

## SECTION 4.0 CUMULATIVE IMPACTS

### 4.1 INTRODUCTION

Cumulative impacts refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts are physical changes in the environment that result from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355). If a project's incremental effect is not cumulatively considerable it need not be considered significant and should not be discussed in detail in the EIR. A project's contribution is not considered cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact (CEQA Section 15130). The Final PEIR for the Regional Water Facilities Master Plan concluded that the cumulative impacts of the projects recommended in the Master Plan are expected to be reduced to a less than significant level through incorporation of standard mitigation measures and additional site-specific measures that would be identified during subsequent site-specific CEQA review.

### 4.2 CUMULATIVE PROJECTS

A list of past, present, and probable future projects producing related or cumulative impacts when considered together with the proposed project was solicited from the City of San Diego at the time the Notice of Preparation was distributed for review. Other capital improvement projects being undertaken throughout San Diego County and the Military Housing project on MCAS Miramar were also evaluated. These projects are described below and summarized in Table 4-1.

#### City of San Diego Projects

The City of San Diego is the lead agency for the following ongoing or planned development projects within the project vicinity.

**Chinese Community Church.** The Chinese Community Church project was under construction in 2005, with site grading taking place in August and September. The Chinese Community Church project consists of a two-story, 6,958-square-foot sanctuary; a two-story, 17,346-square-foot fellowship building; and a 102-space parking lot on the west side of Via Valarta in Tierrasanta. Environmental issues that required mitigation were biological resources, human health/public safety/hazardous materials (unexploded ordnance), hydrology/water quality (BMPs/erosion control), and paleontological resources. The project has resulted in impacts to 0.38 acre of Diegan coastal sage scrub, including 0.23 acre within a MHPA. All project impacts were found to be mitigable to below a level of significance.

**Table 4-1  
Cumulative Projects Considered**

<b>Project Name</b>	<b>Location</b>	<b>Description</b>
Chinese Community Church	West side of Via Valarta	Church
Sycamore Canyon Landfill Master Plan	Mast Boulevard	Landfill Expansion and Management
Castlerock	North side of Mast Boulevard, Santee	119 multi-family residential units, recreational amenities, a pedestrian trail, internal public streets and natural open space.
Tierrasanta Townhomes	Tierrasanta Boulevard	Up to 60 townhomes.
Pipeline Relining	County-wide	30-year pipeline relining program that focuses on one community per year, with a priority on those areas where deterioration is most severe.
Pressure Control and Hydroelectric Facility	Mira Mesa, I-15/Mercy Road	Partially buried concrete and masonry structure to regulate pressure in the Second San Diego Aqueduct and generate electricity.
Twin Oaks Valley Water Treatment Plant	Twin Oaks Valley, north of Escondido	100-million-gallon-per-day (mgd) water treatment plant.
Emergency and Carryover Storage Projects	San Vicente Reservoir	Raising of San Vicente Dam to increase storage capacity.
Emergency Storage Project/San Vicente Pipeline	San Vicente Reservoir to I-15/Mercy Road	Construction of tunnel pipeline to connect to Second San Diego Aqueduct at I-15/Mercy Road.
Moreno-Lakeside Pipeline	Lakeside	A 4.7-mile pipeline that will connect an existing pipeline to the Helix Water District's R.M. Levy Water Treatment Plant. The project also includes a flow control facility.
Lake Hodges Projects	Lake Hodges and Olivenhain Reservoir	A 1.25-mile pipeline connecting Lake Hodges with the Olivenhain Reservoir, and a pump station on Lake Hodges to move water between the two water storage facilities.
Encina Desalination Facility	Carlsbad	Construction of a 50-mgd desalination facility on the grounds of the Encina Power Plant.
Military Housing	North side of SR-52, northeast of Santo Road	1,600 multi-family residential units, two elementary schools and a community center or park within the development area. Access from Santo Road.
SR-52 Managed Lanes Project	I-805 to SR-125	Construction of managed lanes in median of SR-52 from I-805 to SR-125. Project would include replacement of Santo Road Overpass.

**Sycamore Canyon Landfill Master Plan.** The Sycamore Canyon Landfill Master Plan is designed to extend the life of this centrally located solid waste disposal site within the City of San Diego. A 1<sup>st</sup> Screencheck Draft EIR has been prepared for the project (BRG 2004). The project site was formerly owned by the County of San Diego and has been operated as a landfill since 1963. The County operated the landfill until 1982 when a private contractor was hired to operate the facility. The County sold the landfill property and operation to Allied Waste Industries in 1997. The landfill is now operated by Sycamore Landfill, Inc., which is a subsidiary of Allied Waste Industries.

Discretionary actions required from the City of San Diego include a community plan amendment, vacation of several street and utility easements, a Planned Development Permit and Site Development Permit, and MHPA boundary adjustments. Other project approvals required include a Waste Discharge Permit and Section 401 Certification by the Regional Water Quality Control Board, a Solid Waste Facility Permit from the City of San Diego Local Enforcement Agency, with concurrence by the California Integrated Waste Management Board, Authority to Construct/Permit to Operate from the San Diego County Air Pollution Control District, a 1602 Streambed Alteration Agreement from the CDFG, and a Section 404 Permit from the Corps.

The proposed project would expand the property designated in the East Elliott Community Plan from 493 acres to 607 acres and would increase the permitted daily tonnage from 3,300 tons per day to 6,800 in 2010, increasing gradually until it reaches 13,000 tons per day in 2025. The total area of disturbance would increase from 332.5 acres to 380 acres, an increase of 14.3 percent. Truck trips would increase from 1,540 in 2003 to 6,680 in 2025. All significant traffic impacts were found to be mitigable to below a level of significance.

Landform alteration/visual quality impacts within Sycamore Canyon are significant and not mitigable due to the high visibility of the site and the extent of terrain modification.

Impacts to biological resources were found to be mitigable to below a level of significance. Sensitive species that would be impacted include Nuttall's scrub oak, variegated dudleya, Cooper's hawk, coastal California gnatcatcher, 29.38 acres of gnatcatcher habitat, 10.8 acres of chamise chaparral, 20.9 acres of Diegan coastal sage scrub, 1.8 acres of Diegan coastal sage scrub/native grassland mix, 0.8 acre of native grassland, 0.9 acre of southern mixed chaparral, and 0.1 acre of mule fat scrub. The project would also impact 0.37 acre of Corps non-wetland jurisdictional waters of the U.S., 0.03 acre of Corps wetlands (mule fat scrub), 0.13 acre of CDFG riparian habitat (mule fat scrub), 0.39 acre of CDFG jurisdictional streambed, and 0.13 acre of lands classified as City of San Diego wetlands.

Noise impacts were found to be significant because night operations would exceed the City of San Diego Noise Ordinance thresholds. Operational noises may also exceed 60 dB(A) within gnatcatcher habitat along the landfill access road. These noise impacts were found to be mitigable to below of level of significance.

Air quality impacts were found to be significant and not mitigable for PM<sub>10</sub>, air toxics and odors.

**Castlerock.** The Castlerock project is a proposed residential development on the north side of Mast Boulevard between Medina Drive and West Hills Parkway. The project would include 379 single-family and 119 multi-family residential units, recreational amenities, a pedestrian trail, internal public streets and natural open space on a 191.8-acre site within the East Elliott Community Plan area. The discretionary actions by the City of San Diego required for implementing the Castlerock project include a Planned Residential Development Permit; a Site Development Permit; a Vesting Tentative Map; a Rezone, an amendment to the East Elliott Community Plan and City of San Diego Progress Guide and General Plan, and a Development Agreement. Other project approvals required include a CDFG 1602 permit, a Corps 404 permit, and a RWQCB 401 water quality certification. A stated project goal and objective is to develop the project site in an environmentally sensitive manner by preserving open space, consistent with the adopted MSCP/MHPA and the Mission Trails Design Guidelines. The project would preserve 82.2 acres in natural open space (MHPA) and would provide trail connections from MTRP to Gooden Ranch. A Draft EIR (EIR No. 10046) has been prepared for this project (RECON 2005).

**Tierrasanta Townhomes.** Intracorp has been exploring the idea of developing a church site at the end of Tierrasanta Boulevard owned by Tierrasanta Christian Church with up to 60 townhomes. The development plans require a rezone from the planned church use to high-density residential.

### **San Diego County Water Authority Projects**

The Water Authority is currently undertaking or is planning several other projects recommended in the Regional Water Facilities Master Plan and as part of the Emergency Storage Project (ESP). These projects are described below. None of the projects are located close to MTRP and none would have a cumulative impact to MTRP or the Tierrasanta community. The cumulative impacts would be on a regional basis. These projects are presented to describe the other major capital improvement projects that the Water Authority is undertaking within San Diego County and to evaluate the potential for regional environmental effects.

**Pipeline Relining.** The Water Authority's Pipeline Relining program is a 30-year program that focuses on one community per year, with a priority on those areas where deterioration is most severe. This program ensures the reliability of water supply to the region. Relining is necessary because the pipelines showed signs of deterioration and joint damage during internal pipeline inspections. Relining the existing pipelines with steel is a quicker, more cost-effective alternative to removing and replacing the pipelines. Just as important, relining significantly reduces the impact of construction on nearby residents. The new steel liners serve as new pipelines, and are expected to last approximately 50 to 75 years. Most relining work is done inside the pipe. Relining work does not interrupt the delivery of water to nearby homes or businesses.

All relining activities, including excavation, temporary lay-down of lining materials and vehicle parking, take place on the Water Authority's existing easement. The Water Authority works hard to minimize the impacts of relining activities to nearby residents, including noise, dust and traffic. When relining is complete, the Water Authority's easement is restored to its original condition.

The first two pipeline relining projects have been completed. The Pipeline 3 and 4 Relining project was within the Rancho Penasquitos and Mira Mesa communities while the Pomerado Pipeline 4 Relining Project was within the Scripps Ranch community and across MCAS Miramar.

**Pressure Control and Hydroelectric Facility.** The Pressure Control and Hydroelectric Facility, located in the Mira Mesa area, will serve an important function in improving aqueduct operations and enhancing the flexibility of the Water Authority's extensive water delivery system. Several large diameter valves within the facility will control water pressure and the amount of water delivered to surface water storage reservoirs and water filtration plants located in eastern and southern regions of the county. A hydroelectric turbine will generate supplemental electricity.

Located in the Mira Mesa area west of I-15, the partially buried concrete and masonry structure will be 40 feet wide and 105 feet long and will stand approximately 18 feet above ground. The facility will connect to existing pipelines with 3,000-feet of 96- and 108-inch-diameter pipe. Construction on the facility began in August 2004.

**Twin Oaks Valley Water Treatment Plant.** The Water Authority is currently constructing a 100-mgd water treatment plant in Twin Oaks Valley, north of San Marcos. The new water treatment plant, which is the first to be constructed by the Water Authority, will help alleviate the growing need for additional treated water capacity that has strained the Water Authority's ability to meet demands over the last three summers. The water treatment plant is part of the Water Authority's \$3.2 billion Capital Improvement Program (CIP) to reduce over reliance on a single supplier and improve water reliability by diversifying the region's water supply portfolio. Construction of the treatment plant will begin in early 2006 with completion scheduled for spring 2008.

**Emergency and Carryover Storage Projects.** The San Vicente Dam raise is part of the Emergency Storage Project, a system of reservoirs, interconnected pipelines and pumping stations designed to make water available to the San Diego region in the event of an interruption in imported water deliveries.

The San Vicente Dam raise would increase the reservoir's water storage for San Diego County. As originally planned for the Emergency Storage Project, the dam would be raised 54 feet to increase water capacity by 52,000 acre-feet over the present capacity of 90,000 acre-feet.

A recent study launched by the Water Authority as part of its Regional Water Facilities Master Plan showed a need of an additional 100,000 acre-feet of storage capacity to help meet the region's water needs through 2030. The plan identified San Vicente Dam as a possible location for this additional water storage. Therefore, the dam may be raised further to 123 feet, or about 69 feet beyond what was planned for the Emergency Storage Project. Other sites have been identified in previous studies, and further engineering and environmental studies are needed before a site selection for the additional water storage can be made. Both studies are currently under way and are expected to be completed in 2007. Construction is anticipated to commence in 2008.

**Emergency Storage Project/San Vicente Pipeline.** The San Vicente Pipeline and the Emergency Storage Project are part of the Water Authority's CIP to enhance and increase the operational flexibility of its water delivery system. The San Vicente Pipeline, which is currently under construction, will be a large-diameter pipeline connecting the San Vicente Reservoir in Lakeside to the Water Authority's Second Aqueduct west of Interstate 15. This 11-mile-long pipeline is a key component of the Water Authority's Emergency Storage Project and an important investment in the future reliability of San Diego County's water supply. The pipeline will provide access to water set aside in the reservoir for emergencies, such as a drought or major earthquake, that could cut off the county's supply of imported water. Imported water meets up to 90 percent of San Diego County's water needs.

The pipeline will be built in a tunnel rather than a trench. Tunneling will significantly reduce construction impacts to the environment and surrounding communities. The pipeline and tunnel are currently under construction and are expected to be completed in late 2008.

**Moreno-Lakeside Pipeline.** The Moreno-Lakeside Pipeline (MLP) Project is an important part of the San Diego County Water Authority's Capital Improvement Program to enhance the flexibility, reliability and capacity of its water delivery system. The Water Authority is installing a 4.7-mile pipeline that will connect an existing pipeline to the Helix Water District's R.M. Levy Water Treatment Plant. The project also includes a flow control facility.

The Moreno-Lakeside Pipeline Project will ensure the Water Authority can supply up to 80 mgd of untreated water to the R.M. Levy Water Treatment Plant that is owned and operated by the Helix Water District. Out of the 80 mgd, 40 mgd will be used for the Helix Water District, 8 mgd by Otay Water District, 18 mgd by Padre Dam Municipal Water District and 14 mgd reserved for future use.

A 46- by 50-foot flow control facility will be located on a 0.5-acre site along El Monte Road, east of the Lake Jennings Park Road intersection. The facility will measure the flow of water to the Helix, Otay and Padre Dam Municipal Water Districts.

**Lake Hodges Projects.** The Lake Hodges Pipeline and Pump Station are an important part of the Water Authority's Emergency Storage Project and the overall CIP. The 1.25 miles of belowground pipeline will connect Lake Hodges with the Olivenhain Reservoir. The Lake Hodges Pump Station will be built to move the water to and from the lake. Pump turbines will provide the additional benefit of capturing energy created when water flows from the Olivenhain Reservoir into Lake Hodges. This very important project will increase the amount of water available within the county for use during emergencies.

**Encina Desalination Facility.** The Water Authority has proposed the construction of a 50-mgd seawater desalination plant along with pipelines, pumps, and other appurtenant and ancillary water facilities to produce and distribute potable water through the Water Authority's aqueduct system. The project is a Water Authority regional water supply project that may become a significant water supply source. The desalination plant portion of the Project would be constructed on property currently owned by Cabrillo Power I LLC (Cabrillo), co-located on site at the existing Encina Power Station, immediately south of the Aqua Hedionda Lagoon.

## **MCAS Miramar Projects**

**Military Housing Project.** The federal government (Department of Defense) has approved the construction of up to 1,600 multi-family residential units on 264 acres located in the southeastern portion of MCAS Miramar north of SR-52 and the community of Tierrasanta. The project will also provide land for two elementary schools and a community center or park within the development area. Access to the site will require an approximately 2.5-mile extension of Santo Road, involving approximately 34 acres. Existing internal roads to eastern MCAS Miramar, also known as East Miramar, will provide secondary emergency access. The extension of Santo Road will provide direct access to SR-52 approximately 1 mile east of I-15.

The Final Environmental Impact Statement (EIS) was prepared in June 2004 and a Record of Decision was published in the Federal Register on August 20, 2004. As discussed in the EIS, the project would result in potentially significant impacts for the following environmental topics: utilities (sewer), public services (police and schools), visual resources, cultural resources, biological resources, traffic/circulation, and public safety. Mitigation measures were proposed that were found to reduce all project impacts to below a level of significance. Potentially significant cumulative impacts were found for public services (police and schools), visual resources, traffic/circulation, air quality, and noise. These potential cumulative impacts were also found to be mitigable to below a level of significance.

## **Caltrans Projects**

**SR-52 Managed Lanes Project.** Caltrans has proposed the construction of managed lanes between I-805 in Kearney Mesa and SR-125 in Santee. The project would likely require the replacement of the Santo Road Overpass, along with other interchange projects. Preliminary project design calls for a reversible lane that would conflict with the existing bridge abutments. The project is in the early development phase at Caltrans. Construction of the Managed Lanes project is contingent on the availability of funding. SANDAG has identified this project as a TransNet Early Action project, but has not yet identified the funding mechanism. The earliest construction could start would be 2010, although a number of smaller freeway operational improvements would start earlier. All improvements would occur within Caltrans right-of-way.

It is possible that Caltrans would proceed with improvements to the Santo Road Overpass/Interchange as a separate project. In that case, construction at the interchange could start as early as 2008. Caltrans anticipates minor periods of lane closure during construction for lane shifts, but expects traffic flow to be maintained during construction with minimal disruption.

## 4.3 CUMULATIVE IMPACT ANALYSIS

### 4.3.1 Land Use

The PEIR for the Regional Water Facilities Master Plan concluded that cumulatively significant impacts could result from the Master Plan projects and other development and utility and infrastructure projects throughout the region if these projects are not in conformance with the adopted land use plans, zoning requirements, HCPs/MSCPs, and environmentally sensitive land regulations. It also concluded that, in most cases, the projects would be compatible with local plans, and designed and sited to minimize these conflicts and/or inconsistencies, and that implementation of mitigation measures identified for specific project actions on a case-by-case basis could reduce potentially significant cumulative impacts to below a level of significance.

None of the cumulative projects identified would have an adverse impact on land use within MTRP. The Castlerock project would provide a connection between MTRP and Gooden Ranch to the north, which is considered to be a positive impact. Each project within the City of San Diego that proposes a change in the applicable community plan requires individual review and approval. The federal government has land use authority on MCAS Miramar and the Water Authority has jurisdiction over its own facilities, which are typically already designated in local land use plans for utility use. Cumulative land use impacts would not be significant.

### 4.3.2 Aesthetics/Visual Quality

The PEIR for the Regional Water Facilities Master Plan concluded that development of the recommended water delivery, storage, and treatment facilities would result in cumulative adverse impacts on aesthetic resources in the region. Adverse aesthetic impacts would result from the construction of visible aboveground and partially buried facilities such as pump stations, treatment plants, FRSs, and various vents, valve enclosures, and other ancillary facilities. It was also concluded that, in general, the facilities would occur in heavily modified urban and industrial settings or adjacent to existing facilities. The cumulative aesthetic/visual quality impacts of projects located in rural or open space areas were concluded to be of the greatest concern as they have the potential to create substantial visual contrasts with their settings. Implementation of program-level mitigation measures was anticipated to reduce cumulative aesthetic/visual impacts to below a level of significance. Those program-level mitigation measures, such as placing facilities belowground; using architectural designs, textures, and colors that complement the surrounding natural areas; and planting landscaping, are applied to all Water Authority projects located within visually sensitive areas.

None of the cumulative projects identified would contribute to aesthetic/visual quality impacts within MTRP. The aesthetic/visual quality impacts of the proposed project within MTRP during construction are identified as adverse but not significant because the impacts would be short term. Long-term visual/aesthetic impacts in MTRP would not be significant because planned revegetation with native seed mix would restore the natural landscape, and the FRS II control building would be constructed with an architectural design and building materials that would complement the surrounding parkland. In addition, the removal or replacement of many of the

existing Elliott Vents with smaller structures would be a visual benefit. Cumulative aesthetics/visual quality impacts would not be significant.

### 4.3.3 Traffic/Circulation

The PEIR for the Regional Water Facilities Master Plan concluded that construction activities associated with the proposed water infrastructure facilities would contribute to an overall increase in traffic volumes on the existing and planned roadway network on a localized and temporary basis only as most Water Authority facilities are unmanned and operated from a central office in Escondido. Following construction, the projects would not contribute to cumulative regional traffic and transportation impacts associated with other projects in the region.

The proposed project would not result in significant short-term traffic impacts within the Tierrasanta community. Construction traffic would last up to 2 years, but the peak level of construction traffic would last approximately 6 months during the initial excavation of the FRS II and construction of the North and South Portals for the tunnel. Peak traffic from project construction would not significantly degrade existing levels of service for roadways in the project area. The cumulative projects considered all have short-term traffic impacts associated with construction and long-term traffic impacts associated with operation.

The Chinese Community Church will most likely be completed prior to the commencement of the construction of the proposed project. Church traffic is likely to be concentrated in the evenings and on weekends, which would avoid the peak hours of project construction traffic on Via Valarta. Traffic from the Sycamore Landfill and Castlerock projects is not anticipated on project routes within Tierrasanta. This traffic would be concentrated on SR-52. The majority of the traffic generated by the Tierrasanta Townhomes project would use Tierrasanta Boulevard for access into and out of the Tierrasanta community. The project with the greatest potential to result in a cumulative traffic impact would be the military housing project north of SR-52 on MCAS Miramar. While much of this traffic would head east or west on SR-52, traffic would also head south on Santo Road. Brushing and grading for this project may commence as early as fall 2005. However, most of the construction of the military housing project is expected to be implemented in five phases beginning December 2007, by which time most of the proposed FRS II project construction would be completed. Therefore, cumulative project traffic from the Military Housing project was not considered in the cumulative project traffic analysis.

The Caltrans SR-52 Managed Lanes project would commence in 2010 at the earliest, which is after the anticipated completion of the proposed project. The Santo Road Interchange project, if constructed separately from the SR-52 Managed Lanes project, could start as early as 2008. This construction schedule could coincide with the construction of the proposed project, which could result in traffic generated by the proposed project driving through the Caltrans construction zone and adding to the Caltrans construction trips. Caltrans would prepare and implement a traffic control plan for the Santo Road Interchange improvements, which would maintain the flow of traffic through the construction site. Caltrans construction traffic would be anticipated to use SR-52, not Santo Road, to access the interchange project site.

The cumulative nature of traffic impacts has been taken into consideration in the evaluation of the traffic impacts associated with the proposed project. No additional traffic impacts have been identified. Furthermore, all traffic impacts associated with the proposed project would not be significant. Cumulative traffic impacts would not be significant.

#### 4.3.4 Air Quality

The PEIR for the Regional Water Facilities Master Plan concluded that construction of the proposed facilities could result in temporary significant construction-period emissions of criteria air contaminants. Potential long-term air quality impacts were identified for the operation of the facilities in the form of objectionable odors, emissions from occasional use of emergency back-up generators, and fugitive dust from infrequent vehicle traffic on dirt roads. SDAPCD approved mitigation measures were identified in the PEIR to reduce these long-term impacts to below a level of significance for all emissions.

In analyzing cumulative impacts from a proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as "non-attainment" for the CAAQS or NAAQS. A project that has a significant impact on air quality with regard to emissions of PM<sub>10</sub>, NO<sub>x</sub> and/or ROC/ROG/VOCs, as determined by the screening criteria outlined in the Air Quality Technical Report (Appendix C), would also have a significant cumulative effect on air quality. In the event direct impacts from a project are not significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects are in excess of screening levels identified above, and the project's contribution accounts for a significant proportion of the cumulative total emissions.

All construction and operation activities within the region are required to comply with Federal and State air quality policies. SDAPCD has permit authority over stationary sources, acts as the primary reviewing agency for environmental documents addressing potential air quality impacts, and develops regulations that must be consistent with, or more stringent than, Federal and State air quality policies.

With regard to past and present projects, the background ambient air quality, as measured at the monitoring stations maintained and operated by the SDAPCD, measures the concentrations of pollutants from existing sources. Past and present project impacts are, therefore, included in the background ambient air quality data.

Construction of the proposed project could take place at the same time as other construction projects in the vicinity; however, construction impacts are short-term and tend to be localized. Because emissions of NO<sub>x</sub> and PM<sub>10</sub> would be above the significance thresholds during construction, project construction could have a cumulatively significant, if temporary, impact on the ambient air quality. This significant cumulative impact would not be mitigable to below a level of significance during project construction. A Statement of Overriding Considerations would be necessary for project approval. However, the proposed project's contribution to cumulative air quality impacts would cease upon completion of construction.

### 4.3.5 Noise and Vibration

The PEIR for the Regional Water Facilities Master Plan concluded that noise impacts associated with the proposed water infrastructure projects would occur primarily during construction and would be short-term in nature. From a long-term operational standpoint, noise from equipment or machinery operation at Water Authority facilities is mitigated to achieve the necessary noise limits established in the local regulations for noise sensitive locations. Therefore, long-term cumulative noise impacts associated with Water Authority facilities would be mitigated to below a level of significance.

Noise impacts are cumulative if the sources of noise being considered are audible to a sensitive receptor at the same time and combine to exceed the City of San Diego's Noise Ordinance or otherwise cause a substantial increase in the ambient noise level for a sensitive receptor.

None of the cumulative projects considered would result in noise impacts within or adjacent to the project area, thus avoiding the potential for a sensitive receptor to be exposed to noise from two construction sites at once. The Tierrasanta Townhomes project at the end of Tierrasanta Boulevard would be adjacent to MTRP, but would be approximately 1 mile southwest of the proposed stabilized river crossing through Mission Gorge. Traffic generated by the cumulative projects would combine on area roadways and would therefore contribute to increased noise levels; however, this increase would not be expected to be perceptible due to the small percentage increase in regional traffic volumes. The noise impacts associated with the proposed project would be limited to the 2-year construction period. Cumulative noise impacts would not be significant.

### 4.3.6 Recreation

The PEIR for the Regional Water Facilities Master Plan concluded that the Water Authority's projects and other reasonably foreseeable projects could have cumulative significant adverse impacts on recreational resources in the region. With the implementation of appropriate mitigation measures, however, cumulative impacts to recreational resources would not be significant. Program-level mitigation measures included the relocation of displaced recreational facilities or restoration of disturbed recreational facilities.

None of the cumulative projects considered would have an adverse impact on recreation within MTRP. The residential development projects would result in an increased demand for parkland, primarily in the form of playgrounds and sports parks. These impacts are evaluated and mitigated by the appropriate reviewing agency. The Tierrasanta Townhomes, Military Housing, and Castlerock projects would result in increased use of MTRP. The Castlerock project would provide open space and a trails connection between MTRP and Gooden Ranch. The proposed project would result in adverse but not significant short-term impacts to recreation by temporarily reducing access to the western side of the park and closing certain trails. The other projects would either not impact recreation or would cause a long-term increased demand for recreational opportunities. Although the proposed project would make part of MTRP unavailable during the 2 years of construction, the proposed project includes the restoration of all temporary impacts within MTRP. In addition, MTRP is a very large open space park with

multiple access points and trails, most of which would be available to users, including new users generated by new development. Cumulative impacts to recreation would not be significant.

#### **4.3.7 Water Resources**

The PEIR for the Regional Water Facilities Master Plan concluded that the Water Authority's water infrastructure projects would result in significant cumulative impacts to water quality from increased runoff when combined with the effects of other development projects within the same watershed. All construction projects can cause increased erosion from exposed soil areas that may contribute to sediment-laden runoff into local drainage courses. Erosion can be destructive to the immediate area and sedimentation can clog waterways and downstream wetland and lagoon areas. It is assumed that new construction associated with other projects in the watershed would meet Federal, State, and local permit requirements in a similar manner as required for the Water Authority's projects. These requirements include mitigation measures similar to those identified in Section 3.7 (Water Resources). As such, the significant cumulative impacts would be mitigable to below a level of significance.

Surface water from the project site flows into the San Diego River, either directly or through tributaries within MTRP such as Shepherd Canyon. The Sycamore Canyon Landfill, Castlerock, Tierrasanta Townhomes, Chinese Community Church, and the Military Housing projects are all located within the watershed of the San Diego River. Therefore, the cumulative runoff from these projects could have an adverse impact on water quality within the river. As noted above, it is assumed that new construction associated with these projects would meet Federal, State, and local permit requirements for construction and operation. Cumulative water resources impacts would not be significant.

#### **4.3.8 Biological Resources**

The PEIR for the Regional Water Facilities Master Plan concluded that construction of the proposed water infrastructure projects could result in cumulative impacts to biological resources. Potential impacts included loss of wildlife and plant habitat, disturbance to special status species, and impacts to waters of the U.S. (including wetlands). Because impacts to sensitive biological resources are regulated by the USFWS, CDFG, Corps, and other agencies, potential impacts resulting from project development require consultation with responsible agencies and implementation of mitigation measures. The evaluation of project impacts takes into account the cumulative nature of impacts to biological resources through loss of habitat, severance of wildlife corridors, and disturbance by human activities. Implementation of mitigation measures for impacts to biological resources is required for each project as a condition of approval. Therefore, significant cumulative impacts to biological resources would be mitigated to below a level of significance.

It is noted that the preservation of the region's biological resources is being addressed through the implementation of regional habitat plans such as the City of San Diego's MSCP. These plans focus efforts on the region's predominant habitats (Diegan coastal sage scrub, riparian woodland, southern mixed chaparral, non-native grassland, and southern oak woodland), providing for preservation in large, contiguous areas of habitat in perpetuity. Sensitive resource areas are

managed, restored, and/or revegetated for long-term persistence through implementation of the MSCP. While the Water Authority is preparing its own HCP and is not a participant in the City of San Diego's MSCP, impacts to biological resources and mitigation measures for those impacts have been drafted in conformance with the MSCP Guidelines. All City of San Diego projects must be in conformance with the MSCP. The military housing project on MCAS Miramar must conform to the Integrated Natural Resources Management Plan. The conformance of the cumulative projects considered to the applicable HCPs will assure the conservation of open space and restoration or enhancement of disturbed habitat. Cumulative biological impacts would not be significant.

#### **4.3.9 Cultural Resources**

The PEIR for the Regional Water Facilities Master Plan concluded that any loss of cultural resources associated with the Water Authority's water infrastructure projects and other reasonably foreseeable future projects would contribute to cumulatively significant impacts to cultural resources. It also concluded that these cumulatively significant impacts could be reduced to below a level of significance or avoided by implementing program-level mitigation measures identified in the PEIR along with mitigation measures outlined during project-specific analysis.

The proposed project would avoid or otherwise mitigate impacts to any significant cultural resources. Therefore, there would be no contribution to cumulatively significant regional impacts to cultural resources. Cumulative cultural resources impacts would not be significant.

#### **4.3.10 Geology and Soils**

The entire San Diego region is susceptible to impacts from seismic activity. Although seismic activity can cause damage to substandard construction, new project designs can significantly reduce potential damage. Earthquake-resistant designs employed on new structures minimize the impact to public safety from seismic events to a less than significant level. The proposed project and the cumulative projects may be constructed through geologic formations susceptible to slope failure and soil compaction as well as on sites with potential shrink and swell soils, or that feature soils with high erosion potential. Project-specific geotechnical investigations have been prepared for the proposed project and will be required of the other projects as part of the design process to address these geologic issues and impacts. All projects are required to utilize standard engineering practices and meet design standards for the geologic setting in which they are located. This level of project review and adherence to engineering and design standards would reduce the potential for cumulative geological impacts. Cumulative geology/soils impacts would not be significant.

#### **4.3.11 Paleontological Resources**

The proposed project and the cumulative projects considered could result in disturbance of geologic formations with moderate to high paleontological resource potential. Paleontological surveys are required to determine the resource value for impacted areas if the underlying formations are known to contain paleontological resources. Monitoring by a qualified paleontologist is a site-specific requirement for all Water Authority and City of San Diego

projects in areas where any grading would occur in formations of moderate to high resource potential. This requirement would reduce the potential for cumulative paleontological impacts. Cumulative paleontological resources impacts would not be significant.

#### **4.3.12 Public Safety and Hazardous Materials**

The PEIR for the Regional Water Facilities Master Plan concluded that construction, operation, and maintenance of Water Authority water infrastructure projects and other reasonably foreseeable projects in the region could increase the potential for wildfires. It was also concluded that this potential for project-related fire hazards would be mitigable to below a level of significance through adoption of appropriate mitigation measures (e.g., development and implementation of Fire Prevention Programs or Emergency Response Plans (ERPs) for each project, as necessary, in consultation with local fire protection services). The contractor for the proposed project would prepare an ERP for the proposed project, and fire safety practices would be required at the project site. Cumulative projects such as the Military Housing project, Sycamore Landfill, and Castlerock would expand development within areas surrounded by or adjacent to large areas of natural vegetation, thus increasing the potential cumulative wildfire hazard. However, each project would be required to prepare an ERP. This action would prevent cumulative contributions to public safety impacts. Cumulative public safety impacts would not be significant.

Construction and operation of the Water Authority's projects and the other cumulative projects could result in the exposure of workers or the public to hazardous materials due to disturbance of contaminated sites, or the unintentional release or spill of hazardous materials. These cumulative impacts would be mitigable to below a level of significance through the implementation of mitigation measures including the thorough investigation of potential project sites prior to construction; clean up of known contaminated sites; use of proper personal protective equipment if contamination were encountered; proper use, handling, and storage of hazardous materials to prevent spills; and adequate ERPs that would be implemented in the event of a release or spill.

MTRP is known to contain unexploded ordnance, although the Corps has conducted sweeps and has removed many items. While the potential for discovery of unexploded ordnance has been reduced, it has not been eliminated. No other hazardous materials are known in the project area.

Each project would conform with local, state, and federal requirements for brush management, fire setbacks, emergency access, hazardous materials handling and storage, and other regulations designed to protect public health and safety. Cumulative public safety and hazardous materials impacts would not be significant.

#### **4.3.13 Utilities and Public Services**

The proposed project is a water utility infrastructure project that would require little in the way of other utilities or public services. Electricity and communications lines would be needed at the control building for the FRS II to run lights, valves, security systems, and other equipment. Other anticipated cumulative 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 usual procedures. In addition, utility providers would plan ahead and forecast future utility demands in the region as a whole and expand their capacity to meet future needs and provide adequate levels of service. Cumulative impacts to utilities and public services would not be significant.

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