4.14 Public Services and Utilities

This section evaluates the potential impacts of the Moosa 100K Alternative on public services and utilities. This evaluation includes an assessment of the direct, indirect, short-term, long-term, and cumulative effects of the Moosa 100K Alternative on public services (police, fire, emergency medical services, schools, libraries, and public transit), and public utilities (electrical power, water, natural gas, sewer, storm drainage, and solid waste). The evaluation is based on available engineering information and data from public service and utility providers.

4.14.1 Affected Environment

4.14.1.1 Environmental Setting

The following discussion describes the existing public services and utilities conditions within the Moosa 100K study area.

Police Protection

Police protection in the Moosa 100K study area is currently provided by the San Diego County Sheriff’s Department. This area is serviced by Sheriff’s Beat Number 812. Service is from the Valley Center Substation located at 28205 North Lake Wohlford Drive in Valley Center. The following were average response times for calls serviced by the Valley Center Substation from October 2005 to September 2006 (Turner, 2006):

- Priority 1 Calls: 16.4 minutes
- Priority 2 Calls: 22.2 minutes
- Priority 3 Calls: 26.4 minutes
- Non-Priority Calls: 44.6 minutes

The desirable level of service for unincorporated areas generally consists of seven patrol deputies, two detectives, one supervisor, and one clerical support staff person for each 10,000 resident population over a given 24-hour duration (Turner, 2006). Section 3.14.1 (Public Services for the Proposed Action) of this EIR/EIS provides a discussion of desirable level of police protection in unincorporated and rural areas for the Proposed Action, which would also apply to the Moosa 100K Alternative.

Fire Protection

Fire protection services in the Moosa 100K study area are provided by the Valley Center Fire Protection District (VCFPD) and the Deer Springs Fire Protection District (DSFPD). The VCFPD has two fire stations located at 28234 Lilac Road and 28205 North Lake Wohlford Road, with approximate response times to the study area of 5 and 15 minutes, respectively (Justice, 2006). Fire crews from DSFPD Fire Station 1, located at 8709 Circle R Drive, would
respond within 5 minutes. DSFPD Crews from Fire Station 2, located at 1321 Deer Springs Road, would respond in approximately 9 minutes (Magdaleno, 2006).

Section 3.14.1 (Public Services for the Proposed Action) of this EIR/EIS provides a general discussion of existing fire protection in the San Diego County unincorporated areas.

**Emergency Medical Services**

Emergency medical services (EMS) in the Moosa 100K study area would be provided by the Mercy Medical Transportation ambulance service area. Ambulance services are dispatched from the 28205 North Lake Wohlford Road fire station. Response times to the reservoir site would be approximately 10 to 12 minutes (Justice, 2006).

**Schools**

The majority of the Moosa 100K study area is within the Valley Center Pauma Union School District (VCPUSD). A small, southwest portion of the proposed inundation area is within the Escondido Union School District (EUSD). VCPUSD consists of two high schools, one middle school and six elementary schools, all of which are located generally northeast of the study area. EUSD contains five high schools, five middle schools, and eighteen elementary schools, all located southwest of the study area in the vicinity of the city of Escondido. None of the schools are within the Moosa 100K Alternative site.

**Libraries**

The Moosa 100K study area is located within the Valley Center Library Service Area. The Valley Center Branch Library is located at 29200 Cole Grade Road, which is approximately two miles from the inundation area. The East Valley Branch Library is in the city of Escondido, which is approximately six miles from the inundation area.

**Public Transit**

Public transit in the Moosa 100K study area includes fixed-route bus service, frequently serving more than one city, and paratransit services that operate door-to-door (generally limited to trips within a city). The closest public transit routes to the Moosa 100K study area are the 351 and 352 BREEZE bus routes, which service central Escondido (MTS, 2006). These bus routes are approximately seven miles from the inundation area. There are no public transit routes that serve the immediate vicinity of the study area.
Electrical Power

The following electrical power distribution lines are located within the Moosa 100K study area:

- Several 12 kV overhead and underground electrical distribution lines, which enter the study area from the east.
- A number of low voltage overhead service drops, which serve customers within the study area.
- A 230 kV transmission line, which is located west of the dam.
- A 69 kV electrical transmission line, which runs along Wilkes Road (north-south) through the proposed reservoir site.

Water Supply Facilities

The Moosa 100K study area contains several water storage and distribution facilities. The existing Moosa Creek is impounded in the southeastern end of the canyon to form Turner Reservoir, which is owned and operated by the Valley Center Municipal Water District (VCMWD). The VCMWD holds an appropriative right for diversion and storage of up to 3,000 AF annually from Moosa Creek (#A022992), which is a tributary to the San Luis Rey River, for irrigation, municipal, and domestic uses. According to the SWRCB decision granting the permit under this application:

The [Turner] reservoir will be principally used for operational purposes and emergency storage of Colorado River water delivered to the district through the transmission facilities of the Metropolitan Water District and the San Diego County Water Authority. It will also store a small quantity of surplus runoff occasionally available from the drainage area upstream from the dam site, and Application 22992 is to cover this water. The water will be used for irrigation, domestic, and municipal purposes on land within the district that has not yet been developed.

On-site VCMWD facilities also include two water storage tanks located immediately north of Turner Reservoir, the Turner pump station, and the Betsworth pump station, which form the center of the VCMWD treated water distribution system. Existing pipelines, ranging in size from 12 inches to 42 inches, provide service from Turner Reservoir to areas west, east, and north of the reservoir (Grabbe, 2006). The First Aqueduct, including two associated vent structures, is located within the inundation limits of the Moosa 100K Alternative.
**Natural Gas**

The following natural gas distribution lines are located within the Moosa 100K study area:

- One 2-inch-diameter poly and one 2-inch-diameter steel gas line, which run along Betsworth Road.
- Several ½-inch service lines, which serve customers in the area.
- A 16-inch gas transmission line, which runs north and south just east of Betsworth Lane.
- A 2-inch-diameter, high-pressure gas line, which terminates near the existing Turner pump station.

**Wastewater Facilities**

There are no existing sewer pipelines within the Moosa 100K study area. Residents in the study area are all served by septic tanks and/or leach fields.

**Storm Drainage**

Storm drainage in the Moosa 100K study area is provided by natural channels, including Moosa Creek. Additional storm drainage facilities used to capture and convey storm water from roads and residential areas in the vicinity may also exist.

**Solid Waste Facilities**

Section 3.14.1 (Public Services for the Proposed Action) of this EIR/EIS provides a general discussion of solid waste facilities in the San Diego County area, including the locations and remaining capacities of landfills. The Ramona Landfill is the closest active landfill to the Moosa 100K Alternative, located approximately 25 miles away (driving distance). The Sycamore Landfill, located in Santee, is the second closest landfill to the Moosa 100K Alternative. As of May 2002, the Ramona Landfill had a remaining capacity of approximately 590,000 cubic yards, and the Sycamore Landfill had a remaining capacity of 24 million cubic yards (County of San Diego, 2005).

The closed Valley Center Landfill is situated adjacent to the northeast portion of the Moosa 100K Alternative. From 1958 to 1969, the landfill was used as a rubbish-burning site, but no record exists that indicates the type and amount of waste handled during this time. From 1969 until it was closed on January 1, 1979, the landfill was operated as a solid waste disposal site suitable for receiving municipal wastes, including non-decomposable inert solids and residential, agricultural, and commercial refuse. The landfill site is 42 acres and has a landfill area of 11 acres. The landfill received approximately 130,000 tons of refuse. There is no record of the landfill having accepted chemical, hazardous, toxic, or infectious wastes. However, residues from burning and pesticides that could now be classified as hazardous may be present.
4.14.1.2 Regulatory Setting

The Moosa 100K Alternative and the Proposed Action both would be located in San Diego County in California; therefore, the same general state laws and regulations governing public utilities for the Proposed Action would apply to the Moosa 100K Alternative. Please refer to Section 3.14.1.2 (Public Services for the Proposed Action) of this EIR/EIS for the regulatory setting for the Moosa 100K Alternative, including information on placement of public works in roadways, Section 12808 of the Public Utilities Code, and street/highway restoration to its former state.

Section 1.8.1 (Introduction, Water Rights and Related Permits) of this EIR/EIS summarizes the state’s water rights regulatory program, which is managed by the SWRCB’s Division of Water Rights. Construction of a new dam on Moosa Creek will require the filing of a new application for appropriative rights to divert and store water from Moosa Creek (Stream Code 900702000). VCMWD currently holds an appropriative water right to divert and store up to 3,000 AF annually for municipal, domestic and irrigation beneficial uses (Application # A022992, filed) in Turner Reservoir. Protests against the application were filed by the City of Oceanside and Circle R Ranch, and the permit that was granted by the SWRCB (Permit # 015993) on April 7, 1970, included the following terms: (1) the natural sand and detritus barrier across the mouth of the San Luis Rey River must be breached before the District can divert to storage; or (2) the flow of water in the San Luis Rey River exceeds 20 cubic feet per second (cfs) at the Oceanside Gaging Station, and a continuous live stream exists from the Valley Center Dam to the Oceanside Gaging Station. The Water Authority is proposing to undertake the transfer of this water right from the VCMWD as part of the Moosa 100K Alternative.

4.14.2 Project Design Features

General Conditions and Standard Specifications that will be included in the project construction documents to reduce public services and utilities impacts associated with construction of the Proposed Action are summarized in Section 1.9.7 (Introduction, Public Services and Utilities) of this EIR/EIS. Refer to Section 3.14.2 (Public Services and Utilities for the Proposed Action) for a list of project design features that also apply to the Moosa 100K Alternative.

4.14.3 Direct and Indirect Effects

4.14.3.1 Thresholds of Significance

The thresholds of significance used to evaluate potential impact on public services and utilities for the Moosa 100K Alternative are the same as those used to evaluate impacts for the Proposed Action and the SV 50K/Moosa 50K Alternative. The thresholds are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant impact on public services and utilities would occur if the Moosa 100K Alternative would:
1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, such as: police protection, fire protection, emergency medical services, schools, parks, and other public facilities.

2. Require or result in the need for new or expanded water supplies or entitlements.

3. Interrupt or disrupt utility services as a result of physical displacement and subsequent relocation of public utility infrastructure.

4. Result in the need for additional capacity of utility infrastructure or additional services that could not be supplied by existing utility service providers.

5. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4.14.3.2 Impact Analysis

Methodology

The environmental consequences of the Moosa 100K Alternative were determined through telephone consultation and email correspondence with utility and service providers. Some information regarding public services in the vicinity of the Moosa 100K Alternative was gathered from researching government agency websites. Various engineering documents regarding estimated public utilities and service requirements of the Moosa 100K Alternative were also reviewed.

Analysis

Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, such as police protection, fire protection, emergency medical services, schools, parks, and other public facilities.

Police Protection

The provision of adequate police protection would be a public service issue during construction of the reservoir and at the proposed recreational facilities associated with the Moosa 100K Alternative. Police protection in the vicinity of the Moosa 100K Alternative is currently provided by the San Diego County Sheriff’s Department.
The addition of construction traffic along local roads in the vicinity of the study area could, at times, decrease travel below posted times. This in turn could result in slight delays in coincident police response times. However, all vehicles on the road are required to yield to approaching emergency response vehicles when they are operating sirens and/or flashing emergency lights. Any decreases in travel speeds on vicinity roadways resulting from slow-moving construction traffic associated with the Moosa 100K Alternative would not cause a delay in police response times. Therefore, impacts on police protection services would be less than significant.

According to the conceptual recreation plan for the Moosa 100K Alternative, up to 120 parking spaces would be available at the recreational area. Assuming three persons per vehicle, the recreational area would have a capacity of approximately 360 persons. This new recreational area would add incrementally to the service load of the Sheriff’s Department. When compared to the County General Plan Public Facility Element (refer to Section 3.14.1.1 [Public Services and Utilities for the Proposed Action] of this EIR/EIS), the existing level of police protection is already below minimum standards, and the addition of a new recreation area would add to the already unacceptable response times.

However, County staff has indicated that the minimally acceptable police response goals identified in the current County General Plan Public Facility Element are more stringent than is necessary for rural, unincorporated areas (Muto, 2006). An update to the Public Facility Element is planned and is expected to address this issue with a more relaxed standard for police response times in rural areas. Based on discussions with County staff, the City of San Diego Lakes Supervisor, and County Department of Emergency Medical Services staff, it is anticipated that existing police facilities and personnel would accommodate additional recreation users during peak periods (Muto, 2006; Weber, 2006; Marcotte, 2006). While the expanded facilities may incrementally add to the service load of the Sheriff’s Department, this increase in recreational users would not require the need for new or physically altered police protection facilities. Therefore, police protection impacts due to operation of the expanded/relocated marina would be less than significant.

**Fire Protection**

The provision of adequate fire protection would be a public service issue during construction of the Moosa 100K Alternative. Fire protection services for the Moosa 100K Alternative would be provided by the VCFPD and the DSFPD. Response times from fire stations in the vicinity of the Moosa 100K study area range from 5 to 15 minutes (refer to Section 4.14.1.1 above).}

The addition of construction traffic along local roads in the vicinity of the study area could, at times, decrease travel below posted speed limits. However, all vehicles on the road are required to yield to approaching emergency response vehicles when they are operating sirens and/or flashing emergency lights. Therefore, any decreases in travel speeds on vicinity roadways resulting from slow-moving construction traffic associated with the Moosa 100K Alternative would not cause a delay in fire response times. Therefore, impacts on fire protection services would be less than significant.
The new reservoir facilities and marina would continue to be served by the VCFPD and the DVFPD. Based on incremental increase in recreational users to the reservoir (360 persons per day during peak periods), it is not anticipated that additional fire protection services would be needed. While the expanded facilities may incrementally add to the service load of VCFPD and DVFPD, this increase in recreational users would not require new or physically altered fire protection facilities. The Water Authority would also coordinate with the VCFPD to replace or add a small number of fire hydrants adjacent to the reservoir. Therefore, fire protection impacts due to the operation of the Moosa 100K Alternative, including the new marina, would be less than significant.

**Emergency Medical Services**

The provision of adequate EMS would be a public service issue during construction of and at the recreational facilities associated with the Moosa 100K Alternative. EMS in the vicinity of the proposed project site is provided by Mercy Medical Transportation located at the 28205 North Lake Wohlford Road fire station with an approximate response time of 10 to 12 minutes to the reservoir and surrounding area. The addition of construction traffic along local roads in the vicinity of the study area could, at times, decrease travel below posted speed limits. However, all vehicles on the road are required to yield to approaching emergency response vehicles when they are operating sirens and/or flashing emergency lights. Therefore, any decreases in travel speeds on vicinity roadways resulting from slow-moving construction traffic associated with the Moosa 100K Alternative would not cause a delay in EMS response times, and impacts on emergency medical services would be less than significant.

Moosa 100K Alternative operations would not disrupt EMS in the area. The new marina and reservoir would be served by Mercy Medical Transportation. As discussed in Section 4.13 (Public Safety for the Moosa 100K Alternative) of this EIR/EIS, the potential addition of up to approximately 360 persons at the new marina and reservoir during peak periods would not lead to a substantial increase in recreational-related accidents at the reservoir. While the new facilities may incrementally add to the EMS load, the increase in recreational users is not expected to exceed the EMS capacity and would not require new or physically altered EMS facilities (Marcotte, 2006). Therefore, EMS impacts due to operation of the Moosa 100K Alternative, including the new marina, would be less than significant.

**Schools, Libraries, and Public Transit**

There are no schools, libraries or public transit lines located in the immediate vicinity of the Moosa 100K Alternative. Existing schools, libraries and public transit would not be affected by the construction of the Moosa 100K Alternative. As discussed in Section 8.1 (Growth-Inducing Effects) of this EIR/EIS, the project would not result in a direct increase in population; therefore, schools, libraries, and public transit systems are not affected by any of the alternatives. New or physically altered school, libraries or public transit facilities would not be required as a result of the Moosa 100K Alternative. Therefore, there would be no impacts on schools, libraries and public transit due to the construction and operation of the Moosa 100K Alternative.
The Moosa 100K Alternative would not diminish or disrupt police, fire or EMS protection services, or require the need for new or physically altered police, fire or EMS facilities. Therefore, impacts of the Moosa 100K Alternative would be less than significant.

The Moosa 100K Alternative would not affect schools, libraries, or public transit in the study area. Therefore, there would be no impact due to the Moosa 100K Alternative.

Threshold 2: Require or result in the need for new or expanded water supplies or entitlements

The Moosa 100K Alternative would increase the capacity of surface water storage in the San Diego region. The basic premise of carryover storage is to accumulate water during wet seasons when supplies are more plentiful, keeping it in storage, and carrying it over for use in subsequent dry years when supplies are in higher demand and less available. The principal source of water for the filling of the Moosa 100K Alternative would be imported deliveries, primarily the Water Authority’s entitlements to Municipal Water District of Southern California (MWD) State Water Project or Colorado River supplies.

In addition to storing water delivered through the First and Second Aqueducts, the Water Authority would divert and store some quantity of natural flows in the creek flowing through Moosa Canyon. It has been proposed that the Water Authority would acquire the VCMWD’s existing storage rights (A02992) of 3,000 AF annually that currently apply to Turner Reservoir, and transfer these rights to the new Moosa Reservoir. As a result of the construction of the new dam, the Water Authority would still need to undertake the SWRCB’s appropriative rights process (described in more detail in Section 1.8.1 [Introduction, Water Rights and Related Permits] of this EIR/EIS) to allow for a change in the point of diversion and the authorized place of use. It should be noted that the storage rights held under A02992 were subject to a number of protests, which were resolved prior to the granting of Permit 015993. It is not possible to know what the potential environmental impacts might be associated with the granting of such a right. The Moosa 100K Alternative will require a new water right entitlement. As a result, the potential environmental impact would be significant.

The Moosa 100K Alternative would result in the need for a new water right entitlement. Therefore, the impacts due to the Moosa 100K Alternative would be significant (Impact M/PS 1).

Threshold 3: Interrupt or disrupt utility services as a result of physical displacement and subsequent relocation of public utility infrastructure

Water Supply Service Interruption

The Moosa 100K Alternative has the potential to disrupt water supply service because of inundation of existing water facilities owned by the Water Authority and VCMWD in the Moosa 100K study area. Public facilities in the study area that would be displaced include Turner Dam and Reservoir, two water storage tanks (0.5- and 2-million-gallon capacities), the Turner pump station, the Betsworth pump station, and water distribution pipelines ranging in size from
12 inches to 42 inches. In addition, a section of the Water Authority’s First Aqueduct and two associated vent structures would be inundated; this could affect the level of service provided by the Water Authority (Grabbe, 2006).

In accordance with project design features described in Section 3.14.2 (Public Services for the Proposed Action) of this EIR/EIS, to minimize potential disruptions to water lines in the vicinity of the study area due to construction activities, any required relocation of water lines would occur prior to their displacement. This would avoid short-term interruptions in water service to these facilities. Prior to relocation of these lines, additional environmental analysis would be required to determine if there were any related environmental effects. Long-term disruptions are not expected for the Moosa 100K Alternative.

Turner Dam/Reservoir would be abandoned (by being inundated) because it would no longer be needed, and the water storage rights held by VCMWD under Application #A02992 would be transferred to the Water Authority. Replacement of VCMWD distribution facilities would be required prior to construction of the Moosa 100K Alternative components affecting these facilities. Section 2.3.1 (Alternatives Analyzed) of this EIR/EIS provides details regarding the new facilities that would be built as part of the Moosa 100K Alternative. These facility replacements would ensure that the existing level of water service for VCMWD would not be affected. Therefore, water supply impacts due to the Moosa 100K Alternative would be less than significant.

**Electrical Power Service Interruption**

The existing electrical lines servicing the area in the vicinity of the Moosa 100K Alternative would be affected. Low-voltage electric lines connecting to existing residences and facilities within the inundation area would be permanently removed as they would be no longer needed. In accordance with project design features described in Section 3.14.2 (Public Services for the Proposed Action) of this EIR/EIS, all electrical lines needing to be relocated would be constructed and brought on-line prior to displacement of the old facility. This would avoid short-term interruptions in electrical service to the area. Temporary impacts on electrical utilities would be limited to service interruptions in the event an electrical line is inadvertently damaged during construction, or if a temporary disruption in service should occur during transition from an old facility to a new one. Long-term disruptions are not expected. Therefore, electrical service impacts as a result of relocation of power lines would be less than significant.

**Solid Waste Service Interruption**

The Ramona Landfill, the closest active landfill to the Moosa 100K Alternative, is approximately 25 miles away (refer to Section 4.14.1.1 above). Valley Center Landfill, a former solid waste landfill and burn site for municipal waste is located within the inundation area of the Moosa 100K Alternative. Impacts associated with the Valley Center Landfill are addressed as Impact M/HM 1 and Mitigation Measure M/HM 1-2, in Section 4.13 (Public Safety and Hazardous Materials for the Proposed Action) of this EIR/EIS. Solid waste service would not be interrupted.
as a result of implementation of the Moosa 100K Alternative. Therefore solid waste service impacts due to the Moosa 100K Alternative would be less than significant.

**Natural Gas, Wastewater Facilities Service Interruption**

A 2-inch-diameter, high-pressure gas line terminates near the site of the existing Turner pump station. This line would be abandoned west of the proposed Moosa Reservoir because extension of natural gas to the Turner pump station area would no longer be necessary as these facilities would be replaced by pump facilities for the Moosa Reservoir. Pipelines supplying natural gas to residences, agriculture areas or other facilities within the study area would no longer be needed, as these facilities would be relocated. Termination of service through these lines would not occur until after residents and other facilities were relocated, thus would not cause an interruption in service. Therefore, natural gas impacts due to the Moosa 100K Alternative would be less than significant.

Potential disruptions on wastewater facilities (i.e., removal or relocation of existing septic services) from construction activities associated with the Moosa 100K Alternative could result in short-term impacts. Any relocated facilities would be constructed and brought on-line prior to displacement of the old facilities. Long-term disruptions are not expected. Therefore, wastewater impacts due to the Moosa 100K Alternative would be less than significant.

*The Moosa 100K Alternative would not result in long-term disruption of water supply infrastructure, electrical, solid waste, natural gas or wastewater services. Therefore, impacts of the Moosa 100K Alternative would be less than significant.*

**Threshold 4: Result in the need for additional capacity of utility infrastructure or additional services that could not be supplied by existing utility service providers**

**Water Supply Additional Capacity Needs**

New conveyance facilities would be required to connect the Moosa Reservoir to the Water Authority’s aqueduct system, and replacement of VCMWD facilities (refer to Section 2.3.1 [Alternatives Analyzed] of this EIR/EIS). If this alternative were selected, the Water Authority would develop a Reservoir Regulating Plan (refer to Section 2.3.3 [Alternatives Analyzed] of this EIR/EIS), which would address a wide variety of factors such as carryover storage needs, seasonal storage needs, water quality considerations, impound requirements based on rainfall projections, recreational considerations, and operational compatibility with the Water Authority’s conveyance systems. Therefore, water supply capacity impacts due to the Moosa 100K Alternative would be less than significant.

**Electrical Power and Natural Gas Additional Capacity Needs**

Typically, utility providers identify significant shortages and associated impacts on existing and planned facilities that may be created by projects proposed within their respective service areas.
The utility needs are generally addressed on a project-by-project basis and satisfied during project planning and predesign phases.

Additional capacity needs of electrical power and natural gas are addressed in Chapter 8.0 (Other Considerations) of this EIR/EIS. Refer to this section for gas and electric utilities impact analysis, which concluded that power for the Moosa 100K Alternative could be met by available resources. There are several existing electric lines in the vicinity of the project site that could be used to supply the Moosa dam and pump stations with power. Some lines may need to be added or relocated to supply this power. However, based on the negligible energy consumption of the Moosa 100K Alternative, it is expected that existing electric utility substations will be able to accommodate the project’s energy needs. Thus, besides a few new or relocated lines, no additional utility infrastructure would be necessary, and impacts would be less than significant.

**Solid Waste Facilities Additional Capacity Needs**

The Moosa 100K Alternative would generate demolition debris, organic waste, and possibly hazardous waste requiring disposal in appropriate solid waste facilities, including local landfills. Vegetation within the limits of the reservoir inundation area would be cleared, grubbed, chipped, and removed off site for disposal or reuse. Existing structures within the inundation area or dam construction area may also be demolished and removed.

Project engineers estimate that between 60 and 80 cubic yards of chipped waste per acre would be generated as a result of clearing and construction activities. According to the project engineers, construction of Moosa Reservoir would require approximately 870 acres of land to be cleared. This would generate a worst-case scenario of up to approximately 70,000 cubic yards of waste from brush clearing.

The closest solid waste landfill to the Moosa 100K Alternative is the Ramona Landfill (refer to Section 4.14.1.1 above). However, Sycamore Landfill, located in Santee, is not much further away and has a much larger capacity. It is likely that solid waste generated from clearing and construction at the Moosa 100K site would be disposed of at the Sycamore Landfill, which has a current remaining capacity of approximately 24 million cubic yards (see Table 3.14-1). The incremental contribution of waste from the Moosa 100K Alternative is approximately 1 percent of the remaining capacity in Sycamore Landfill (County of San Diego, 2005). The contribution of waste generated by the Moosa 100K Alternative would be 0.3 percent (6 percent annual) associated with clearing and construction of the dam inundation. Therefore, solid waste capacity impacts due to the Moosa 100K Alternative would be less than significant.

Threshold 4 in Section 3.14.3.2 (Public Services for the Proposed Action) of this EIR/EIS provides a discussion of California’s waste reduction requirements. Demolition debris would be recycled or reused whenever possible. This would decrease the impact of the Moosa 100K Alternative on solid waste landfill capacity.
Wastewater Facilities Additional Capacity Needs

Neither construction nor operation of the Moosa 100K Alternative would require increased capacity for wastewater treatment or sewer conveyance facilities. Wastewater generated by restrooms and other facilities at the Moosa Marina would be contained in holding tanks and would be regularly maintained. No additional wastewater lines to the project area would be needed. The amount of wastewater generated by the marina would not be substantial and would not require expansion of existing wastewater treatment plants. Existing sewer capacities and levels of service would not be affected by the Moosa 100K Alternative. Therefore wastewater capacity impacts due to the Moosa 100K Alternative would be less than significant.

The Moosa 100K Alternative would receive water from the Water Authority’s existing imported deliveries, and would not likely require additional water supplies or entitlements. The Moosa 100K Alternative would not require substantial additional electrical power or natural gas supplies or infrastructure. The Moosa 100K Alternative would use a negligible percentage of regional solid waste landfill capacity. The Moosa 100K Alternative would not affect existing sewer capacities and levels of service. Therefore, impacts of the Moosa 100K Alternative would be less than significant.

Threshold 5: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

If the Moosa 100K Alternative were chosen, a Recreation Master Plan would be developed for the marina site, and the design of permanent, appropriately sized storm drain facilities would be a component of this plan to address drainage capacity. Construction of permanent storm water facilities would also be required to reduce water quality impacts from new Moosa 100K facilities including the dam structure, the marina, and new access roads and new or relocated facilities, as required by NPDES regulations, which would include implementation of a Storm Water Pollution Prevention Plan (SWPPP). Refer to Section 3.17.2 (Water Resources for the Proposed Action) for a detailed discussion regarding implementation of the SWPPP and storm water best management practices (BMPs) for the Proposed Action, which would be the same as for the Moosa 100K Alternative. Therefore, impacts due to the operation of the Moosa 100K Alternative would be less than significant.

The Moosa 100K Alternative would replace existing storm water drainage facilities with site design measures or appropriately sized new facilities. Therefore, impacts of the Moosa 100K Alternative would be less than significant.

4.14.3.3 Mitigation Measures

To reduce significant impacts caused by the need to acquire a new water right entitlement (Impact M/PS 1), the Water Authority will implement the following mitigation measure:
M/PS-1  Prior to commencing any activities that would result in diversion or storage of natural flows in Moosa Creek, the Water Authority will: (1) file an application with the SWRCB for a new appropriative right; and (2) conduct additional environmental analysis to support this application.

4.14.3.4 Residual Impacts after Mitigation

Impacts related to the need for a new water right entitlement for the Moosa 100K Alternative may not be mitigable to a less-than-significant level, even after implementation of this mitigation measure. Therefore, a Statement of Overriding Considerations will be required.

4.14.4 Cumulative Effects

4.14.4.1 Other CIP Projects

As described in Section 4.2 (Cumulative Projects for the Moosa 100K Alternative) of this EIR/EIS, it was determined that Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline are the only CIP projects with the potential for cumulative impacts when combined with the Moosa 100K Alternative. The PEIR for the Regional Water Facilities Master Plan concluded that these CIP projects would increase the demand for electric and natural gas services. These anticipated projects would be required to provide for adequate utility service before their approval, and it is not expected that these projects would require more utility service than could be provided through the usual procedures. In addition, utility providers plan ahead and forecast future utility in the region as a whole and expand their capacity to meet future needs and provide adequate levels of service. The above conclusions are incorporated into the cumulative analyses in Section 4.14.4.2 below.

4.14.4.2 Other Planned Projects with CIP Projects

This section evaluates the cumulative public services and utilities impacts of the Moosa 100K Alternative when considered in conjunction with the other planned projects listed in Table 4.2-1, and incorporates the cumulative public utilities impacts associated with the CIP projects described in the above section. The following cumulative public services and utilities analysis addresses each of the five significance thresholds listed in Section 4.14.3 above.
Cumulative Threshold 1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, such as police protection, fire protection, emergency medical services, schools, parks, and other public facilities

Construction activities and operation of the Moosa 100K Alternative would not require the need to construct new or physically altered governmental facilities to maintain acceptable service ratios or response times for any public service including police, fire, EMS, schools, libraries, or public transit. Construction and operation of the CIP projects listed above would not require additional fire, police, EMS, schools, libraries, or public transit facilities to maintain adequate public services. A high volume of truck traffic may be generated from Moosa 100K, CIP project, and other planned cumulative project construction activities. However, all vehicles on the road are required to yield to approaching emergency response vehicles when they are operating sirens and/or flashing emergency lights. Therefore, any decreases in travel speeds on vicinity roadways resulting from slow-moving construction traffic associated with the projects would not cause a delay in public service response times, and impacts in public services would be less than significant.

Other cumulative projects in the area primarily include several small and large subdivisions, along with a few small commercial, institutional and industrial developments (see Table 4.2-1). As discussed in Section 4.2 (Cumulative Projects for the Moosa 100K Alternative) of this EIR/EIS, construction impacts related to these projects are assumed to occur within the same timeframe as construction of the Moosa 100K Alternative. These projects may require additional police, fire, EMS, schools, libraries, or public transit facilities because the construction of new housing would add additional residents to the Moosa area. However, the Moosa 100K Alternative does not require additional public facilities. The Moosa 100K Alternative would not contribute to the local, planned population growth, this alternative’s contribution to this impact would not be cumulatively considerable. Therefore, there would be no impacts due to the Moosa 100K Alternative.

Cumulative Threshold 2: Require or result in the need for new or expanded water supplies or entitlements

The Moosa 100K Alternative will receive water deliveries from the Water Authority’s existing aqueduct system under their existing entitlements. As described above, it will be necessary for the Water Authority to apply for a new appropriative water right entitlement, or at least acquire the existing storage right at Turner Reservoir and apply for a change in point of diversion and a new place of use before the Moosa 100K Alternative can be approved (please refer to Section 1.8.1 [Introduction, Water Rights and Related Permits] of this EIR/EIS).

Other cumulative projects in the area primarily include several small and large subdivisions, along with a few small commercial, institutional and industrial developments (see Table 4.2-1). The addition of residential and industrial uses to the Moosa Canyon area may require the need
for new or expanded water supplies or entitlements (if entitlements are not already acquired). Even with implementation of Mitigation Measure M/PS-1, it may not be possible to mitigate this impact to a below a level of significance. As a result, the Moosa 100K Alternative’s contribution to this impact (Impact M/PS 1C) would be cumulatively considerable; therefore, the impacts due to the Moosa 100K Alternative would be significant.

**Cumulative Threshold 3: Interrupt or disrupt utility services as a result of physical displacement and subsequent relocation of public utility infrastructure**

Any required relocation of water supply, electrical power, natural gas, or wastewater lines in the vicinity of the Moosa 100K Alternative would occur prior to their displacement. This would avoid short-term interruptions for these services. The other cumulative projects in the area primarily include several small and large subdivisions, along with a few small commercial, institutional and industrial developments (see Table 4.2-1). These cumulative projects may also require relocation of utility service lines. It is expected that these projects would also ensure that short-term or long-term service interruptions do not occur. In addition, any required relocation of utilities as a result of construction of the CIP projects listed above would occur prior to their displacement. Therefore, cumulative public utilities impacts due to construction and operation of the Moosa 100K Alternative, when combined with public utilities impacts from the CIP and other planned cumulative projects listed above, would be less than significant.

**Cumulative Threshold 4: Result in the need for additional capacity of utility infrastructure or additional services that could not be supplied by existing utility service providers**

The construction and operation of the Moosa 100K Alternative would not require additional water, natural gas, or electric supplies and would not require additional solid waste or wastewater facility capacity. The other cumulative projects in the area primarily include several small and large subdivisions, along with a few small commercial, institutional and industrial developments (see Table 4.2-1). Although other cumulative projects may contribute to the cumulative impacts on water, electric and natural gas supplies or solid waste capacity, the Moosa 100K Alternative’s contribution to this impact would not be cumulatively considerable since it would not require additional utility supplies or capacity. Therefore, cumulative public utilities impacts due to construction and operation of the Moosa 100K Alternative, when combined with the additional water, electric, and natural gas supply and solid waste capacity needs of the CIP and other planned cumulative projects listed in Table 4.2-1, would be less than significant.

**Cumulative Threshold 5: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects**

The Moosa 100K Alternative would involve the construction of new temporary and permanent storm water drainage facilities in order to appropriately manage storm water runoff. The Moosa 100K Alternative would follow NPDES regulations to reduce or eliminate pollutants that may affect the quality of storm water. The other cumulative projects in the area primarily include several small and large subdivisions, along with a few small commercial, institutional and...
industrial developments (see Table 4.2-1). Residential and industrial projects as well as the CIP projects listed above would be required to follow NPDES regulations and would install temporary and permanent storm water control facilities in order to minimize flooding and reduce or eliminate pollutants that may affect the quality of storm water during construction and in the long-term. Therefore, cumulative storm water impacts due to construction and operation of the Moosa 100K Alternative, when combined with storm water impacts due to the CIP and other planned cumulative projects listed in Table 4.2-1, would be less than significant.

The Moosa 100K Alternative would not diminish or disrupt public services, would not require additional utilities services and would involve the construction of storm water drainage facilities that would not cause significant environmental effects. Therefore, cumulative public services and utilities impacts due to the Moosa 100K Alternative for these activities, when combined with the short-term (construction-related) and long-term (operational) public services and utilities impacts associated with the CIP projects and planned cumulative projects listed in Table 4.2-1, would be less than significant.

The Moosa 100K Alternative would require a new water right entitlement (Impact M/PS 1C), which would result in a significant cumulative impact, when combined with the water supply and/or entitlement impacts associated with the CIP projects and the planned cumulative projects listed in Table 4.2-1. Even with implementation of Mitigation Measure M/PS-1, it may not be possible to mitigate the impact to a below a level of significance. A Statement of Overriding Considerations would be necessary for approval of the Moosa 100K Alternative.
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