

3.7 Transportation and Traffic

3.7.1 ENVIRONMENTAL SETTING

Regional Overview

The City of Lone is located in the foothills of the Sierra Nevada Mountains in the western portion of Amador County. The City core is located around the intersection of State Routes (SR) 104 and 124 north of SR 88. SR 88, 104 and 124 link Amador County with the Sacramento region to the west and the scenic California Gold Country along SR 49 to the east. These routes also provide access to the Sierra Nevada Mountains from populated areas of California. The region is characterized by two-lane and four-lane roads, state highways serving as major downtown arterials, and increasing traffic both during peak weekday commute hours and during weekends and holidays.

The City of Lone has prepared a Circulation Element for the City of Lone Draft General Plan (2009). The purpose of the Circulation Element update is to provide and maintain safe and efficient systems of streets, highways, and public transportation to meet the community needs and promote land uses complimentary to the existing transportation system. In addition to forecasting future roadway conditions, the updated Circulation Element identifies potential alignments for the West Lone Roadway Improvement Strategy (WIRIS), which is intended to improve traffic flow, congestion, and safety while still meeting the increasing traffic demand in around the City of Lone. Large trucks, such as those typically used in construction, cause congestion in downtown Lone due to the small lane widths and restricted turning radii in the downtown.

The updated Circulation Element identifies Level of Service (LOS) E as the target LOS for Lone, and states that volume thresholds will be established that, when reached, will trigger mandatory intersection and roadway improvements.

State Routes and Local Roads

State Routes

Two state highways form the primary travel corridors within the City of Lone, SR 104 and SR 124. The City of Lone is adjacent to SR 88 to the south and SR 49 to the east. Both SR 104 and SR 124 meet SR 88 at separate intersections south of Lone. SR 88 runs from the Highway 99 corridor up into the Sierra Nevada Mountains and runs south of the Lone city limits. The highways and major roads in the project area are shown in Figure 3.7-1.

The Amador County Regional Transportation Plan Update notes that typical peak periods are commuter hours on weekdays, as well as during weekends when tourist traffic passes through Lone to access the SR 49 Gold Country corridor and foothill communities of Jackson, Sutter Creek, and Amador City (ACTC 2004).

SR 104 extends from SR 99 north of Galt in Sacramento County, enters Lone from the northwest as Twin Cities Drive, passes through downtown Lone, exits Lone to the southeast, and connects with SR 88 south of Lone. SR 104 is a two-lane conventional highway. After passing through Lone, SR 104 continues to its intersection with SR 88 approximately 1 ¾ miles south of downtown, and continues via SR 88 into the Sierra Nevada Mountains. Turn lanes are provided along SR 104 at key intersections. East of SR 49, the SR 104 continues as Ridge Road.

SR 124 connects from SR 16 northeast of Lone, passes southwest through the central business district of Lone and exits in a southerly direction to connect with SR 88. The section of SR 124 north of Lone is a limited access expressway, and this portion of the road is relatively wide with

paved shoulders. This section of SR 124 carries 2,700 average daily vehicles and 3,100 peak month daily vehicles. Within lone, SR 124 is a two-lane primary arterial, although like SR 104, the road functions as a city arterial street through lone. At the intersection of SR 104 and SR 124, where the roads are controlled by signalized intersections, traffic increases to 9,700 daily vehicles on average and 10,700 daily vehicles in the peak month. The roadway Level of Service drops to LOS D and C along Main Street, which is shared with SR 104 and SR 124 (Caltrans 2008).

Within the City of lone, segments of both SR 104 and SR 124 operate as local streets (Preston Avenue, South Church Street, Main Street, and South lone Streets) and generally operate at LOS D during peak periods. These streets are part of the state highway network and provide access through and within the City of lone. Other uses include access to driveways, side streets, and signalized intersections.

Daily traffic volumes along SR 104 entering lone from the northwest are 5,900 daily vehicles with up to 6,600 vehicles per day during the peak month. South of lone, SR 104 carries fewer vehicles-- 4,100 daily vehicles during the average month and 4,350 vehicles per day during the peak month. SR 104 operates at LOS C in both directions (Caltrans 2008).

Daily traffic volumes along SR 124 entering lone from the northeast total 2,700 vehicles per day and 3,100 per day during the peak month, and the road outside of lone operates at LOS B in both directions (Caltrans 2008).

At the intersection of SR 104 and SR 124, in the central business district of lone, the road operates at LOS D due to narrow lanes, intersection signaling, and on-street parking. The capacity of the road within downtown lone is further reduced by the number of large trucks passing through the City, and the lack of a bypass of the downtown area.

LOS within downtown lone along the state routes is LOS D during peak commute hours. Congestion and slower speeds are caused by the combination of turning movements, signalized intersections, and large trucks having difficulty with turning movements. The City advises trucks with Kingpin-to-rear-axle (KPRAs) of 30 feet or more to use alternate routes and disallows trucks with KPRAs of 40 feet or more.

Local Roads

Roadways are classified as arterial, collector, or local streets within the City of lone. Arterial streets carry higher volumes of cross-town traffic; collector streets connect major traffic generators with arterial streets and carry moderate traffic volumes, and local streets provide access within residential neighborhoods and include other minor roads.

Arterial streets include SR 104 and SR 124, which are also known as Preston, Main, and South lone Avenues within the lone city limits. South Main Street carries SR 104 and SR 124 traffic as does South lone Street (SR 104) and parallel South Church Street (SR 124).

Collector streets within the project area include West Marlette Street, Sutter Lane, Old Stockton Road, Five Mile Drive, and Shakeley Lane (City of lone 1989). Amador County has preformed Average Daily Trip (ADT) counts for several of these collector streets in the vicinity of the existing WWTP (Table 3.7-1). The number of average daily trips is similar between local routes and traffic counts are relatively low.

Table 3.7-1: ADT Counts for the Local Streets in Project Area Vicinity

ADT Counts	Number of Vehicles
Five Mile Road at the City of Lone Boundary (2008)	256
West Marlette Street at 1320 feet east of Five Mile Drive (2008)	320
Old Stockton Road at Five Mile Drive (2005)	260

SOURCE: Amador County 2008

Access to the existing secondary WWTP is via a driveway on the south side of West Marlette Street, just west of the city limits of Lone. This section of West Marlette Street is within the jurisdiction of Amador County. Access to the existing tertiary WWTP is via a driveway on the south side of Five Mile Drive, also west of the Lone city limits. No residences or commercial uses are present along or adjacent to either of these access driveways.

Level of Service Standards

The quality of traffic operations is expressed in terms of LOS. LOS is a scale of values, with designations “A” through “F,” that describes degrees of street congestion, or interference with the normal free flow of traffic. LOS “A” indicates free traffic flow at design speed or the absence of congestion, while LOS “F” indicates a congested condition where traffic flow is seriously restricted and travel speeds are significantly below design speed. Level of service is sometimes expressed in terms of a street volume to capacity (v/c) ratio.

Table 3.7-2 describes the LOS at un-signalized intersections. This is measured as average delay per vehicle (Sapphos 2007). The City of Lone has established LOS E (except for Main Street, Church Street, Preston Avenue, and Lone Street, which have LOS F, and all Parkways, which have LOS D) for average daily conditions as the threshold for acceptable roadway operations. The current standard Level of Service per the Amador County Transportation Commission is LOS C within the City of Lone; LOS D for state highways, and LOS D for arterials. The County policy is to maintain LOS D or better for State highways and local streets and roads within incorporated cities and other developed communities. Caltrans has established LOS C as the minimum standard for Interregional Road System (IRRS) routes in rural areas and LOS D in urban and developing areas. LOS D is the minimum standard for SR 104 and SR 124.

Most major roadways in Amador County and in Lone currently operate at LOS C or better, with SR 104 and SR 124 operating at LOS D during the peak hours within downtown Lone. The Amador County Regional Transportation Plan acknowledges that projected regional growth and increasing traffic will reduce the LOS of SR 104 and SR 124 to LOS D and E, respectively, by the year 2020 (ACTC 2004). Work is underway by the City of Lone, Amador County, and the Amador County Transportation Commission to implement the West Lone Roadway Improvement Strategy. This roadway improvement plan will alleviate congestion by improving existing roadways such as the intersection of SR 104 and SR 124, which has geometric turning constraints for large trucks, in addition to constructing new roadways. Work is also underway to reduce traffic demand and increase the use mass transit, non-motorized transportation, and transportation system management techniques.

The Regional Transportation Improvement Program provides funds for minor intersection improvements such as the addition of turn channelization. Caltrans District 10 has improvement projects planned for the SR 104/SR 124/Shakeley Lane intersection, an additional left turn lane at the shopping center at SR 104/SR 124, and the intersection of SR 88/SR 124; however, none of these improvements are yet scheduled for construction.

Table 3.7-2: Level of Service Description: Unsignalized Intersection Level of Service

Level of Service (LOS)	Description	Delays Per Vehicle (seconds)
A	Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.	≤ 10
B	Stable flow, but the presence of others in the traffic stream begins to be noticeable.	> 10 and ≤ 15
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interaction with others in traffic.	> 15 and ≤ 25
D	Represents high density, but stable flow.	> 25 and ≤ 35
E	Represents operating conditions at or near the capacity level.	> 35 and ≤ 50
F	Represents forced or breakdown flow.	> 50

SOURCE: TRANSPORTATION RESEARCH BOARD 1994; TRANSPORTATION RESEARCH BOARD 2000

Intersections Experiencing Operational Problems

The City of Lone has two key intersections with operational deficiencies. Neither of these intersections is within the project area of the wastewater treatment plant facilities or any of the proposed pipelines. The intersections identified as experiencing operational deficiencies include:

- SR 104/Preston Avenue and SR 124/Shakeley Lane** – These two intersections serve high volumes of local and regional traffic. Stop signs control the side street approaches of SR 124 and Shakeley Lane, while SR 104/Preston Avenue is unrestricted by traffic control devices. The intersections are constrained by a lack of turning lanes and limited turning radii on some approaches. Improvements were proposed within the ACTC Regional Transportation Plan. This intersection is outside of the project area; however, it could be affected by construction traffic if construction related traffic is routed through downtown lone.
- SR 104/SR 124/Main Street** – This intersection serves high volumes of local and regional traffic, as well as heavy truck traffic. Stop signs control the eastbound Main Street and the southbound SR 104/SR 124 approaches. The westbound SR 104/SR 124 approach is not controlled. No turn lanes are provided on any of the three approaches. The turning radius for the westbound-to-northbound movement on SR 104/SR 124 is very limited, such that large trucks must cross the centerline of the road to negotiate the turn.

The current and future levels of traffic, combined with the physical constraints of Sutter Creek, existing road alignments, and existing Main Street buildings, leave few options for improving traffic flows at the intersection. The City has pursued minor improvements of this intersection to enhance the turning radius from Main Street to northbound Preston Avenue, as well as modifications to reduce blockage of northbound Preston Avenue by cars entering the adjacent shopping center. This intersection is outside of the project area; however, this intersection could be affected by construction traffic if construction-related traffic is routed through downtown lone.

Commercial Traffic/Goods Movement

SR 124 and SR 104 serve as truck routes for both local deliveries and shipments between Sacramento and Amador Counties. Truck traffic constitutes between six and eight percent of the total traffic volume passing through downtown lone (Caltrans 2007). This truck traffic corresponds to an average of 650-750 trucks per day. According to the California Highway Patrol (CHP), these

routes also serve oversized truck shipments for portions of San Joaquin Valley, Sacramento Valley, and the Bay Area. CHP data indicate between the years 1998 and 2003, oversized trucks passed through downtown lone an average of three times per month. Trucks with KPRA distances greater than 30 feet are not advised to travel on SR 104 and 124. The City of lone discourages the use of large vehicles downtown; however, any limits to construction traffic or hauling through downtown lone would need to be established in project mitigation measures.

Truck turning movements severely impact the road system in downtown lone. The narrow configuration of streets, combined with on-street parking and the limited turning radii at key intersections degrades their capacity. Regular truck traffic causes substantially lower travel speeds and higher delays. Sight distance and conflict with oncoming vehicles occurs as trucks cross the centerline to turn. Delays caused by large trucks making turning movements at these intersections can affect emergency access. Other than advisories against large trucks, the City of lone cannot positively restrict trucks from the downtown. Efforts are underway to develop an alignment and funding for a West Side Bypass route that would alleviate the congestion and large truck conflicts in downtown lone. This problem occurs outside of the project area; however, construction related traffic could increase the problem if construction traffic is not restricted from passing through downtown lone.

Transit System

The Amador Regional Transit System (ARTS) provides fixed-route bus service between the communities of Sutter Hill and lone, with service to unincorporated areas of Comanche Road near Buena Vista. This route includes stop locations at Curran Road, Sutter Lane, and Main Street in lone. There are no bus stops in the vicinity of the treatment plant project sites or the various pipeline routes identified in this EIR.

3.7.2 REGULATORY SETTING

Federal Regulations

The City of lone and County of Amador accept federal transportation funds, and as a consequence must abide by the Manual of Uniform Traffic Control Devices (MUTCD) for signage and construction signage.

State Regulations

Acting as an agent of the State, Caltrans District 10 issues encroachment permits for pipelines proposed within a state highway right-of-way, and conditions encroachment permits based on traffic conditions. The California Streets and Highways Code, Sections 660 to 734, grants the authority to Caltrans to permit improvements and other activities on the State highway system rights-of-way by other agencies. An encroachment permit process would be required for pipelines within or adjacent to State highway rights-of-way.

Pursuant to SB 45, Caltrans districts and headquarters select the projects that utilize State Highway Operations and Protection Plan (SHOPP) funds and new construction funds for interregional highways. No funding is currently targeted to projects that would affect roads or intersections in the vicinity of the lone Wastewater Treatment Project or create simultaneous construction traffic impacts.

Railroad Regulations

Similar to the State, the Union Pacific Railroad issues encroachment permits and licenses for pipelines proposed within or crossing their railroad and conditions permits so that construction follows railroad procedures for protection of train movements and workers.

Regional Regulations

Amador County Transportation Commission

The regional transportation planning process in California was initiated by state law throughout California in 1972 (AB69). The ACTC was designated as the Regional Transportation Planning Agency (RTPA) for the Amador County area. The ACTC is responsible for preparing the Regional Transportation Plan, determining project priorities, and budgeting funds to be proposed for use in the State Transportation Improvement Program (STIP) with the input of cities and Amador County. The Amador County Board of Supervisors has adopted the ACTC Regional Transportation Plan Update as the County's General Plan Circulation Element.

Amador County Regional Transportation Plan Update

Goals, objectives, policies, performance standards, and project funding are each established by the Amador County Regional Transportation Plan. The 2004 Amador County Regional Transportation Plan Update identified the SR 104 corridor through and/or around Lone as a priority, along with the proposed West Side Bypass project. The update also shifted concern to unfunded and backlogged road maintenance of State highways and City and County roads, and updated the County's traffic mitigation fee ordinance.

The ACTC has the primary goal of providing a transportation and circulation system that is safe, efficient, convenient, and comfortable; that meets the transportation needs of people and goods, and that is compatible with other scenic, historic, economic, environmental, and recreational resource values. Within this primary goal, the ACTC has established a goal of maintaining LOS C or better for average conditions on all State highways, and a goal of maintaining LOS D or better for average conditions within incorporated cities and other developed communities. The Regional Transportation Plan acknowledges that LOS C and D may not be achievable because of prohibitive costs, environmental impacts, and constrained rights of way.

The estimated financial deficit for transportation improvements needed in Amador County is more than \$238 million over the next 25 years, nearly all of which is for state highways and County and city roads. The ACTC, the County, and the cities recently updated the traffic mitigation fee to assist in backfilling this transportation funding deficit.

Local Regulations

General Plan

The City of Lone Circulation Element's goals and policies relevant to transportation and traffic for the project are listed below.

- **Circulation Element:**
 - Goal CIR-1: Develop a roadway system that:
 - 1) Accommodates future land uses at the City's desired level of service;
 - 2) Coexists with other travel modes, includes biking, walking, and golf carts;
 - 3) Protects residential areas from excessive traffic; and
 - 4) Contributes to the quality, safety, and connectivity of the City's residential, Downtown, commercial, office, and industrial areas.
 - Policy CIR-1.3: Seek to maintain operations on all roadways and intersections at Level of Service (LOS) E or better at all times, with the exception listed in Policy CIR-1.4. LOS E should be maintained even during peak travel times, unless

maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals or unless maintaining this LOS would not, in the City's judgment, adequately serve the City's circulation needs, per Policy CIR-1.4.

- Policy CIR-1.4: In addition, exceptions to Policy CIR-1.3 may be allowed by the City Council where requiring a higher LOS or allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the City Council shall be added to the list of exceptions below:

Main Street, Church Street, Preston Avenue, and Lone Street-
LOS F; and

All Parkways (Golf Links Drive, WIRIS Segments, F, G, H, and I)-
LOS D.

- Policy CIR-1.7: Design the circulation system serving the City's industrial areas to safely accommodate heavy truck traffic.

3.7.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in a significant impact if it would:

- 1) Individually or cumulatively cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (e.g. result in a substantial increase in either the number of vehicle trips, volume to capacity ratio or congestion at intersections), or exceed a level of service "D" as required by the ACTC Regional Transportation Plan
- 2) Result in a change of air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- 3) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)
- 4) Result in inadequate emergency access
- 5) Result in inadequate parking capacity
- 6) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)

3.7.4 IMPACTS AND MITIGATION

Potential Impact 3.7-1: The potential to individually or cumulatively cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system, or exceed a level of service standard as required by the Amador County Transportation Commission.

Overview of Impacts

This impact section reviews impacts for project elements, including the worst case simultaneous construction scenario for Parts I and II and provides programmatic level impact analysis for those items not covered at the project level. The project will not generally affect existing Levels of Service in the immediate vicinity of the wastewater treatment plant sites. The addition of large construction truck traffic during peak hours through downtown lone could result in a drop in Level of Service at downtown intersections and along the state highways in the downtown. This is a temporary impact due to construction and is mitigated to a less than significant impact.

Existing Infrastructure-Pond 7

Construction. Construction of Pond 7 resulted in the excavation of approximately 37,037 cubic yards of dirt, which is equivalent to approximately 925 truck loads over the course of 21 days of construction. The truck traffic generated by building Pond 7 was not recorded, but would have involved a maximum of approximately 44 truck trips per day. It is likely that the actual truck traffic generated by the construction of Pond 7 was much lower because Pond 7 was primarily built with native material excavated from the site, and the only materials imported to the site were clay for the pond lining, and rip rap for the sides of the pond. The maximum level of traffic may have been significant if large truck traffic associated with construction of Pond 7 traveled through downtown lone. It is not known if large truck traffic traveled through downtown lone, and therefore it is speculative to attempt to determine whether or not traffic impacts from the construction and reconstruction of Pond 7 were significant.

Operation. Percolation of ARSA wastewater in Pond 7 required no earthmoving and resulted in a less than significant impact on traffic, LOS, or capacities of streets near the project. There was no increase in staffing to maintain or operate Pond 7. Traffic trips are limited to periodic maintenance trips to the pond, which would typically involve only one vehicle. Impacts have been and will continue to be less than significant, and no mitigation is required.

Part I – Treatment (Phases One and Two), and Part II – Disposal (Phase One - Pond 8) (Project-Level Elements)

Construction. The construction of the first phase of the Parts I and II project-level elements required to expand the City's wastewater treatment capacity to 0.80 MGD and disposal capacity to 0.90 MGD would likely occur prior to 2011. The construction of the second phase of the Part I project-level elements required to expand the City's wastewater treatment capacity to 1.60 MGD would likely occur prior to 2017.

The worst case construction scenario from a traffic perspective would be the simultaneous construction of the phase one project-level elements of Part I and Part II. The worst case construction scenario also assumes that the most intensive option in terms of excavation and soil movement is chosen for each of the project elements, including partially filling Ponds 5 and 6 instead of partially lining them; filling Ponds 1-4 instead of leaving them empty and in place; selecting the underground version of the activated sludge system instead of the aboveground version; and constructing a new tertiary WWTP adjacent to the new activated sludge system instead of expanding the existing tertiary WWTP.

Phase two of Part I would occur separately, likely before 2017, and would require the expansion of the treatment capacity of both the activated sludge system and the attached tertiary WWTP to 1.60 MGD. This document assumes that the phase two construction impacts are identical to the phase one construction impacts.

Construction of the proposed project would require an increase in heavy construction vehicles and worker vehicles on roads in the project vicinity, mostly due to construction vehicles accessing the project area. Construction vehicle trips would include large trucks transporting equipment such as backhoes, cranes, and excavators; water trucks and dump trucks, and personal vehicles used by construction workers. It is estimated that up to 25 workers would be reporting to the project site at the peak of construction. Highways and roads in the vicinity have relatively high levels of service with ratings of mostly LOS B and C; LOS D at downtown intersections. The addition of heavy truck traffic and personal vehicles in downtown lone could cause a decline in LOS below the City's standard (LOS C) and possibly below the ACTC standard of LOS D. This decline in LOS would be more likely if the personal vehicle and truck traffic were to go through downtown lone during peak weekday hours or during weekend traffic peaks. The LOS decline would be temporary and limited

to times of construction activities; however, such a decline in a heavily traveled downtown would be considered a significant impact.

Table 3.7-3 provides an estimate of the number of large truck trips expected during construction of each component of the project level elements of Parts I and II. These truck trips include all trips for the purposes of hauling soil and concrete materials to or from the project site. The truck trips per day represent the worst-case scenario prior to the implementation of mitigation measures.

Under the worst case scenario outlined in Table 3.7-3, the total amount of materials that would be imported to the site during the construction of the project level elements of phase one, Parts I and II include approximately 76,450 cy of soil and 4,500 cy of concrete, while the total amount of materials that would be exported from the site include approximately 80,306 cy of soil (Table 3.7-3).

The phase two project-level elements in Part I would require the removal of approximately 49,800 cy of soil and the import of approximately 30,450 cy of fill, assuming a worst-case scenario where the amount of cut and fill are not balanced on the site. The analysis in this EIR, however, assumes that the construction level impacts for phase two are identical to those for phase one, and so the amount of exported and imported materials for phase two are assumed to be the same as those outlined in the previous paragraph for phase one.

The number of large truck trips shown in this table assumes that there is no balancing of the import and export of soil materials on the site. It is highly likely that the City would make an effort to balance the import and export of soil materials from the site by using excavated materials for all infill needs. Such a balancing of the import and export of soil materials would have the potential to eliminate the majority of the truck trips associated with earth moving activities, thereby significantly reducing the construction traffic generated by this project.

The table also assumes that the most intensive option in terms of excavation and soil movement is chosen for each of the project elements, as stated above. Should the City of Lone choose to leave Ponds 1-4 in place; line instead of fill Ponds 5 and 6, select the aboveground option for the activated sludge system, and/or expand the existing tertiary WWTP rather than construct a new tertiary WWTP, the amount of soil movement and related truck trips generated by project construction would drop accordingly.

Construction vehicles would add a temporary increase to traffic on SR 88, Old Stockton, Five Mile Road, West Marlette Street, and collector streets. Construction vehicles for both of the WWTP facilities and for pipeline construction would also temporarily increase traffic on SR 104 and SR 124. The construction phase of the proposed project would require approximately 25 daily round trip worker vehicle trips to the project area in addition to deliveries of equipment and material. Construction related vehicles (other than the large truck trips for hauling soil and concrete to or from the site) traveling to the project sites on these highways during construction would total approximately 109 trucks per day during the peak of construction under the worst-case scenario. This represents a 1.8 to 3.0 percent increase in traffic in relation to the approximately 4,000-6,000 daily vehicles on the roads. The number of construction vehicles and travel time along the roads could result in a significant increase in traffic and could cause a decrease in the LOS of the roads.

Traffic congestion could occur if any downtown roadways or arterial streets were limited to one-way traffic during construction, particularly during peak travel hours. This traffic congestion could be significant, depending on the route of travel and the time of day of travel. Mitigation measure Traffic-1 would be implemented to reduce these LOS and traffic volume impacts during construction to less than significant levels.

Table 3.7-3: Worst Case Scenario Construction and Truck Traffic for Parts I and II (Project-Level Elements)

Project Element	Estimated Amount of Transported Materials	Construction Days	Truck Trips ⁶ (Entire Construction Period)	Average Truck Trips (Per Day)
Excavate for construction of activated sludge system (for each Phase in Part I)	40,600 cy (cut - export)	300	1,000 ¹	3.38 ²
Backfill for construction of activated sludge system (for each Phase in Part I)	30,450 cy (fill - import)	300	750 ¹	2.54 ³
Pave slab for underground activated sludge system	4,500 cy (concrete - import)	300	113 ⁴	<1 ⁵
Partially fill Ponds 5 and 6	30,000 cy (fill - import)	28	750 ¹	27
Construct pipelines between secondary and tertiary WWTPs	106 cy (cut - export)	28	2.65 ¹	<1
Construct new or expanded tertiary WWTP, adjacent to new activated sludge system (for each Phase in Part I)	8,600 cy (cut - export)	100	200	2.15
Construct Pond 8	32,000 cy (cut - export)	90	800 ¹	8.9
Close and fill Ponds 1 through 4 (including demolition of existing secondary WWTP equipment)	46,000 cy (fill - import)	28	1,150 ¹	41

Notes

¹ Assuming a cubic yard capacity of 40 cy per truck

² Average truck trips per day for excavation would be higher in the beginning of the construction period for the underground activated sludge system because excavation would take place during the beginning of the construction period.

³ Average truck trips per day for backfill would be higher during the end of the construction period for the underground activated sludge system because backfill would take place during the end of the construction period.

⁴ Assuming a cubic yard capacity of 10 cy per truck

⁵ Average truck trips per day for slab paving would be higher during the middle of the construction period for the underground activated sludge system because slab paving would take place during the middle of the construction period.

⁶ Truck trips are assumed to be round trip vehicle movements

Traffic-1: The City of Lone shall prepare a Traffic Management Plan subject to the review and approval of the City of Lone city staff prior to applying for encroachment permits or initiating construction of the project. The Traffic Management Plan shall be written into construction specifications and monitored by the City. The Traffic Management Plan shall have the goals of:

- Minimizing construction spoils,
- Balancing cut and fill to the extent feasible,
- Establishing logical construction staging to minimize truck trips,
- Routing truck traffic to avoid the downtown lone area as much as feasible, and

3.7 TRANSPORTATION AND TRAFFIC

- Providing sufficient emergency service and public information regarding the construction project, detours, and hours and dates of construction.

The plan shall include:

- a) Control measures for traffic control at the ingress and egress of the existing secondary and tertiary WWTPs along West Marlette Street and Five Mile Road during construction activities to allow adequate and safe road access between the facilities and the adjoining roads.
- b) Control measures to ensure adequate and safe traffic movements along proposed pipeline routes during pipeline construction.
- c) Control measures to require that contractors vanpool employees to and from the site to the extent feasible and practicable so as to avoid unnecessary congestion and parking disruption.
- d) A construction spoils plan to reduce to the extent feasible the import of material and the export off site of excavated material.
- e) A construction staging plan indicating where construction equipment, vehicles, and materials will be stored and staged for the duration of project construction, with the intent of minimizing construction staging in a public right-of-way and reducing construction traffic trips.
- f) Limits on hours of heavy construction traffic to avoid weekday peak hour (7:00am to 9:00am and 4:00pm to 6:00pm) and weekend traffic congestion.
- g) Control measures to designate access routes to and from the work site, and to limit construction vehicles and worker commute traffic from traveling through downtown Lone.
- h) A public information flyer shall be prepared and mailed to all resident, property owners, and business owners within a 2-mile radius of construction activities in order to notify the public of construction activities. The mailer shall be distributed two weeks prior to the start of construction activities. The mailer shall contain a phone number for the City representative who will serve as a contact person for project questions and comments.
- i) The contractor and city shall coordinate all construction activities with Amador Regional Transit System, school bus systems, and emergency service providers. Coordination shall include providing notices to these agencies 30 days prior to the beginning of any construction that could affect these agencies.
- j) The City of Lone shall install construction signs along the construction routes leading to the project sites, pursuant to direction in the Caltrans Construction Manual or Manual of Uniform Traffic Control Devices. Signage shall indicate slower construction traffic ahead, and shall be coordinated with Caltrans and Amador County to meet any Caltrans or County requirements.

Traffic trips related to moving excavated soils could be reduced by stockpiling soils on-site for reuse for project components such as the pond berms. Mitigation measure Traffic-1 contains the requirement that the City develop ways to reduce import and export of material in order to reduce the number of truck trips generated by soil import and export.

Traffic delays could occur during construction due to temporary lane closures for pipeline construction or equipment entering and exiting the roadway. These traffic delays may temporarily and substantially increase traffic and exceed LOS thresholds during construction of the project. Mitigation measures Traffic-1 and Traffic-2 would reduce LOS and traffic volume impacts related to road closures to a less than significant level.

Traffic-2: No road shall be closed for a time period exceeding one hour if there are vehicles waiting to pass through the construction area. If activities are not completed within the one-hour timeframe, metal plates or a similar apparatus shall be placed over the trench and waiting

motorists shall be allowed to pass. Such metal plates shall be placed over trenches immediately if required to allow emergency vehicles to pass through the construction area.

Operation. Vehicle trips from the operation of the WWTP facilities would include car trips for workers operating and maintaining the facilities, truck trips for the removal of sludge waste to an offsite location, and truck trips for cleaning and solids (sludge and related material) removal of each percolation pond once every 5 years.

Operation of the proposed facilities would employ at most 1 to 2 additional workers, and the addition of the commute traffic from these five workers would have a less than significant effect on LOS, traffic levels, or traffic capacity.

Maintenance vehicle trips include truck trips to dispose of dry solids waste from the secondary and tertiary wastewater treatment processes. The new activated sludge treatment system would produce approximately 420 dry tons of sludge per year at 1.60 MGD capacity, which would require one to two truck trips per week for the removal of sludge waste. The weekly or biweekly truck trips for the hauling of sludge waste may substantially affect traffic volumes or LOS in the area if this traffic is routed through downtown lone because of the size of the trucks. Mitigation measure Traffic-3 would be implemented to reduce this potential impact to a less than significant level.

Traffic-3: Large trucks used to haul solids waste shall be routed around downtown lone, to the greatest extent feasible.

These truck trips would not happen all at one time but would instead, be spread out according to sludge generation, and would be scheduled appropriately (likely once per week or once every two weeks). Impacts to LOS and traffic volume from four annual truck trips spread out throughout the year could result if the trucks were routed through downtown lone, because of the difficulties in navigating large vehicles through downtown lone. Mitigation measure Traffic-3 would require large trucks used to haul solids waste to be routed around the narrow streets of downtown lone to the greatest extent feasible, and impacts would be less than significant with implementation of this mitigation measure.

Deposition from the algae growth in the percolation ponds needs to be cleaned from each pond approximately once every five years. This cleaning of the ponds is typically performed on a rotating, annual schedule. Cleaning a pond would remove approximately 1,000 cubic yards of wet solids, including native soils. The solids removal would take place during the summer months, and would be performed during a two-week period. The approximately 1,000 cubic yards of dry sludge waste produced from cleaning each percolation pond would result in approximately 25 total truck trips per pond for the entire process per pond, or approximately three trips per day during the two-week pond cleaning process. Impacts to LOS and traffic volume from the truck trips could result if the trucks were routed through downtown lone, because of the difficulties in navigating large vehicles through downtown lone. Mitigation measure Traffic-3 would require large trucks used to haul sludge waste to be routed through downtown lone to the greatest extent feasible. Impacts would be reduced to less than significant with implementation of this mitigation measure.

Maintenance vehicle trips would also include approximately one pickup truck trip per month to check the status of the monitoring wells in and around the WWTP sites. This monthly truck trip would not add a significant amount of traffic to the local roadways.

Part II – Disposal (Phase Two - Programmatic Level Elements)

Construction. Disposal options of treated wastewater include the construction of Pond 9, the construction of a pipeline to Unimin Mine and Charles Howard Park, or the construction of a pipeline to another end user of tertiary treated wastewater. Impacts would involve an increase in traffic from construction worker commute trips, materials hauling, and hauling of excavated and/or

imported soils. The increase in traffic may be substantial, and may contribute to a reduction in LOS. Mitigation measure Traffic-1 would be implemented to help to reduce these impacts.

Road closures, such as during pipeline construction, could also result in traffic congestion and a reduction in LOS. Mitigation measures Traffic-2 and -3 could be implemented to help to reduce these impacts. Further CEQA review would be required at a project level to determine the impact significance of any of these disposal options, and any necessary additional mitigation measures identified at that time.

Operation. Under any of the three programmatic-level disposal options discussed in this EIR, there would be nominal truck and maintenance traffic associated with the pond and/or pipeline(s) that would not cause a significant impact to traffic volume or LOS. Trips associated with sludge removal from Pond 9 could be significant if traffic were routed through downtown Lone. Mitigation measure Traffic-3 would likely reduce these impacts to a less than significant level. Further CEQA review would be required at a project level to determine the impact significance of any of these disposal options, and any necessary additional mitigation measures identified at that time.

Part III - Storage

The Part III programmatic element options would provide additional storage capacity for the City's treated wastewater. It is unknown when additional storage capacity may be required to meet the City's long term wastewater storage needs and thus, no date has been established for the implementation of any of these storage options.

Construction. Construction of Part III elements has the potential to add a substantial amount of traffic to project area roadways, and could cause a reduction in LOS. Construction of pipelines to an existing storage reservoir could involve extensive excavation and soil movement. Construction of a new reservoir could likely involve major soil excavation and a substantial number of truck trips. Mitigation measure Traffic-1 would be utilized for the construction of Part III elements. Further CEQA review would be required at a project level to determine the impact significance of any of these storage options, and any necessary additional mitigation measures identified at that time.

Operation. Operation and maintenance of a pipeline to a storage reservoir would likely have the same impacts as for the pipeline between the secondary and tertiary WWTPs. Impacts would likely be less than significant. Further CEQA review would be required at a project level to determine the impact significance of any of these storage options, and any necessary additional mitigation measures identified at that time. Operation and maintenance of an existing or new reservoir could require a substantial number of annual truck trips. Determination of these impacts would be speculative, however, and will not be assessed in this document.

Potential Impact 3.7-2: Result in a change of air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks

The Ranch Airstrip is a private airstrip located about one mile southwest of the existing secondary WWTP. Construction and operation of the project would not change air patterns, interfere with aviation or aviation electronics, create a hazard for flight, or impinge upon any flight protection area or protected air space. No tall or lit features would be installed on the project facilities or involved in the construction of the WWTP, pipeline, or percolation pond facilities. No air traffic impacts would result from this project, and no mitigation is required.

Potential Impact 3.7-3: Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)

Overview of Impacts

Hazards would not be substantially increased by a design feature of the project because no new roadways would be built.

Farm equipment use along the roads proposed for construction access is limited; local and regional traffic contain no references to farm equipment using road shoulders in Amador County or the City of Lone. Farm equipment using roads or shoulders of roads was not observed on any of the roads near the existing WWTP facilities during multiple field visits, and farm equipment may not legally use shoulders of state highways. Traffic impacts related to the use of farm equipment would be less than significant.

Existing Infrastructure – Pond 7, Part I – Treatment (Phases One and Two), and Part II – Disposal (Phase One - Pond 8) (Project-Level Elements)

Construction. Construction vehicles would access the project site from West Marlette Street, Old Stockton Road, and Five Mile Drive. The intersection of West Marlette Street and Old Stockton Road is controlled with turn pockets and a stop sign. No additional transportation hazards would result from the use of this intersection by construction vehicles. There would be no transportation hazard created at any downtown intersection in Lone with the implementation of mitigation measure Traffic-1, which restrict construction vehicles and construction employees from using routes through downtown Lone.

Delivery trucks and other trucks could also access the WWTP sites via driveways off of Five Mile Drive and West Marlette Street. Roadway visibility in the project vicinity is good, and sufficient sight distances exist for safe vehicle movements in and out of these driveways. Construction vehicles would not be staged on any roadway during construction of the proposed project.

The construction of the pipeline connections between the secondary and tertiary WWTPs could create transportation hazards due to temporary lane closures and the presence of construction vehicles and equipment in the roadway and shoulder.

Large construction vehicles may cause permanent damage to the local streets used to access the sites if there is not paved track in areas adjacent to the project's driveways. Mitigation measure Traffic-4 would reduce the possibility that project-related construction activities would result in significant impacts to the street paving condition, and mitigation measure Traffic-5 would require repair of any damaged roads. These two mitigation measures would reduce impacts regarding damage to paved streets to a less than significant level.

Traffic-4: Paved track areas shall be created prior to construction to minimize the amount of construction material deposited on the City's and County's paved surface roads. Paved track areas shall be required at each plant entrance.

Traffic-5: Roads damaged by construction activities shall be repaired in a timeframe acceptable to and in coordination with Amador County Public Works, Caltrans, and/or the City of Lone.

Large truck traffic used for materials transport could create a safety hazard by traveling through downtown Lone because the streets of downtown Lone are difficult for large vehicles to navigate. Mitigation measure Traffic-3 would reduce impacts to less than significant.

Operation. Operation of the proposed wastewater treatment facilities would require relatively few daily vehicle trips. Operation vehicle traffic would be limited to a small number of commute trips, as

well as a limited number of maintenance vehicle trips. Maintenance vehicles would travel primarily between the secondary and tertiary WWTPs using portions of Five Mile Drive and West Marlette Street.

Large trucks would be used for sludge disposal. Large truck traffic through downtown lone could create a safety hazard by traveling through downtown lone because the streets of downtown lone are difficult for large vehicles to navigate. Mitigation measure Traffic-3 would reduce impacts to a less than significant level. Safety on the roadways would not be compromised from either commuter or other maintenance vehicle traffic. Operation impacts on hazards would be less than significant with implementation of the identified mitigation measures.

Part II – Disposal (Phase Two - Programmatic Level Elements)

Construction. Elements such as the construction of Pond 9, the construction of a pipeline to Unimin Mine and Charles Howard Park, or the construction of a pipeline to another end user, could occur in a place that is more vulnerable to the creation of hazards than the location of the project-level elements of Parts I and II. Further CEQA review would be required at a project level to determine the impact significance of any of the programmatic level elements of Part II, and any necessary additional mitigation measures identified at that time.

Operation.

Construction and Operation. Hazards associated with the operation of phase two components would be similar to the hazards for operation in phase one, and the same mitigation measures would be used to help reduce impacts to a less than significant level. Additional hazards impacts may also result from phase two operation in relation to the location of the program-level elements related to additional treated wastewater disposal capacity. Further CEQA review would be required at a project level to determine the impact significance of any of these disposal options, and any necessary additional mitigation measures identified at that time.

Part III – Storage

Hazards associated with the construction, operation, and maintenance of a pipeline to a storage reservoir would likely be similar to those associated with construction of the pipeline described in the Part II programmatic-level elements discussion above. Hazards related to traffic and transportation caused by the construction, operation, and maintenance of a new storage reservoir could be substantial, depending on location of the reservoir and its proximity to roads and any new roads created. Further CEQA review would be required at a project level to determine the impact significance of any of these wastewater storage options, and any necessary additional mitigation measures identified at that time.

Potential Impact 3.7-4: The potential to result in inadequate emergency access

Existing Infrastructure – Pond 7, Part I – Treatment (Phases One and Two), and Part II – Disposal (Phase One - Pond 8) (Project-Level Elements)

The roadways in the project area vicinity experience limited traffic. There is currently sufficient room for emergency access and turnaround. Mitigation measures Traffic-1 and Traffic-2 would require that traffic access be maintained during project construction, advance construction signing be placed in the project vicinity, alternative emergency routes be established if necessary, and sufficient equipment and manpower be on site to plate excavations and maintain traffic flows on roadways. Emergency services providers would also be notified of construction activities. Impacts would be less than significant with the implementation of the identified mitigation measures.

Operation and maintenance activities would not result in impacts to emergency access.

Part II – Disposal (Phase Two), and Part III – Storage (Programmatic Level Elements)

Impacts to emergency access during Parts II and III (programmatic-level elements) construction and operation activities would likely be similar as those for Parts I and II (project-level elements), and the same mitigation could be used to help to reduce impacts. Further CEQA review would be required at a project level to determine the impact significance of any of these storage options, and any necessary additional mitigation measures identified at that time.

Potential Impact 3.7-5: The potential to result in inadequate parking capacity

Existing Infrastructure – Pond 7, Part I – Treatment (Phases One and Two), and Part II – Disposal (Phase One - Pond 8) (Project-Level Elements)

Construction. Both the secondary and tertiary WWTP sites possess paved or unpaved areas that would be suitable for the parking of construction vehicles and the staging of construction equipment and materials. All construction parking and staging would be located on the two WWTP sites. Mitigation measure Traffic-1 would require that construction workers carpool to the project site, which would avoid any parking shortage during project construction. Implementation of this mitigation measure would reduce construction impacts on parking to a less than significant level.

Operation and Maintenance. The project would increase the number of personnel required to operate and maintain the WWTP facilities by 1 to 2 employees. The increase in employees would result in a corresponding increase in need for on-site parking at both WWTP facilities. The existing paved area at the tertiary WWTP would be sufficient for the increased parking demand at that facility, and the proposed changes to the secondary WWTP would include sufficient parking for all employee and maintenance vehicles. Project operation and maintenance would have a less than significant impact on parking, and no mitigation is required.

Part II – Disposal (Phase Two), and Part III – Storage (Programmatic Level Elements)

Construction and operation of the three storage options in the second phase of Part II would likely have similar impacts to parking as those for as Part I discussed above. The construction and operation of a new reservoir could have significant impacts on parking capacity. Further CEQA review would be required at a project level to determine the impact significance of any of these storage options, and any necessary additional mitigation measures identified at that time.

Potential Impact 3.7-6: Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

Existing Infrastructure – Pond 7, Part I – Treatment (Phases One and Two), and Part II – Disposal (Phase One - Pond 8) (Project-Level Elements)

Construction. Project construction could interfere with bus routes, bus stops, and bicycle routes if construction vehicles used downtown lone as an access route to the project site. Implementation of mitigation measure Traffic-1 would restrict large construction vehicles from using routes through downtown lone, resulting in less congestion for the local transit operator and less congestion on the state highway network. Implementation of mitigation measure Traffic-1 would also insure that the project would not introduce construction traffic into the weekday peak commute hours or weekend tourist traffic, and would therefore support efforts by Amador County and the City of lone to encourage alternative travel modes and the efficient operation of arterial roadways. Construction impacts on alternative transportation policies, plans, or programs would be less than significant with the implementation of mitigation measure Traffic-1.

Operation. Project operation and maintenance could interfere with bus routes, bus stops, and bicycle routes if large vehicles used downtown lone as an access route to the project site.

Implementation of mitigation measure Traffic-3 would restrict large vehicles from using routes through downtown lone, resulting in less congestion for the local transit operator and less congestion on the state highway network. The operation and maintenance of the wastewater treatment facilities, pipelines, and percolation ponds would not affect implementation of programs or policies supporting alternative transportation with the implementation of mitigation measure Traffic-3.

Part II – Disposal (Phase Two), and Part III – Storage (Programmatic Level Elements)

Impacts to alternative transportation plans and policies caused by the construction and operation of any of the three disposal options in the second phase of Part II and the storage options in Part III would likely be similar to those for the project-level elements in Parts I and II. The same mitigation measures would be used to reduce impacts. Further CEQA review would be required at a project level to determine the impact significance of any of these storage options, and any necessary additional mitigation measures identified at that time.