

Chapter 15

Public Health and Safety

Affected Environment

Existing Environmental Contamination

The project area encompasses urban and rural lands that support residences, small businesses (such as gas stations and stores), and industries (such as wineries, packing companies, and dairy operations), as well as agricultural lands in Sacramento, Calaveras, Amador, and San Joaquin Counties (see Figures 2-1, 2-2, and 2-3). Undocumented soil contamination could exist at or near commercial and industrial sites, along railroad tracks where pesticides or other chemicals could have been used or released, and potentially in cultivated areas where agricultural chemicals are used.

Freeport Intake Facility to Mokelumne Aqueducts

To identify known sites of potential concern, a search of federal and state databases was performed (Environmental Data Resources, Inc. 2002), which covered most of the potentially affected areas. The search area did not extend north of Florin Road between Bradshaw Road and the FSC. A search for sites of potential concern will be required for the specific location of the Zone 40 Surface WTP, if the selected location is north of Florin Road, and for the area north of Florin Road between Bradshaw Road and the FSC, if either Alternative 2 or 4 is selected and the pipeline is located on the north side of Florin Road.

The search identified 286 sites with potential environmental concerns within the search guidelines set forth by the American Society for Testing and Materials. Sites that had been remediated under agency oversight were considered to pose minimal risk to workers and the public during pipeline construction, as were sites greater than ¼ mile away from the pipeline alignment areas, including the intake facility, canal pumping plant, and aqueduct pumping plant and pretreatment facility. In addition, if a release did not affect groundwater and the site was not adjacent to pipeline alignments, the site was not considered to pose a risk to public health and safety.

Of the 286 sites initially identified in the database search, 20 were considered to present a potential risk to public health and safety and are included in the following discussion. These sites are listed in Table 15-1. Some of these sites have the potential to affect more than one segment, as well as more than one pipeline alignment alternative. None of the sites listed in Table 15-1 is located along any of the segments near the intake facility, the terminal facility, the canal pumping plant, the surge tank, or the aqueduct pumping plant and pretreatment facility (Camanche site and optional Brandt site).

The EDR database search did not identify any sites containing significant contamination along the FSCC pipeline alignment from the FSC to Mokelumne Aqueducts. Given the generally agricultural uses of these segments, undocumented soil contamination could exist where agricultural chemicals are being or have been used.

Historical gold and copper mining along the upper Mokelumne River drainage could have resulted in mercury contamination of alluvial sediment at the FSCC pipeline Mokelumne river crossing. Acid mine drainage, spilled concentrator reagents, and some detrital heavy metal sulfide minerals were released into the Mokelumne River from Penn Mine and carried downstream before construction of Camanche Reservoir (Leland Gardner and Associates 1996). Some remnants of solid components of those releases could still be present in the downstream river alluvium, although it is unlikely that more than trace amounts remain. Remnants of fuel, lubricants, hydraulic fluid, and similar substances, possibly spilled during construction of Camanche Dam and the Mokelumne River fish hatchery, also could be present near the FSCC pipeline Mokelumne River crossing. An existing powerhouse with a substation at the dam could also be a source of past soil contamination along the FSCC pipeline.

Table 15-1. Hazardous Material and Hazardous Waste Locations from the Freeport Intake Facility to the Mokelumne Aqueducts

Alternative	Segment(s) Affected	Affected Matrix	Business Names and Address	Contaminants of Concern
2, 3	B, C	Groundwater	Shell #6698-31, 8900 Pocket Rd	Gasoline
2, 3	C	Not reported	SMUD PCB Substation Site #15, Meadowview Road at West	PCBs
2, 3	C	Soil	Office of Emergency Services 2800 Meadowview Rd	Diesel
2, 3	C	Soil	CHP Academy Site (former) 2810–2814 Meadowview Rd	Lead
2, 3	C	Soil	United Gas and Food, 1481 Meadowview Rd	Gasoline
2, 3, 4, 5, 6	C, R	Groundwater	Former Bel Air Property, 2450 Meadowview Rd	Chlorinated Hydrocarbons
2, 3, 4, 5, 6	C, R	Not reported	Meadowview Community Center, 2450 Meadowview Rd	VOCs, TPH
2, 3	E	Groundwater	ARCO SS, 6698 Mack Rd, Case 2	Gasoline, MTBE
2, 3	E	Groundwater	TOSCO Service Station 5579, 6500 Mack Rd	Gasoline, MTBE
2, 3	E	Groundwater	Shell, 6490 Mack Rd	Gasoline
2, 3, 4, 5, 6	F	Not reported	Calvey Packing, 7728 Wilbur Way	Not reported
2, 3, 4, 5, 6	H	Soil	Lucky Stores, Inc., 8371 Carbide Ct.	Gasoline
2, 3, 4, 5, 6	H	Not reported	Building 6, 7550 Reese	Diesel
2, 3, 4, 5, 6	H	Soil	ARCO 5585 Case 2, 8100 Gerber Rd	Gasoline
2, 3, 4, 5, 6	I	Not reported	Citizens Telecommunication Co. of California, Inc., 9600 Gerber Rd	Not reported
2, 3, 4, 5, 6	I, J	Not reported	Mohan’s Iron Works, 9681 Gerber Rd	Not reported
3, 5	M	Not reported	Gerber Dump, Gerber/Excelsior Rd	Not reported
3, 5	M	Groundwater	Gerber Road Disposal Site, 10401 Gerber Rd	Sanitary landfill
4, 5, 6	R, Option 1	Groundwater	GTE Data Services, 7901 Freeport Blvd	Diesel

LUST = Leaking Underground Storage Tank.

PCBs = Polychlorinated biphenyls.

TBE = Methyl tert-butyl ether.

VOCs = Volatile organic compounds.

TPH = Total petroleum hydrocarbons.

Source: Environmental Data Resources, Inc. 2002.

Enlarge Pardee Reservoir

No hazardous materials data search has been conducted for the enlarge-Pardee-Reservoir component, including the new replacement dam site, the saddle dams, ancillary facilities, or inundation area. There are numerous old mine sites in or above the inundation area. These sites could potentially be sources of contaminants.

Flood Control

Freeport Intake Facility to Mokelumne Aqueducts

The proposed site for the Freeport intake facility on the Sacramento River is in the river channel next to levees that are part of the Sacramento River Flood Control Project. The levees are operated and maintained by the State Reclamation Board.

The pipeline alignments cross the floodplains of natural streams and rivers in Sacramento and San Joaquin Counties. These streams and rivers help provide flood protection during seasonal storms by collecting and directing runoff downstream.

The Zone 40 Surface WTP, terminal facility, canal pumping plant, or aqueduct pumping plant and pretreatment facility (Camanche site and optional Brandt site) are not within the floodplains of natural streams and rivers.

Enlarge Pardee Reservoir

As described in more detail in Chapter 2, "Project Description," Pardee Reservoir provides flood control for the Mokelumne River watershed downstream of Pardee Dam.

Environmental Consequences

Methods and Assumptions

The evaluation of potential impacts on public health and safety addresses the potential for health and safety hazards during project construction and operation of project facilities after construction. The analysis includes potential effects on workers related to construction activities, as well as general facility safety and hazards to both workers and the public posed by the new facilities.

Implementation of permanent security and design features described in Chapter 2 is assumed in the analysis.

Significance Criteria

The criteria used for determining the significance of an impact on public health and safety are based on the State CEQA Guidelines environmental checklist and professional standards and practices. Impacts on public health and safety may be considered significant if implementation of an alternative would:

- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials to the environment;
- be located on a site that is on a list of hazardous materials sites compiled pursuant to California Government Code 65962.5, and as a result would create a significant hazard to the public or the environment;
- impair implementation of or physically interfere with an adopted emergency response plans or emergency evacuation plan;
- expose people or structures to a significant risk of loss, injury, or death involving wildland fires;
- place within a 100-year flood hazard area structures which would impede or redirect flood flows; or
- expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Less-than-Significant Impacts

Alternative 1

Under this No-Action Alternative, hazardous materials and contaminated groundwater would continue to exist at recorded locations identified by state and federal databases, and new sites could be identified. However, the potential for project-generated worker or resident exposure to these substances as a result of the FRWP would not occur because the project facilities would not be constructed.

Alternatives 2–5

Alternatives 2 through 5 differ only in the pipeline alignments from the Freeport intake facility to the FSC. Project construction and operation for Alternatives 2 through 5 are very similar. Impacts related to public health and safety for each alternative differ only slightly from each other; therefore, the results for Alternatives 2 through 5 are presented together but are representative of each individual alternative, unless otherwise noted.

Construction-Related Impacts

Impact 15-1: Exposure of People to Existing Contamination

As noted in the Affected Environment discussion above, soil contamination could exist at or along the project component locations. Construction workers and members of the public could be exposed to existing soil contamination during ground-disturbing activities such as excavation and grading. Because groundwater also could be contaminated in these areas, workers and residents could be exposed to contaminated groundwater during trench and tunnel dewatering.

As noted in the Environmental Commitments section of Chapter 2, FRWA would conduct Phase I hazardous materials studies before the beginning of construction to identify the potential for soil and groundwater contamination in construction areas for the project components. Areas where contamination is suspected or confirmed would be examined in Phase II studies. The Phase II assessment would include soil and groundwater sampling and analysis for likely contamination. As part of Phase II studies, appropriate state and local agencies would be notified and applicable requirements implemented to minimize or avoid health risks. In addition, construction workers would be required to comply with worker safety requirements, including those set forth by Cal OSHA.

As noted above, a database search and preliminary hazardous materials assessment have been performed for most of the pipeline alignment areas. The assessment did not reveal sites of potential concern at locations along any of the pipeline segments near the intake facility, the terminal facility, the canal pumping plant, or the aqueduct pumping plant and pretreatment facility. The assessment revealed possible hazardous or potentially hazardous soil and groundwater contamination along some segments of the pipeline alignments, and it is possible that previously undiscovered contamination could be encountered during construction. In the case of previously undiscovered contamination, construction procedures would be temporarily stopped at the site of concern until an appropriate investigation were completed and appropriate measures to protect human health and the environment developed. As discussed earlier, a search for sites of potential concern will be required for the specific site of the Zone 40 Surface WTP, if the selected location is north of Florin Road, and for the area north of Florin Road between Bradshaw Road and the FSC, if either Alternative 2 or 4 is selected and the pipeline is located on the north side of Florin Road.

FRWA has committed to conducting Phase I environmental site assessments before the beginning of construction. If necessary, Phase II investigations will also be conducted. Based on the findings of the Phase II investigations, appropriate measures to protect human health and the environment will be developed before construction proceeds.

Groundwater levels typically are well below the anticipated depth of excavation throughout the project area. Therefore, the potential for human exposure to known contaminated groundwater would be extremely low in most areas. However, in areas where the project components cross streams and rivers or are close to surface water bodies, groundwater could be encountered during construction. If the soil is contaminated, the groundwater also could be contaminated, and construction workers and members of the public could be exposed to the contaminated groundwater during trench and tunnel dewatering procedures. To reduce this risk, Phase II environmental site assessments would be conducted in areas where contaminated groundwater is anticipated based upon Phase I assessments. If groundwater that is contaminated by potentially hazardous materials is expected to be extracted during dewatering, appropriate local agencies and the Central Valley RWQCB would be notified. A contingency plan to dispose of contaminated groundwater would be developed before construction activities begin. In addition, the project would comply with all local requirements for dewatering, including those for issuance of a dewatering permit.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-2: Contamination of Soil and Water during Construction

Potentially toxic substances such as fuels, oils, and lubricants would be used during project construction. Accidental releases of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. The potential for water quality degradation would be of highest concern where the project components cross streams and rivers and wherever dewatering procedures would be implemented. This effect would be minimized through development and implementation of the project hazardous materials management plan as described in the Environmental Commitments section of Chapter 2. This plan would include protocols for handling and disposing of hazardous materials and practices to reduce the potential risks to public health from hazardous materials during construction.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-3: Increased Risk of Fires during Construction

Several project components would be constructed within or near annual grasslands with high potential for fire during dry seasons. Operation of equipment used to construct project components, such as bulldozers, tractors,

transportation vehicles, welders, and grinders, could increase the potential for fire. This hazard would be minimized or avoided through implementation of the project fire control plan described in Chapter 2, under Environmental Commitments. This plan would require coordination with the appropriate agencies responsible for fire protection on lands crossed by the proposed project components, as well as compliance with all applicable local, state, and federal fire regulations. The plan would be approved by all affected fire agencies before construction in areas with high fire hazards.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-4: Increased Flooding along Sacramento River

The intake facility would be constructed on the river side of an existing levee. Construction crews and equipment would require access to and over the levees into the river channel. Construction of facilities in the river channel would be limited to periods acceptable to the regulatory agencies and would not cause increased flooding or decrease the effectiveness of existing flood control operations. The project would require issuance of levee encroachment permits from the State Reclamation Board for construction activities on the levees. To comply with State Reclamation Board requirements, project construction and operation would be planned to ensure that the integrity and safety of the levees are not compromised and that access to the levees for maintenance or repair is not restricted.

An intake facility located in the river channel would not substantially affect channel flood capacity because the intake facility displacement would be minor compared to the overall floodway capacity. A two-dimensional hydraulic model was used to evaluate impacts. The results of the model are included in Appendix D and summarized in this analysis. In general, two-dimensional hydraulic models are best suited to evaluating specific changes in water surface elevation around the encroachment (in this case the intake facility) and changes in velocity and scour potential. These are the key factors used in identifying potential effects on the flood control system.

High-flow scenarios are typically used to evaluate impacts on a flood control system because they represent the greatest threat, at compared to low-flow event. The two-dimensional hydraulic model was used to evaluate existing and with project conditions under two flow scenarios: the original design flow and a worst case flood event. The worst case event, 150,100 cfs, is considered to be the maximum possible flow that could reach the location of the intake facility without overtopping the upstream levees. The worst case event is much larger than the design flow of 110,000 cfs, which is the flow that the flood control system was originally designed for and that the Reclamation Board typically uses to evaluate project impacts.

Considering changes in water surface elevation, the design flow shows a maximum decrease in water surface elevation of 0.3 ft on the face of the intake

facility and a maximum increase in water surface elevation of less than 0.2 ft on the downstream side of the structure. The worst case flow shows a maximum decrease in water surface elevation of 0.4 ft on the face of the structure and a maximum increase in water surface elevation of less than 0.2 ft on the downstream side of the structure. All of these changes are very localized and do not propagate upstream or downstream of the intake facility. Furthermore, an upstream decrease and downstream increase are typical hydraulic results given the size and orientation of this encroachment.

Considering changes in velocity, changes immediately adjacent to and downstream of the intake facility increase over a range of 0.25 foot per second (fps) to 1.5 fps for the design flow and a range of 0.25 fps to 1.7 fps for the worst case flow. In addition, the localized flow pattern changes due to the formation of eddies on the upstream and downstream ends of the intake facility. These changes could result in increased scour along the face of the intake facility and the flood control levee immediately downstream of the intake facility. These changes are limited to the localized area around the intake facility.

As described in the project description (Chapter 2), streambank protection features have been incorporated into the project design to protect the intake facility and the flood control levee from erosion that may occur as a result of increased velocities and scour potential. Because changes in water surface elevation are extremely small, even under the worst case scenario, and because there are no changes upstream or downstream of the site and the potential for erosion has been reduced by streambank protection measures, the impact on flood protection along the Sacramento River would be less than significant. No mitigation is required.

Impact 15-5: Increased Flooding during Pipeline Construction

Pipeline construction through stream and river floodplains would be designed and scheduled to ensure that the potential for increased flooding during construction is avoided or minimized. Construction procedures call for tunneling the pipeline beneath the largest river, the Mokelumne River, and for open trench construction within the floodplains of other streams and rivers. Construction would be short-term and would occur during the dry season when streamflows are low and risk of major flooding would be minimal. Streambeds and riverbeds would be restored to their original dimensions immediately following pipeline installation. This impact is less than significant. No mitigation is required.

Operation-Related Impacts

Impact 15-6: Use and Storage of Hazardous Materials during Operations

Operation of the Zone 40 Surface WTP would involve the use of water treatment chemicals, including sodium hydroxide (caustic soda), calcium hydroxide (lime), sodium bicarbonate (soda ash), zinc orthophosphate, alum, polymer(s), and chlorine (either in gaseous form or as sodium hypochlorite). The corporation yard associated with the Zone 40 Surface WTP would have a fueling station and

automotive service facility that would likely involve the use and storage of gasoline, diesel, oils, and lubricants. Other chemicals used at the Zone 40 Surface WTP would likely include small quantities of laboratory chemicals, paints, solvents, and janitorial supplies. In addition, biological growth inhibitors, such as chloramines, might be added at the turnout to the Zone 40 Surface WTP, as well as at the intake structure. Operation of the aqueduct pumping plant and pretreatment facility would involve ozone generators, liquid oxygen, sodium hypochlorite, alum, polymers, hydrogen peroxide, and lime.

Federal, state, and local laws require planning to ensure that hazardous materials are properly used, stored, and disposed of to prevent or minimize injury to workers, the public, and the environment. If quantities of hazardous materials above certain threshold amounts are used or stored on site, hazardous materials business plans would have to be prepared. These plans include a hazardous materials inventory, emergency response plan, and employee training requirements. If chlorine gas above the state threshold amount were stored, a risk management plan would need to be prepared. As required by law, the facility would have an emergency response plan to address potential accidents related to the use and storage of all hazardous materials at the facilities. Compliance with applicable regulations would reduce potential impacts related to the use and storage of hazardous materials at the Zone 40 Surface WTP and aqueduct pumping plant and pretreatment facility to insignificant levels. No mitigation is required.

Impact 15-7: Transportation of Hazardous Materials during Operations

Chemicals used in large quantities at the Zone 40 Surface WTP and aqueduct pretreatment facility would be delivered in bulk shipments, such as by tank trucks and trailers. Delivery of chemicals at full build-out would result in about five trips per week to each facility. Accidents associated with transport of these chemicals could pose hazards to the public. Accidents associated with unloading of chemicals at the facilities could pose hazards to workers and nearby residents if not carefully controlled. Federal and state laws govern the transportation of hazardous materials. As required by law, treatment plant staff workers who handle hazardous materials would be appropriately trained, and the facility would have an emergency response plan to address potential accidents. Compliance with applicable regulations would reduce potential impacts related to the transportation of hazardous materials to insignificant levels. No mitigation is required.

Alternative 6

As described in Chapter 2, “Project Description,” Alternative 6 consists of enlarging Pardee Reservoir and conveying water from the Sacramento River. Alternative 6 includes the following project components: enlarge Pardee Reservoir (which includes additional components), Freeport intake facility, pipeline from intake facility to the Zone 40 Surface WTP, and the Zone 40 Surface WTP. Though slightly different in size under Alternative 6, the Freeport

intake facility, pipeline from intake facility to the Zone 40 Surface WTP, and the Zone 40 Surface WTP project components are the same as those that make up Alternative 5. Therefore, several of the impacts associated with Alternative 5 (described above) are also associated with Alternative 6 and are restated below. Additionally, impacts associated with the enlarge Pardee Reservoir component of this alternative are described below.

Construction-Related Impacts

Impact 15-8: Exposure of People to Existing Contamination

Impacts associated with the project components from the Freeport intake facility to the Zone 40 Surface WTP would be the same as for Alternatives 2–5, described above.

Construction of the enlarge Pardee Reservoir component is unlikely to expose people to existing contamination because the area is being used as grazing and open space lands and has not been subject to urban, industrial, or intensive agricultural uses. However, as noted in the Environmental Commitments section of Chapter 2, Phase I studies of the dam site, borrow areas, and ancillary facility sites would be conducted before the start of any work in those areas. If contamination is found, further study and/or cleanup (Phase II studies) would be conducted before any construction activities could occur on or near the contaminated sites.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-9: Contamination of Soil and Water during Construction

Impacts associated with the project components from the Freeport intake facility to the Zone 40 Surface WTP would be the same as for Alternatives 2–5, described above.

Large quantities of potentially toxic substances such as fuels, oils, and lubricants would be used during construction of the new dam. Accidental releases of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. The potential for water quality degradation would be of highest concern with respect to spills or other accidental discharges into the Mokelumne River. This effect would be minimized through implementation of the project hazardous materials management plan as described in Chapter 2, under “Environmental Commitments”. This plan would include protocols for handling and disposing of hazardous materials and practices to reduce the potential risks to public health from hazardous materials during construction.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-10: Increased Risk of Fires during Construction

Impacts associated with the project components from the Freeport intake facility to the Zone 40 Surface WTP would be the same as for Alternatives 2–5, described above.

The replacement dam and ancillary facilities would be constructed within or near annual grasslands and chaparral with high potential for fire during dry seasons. Operation of equipment used to construct the new dam and ancillary facilities, such as bulldozers, tractors, excavators, transportation vehicles, welders, and grinders, would increase the potential for fire near construction areas. Additionally, the 300 workers at the site over a 4-year construction period could increase the risk of accidental fires from cigarettes, off-road vehicle travel, and other incidental activities. These hazards would be minimized or avoided through implementation of the project fire control plan described in the Environmental Commitments section of Chapter 2. This plan would require coordination with the appropriate agencies responsible for fire protection in dam and ancillary facility construction areas, as well as compliance with all applicable local, state, and federal fire regulations. The plan would be approved by all affected fire agencies before construction in areas with high fire hazards.

Because the project would be designed to include implementation of the measures described above, this impact is less than significant. No mitigation is required.

Impact 15-11: Increased Flooding along Sacramento River

Flood protection impacts associated with the construction and location of the intake facility would be similar to those described in Alternatives 2–5. As described in the project description (Chapter 2), streambank protection features have been incorporated into the project design to protect the intake facility and the flood control levee from erosion that may occur as a result of increased velocities and scour potential. Because changes in water surface elevation are extremely small, even under the worst case scenario, and because there are no changes upstream or downstream of the site and the potential for erosion has been reduced by streambank protection measures, the impact on flood protection along the Sacramento River would be less than significant. No mitigation is required.

Impact 15-12: Increased Flooding during Pipeline Construction

Flood protection impacts associated with the construction and installation of the pipeline would be similar to those described in Alternatives 2–5. Pipeline construction through stream and river floodplains would be short-term and would occur during the dry season when streamflows are low and risk of major flooding would be minimal. Streambeds and riverbeds would be restored to their original dimensions immediately following pipeline installation. This impact is less than significant. No mitigation is required.

Impact 15-13: Construction Activity Hazards to Workers

Construction activities could subject workers to numerous hazards, such as collapse of trenches, blasting hazards in borrow areas, and hazards associated

with use of heavy equipment. These hazards would be mitigated by strict adherence to Cal OSHA requirements and careful training and monitoring of project employees. Therefore, this impact is less than significant.

Impact 15-14: Downstream Flood Hazards from Rupture of the Proposed Dam

As described in Chapter 9, “Geology, Soils, Seismicity, and Groundwater” the proposed dam would be designed to withstand the maximum credible earthquake without failing. Therefore, downstream flood hazards would be less than significant.

Impact 15-15: Increased Flooding during Dam Construction

During construction of the new dam, flood protection provided by the existing Pardee Reservoir would not be affected because operation of the existing reservoir would not change. In the event of a large flood, the dam construction site would not affect the discharge of water from Pardee Reservoir or passage of water between Pardee and Camanche Reservoirs. To minimize the risk of flooding the replacement dam construction site, increased flood storage would be provided in Pardee Reservoir. The impact on flood protection provided by Pardee Reservoir is less than significant. No mitigation is required.

Operation-Related Impacts

Impact 15-16: Use and Storage of Hazardous Materials during Operations

Operation of the Zone 40 Surface WTP would involve the use of water treatment chemicals including sodium hydroxide (caustic soda), calcium hydroxide (lime), sodium bicarbonate (soda ash), zinc orthophosphate, alum, polymer(s), and chlorine (either in gaseous form or as sodium hypochlorite). The corporation yard associated with the Zone 40 Surface WTP would have a fueling station and automotive service facility that would likely involve the use and storage of gasoline, diesel, oils, and lubricants. Other chemicals used at the Zone 40 Surface WTP would likely include small quantities of laboratory chemicals, paints, solvents, and janitorial supplies. In addition, biological growth inhibitors, such as chloramines, might be added at the turnout to the Zone 40 Surface WTP, as well as at the intake structure.

Federal, state, and local laws require planning to ensure that hazardous materials are properly used, stored, and disposed of to prevent or minimize injury to workers, the public, and the environment. If quantities of hazardous materials above certain threshold amounts are used or stored on site, hazardous materials business plans would have to be prepared. These plans include a hazardous materials inventory, emergency response plan, and employee training requirements. If chlorine gas above the state threshold amount were stored, a risk management plan would need to be prepared. As required by law, the facility would have an emergency response plan to address potential accidents related to the use and storage of all hazardous materials at the facilities. Compliance with applicable regulations would reduce potential impacts related to the use and

storage of hazardous materials at the Zone 40 Surface WTP to insignificant levels. No mitigation is required.

Impact 15-17: Transportation of Hazardous Materials during Operations

Chemicals used in large quantities at the Zone 40 Surface WTP would be delivered in bulk shipments, such as by tank trucks and trailers. Delivery of chemicals at full build-out would result in about five trips per week to each facility. Accidents associated with transport of these chemicals could pose hazards to the public. Accidents associated with unloading chemicals at the facilities could pose hazards to workers and nearby residents if not carefully controlled. Federal and state laws govern the transportation of hazardous materials. As required by law, treatment plant staff workers who handle hazardous materials would be appropriately trained, and the facility would have an emergency response plan to address potential accidents. Compliance with applicable regulations would reduce potential impacts related to the transportation of hazardous materials to insignificant levels. No mitigation is required.

Significant Impacts and Mitigation Measures

None of the project alternatives would result in significant construction-related or operation-related impacts on public health and safety, and no mitigation measures are required.