricted to the hours of 9:00 AM and 3:30 PM, or other hours if approved by the appropriate local jurisdiction, which would avoid such peak-period effects.

Pipelines

Construction of the proposed recycled water pipelines would involve one of the four potential methods: open trenching; jack and bore tunneling; directional drilling; or suspending the pipe (such as in the presence of a bridge). In the first three methods, the proposed recycled water pipelines would be installed beneath the ground surface or underneath the existing roads, while in the fourth method the proposed recycled water pipeline might be attached to an existing bridge and would remain aboveground.

Open Trenching includes clearing of the construction site, saw cutting of the pavement where applicable, trench excavation, pipe installation, backfill operations, and re-paving where applicable. In undeveloped areas, a 25-foot wide corridor for construction would be utilized to maximize construction efficiency. In areas encumbered by existing improvements, high-volume roadways, or environmentally sensitive areas, a narrower construction corridor of approximately 25 feet would be used.

The estimated trench dimensions for a 14-inch-diameter pipeline (average size) would be about 30 inches wide by about 56 inches deep; however, the dimensions would vary with the location along the route and the diameter of the pipeline. Pipeline installation would occur at a rate of about 100 to 200 feet per day in developed areas, where there are narrow construction corridors, higher traffic volumes, and more utilities. Where the pipelines would cross open land or low-use sections of roadways, the construction rate would average approximately 300 to 400 feet per day. All spoils excavated along roadways would be hauled offsite to appropriate disposal facilities, and backfill material would be imported. In open space areas, native excavated soils would be retained for backfill.

During construction, trenches would be temporarily closed at the end of each work day, either by covering with steel trench plates, backfill material, or installing barricades to restrict access depending on physical conditions and conditions of the encroachment permit (along roadways). If the area is paved prior to construction, a temporary patch or covering would be used until final repaving of the affected area occurs. Final paving would occur approximately two to six weeks after recycled water pipeline construction is complete within a given road segment.

For *jack and bore tunneling*, each bore and jack undercrossing would require a jacking pit measuring approximately 30 feet by 10 feet, and a maximum depth of 20 feet.

Horizontal Directional Drilling is another trenchless construction method that could be used to install underground pipelines without disturbing the ground surface.

Pipeline Suspension is a fourth construction alternative and could occur at locations with bridges that cross streams. Pipeline construction at these crossings would disrupt traffic flow on area roadways to a lesser degree (limited to increase traffic generated by construction workers and trucks).

As discussed above, project construction activities could generate up to 30 off-site construction worker vehicle round trips (60 one-way trips) and up to 45 off-site truck round trips (90 one-way

truck trips) per day. These project-generated trips, spread over the course of the work day, would not be substantial relative to existing volumes on roadways in the affected areas, and would fall within the daily fluctuations of traffic volumes for these roadways. Therefore, this short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project / No Action Alternative. 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. In addition, drivers could experience delays if they were traveling behind a construction truck.

Open trenching would result in temporary lane closures (for varying durations at different locations) along project corridors. If the construction zone were to reduce the number of travel lanes during peak traffic periods, the NBWRP would significantly affect roadway segments and intersections on all segments adjacent to or in the roadway by causing either roadway or intersection levels of service to be unacceptable. The decrease in traffic volumes outside the peak periods typically, but not universally, is sufficient to allow the reduced number of travel lanes to accommodate the traffic flow without significant delays. Delays also would be experienced by drivers during off-peak hours, but because of the lower volume during that time of the day, fewer people would be affected by the delays during those periods.

Project construction would include temporary closure of one lane of traffic on area roadways (as described below for the specific service areas), which would require alternate one-way traffic flow on two-lane roads to be managed by flaggers. There are roadways within proposed pipeline segments for which the construction zone would result in insufficient remaining width to maintain alternate one-way traffic flow, requiring detour routing (if available), or roadway closures (if no detour is available); affected roadways are described below for the specific service areas.

Storage Facilities

Construction of new open storage reservoirs would include site preparation and clearing, excavation, earth movement, linear placement, embankment construction, and hydro-seeding. Assuming a surface storage facility of about 50 acre-feet, about 100,000 cubic yards of material would be excavated to a depth of approximately six feet. It is expected that no excavated material would need to be off-haul (i.e., it would be used to build embankments or spread over the nearby surrounding area).

Project construction activities could generate up to 20 off-site construction worker vehicle round trips (40 one-way trips) and about 60 off-site truck round trips (120 one-way truck trips) per work day. These project-generated trips, spread over the course of the work day, would not be substantial relative to existing volumes on roadways in the affected areas, and would fall within the daily fluctuations of traffic volumes for these roadways. Therefore, this short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project and No Action Alternatives. 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. In addition, drivers could experience delays if they were traveling behind a construction truck.

Booster Pump Station and Distribution Pump Station

Rough grading, and additional excavation or filling would bring the site to final grade and prepare the soil for underground piping and structural slabs. Site work would involve installing manholes, structural foundations, curbs, site drainage, and sidewalks; erecting the structure; installing electrical equipment; and installing pull boxes, conduits, and cables.

Project construction activities could generate up to 8 off-site construction worker vehicle round trips (16 one-way trips) and about 10 off-site truck round trips (20 one-way truck trips) per work day. These project-generated trips, spread over the course of the work day, would not be substantial relative to existing volumes on roadways in the affected areas, and would fall within the daily fluctuations of traffic volumes for these roadways. Therefore, this short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project and No Action Alternatives. 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. In addition, drivers could experience delays if they were traveling behind a construction truck.

Staging Areas

At various locations within the construction zones, staging areas would be required to store pipe, construction equipment, and other construction related items. In some cases, staging areas may be used for the duration of the NBWRP. In other cases, as pipeline construction moves along the route, the staging area may also be moved to minimize hauling distances and avoid disrupting any one area for extended periods of time. Member Agencies are expected to negotiate short-term temporary easements for staging areas. The location of the staging areas would be determined by the contractor and would typically be located every three miles along the pipeline alignment.

No Project Alternative

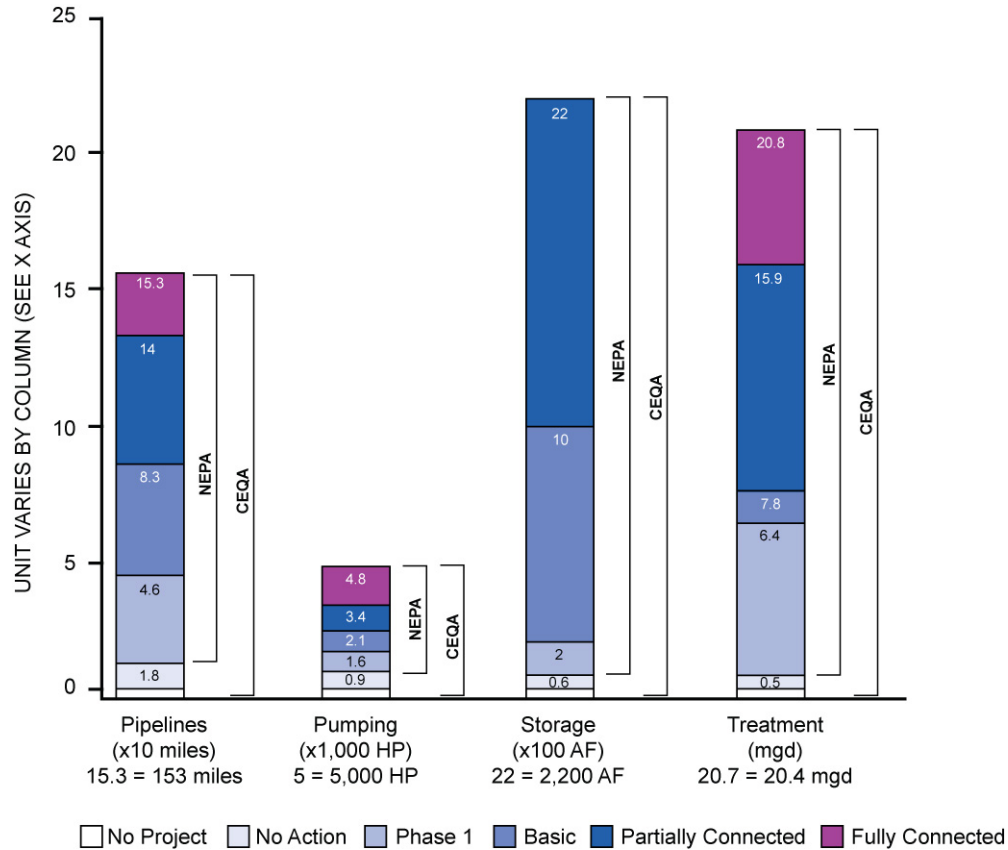
The NBWRP would not be implemented under the No Project Alternative, therefore no impact is expected. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see **Chart 3.7-1, No Action**).

**CHART 3.7-1
COMPARISON OF NEPA AND CEQA BASELINES FOR PROPOSED FACILITIES, BY ALTERNATIVE**



SOURCE: CDM, 2009

Under future baseline (2020) conditions, traffic conditions within the region would likely be exacerbated by build-out identified under the local city and county general plans for the next 20 years. Roadways adjacent to or within the service areas would be subject to the traffic impacts. However implementation of **Mitigation Measures 3.7.1a** through **3.7.1e**, which include Compliance with local road encroachment permits and the *Work Area Protection and Traffic Control Manual*, preparation of a Traffic Control Plan, identification of roadways that require special construction techniques, development of a circulation and detour plan, and consultation with local transit service providers, would reduce the impact to less-than-significant-level. A discussion of individual Member Agencies is provided below.

LGVSD/NMWD

There would be no project facilities constructed under the No Action Alternative, therefore no impact would occur.

Novato SD/NMWD

Novato SD No Action Alternative would include implementation of recycled water distribution facilities within the North Service Area. This consists of pipeline installation from the Novato SD Davidson WWTP north to Olive Avenue, then extension west and east along Olive Avenue to serve areas north of Atherton Avenue and along Redwood Boulevard and San Marin Avenue west of U.S. 101. Pipeline installation would be similar to construction for Phase 1 projects, i.e., a less-than-significant impact with mitigation, except on Olive Avenue (with not enough pavement width to accommodate at least alternate one-way traffic flow past the construction zone, therefore causing significant impacts, which would be mitigated to less-than-significant levels). Construction of the Davidson Street booster pump station would be within the Davidson Street WWTP and project-related construction will be localized to the booster pump site, and the short-term increase in vehicle trips generated by construction of the pump station would not significantly affect level of service and traffic flow on roadways.

SVCS

The SVCS No Action Alternative would include Alignment 1A of the Sonoma Valley Recycled Water Project, consisting of pipeline installation in Sonoma Valley and one booster pump station at the SVCS WWTP. Pipeline installation would affect the following primary roadways: Arnold Drive, Orange Avenue, Elm Avenue, and Leveroni Road. Pipeline installation would be similar to construction for Phase 1 projects, i.e., a less-than-significant impact with mitigation. The short-term increase in vehicle trips generated by construction of the pump station would not significantly affect level of service and traffic flow on roadways.

Under the No Action Alternative, the Napa Salt Marsh Restoration Project would include construction of a pipeline along Northwestern Pacific Railroad and then along Ramal Road. The short-term increase in vehicle trips generated by construction of either of the three alternative pipeline alignments would not significantly affect level of service and traffic flow on roadways.

Napa SD

There would be no project facilities constructed under the No Action Alternative, therefore no impact would occur.

Phase 1 (Project level)

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The traffic impacts associated with the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action Alternative, in proportion to the facilities constructed under this alternative. As described above, open trenching for pipeline

installation would result in temporary lane closures along project corridors. A discussion of roadways affected by such lane closures are discussed below for the by Member Agency.

LGVSD/NMWD

Under Phase 1, LGVSD would upgrade tertiary treatment capacity at the LGVSD WWTP, construct a new booster pump station, and NMWD would install one of three pipeline options, described in **Chapter 2, Project Description**, which would connect the LGVSD WWT Recycled Water Treatment Facility to facilities constructed by NMWD.

Installation of Pipeline Options A, B, or C would not obstruct traffic patterns or cause road closures; however project construction of pipelines for the Coast Guard Housing Distribution Loop System would include temporary closure of one lane of traffic (with alternate one-way traffic flow past the construction zone) on the following roads: Hangar Avenue, North Hamilton Parkway, and State Access Road. The width of Oakwood Drive (North and South) would not accommodate traffic flow during construction work hours, and Oakwood Drive would need to be closed during construction work hours, with detour routing on other roads in the area (e.g., Sunset Drive and San Jose Drive). Due to their short-term duration, and implementation of **Mitigation Measures 3.7.1a** through **3.7.1e**, impacts would be reduced to a less than significant level.

The existing MMWD tertiary treatment plant (accessed from U.S. 101 via Smith Ranch Road, a four-lane, divided, roadway that narrows when it reaches the McInnis County Park) would be upgraded, and a new pump station would be constructed. In addition, new storage would be provided at the existing Reservoir Hill Tank (accessible from U.S. 101 via Nave Drive, Main Gate Road and Palm Drive). As stated above, the short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project / No Action Alternative.

Novato SD/NMWD

Project construction of pipelines would include temporary closure of one lane of traffic (with alternate one-way traffic flow past the construction zone) on the following roads: Atherton Avenue (near Olive Avenue and “H” Lane), Olive Avenue (between Redwood Boulevard and Rose Court), Redwood Boulevard (south of Scottsdale Pond Park to South Novato Boulevard), and South Novato Boulevard (east of Redwood Boulevard). The width of “H” Lane and Olive Avenue (between Rose Court and Atherton Avenue) would not accommodate traffic flow during construction work hours, and those roads would need to be closed during construction work hours. Detour routing is available for “H” Lane (i.e., Bugeia Lane), but there is no readily available detour for Olive Avenue. Other methods, such as night construction, periodic trench closure or road closure may be necessary. Such measures would be identified by the local jurisdiction’s roadway encroachment permit. Due to their short-term duration, and implementation of **Mitigation Measures 3.7.1a** through **3.7.1e**, impacts would be reduced to a less than significant level.

The existing Davidson WWTP (accessed from U.S. 101 via DeLong Avenue and Davidson Street) would be upgraded, and a new pump station would be constructed. In addition, new

storage would be provided at the existing Plum Street Tank, and a booster pump would be installed at Atherton Avenue. As stated above, the short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project / No Action Alternative.

SVCS D

Project construction of pipelines would include temporary closure of one lane of traffic (with alternate one-way traffic flow past the construction zone) on the following roads: First Street West, Broadway (south of Napa Road – Leveroni Road), Napa Road, Leveroni Road, Arnold Drive, and Watmaugh Road (except for the bridge). Detour routing is generally available for those roads.

Storage reservoirs and pump stations would be constructed adjacent to the SVCS D WWTP (accessed from SR 121/12 via Eighth Street East, a two-lane roadway. As stated above, the short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project / No Action Alternative.

Under Phase 1, impacts related to the Napa Salt Marsh Restoration Project would be equivalent to those under the No Action Alternative.

Napa SD

Project construction of pipelines would include temporary closure of one lane of traffic (with alternate one-way traffic flow past the construction zone) on the following roads: Imola Avenue, 4th Avenue, Coombsville Road – Wild Horse Valley Road, 3rd Avenue – North 3rd Avenue, East 3rd Avenue, Biava Lane, 1st Avenue, North Avenue, Hagan Road, Loma Heights Road, La Londe Lane, and Olive Hill Lane. Pipeline installation in Magnolia Drive, a four-lane, divided, roadway, would require temporary closure of one lane of traffic, but two-way traffic flow would be maintained. The width of Kreuzer Lane, Kirkland Avenue, and 2nd Avenue would not accommodate traffic flow during construction work hours, and those roads would need to be closed during construction work hours. Detour routing is available for 2nd Avenue (except the segment north of North Avenue), but there is no readily available detour for Kreuzer Lane and Kirkland Avenue (neither of which has an outlet). Other methods, such as night construction, periodic trench closure or road closure may be necessary. Such measures would be identified by the traffic control plan and the local jurisdiction's roadway encroachment permit. Due to their short-term duration, and implementation of **Mitigation Measures 3.7.1a** through **3.7.1e**, impacts would be reduced to a less than significant level.

Four new booster pump stations would be constructed at locations accessed on Imola Avenue, Coombsville Road – Wild Horse Valley Road, East 3rd Avenue and North 3rd Avenue, all two-lane roadways. As stated above, the short-term increase in vehicle trips would not significantly affect level of service and traffic flow on roadways compared to the No Project / No Action Alternative.

Mitigation Measures

Mitigation Measure 3.7.1a: The appropriate Member Agency for each project component shall obtain and comply with local road encroachment permits for roads that are affected by construction activities.

The *Work Area Protection and Traffic Control Manual* includes requirements to ensure safe maintenance of traffic flow through or around the construction work zone, and safe access of police, fire, and other rescue vehicles (CJUTCC, 1996). In addition, the Traffic Management Plan (subject to local jurisdiction review and approval) required by **Mitigation Measure 3.7.1b**, below, would direct how traffic flow is safely maintained during project construction.

Mitigation Measure 3.7.1b: The construction contractor for each project component 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 (between 8:00 AM and 7:00 PM; no construction shall be permitted between 10:00 PM and 7:00 AM);
- Identify hours for deliveries (Monday – Friday, 9:00 AM to 3:30 PM, or other hours if approved by the appropriate local jurisdiction);
- 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 restriction, pavement markings and signage requirements (e.g., speed limit, temporary loading zones);
- 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 appropriate local school district at least two months in advance. The school district shall be notified of the timing, location, and duration of construction activities. Coordinate with the appropriate local 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. The construction contractor for each project component shall be required 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;

- 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 3.7.1c: The appropriate Member Agency for each project component 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 3.7.1d: The appropriate Member Agency for each project component shall develop circulation and detour plans to minimize impact to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone.

Mitigation Measure 3.7.1e: The appropriate Member Agency for each project component shall encourage construction crews to park at staging areas to limit lane closures in the public right-of-way.

Mitigation Measure 3.7.1f: The appropriate Member Agency for each project component shall consult with the appropriate public transit service providers at least one month prior to construction to coordinate bus stop relocations (as necessary) and to reduce potential interruption of transit service.

Impact Significance after Mitigation: Less than Significant.

Impact 3.7.2: Temporary Disruption to Access. Project construction activity would temporarily disrupt circulation patterns near sensitive land uses (schools, hospitals, fire stations, police stations, and other emergency providers). (Less than Significant with Mitigation)

The NBWRP would have temporary effects on traffic flow, particularly with pipeline construction within road rights of way. Pipeline construction within or across streets could result in delays for emergency vehicle access. The NBWRP would also obstruct pedestrian, bicycle, and vehicle access to schools, thus disrupting the Safe Routes to School programs that are currently in place. Construction along the pipeline alignments would cause delays to school buses and limit access to school bus stops.

Construction of the operational and capacity storage reservoirs, pump stations, and upgrades to existing WWTPs would not directly interfere with circulation patterns near sensitive land uses because no schools, hospitals, fire stations, police stations, or other emergency providers are located adjacent to these proposed facilities. However, construction could indirectly disrupt

circulation patterns near sensitive land uses, as haul route could pass by sensitive land uses, and traffic may divert to roadways with sensitive land uses due to construction activity.

Proposed pipeline alignments would be constructed in roadways that provide emergency vehicle access. For example, there is a fire station located on Broadway (in Sonoma), a police station on First Street West (north of Napa Street in Sonoma); Sonoma Valley Hospital is two blocks west of Broadway (south of Napa Street); San Rafael Fire Department on San Pedro Road and Civic Center Drive; and the Napa County Fire Department.

No Project Alternative

The NBWRP would not be implemented under the No Project Alternative; therefore no impact would occur. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see Chart 3.7-1, No Action).

Under future baseline (2020) conditions, roadways in the affected service areas would be subject to the traffic impacts. However implementation of **Mitigation Measures 3.7.2a** and **3.7.2b**, which include construction scheduling techniques and coordination with local school districts, would reduce the impact to less-than-significant-level. A discussion of individual Member Agencies is provided below.

LGVS/NMWD and Napa SD

There would be no project facilities constructed under the No Action Alternative; therefore, no impact would occur.

Novato SD/NMWD and SVCSD

The traffic impacts associated with the proposed facilities under No Action Alternative would be similar to those discussed above for Impact 3.7.1.

Phase 1

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects

would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The traffic impacts associated with the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action Alternative, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 1: Basic System (Program)

Compared to the CEQA Baseline, the Basic System projects would provide 83 miles of new pipeline, 2,158 HP of pumping capacity, treatment facilities providing 7.8 mgd of tertiary capacity, and 1,020 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Basic System would provide 65 miles of new pipeline, 1,246 HP of pumping capacity, treatment facilities providing 7.3 mgd of tertiary capacity, and 955 AF of storage.

The traffic impacts to proposed facilities under the Basic System would be equivalent to and greater than the impacts discussed for Phase 1, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 2: Partially Connected System (Program level)

Compared to the CEQA Baseline, the Partially Connected System would provide 139 miles of new pipeline, 3,454 HP of pumping capacity, treatment facilities providing 15.9 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Partially Connected System would provide 122 miles of new pipeline, 2,542 HP of pumping capacity, treatment facilities providing 15.4 mgd of tertiary capacity, and 2,155 AF of storage.

The traffic impacts to proposed facilities under the Partially Connected System would be equivalent to and greater than the impacts discussed for the Basic System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 3: Fully Connected System (Program level)

Compared to the CEQA Baseline, the Fully Connected System would provide 153 miles of new pipeline, 5,021 HP of pumping capacity, treatment facilities providing 20.8 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Fully Connected System would provide 135 miles of new pipeline, 3,907 HP of pumping capacity, treatment facilities providing 20.3 mgd of tertiary capacity, and 2,155 AF of storage.

The traffic impacts under the Fully Connected System would be equivalent to and greater than the impacts discussed for the Partially Connected System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

LGVSD/NMWD, Novato SD/NMWD, SVCSD, and Napa SD

As described in the Setting for each service area, proposed pipeline alignments would be constructed in roadways that provide access to public schools, including Olive Elementary School (Novato Unified School District); Sonoma High School and Creekside Continuation High School (Sonoma Valley Unified School District); and Mount George Elementary School, Silverado Middle School, and Wintun School (Napa Valley Unified School District).

Implementation of **Mitigation Measures 3.7.2a** and **3.7.2b** would require the appropriate Member Agency for each project component to coordinate with the appropriate local school district regarding construction schedule in the vicinity of schools and school access routes during construction. Implementation of **Mitigation Measure 3.7.1b** would require the construction contractor to establish methods for maintaining traffic flow in and along the project corridor and minimizing disruption to emergency vehicle access to land uses along the alignment. Specific requirements that may be included in the traffic control/traffic management plan regarding emergency access and access to public schools are identified under **Mitigation Measure 3.7.1b**. Implementation of **Mitigation Measures 3.7.2a, 3.7.2b, and 3.7.1b** would ensure that potential impacts associated with temporary effects on emergency access and access to public schools would be mitigated to a less-than-significant level.

Mitigation Measures

Mitigation Measure 3.7.2a: 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 appropriate Member Agency for each project component shall coordinate with the appropriate local 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.

Mitigation Measure 3.7.2b: A minimum of two months prior to project construction, the appropriate Member Agency for each project component shall coordinate with the appropriate local 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 (see **Mitigation Measure 3.7.1a**).

Mitigation Measure 3.7.2c: Implement **Mitigation Measure 3.7.1b**.

Impact Significance after Mitigation: Less than Significant.

Impact 3.7.3: Temporary Disruption to Access. Project construction activity would have temporary effects on alternative transportation or alternative transportation facilities. (Less than Significant with Mitigation)

No Project Alternative

The NBWRP would not be implemented under the No Project Alternative; therefore no impacts would occur. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see Chart 3.7-1, No Action).

Under future baseline (2020) conditions, traffic conditions within the region would be exacerbated by increased development anticipated under the local city and county general plans. Roadways in the affected service areas would be subject to the traffic impacts. However implementation of **Mitigation Measure 3.7.1e**, which includes encouraging construction crews to park at staging areas to limit lanes closures, would reduce the impact to less-than-significant-level. A discussion of individual Member Agencies is provided below.

LGVS/NMWD and Napa SD

There would be no project facilities constructed under the No Action Alternative; therefore, no impact would occur.

Novato SD/NMWD and SVCSD

The traffic impacts associated with the proposed facilities under No Action Alternative would be similar to those discussed above.

Phase 1

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The temporary disruption to access as a result of implementation of the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action

Alternative, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 1: Basic System (Program)

Compared to the CEQA Baseline, the Basic System projects would provide 83 miles of new pipeline, 2,158 HP of pumping capacity, treatment facilities providing 7.8 mgd of tertiary capacity, and 1,020 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Basic System would provide 65 miles of new pipeline, 1,246 HP of pumping capacity, treatment facilities providing 7.3 mgd of tertiary capacity, and 955 AF of storage.

The temporary disruption to access as a result of implementation of the proposed facilities under the Basic System would be equivalent to and greater than the impacts discussed for Phase 1, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 2: Partially Connected System (Program level)

Compared to the CEQA Baseline, the Partially Connected System would provide 139 miles of new pipeline, 3,454 HP of pumping capacity, treatment facilities providing 15.9 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Partially Connected System would provide 122 miles of new pipeline, 2,542 HP of pumping capacity, treatment facilities providing 15.4 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary disruption to access as a result of implementation of the proposed facilities under the Partially Connected System would be equivalent to and greater than the impacts discussed for the Basic System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 3: Fully Connected System (Program level)

Compared to the CEQA Baseline, the Fully Connected System would provide 153 miles of new pipeline, 5,021 HP of pumping capacity, treatment facilities providing 20.8 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Fully Connected System would provide 135 miles of new pipeline, 3,907 HP of pumping capacity, treatment facilities providing 20.3 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary disruption to access under the Fully Connected System would be equivalent to and greater than the impacts discussed for the Partially Connected System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

LGVSD/NMWD, Novato SD/NMWD, SVCSD, and Napa SD

The NBWRP 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 disrupt access to bus stops and slow bus movements for bus routes provided by the transit

service providers in the affected areas (i.e., Golden Gate Bridge, Highway and Transportation Transit, Sonoma County Transit, and Napa VINE); see *Public Transit* discussion in the Setting above.

Implementation of **Mitigation Measure 3.7.1f** 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 Measure 3.7.1f**. Implementation of **Mitigation Measure 3.7.1f** would ensure potential impacts associated with temporary disruptions to transit service would be mitigated to a less than significant level.

Mitigation Measures

Mitigation Measure 3.7.3: Implement **Mitigation Measure 3.7.1f**.

Impact Significance after Mitigation: Less than Significant.

Impact 3.7.4: Temporary Displacement of Parking. Project construction activity would temporarily create parking demand for construction workers and construction vehicles, and displace parking spaces. (Less than Significant with Mitigation)

No Project Alternative

The NBWRP would not be implemented under the No Project Alternative; therefore no impact would occur. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see **Chart 3.7-1, No Action**).

Under future baseline (2020) conditions, traffic conditions within the region would be exacerbated by increased development anticipated under the local city and county general plans. Roadways in the affected service areas would be subject to the traffic impacts. However implementation of **Mitigation Measure 3.7.1e**, which includes encouraging construction crews to park at staging areas to limit lanes closures, would reduce the impact to less-than-significant-level. A discussion of individual Member Agencies is provided below.

LGVSD/NMWD and Napa SD

There would be no project facilities constructed under the No Action Alternative; therefore, no impact would occur.

Novato SD/NMWD and SVCSD

The traffic impacts associated with the proposed facilities under No Action Alternative would be similar to those discussed above.

Phase 1

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The temporary disruption to access as a result of implementation of the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action Alternative, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 1: Basic System (Program)

Compared to the CEQA Baseline, the Basic System projects would provide 83 miles of new pipeline, 2,158 HP of pumping capacity, treatment facilities providing 7.8 mgd of tertiary capacity, and 1,020 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Basic System would provide 65 miles of new pipeline, 1,246 HP of pumping capacity, treatment facilities providing 7.3 mgd of tertiary capacity, and 955 AF of storage.

The temporary disruption to access as a result of implementation of the proposed facilities under the Basic System would be equivalent to and greater than the impacts discussed for Phase 1, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 2: Partially Connected System (Program level)

Compared to the CEQA Baseline, the Partially Connected System would provide 139 miles of new pipeline, 3,454 HP of pumping capacity, treatment facilities providing 15.9 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Partially Connected System would provide 122 miles of new pipeline, 2,542 HP of pumping capacity, treatment facilities providing 15.4 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary disruption to access as a result of implementation of the proposed facilities under the Partially Connected System would be equivalent to and greater than the impacts discussed for the Basic System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 3: Fully Connected System (Program level)

Compared to the CEQA Baseline, the Fully Connected System would provide 153 miles of new pipeline, 5,021 HP of pumping capacity, treatment facilities providing 20.8 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Fully Connected System would provide 135 miles of new pipeline, 3,907 HP of pumping capacity, treatment facilities providing 20.3 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary disruption to access under the Fully Connected System would be equivalent to and greater than the impacts discussed for the Partially Connected System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

LGVSD/NMWD, Novato SD/NMWD, SVCSD, Napa SD

The NBWRP would create limited new, temporary parking demand for construction workers and construction vehicles as the crew moves along the construction alignment. The NBWRP would not generate a substantial number of construction workers along the alignment at any one location; therefore, the number of parking spaces required would not be substantial. Parking is not allowed on most roadways in the action areas, and construction along those alignments would not displace on-street parking. However, parking along some roads (e.g., Olive Avenue from Redwood Boulevard to Rose Court; Redwood Boulevard; Rowland Boulevard; Broadway; Arnold Drive) would be temporarily displaced during construction.

Although some construction workers would park at a pump station or staging area, some would park near that day's construction site and would require a lengthened construction zone to accommodate parking needs. Nonetheless, given the proposed rate of pipeline construction, impacts would be relatively brief at any one location along the alignment. Construction workers for the upgrades at the pump station would park on-site.

Implementation of **Mitigation Measure 3.7.1e** would require the construction contractor to encourage construction crews to park at pump stations to limit lane closures in the public right-of-way, thus minimizing construction effects from parking. Implementation of **Mitigation Measure 3.7.1e** would ensure potential impacts associated with the temporary loss of roadway width because of parking in the roadway right-of-way would be mitigated to a less than significant level.

Mitigation Measures

Mitigation Measure 3.7.4: Implement Mitigation Measure 3.7.1e.

Impact Significance after Mitigation: Less than Significant.

Impact 3.7.5: Temporary Potential Traffic Hazards. Project construction activity would temporarily increase the potential for accidents on project roadways. (Less than Significant with Mitigation)

No Project Alternative

The NBWRP would not be implemented under the No Project Alternative; therefore no impact would occur. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see Chart 3.7-1, No Action).

Under future baseline (2020) conditions, traffic conditions within the region would be exacerbated by increased development anticipated under the local city and county general plans. Roadways in the affected service areas would be subject to the traffic impacts. A discussion of individual Member Agencies is provided below.

LGVSD/NMWD and Napa SD

There would be no project facilities constructed under the No Action Alternative; therefore, no impact would occur.

Novato SD/NMWD and SVCSD

The traffic impacts associated with the proposed facilities under No Action Alternative would be similar to those discussed above.

Phase 1

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The temporary disruption to access as a result of implementation of the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action Alternative, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 1: Basic System (Program)

Compared to the CEQA Baseline, the Basic System projects would provide 83 miles of new pipeline, 2,158 HP of pumping capacity, treatment facilities providing 7.8 mgd of tertiary capacity, and 1,020 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Basic System would provide 65 miles of new pipeline, 1,246 HP of pumping capacity, treatment facilities providing 7.3 mgd of tertiary capacity, and 955 AF of storage.

The temporary traffic hazards as a result of construction of the proposed facilities under the Basic System would be equivalent to and greater than the impacts discussed for Phase 1, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 2: Partially Connected System (Program level)

Compared to the CEQA Baseline, the Partially Connected System would provide 139 miles of new pipeline, 3,454 HP of pumping capacity, treatment facilities providing 15.9 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Partially Connected System would provide 122 miles of new pipeline, 2,542 HP of pumping capacity, treatment facilities providing 15.4 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary traffic hazards as a result of construction of the proposed facilities under the Partially Connected System would be equivalent to and greater than the impacts discussed for the Basic System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 3: Fully Connected System (Program level)

Compared to the CEQA Baseline, the Fully Connected System would provide 153 miles of new pipeline, 5,021 HP of pumping capacity, treatment facilities providing 20.8 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Fully Connected System would provide 135 miles of new pipeline, 3,907 HP of pumping capacity, treatment facilities providing 20.3 mgd of tertiary capacity, and 2,155 AF of storage.

The temporary traffic hazards under the Fully Connected System would be equivalent to and greater than the impacts discussed for the Partially Connected System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

LGVSD/NMWD, Novato SD/NMWD, SVCSD, Napa SD

The NBWRP would not change the long-term configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. However, construction zones in the public right-of-way and heavy equipment operating adjacent to or within a road right-of-way would increase the potential for accidents. Construction-generated trucks on action area roadways would interact with other vehicles. Potential conflicts also

could occur between construction traffic and alternative modes of transportation (e.g., bicyclists and buses).

Implementation of **Mitigation Measure 3.7.1b** requires the contractor to prepare a traffic control/traffic management plan in accordance with professional engineering standards prior to construction, including compliance with roadside safety protocols, so as to reduce the risk of accidents. Specific requirements that may be included in the traffic management plan are identified under **Mitigation Measures 3.7.1b** through **3.7.1f**. Thus, implementation of **Mitigation Measures 3.7.1b** through **3.7.1f** would ensure temporary increases in the potential for accidents would be mitigated to a less than significant level.

Mitigation Measures

Mitigation Measure 3.7.5: Implement **Mitigation Measure 3.7.1b** through **3.7.1f**.

Impact Significance after Mitigation: Less than Significant.

Impact 3.7.6: Road Wear. Project construction activity would increase wear and tear on the designated haul routes used by construction vehicles to access the project work sites. (Less than Significant with Mitigation)

No Project Alternative

The NBWRP would not be implemented under the No Project Alternative; therefore no impact would occur. For a discussion of the No Project under future conditions, see No Action Alternative below.

No Action Alternative

Under the No Action Alternative, which includes consideration of future conditions, it is likely that a subset of water recycling projects would be implemented by the Member Agencies on an individual basis, without the benefit of regional coordination or federal funding.

For comparison to the Action Alternatives, it is estimated that approximately 17.5 miles of new pipeline, 912 HP of pumping capacity, treatment facilities providing 0.5 mgd of tertiary capacity, and approximately 65 AF of storage would be constructed by Member Agencies on an individual basis (see Chart 3.7-1, No Action).

Under future baseline (2020) conditions, traffic conditions within the region would be exacerbated by increased development anticipated under the local city and county general plans. Roadways in the affected service areas would be subject to the traffic impacts. A discussion of individual Member Agencies is provided below.

LGVSD/NMWD and Napa SD

There would be no project facilities constructed under the No Action Alternative; therefore, no impact would occur.

Novato SD/NMWD and SVCSD

The traffic impacts associated with the proposed facilities under No Action Alternative would be similar to those discussed above.

Phase 1

Compared to the CEQA Baseline, Phase 1 projects would provide 46 miles of new pipeline, 1,655 HP of pumping capacity, treatment facilities providing 6.4 mgd of tertiary capacity, and 65 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Phase 1 projects would provide 28 miles of new pipeline, 743 HP of pumping capacity, treatment facilities providing 5.9 mgd of tertiary capacity, and no additional storage.

The increased road wear as a result of implementation of the proposed facilities under Phase 1 would be equivalent to and greater than the impacts discussed for the No Action Alternative, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 1: Basic System (Program)

Compared to the CEQA Baseline, the Basic System projects would provide 83 miles of new pipeline, 2,158 HP of pumping capacity, treatment facilities providing 7.8 mgd of tertiary capacity, and 1,020 AF of storage. Compared to the No Action Alternative (NEPA Baseline), Basic System would provide 65 miles of new pipeline, 1,246 HP of pumping capacity, treatment facilities providing 7.3 mgd of tertiary capacity, and 955 AF of storage.

The increased road wear as a result of construction of the proposed facilities under the Basic System would be equivalent to and greater than the impacts discussed for Phase 1, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 2: Partially Connected System (Program level)

Compared to the CEQA Baseline, the Partially Connected System would provide 139 miles of new pipeline, 3,454 HP of pumping capacity, treatment facilities providing 15.9 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Partially Connected System would provide 122 miles of new pipeline, 2,542 HP of pumping capacity, treatment facilities providing 15.4 mgd of tertiary capacity, and 2,155 AF of storage.

The increased road wear as a result of construction of the proposed facilities under the Partially Connected System would be equivalent to and greater than the impacts discussed for the Basic System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

Alternative 3: Fully Connected System (Program level)

Compared to the CEQA Baseline, the Fully Connected System would provide 153 miles of new pipeline, 5,021 HP of pumping capacity, treatment facilities providing 20.8 mgd of tertiary capacity, and 2,220 AF of storage. Compared to the No Action Alternative (NEPA Baseline), the Fully Connected System would provide 135 miles of new pipeline, 3,907 HP of pumping capacity, treatment facilities providing 20.3 mgd of tertiary capacity, and 2,155 AF of storage.

The increased road wear under the Fully Connected System would be equivalent to and greater than the impacts discussed for the Partially Connected System, in proportion to the facilities constructed under this alternative. A discussion of impacts by Member Agency is provided below.

LGVSD/ NMWD, Novato SD/ NMWD, SVCSD, Napa SD

The use of big trucks to transport equipment and material to and from the project work site(s) for the NBWRP could affect road conditions on the designated haul routes by increasing the rate of road wear. The degree to which this impact would occur depends on the design (pavement type and thickness) and existing condition of the road. Major arterials and collectors are designed to accommodate a mix of vehicle types, including heavy trucks. The NBWRP impacts are expected to be negligible on those roads. Residential streets are generally not built with a pavement thickness that would withstand substantial truck traffic volumes.

Implementation of **Mitigation Measure 3.7.6**, which requires the appropriate sanitary district for each project component to enter into an agreement prior to construction that would detail pre- and post-construction conditions on project haul routes and pipeline segments and repair damaged roads, would reduce impacts to less than significant.

Mitigation Measures

Mitigation Measure 3.7.6: Roads damaged by construction shall be repaired to a structural condition equal to that which existed prior to construction activity as per conditions of the encroachment permit (see **Mitigation Measure 3.7.1a**).

Impact Significance after Mitigation: Less than Significant.

Alternative 1: Basic System, Alternative 2: Partially Connected System, Alternative 3: Fully Connected System (Program level)

The impacts associated with the Basic, Partially Connected, and Fully Connected Systems would be equivalent to the impacts discussed for Phase 1 above in addition to the impacts associated with the additional components as shown in **Table 3.7-1**.

**TABLE 3.7-1
PROJECT COMPONENTS AND RELATED TRAFFIC IMPACTS**

	LGVSD	Novato SD	SVCS	Napa SD
Alternative 1: Basic System		Novato Urban Recycled Water Pipeline	SVRWP Pipeline and Napa Salt Marsh Restoration Pipeline	Incremental upgrade to the Napa SD WWTP, Carneros East Pipeline and Napa Salt Marsh Restoration Pipeline
Alternative 2: Partially Connected System	Peacock Gap Golf Course Pipeline; upgrade to the existing MMWD recycled water distribution system and rehabilitation of the existing water reservoir near the Peacock Gap Golf Course	more-extensive Novato Urban Recycled Water Pipeline and the Sears Point Area Pipeline	rehabilitation of two drinking water reservoirs; construction of the Southern Sonoma Valley Pipeline	Napa SD MST Pipeline; extension of Carneros East Pipeline, new storage reservoir, and upgrade to the existing WWTP
Alternative 3: Fully Connected System		Extended pipeline to Sears Point area	Central Sonoma Pipeline	

SOURCE: ESA, 2008

LGVSD/NMWD, Novato SD/NMWD, SVCS, Napa SD

The impacts 3.7.1 through 3.7.6, discussed above under Phase 1 would occur during construction of the additional components shown in Table 3.7-1. The impacts under the Basic, Partially Connected, and Fully Connected System would be incrementally greater as additional components are constructed over those under the No Action Alternative. As discussed above, the impacts would be less than significant with mitigation, except on roadways that would need to be closed to traffic (because the road would not have enough pavement width to accommodate at least alternate one-way traffic flow past the construction zone, and for which no detour routing is available). This could cause significant impacts, which would be mitigated to less-than-significant levels. Impact determination for project components under the Basic, Partially Connected, and Fully Connected System would require project-level analyses when specific pipeline alignments are defined.

3.7.4 Impact Summary by Service Area

Table 3.7-2 provides a summary of potential traffic and transportation impacts associated with implementation of the NBWRP.

**TABLE 3.7-2
POTENTIAL IMPACTS AND SIGNIFICANCE – TRAFFIC AND TRANSPORTATION**

Proposed Action	Impact by Member Agency Service Areas			
	LGVSD/ NMWD	Novato SD/ NMWD	SVCSD	Napa SD/ Napa County
Impact 3.7.1: Project construction activities could adversely affect traffic and transportation conditions in the action area.				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM
Impact 3.7.2: Project construction activities would temporarily disrupt circulation patterns near sensitive land uses (schools, hospitals, fire stations, police stations, and other emergency providers).				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM
Impact 3.7.3: Project construction activities would have temporary effects on alternative transportation or alternative transportation facilities.				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM
Impact 3.7.4: Project construction activities would temporarily create parking demand for construction workers and construction vehicles, and displace parking spaces.				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM
Impact 3.7.5: Project construction activities would temporarily increase the potential for accidents on roadways.				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM

TABLE 3.7-2 (Continued)
POTENTIAL IMPACTS AND SIGNIFICANCE – TRAFFIC AND TRANSPORTATION

Proposed Action	Impact by Member Agency Service Areas			
	LGVSD	Novato SD	SVCS	Napa SD/ Napa County
Impact 3.7.5: Project construction activities would temporarily increase the potential for accidents on roadways. (cont.)				
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM
Impact 3.7.6: Project construction activities would increase wear-and-tear on the designated haul routes used by construction vehicles to access the project work sites.				
No Project Alternative	NI	NI	NI	NI
No Action Alternative	NI	LSM	LSM	NI
Phase 1	LSM	LSM	LSM	LSM
Alternative 1: Basic System	LSM	LSM	LSM	LSM
Alternative 2: Partially Connected System	LSM	LSM	LSM	LSM
Alternative 3: Fully Connected System	LSM	LSM	LSM	LSM

NI = No Impact

LTS = Less than Significant impact, no mitigation required

LSM = Less than Significant with Mitigation

3.7.5 References

California Department of Transportation (Caltrans), *California Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways*, September 2006.

California Department of Transportation (Caltrans), *Construction Manual*, last revised September 2007.

California Department of Transportation (Caltrans), *2007 Traffic Volumes on California State Highways*, 2008.

California Joint Utility Traffic Control Committee (CJUTCC), 2006. *Work Area Protection and Traffic Control Manual*, 4th Edition, April 2006.

City of Napa, *City of Napa General Plan (Envision Napa 2020)*, adopted December 1998, revised as of January 1, 2007.

City of Napa *City of Napa Municipal Code*, Chapter 12.12: Encroachments, 2008.

City of Novato, Community Development Department, *City of Novato General Plan*, adopted 8 March 1996, revised 25 March 2003 by Resolution No. 33-03.

City of Novato, *Novato Municipal Code*, Chapter XV: Encroachments, as of June 2008.

City of Sonoma, *City of Sonoma 2020 General Plan*, adopted October 2006.

City of Sonoma, *Sonoma Municipal Code*, 2008.

Golden Gate Bridge, Highway and Transportation District (GGBHTD), *Golden Gate Bus & Ferry Transit Guide* (March-June 2009), 2009.

Marin County, Community Development Agency, *Marin Countywide Plan 2020*, adopted November 6, 2007.

Napa County, Department of Conservation, Development & Planning, *Napa County General Plan*, adopted June 4, 2008.

Napa County Transportation & Planning Agency, *VINE Bus Route Information*, effective September 10, 2007.

Sonoma County, Permit and Resource Management Department, *Sonoma County General Plan 2020*, adopted September 23, 2008.

Sonoma County Transportation Authority (SCTA), *Sonoma County Transit Route Information*, effective November 2008 (2008a).

Sonoma County Transportation Authority (SCTA), *Draft Comprehensive Transportation Plan*, 2008 (2008b).

