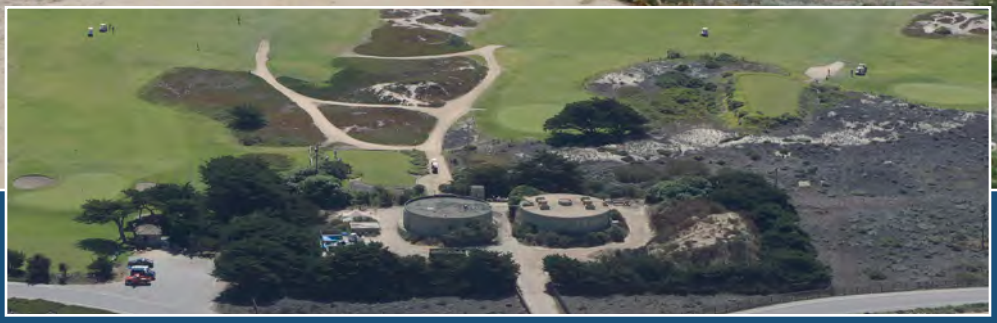
Pacific Grove Local Water Project



Draft Environmental Impact Report

Volume 1

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Brezack & Associates Planning

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Acronyms and Abbreviations

°F	Degrees Fahrenheit
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AB 1807	Tanner Air Toxics Act
AB 2588	Air Toxics Hot Spots Information and Assessment Act of 1987
ABAG	Association of Bay Area Governments
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADWF	Average Dry Water Flow
AFY	Acre-Feet per Year
AMBAG	Association of Monterey Bay Area Governments
ANSI	American National Standards Institute
APE	Area of Potential Effect
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ASBS	Area of Special Biological Significance
ASR	Aquifer Storage and Recovery
ASTs	Above Ground Storage Tanks
ATCM	Air Toxics Control Measures
AWWA	American Water Works Association
B&AP	Brezack & Associates Planning
BAAQMD	Bay Area Quality Management District
BMP	Best Management Practices
BOR	Bureau of Reclamation
C	Commercial
C&D	Construction and Demolition
CA MUTCD	California Manual on Uniform Traffic Control Devices
CAA	Federal Clean Air Act
CAAA	Federal Clean Air Act Amendments of 1990
Cal EMA	California Emergency Management Agency
Cal-OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalRecycle	The California Department of Resources Recycling and Recovery (formally the California Integrated Waste Management Board)
Caltrans	California Department of Transportation
CAO	Cleanup and Abatement Order

CAPCOA	California Air Pollution Control Officers Association
CBC	California Building Code
CCA	Community Choice Aggregation
CCA	California Coastal Act
CCAA	California Clean Air Act
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CCC	California Coastal Commission
CCCC	California Climate Change Center
CCR	California Code of Regulations
CDO	Cease and Desist Order
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (also called the Superfund Act)
CESA	California Endangered Species Act
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CH_4	Methane
CHRIS	California Historical Resources Information System
CIWMB	California Integrated Waste Management Board
CNEL	Community Noise Equivalent Level
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
COG	Council of Governments
COP	California Ocean Plan
CPUC	California Public Utilities Commission
CRA	California Resources Agency
CSIP	Castroville Seawater Intrusion Project
CSUMB	California State University of Monterey Bay
Cu-yd	Cubic Yards
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act
CWC	California Water Code
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program

dB	Decibels
dBA	Decibels on the A-weighted Scale
DD&A	Denise Duffy & Associates
DFW	California Department of Fish and Wildlife
DOT	U.S. Department of Transportation
DTSC	California Department of Toxic Substances Control
EDR	Environmental Data Resources, Inc.
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESHA	Environmentally Sensitive Habitat Areas
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
Gal	US Gallons
GHG	Greenhouse Gas(es)
Gpm	Gallons per Minute
GVW	Gross Vehicle Weight
GWP	Global Warming Potential
H_2S	Hydrogen sulfide
HCFC	Hydro-chlorofluorocarbon
HCP	Habitat Conservation Plans
HDR	High Density Residential
Hp	Horsepower
Hr	Hour
IBC	International Building Code
ICC	International Code Council
kW	Kilowatt
kWh	Kilowatt hour
Lb/day	Pounds Per Day
LCFS	Low-Carbon Fuel Standard
LCP	City of Pacific Grove Local Coastal Program Land Use Plan
Ldn	Day-Night Average Level
LDR	Low Density Residential
Leq	Equivalent Continuous Noise Level
LF	Linear Feet
LF	Linear Feet
LOS	Levels of Service
LUP	Land Use Plan
LV	Vibration Level
LVW	Loaded Vehicle Weight
MAWA	Maximum Applied Water Allowance
MBAS	Methylene Blue Active Substances

MBNMS	Monterey Bay National Marine Sanctuary
MBR	Membrane Bioreactor
MBTA	Migratory Bird Treaty Act
MBUAPCD	Monterey Bay Unified Air Pollution Control District
MCDHS	Monterey County Department of Health Services
MCHD	Monterey County Health Department
MCWD	Marina Coast Water District
MEP	Maximum Extent Practicable
mg/kg	Milligrams per Kilogram
mgd	Million Gallons per Day
MH	Manhole
MMT	Million Metric Tons
MPE	Most Probable Magnitude Earthquake
MPL	Monterey Peninsula Landfill
MPO	Metropolitan Planning Organizations
MPWMD	Monterey Peninsula Water Management District
MPWSP	Monterey Peninsula Water Supply Project
MRF	Materials Recovery Facility
MRIWRMP	Monterey Regional Integrated Water Resources Management Plan
MRSWMP	Monterey Regional Storm Water Management Program
MRWMD	Monterey Regional Waste Management District
MRWPCA	Monterey Regional Water Pollution Control Agency
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSL	Mean Sea Level
MT	Metric Tons
N_2O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCAB	North Central Coast Air Basin
NCCP	Natural Community Conservation Plans
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NOP	Notice of Preparation
NOx	Oxides of Nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resource Conservation Service
NRHP	National Register of Historic Places
O3	Ozone

OCEN	Ohlone/Costanoan-Esselen Nation
OCRM	Ocean and Coastal Resource Management
OHP	California Office of Historic Preservation
OPR	California Governor's Office of Planning and Research
OS	Open Space
OSHA	Occupational Safety and Health Administration
OSI	Open Space – Institutional
P	Public
PBCSD	Pebble Beach Community Services District
PCB	Polychlorinated biphenyl
PFC	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PGLWP	Pacific Grove Local Water Project
PGUSD	Pacific Grove Unified School District
PGWWTP	Pacific Grove Wastewater Treatment Plant
PM	Particulate Matter
PM^{10}	Respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM^{2.5}$	Fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
PO/HDR	Professional Office or High Density Residential
POM	Presidio of Monterey
Ppm	Parts Per Million
PPV	Peak Particle Velocity
PPWWTP	Point Pinos Waste Water Treatment Plant
PRC	Public Resources Code
PRD	Permit Registration Documents
PVC	Polyvinyl Chloride
PWWF	Peak Wet Weather Flow
RCRA	Resource Conservation and Recovery Act
REL	Relative Exposure Level
RMS	Root Mean Squared
RNHA	Regional Housing Needs Allocation
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RTP	Regional Treatment Plant
RURWP	Regional Urban Recycled Water Project
RWQCB	Regional Water Quality Control Board
(Service or USFWS)	U.S. Fish and Wildlife Service
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SBR	Sequencing Batch Reactor
SCS	Sustainable Communities Strategy

SF6	Sulfur hexafluoride
SGWB	Seaside Groundwater Basin
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	California Surface Mining and Reclamation Act of 1975
SO_2	Sulfur dioxide
SOx	Sulfur Oxides
Sq-ft	Square Feet
SR	State Route
SRWTP	Satellite Recycled Water Treatment Plant
SSURGO	Soil Survey Geographic Database
SVGWB	Salinas Valley Groundwater Basin
SVRP	Salinas Valley Reclamation Project
SWEEPS UST	Statewide Environmental Evaluation and Planning System underground storage tank listing
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
Tpy	Tons Per Year
TSS	Total Suspended Solids
UBC	Uniform Building Code
USAN	Underground Service Alert North
USC	University of Southern California
USCG	US Coast Guard
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
USEPA AP-42	U.S. Environmental Protection Agency Compilation of Air Pollutant Emission Factors
USFS	United States Forest Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
UTMG	Universal Transverse Mercator Grid
UV	Ultraviolet
VdB	Vibration Decibels
VFD	Variable Frequency Drives
VOC	Volatile Organic Compounds
WAS	Waste Activated Sludge
WATCH	Work Area Traffic Control Handbook
WDR	Waste Discharge Requirements

WQPP	Water Quality Protection Program
WRFP	Water Recycling Funding Program
WWTP	Wastewater Treatment Plant
WWTP	Point Pinos Wastewater Treatment Plant
Yr	Year
ug/m3	Micrograms per cubic meter

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S SUMMARY

This section summarizes the characteristics of the proposed Project as well as the environmental impacts, mitigation measures and residual impacts associated with the implementation of the proposed Project. This section also summarizes the Alternatives Section of this EIR, as well as the other environmental issues as mandated by California Environmental Quality Act (CEQA) Guidelines Section 15126. These issues include Significant Irreversible and Irretrievable Commitment of Resources, Growth Inducing Effects, Cumulative Effects, Effects Not Found to be Significant, and Unavoidable Adverse Impacts. Table S-1 at the end of this section summarizes the Impacts and Mitigation Measures proposed that would avoid or reduce all environmental effects to less than significant levels.

S.1 PROJECT DESCRIPTION

The proposed Project is the Pacific Grove Local Water Project (PGLWP). The Lead Agency is the City of Pacific Grove. The primary purpose of the Project is to produce and distribute high quality recycled water to replace potable water used for non-potable water demands such as landscaping. The Project service area is consistent with the water franchise agreement between the City and the California American Water Company (CAW).

Project Goals. In conjunction with the primary goal of replacing potable water with high quality recycled water, additional key goals are:

1. To preserve available potable water supplies for domestic uses and to maximize the recycling and reuse of non-potable recycled municipal wastewater in a cost effective manner;
2. To substitute the City's use of CAW potable water with recycled water for non-potable water demands;
3. To reduce discharges to Monterey Bay and the Pacific Grove Area of Special Biological Significance (ASBS); and
4. To maximize the use of existing wastewater collection, treatment, recycling and recycled water distribution infrastructure for the development of irrigation water and other non-potable demands.

There are six primary benefits of the PGLWP:

1. The PGLWP conserves potable water for uses requiring potable water only, thereby helping to meet State requirements to conserve water and regional compliance for CAW's reduction of the use of water from the Carmel River;
2. It avoids all costs of producing an equivalent volume of potable water;
3. It requires less energy per unit of water produced, creates a smaller carbon footprint, and is otherwise resource-efficient;
4. It would provide a new supply of irrigation water, thereby reducing operational demands on Cal-Am's desalination plant and other system components;
5. By using sewage, stormwater, and dry weather flows as its sources of water, it helps achieves other State and local goals related to keeping the Pacific Grove Area of Special

Biological Significance (ASBS) in particular and Monterey Bay in general, free of pollution; and

6. The LWP would be the first of the four primary Projects designed to prevent illegal diversions from the Carmel River and excessive pumping from the Seaside Aquifer to come on line. It is the only project that is scheduled to be operational prior to January 1, 2017, the State's designated date for imposing the full Cease and Desist Order (CDO). As such, it would reduce illegal diversions and create other significant environmental benefits in advance of the ability of any of the other projects to do so.

The PGLWP consists of the construction and operation of a new satellite recycled water treatment plant (SRWTP) to recycle a portion of Pacific Grove's municipal wastewater, 8-inch pipeline and related appurtenances. Recycled water produced at the SRWTP, located at the retired Point Pinos Wastewater Treatment Plant (WWTP), during the first phase, would be used primarily for landscape irrigation at the Pacific Grove Golf Links and El Carmelo Cemetery, owned by the City of Pacific Grove and located adjacent to the SRWTP. The initial Project consists of installing 2,800 linear feet (LF) of recycled water pipeline that would convey recycled water from the SRWTP to the Pacific Grove Golf Links and El Carmelo Cemetery's existing irrigation systems.

The proposed Project is intended to serve approximately 125 acre-feet per year (AFY) of recycled water, primarily to the City of Pacific Grove Golf Links and El Carmelo Cemetery (Demand Group I). The predominant use of recycled water would be for landscape irrigation. Irrigation would occur primarily at night to maximize water management efficiency and minimize public contact. The proposed Project is the first phase of a multi-phase, long-term PGLWP that could provide up to 600 AFY of recycled water at sites within the cities of Pacific Grove, Monterey, and unincorporated areas of Pebble Beach, CA. Thus, for purposes of CEQA analysis, it is hereinafter called Demand Group I in this document. Expansion would be to Demand Groups II and III. Demand Group II consists of other sites within the City of Pacific Grove, including other public landscaping areas within the city and open spaces and play fields at the City's schools. Demand Group III consists of sites and/or customers outside the City of Pacific Grove, including the City of Monterey, and includes unincorporated areas of Pebble Beach.

This EIR considers the effects of implementing Demand Group I Project at the Project EIR level and bases this analysis on the Project details as provided in the City of Pacific Grove Draft Facility Plan Report (Facility Plan Report) (Brezack &Associates May 23, 2014). This EIR also considers the proposed Demand Groups II and III Projects at a programmatic level. The exact components of these two Projects are not yet detailed; when more detail is known, Demand Groups II and III Projects would be subject to subsequent CEQA review.

The City would be applying for funding from the United States Environmental Protection Agency (EPA) through the EPA's State Revolving Funds (SRF) Program. In California, the SRF Program is administered by the SWRCB. Because this Program is sponsored by a federal agency, any environmental review must also contain certain environmental factors pursuant to the National Environmental Policy Act of 1972 (NEPA). These factors are called "CEQA-Plus", and are shown in Section 18 of this EIR. The CEQA-Plus requirements have been established by the EPA and are intended to supplement the CEQA Guidelines with specific requirements for environmental documents acceptable to the SWRCB when reviewing applications for SRF loans. They are not intended to supersede or replace CEQA Guidelines.

The EPA's CEQA-Plus requirements have been incorporated into the SWRCB's Environmental Review Process Guidelines for SRF Loan Applicants (SRF Guidelines) (September 2004). These requirements for compliance with CEQA-Plus are as follows:

- Copies of the CEQA document must be sent to the SWRCB, which then forwards the copies directly to federally designated agencies.
- The federal agencies must have at least fifty-one calendar days to review the CEQA document from the date it was mailed to the reviewing agency.
- Federal consultation must be completed before an SRF funding agreement can be approved by the SWRCB. The proposed Project must be in compliance with Section 7 of the Federal Endangered Species Act (FESA); must undergo a Clean Air Act conformity analysis (if in a nonattainment area or an attainment area subject to a maintenance plan); and
- The Project must be in compliance with Section 106 of the National Historic Preservation Act.

In addition, the CEQA document must also disclose all project-specific information listed in the outline provided by the SWRCB, as shown in Section 18.0. Section 18.0 can be used to support the required federal consultations as described below.

1. Federal Endangered Species Act

The SWRCB Division of Financial Assistance (Division) is the designated non-federal representative under FESA for water reclamation projects that involve an SRF loan. To ensure compliance with Section 7 of FESA, the Division reviews all SRF projects to determine the potential effects to federally listed species. This EIR includes the documentation required by the Division to disclose the proposed Project's effects on sensitive species (see Section 6.0). The Division staff uses this information to confer informally (and formally if necessary) with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service, as appropriate.

2. Federal Clean Air Act

The Federal Clean Air Act (FCAA) requires the EPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM10, PM2.5, and lead. Pursuant to the 1990 FCAA Amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for these criteria air pollutants, based on whether or not the NAAQS had been achieved. The FCAA requires each state to prepare a State Implementation Plan (SIP), which is an air quality control plan that includes pollution control measures for states that violate the NAAQS. For SRF-funded projects, CEQA-Plus requirements include a FCAA general conformity analysis for projects in a federal nonattainment area or an attainment area subject to a SIP. The proposed Project is in a federal nonattainment area for ozone, PM10 and PM2.5, as explained in Section 5.0. If a FCAA general conformity analysis is required, the information provided in this EIR would be used to support the analysis.

3. National Historic Preservation Act

CEQA-Plus requires SRF-funded projects to comply with Section 106 of the National Historic Preservation Act. Consultation with the State Historic Preservation Officer (SHPO) is required to demonstrate/confirm that Section 106 compliance has been achieved. The Division's Cultural Resources Officer (CRO) is responsible for the consultation with the SHPO. This EIR include the information and documentation the Division CRO is required to provide to the SHPO to initiate the Section 106 consultation, including, (1) identification of the proposed Project's Area of Potential Effects (APE), (2) cultural records searches for the APE at the appropriate Information Centers, (3) documentation of Native American consultation, (4) cultural resources field surveys of the APE, (4) evaluations of elements of the built environment in and around the APE that are eligible for the National Register of Historic Places, and (5) Determination of Eligibility for any cultural resources that cannot be avoided during project construction.

S.2 ENVIRONMENTAL ISSUES AND EFFECTS

1. Aesthetics

Existing facilities at the retired WWTP site include two existing structures (sludge digester and admin building / clarifier) that would be reused as recycled water storage tanks. The tanks and the overall Point Pinos site are mostly obscured from Ocean View Boulevard and the Pacific Grove Golf Links by large Monterey Cypresses (*Cupressus macrocarpa*) planted along the site boundary fence as a visual screen. The only places onsite where Monterey Cypresses are not planted along the fence are at the front entrance to the site, which is within views of passing motorists and recreational users on Ocean View Boulevard and the adjacent parking area, and a rear entrance to the site, that is visible by golfers from locations on the Pacific Grove Golf Links course. Therefore, Project facilities would be screened by these existing Monterey Cypress trees and thus no visual impacts related to project construction and operation would occur. Additionally, a chain link fence for site security surrounds the WWTP site. A grape stake fence on the west side of the WWTP Site, along Ocean View Boulevard protects native species planted as part of the restoration project and also restricts public access to the restoration areas. There are no plans to remove or replace the grape stake fencing. Security lighting is proposed at the WWTP site, but any new lights would be directed downwards and consistent with City standards. Other project facilities such as pipelines and appurtenances would be located underground and are not expected to impact visual aesthetics.

Future phases of the proposed Project (Demand Groups II and III) would require expansion of both the SRWTP and the distribution system to provide recycled water to other non-potable demands throughout the City and other locations. As stated above, the upgrades to the SRWTP would be shielded from external views by the existing chain link fence and vegetation bordering the periphery of the site. The proposed improvements would not degrade views from surrounding viewpoints or scenic vistas during the operational phase. In addition, construction activities would be temporary and largely obscured from public viewpoints by existing vegetation. Therefore, no mitigation measures are proposed in this Section.

2. Air Quality

The proposed Project, for all Demand Groups, would not conflict or obstruct implementation of the applicable air quality management plan, which is implemented by the Monterey Bay Unified Air Pollution Control District (MBUAPCD), nor would it violate any air quality standard or contribute substantially to an existing or projected air quality violation. Both short-term construction-related emissions and long-term operational emissions of the Project are expected to be well below MBUAPCD Thresholds of Significance. The air quality effect associated with operation of the SWRTP would consist of traffic generated by employees of the SRWTP, vendors and visitors, estimated to be no more than 16 round trips per day. The North Central Coast Air Basin is an attainment area for all federal criteria pollutant standards. While the local North Central Coast Air Basin exceeds the California Air Resources Board State standards for ozone and particulate matter smaller than 10 microns (PM^{10}), the additional traffic generated by the Project would not result in a significant net increase of, nor expose sensitive receptors to, any criteria pollutant or toxic air contaminant (TAC). Finally, the proposed Project would be constructed so that no significant odors affecting sensitive receptors would be generated. Therefore, no mitigation measures are proposed in this Section.

3. Biological Resources

This section presents the findings of four documents included in Appendix C of this EIR: 1) City of Pacific Grove Waste Water Treatment Plant Cypress Tree Assessment (Cypress Tree Assessment) prepared by Frank Ono, Certified Arborist on January 21, 2014, 2) Initial Reconnaissance Survey prepared by Denise Duffy & Associates, Inc. (July 18, 2013), 3) Biological Resources Report, Pacific Grove Local Water Project Satellite Recycled Water Treatment Plant Site, also prepared by Denise Duffy & Associates, Inc. (May 13, 2014), and 4) 2012 Annual Dune Restoration and Monitoring Report, City of Pacific Grove Golf Course at Point Pinos Pacific Grove, California prepared by Rana Creek Restoration. Both ruderal/developed and Monterey Cypress habitat types are at the site. The Monterey Cypresses were planted on the Project boundary to screen the Point Pinos Water Treatment Plant. No special-status plant species were observed within these habitat types or surrounding areas and none are expected to occur. No other sensitive habitats, including riparian habitat, were observed on the Project site or within adjacent areas. The Project is not located within the boundaries of any adopted Habitat Conservation Plans or Natural Community Conservation Plans. No special-status wildlife species were observed within the ruderal/developed areas of the Project site. However, nesting raptors and other migratory bird species, which are protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code, could utilize the Monterey Cypresses for nesting. Mitigation measures contained in this Section would avoid impacts or reduce potentially significant impacts to nesting raptors to less than significant levels.

4. Cultural Resources

This section presents the findings of three documents included in Appendix D of this EIR: 1) Preliminary review for potential historic resources (Fatal Flaw analysis) of Pacific Grove's former Point Pinos Wastewater Treatment Plant, prepared by Archives and Architecture, Inc. (undated), 2) Archaeological Assessment for the Satellite Recycled Water Treatment Plant at the Former Point Pinos Wastewater Treatment Plant, Pacific Grove, California, prepared by Albion Environmental, Inc. (August 2013), and 3) Phase 1 Archaeological Survey for The City of Pacific

Grove Local Water Project, Pacific Grove, Monterey County, California by Archaeological Consulting, Salinas, CA (June 2014). These documents are contained in this EIR as Appendix D.

Fourteen sites, including 12 prehistoric and two historic age sites, have been identified within a 0.25-mi radius of the APE. Two of the prehistoric sites are mapped in close proximity to the location of the proposed Project. The remainder of the APE does not contain surface evidence of significant historic resources. Excavations within those portions of the APE for the proposed Project (Demand Group I) components would have no effect on these significant historic/cultural resources. However, the paved areas of the proposed Project for all Demand Groups may have buried artifacts or remains that would result in significant impacts. Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant impacts to less than significant levels. The Project pipeline alignments and other appurtenances as proposed to serve Demand Groups II and III have not been specifically surveyed at this time. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, as well as adherence to existing laws and regulations would avoid or reduce significant cultural resources impacts to less than significant levels.

5. Geology and Soils

This section presents the findings and recommendations contained in the Geotechnical Investigation Pacific Grove ASBS Stormwater Management Project (Pacific Geotechnical Engineering August 2013), as these findings relate to the proposed Project site. This Geotechnical Report is presented as Appendix G of this EIR. As a mitigation measure, the construction contractor will follow all recommendations contained within this Geotechnical Report. In addition, all structures associated with the proposed Project (Demand Group I) would be designed and constructed in adherence with the standards as set forth in the City of Pacific Grove's (City) Standard Specifications, the current California Building Code (CBC 2010) and the National Electrical Safety Code (American National Standards Institute [ANSI] C.2). Adherence to these standards ensures structures would be able to withstand anticipated seismic events, that expected seismic activity would not result in significant damage or harm to the public, and that all Demand Group I tank retrofitting, trenching and engineered fills would be constructed to avoid impacts from geologic hazards.

The exact location of the pipelines and appurtenances in Demand Groups II and III are not yet known, therefore mitigation is proposed that would include preparation of a subsequent Geotechnical Investigation by a licensed geotechnical engineer at the time of CEQA review. All practicable precautions would be taken to design and construct Project facilities to withstand the projected ground shaking associated with the most probable magnitude earthquake (MPE) in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche), and exposure to unstable geologic features and/or expansive soils. Therefore, impacts related to rupture of a known earthquake fault, strong groundshaking, seismic-related ground failure including liquefaction, or landslides and expansive soils are not expected.

6. Greenhouse Gas Emissions

The quantity of greenhouse gas (GHG) emissions that the proposed Project would emit would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Implementation of the proposed Project would result in a less than significant impact associated with conflicts with plans and regulations adopted for the purposes of reducing GHG emissions. The combined short-term construction-related GHG emissions and long-term operational emissions of the Project would emit less than the "zero-equivalency" threshold of 230 metric tons of carbon dioxide equivalent (CO_2e) per year. Projected emissions of Demand Group I are also well below the most stringent thresholds of 1,100 metric tons CO_2e per year. Demand Groups II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, which would result in less than significant impacts.

7. Hazards and Hazardous Materials

An environmental site assessment and due diligence review was completed for the PGLWP study area through the review of available records, site visits, inspections and windshield surveys, and interviews with site operators and City officials. In addition, Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records on the PGLWP study area in May 2014. Results of that search are presented as Appendix F of this EIR.

The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. However, the retired Point Pinos WWTP was constructed when asbestos and lead-based paints were used in building construction (prior to 1978). Without samples to show that no asbestos or lead-based paints are present this becomes a potentially significant impact. Thus, a mitigation measure to prepare a risk assessment and cleanup as necessary pursuant to California Code of Regulations (CCR) Title 8, section 5208 is contained within this Section to avoid or reduce this impact to less than significant levels.

Demand Groups II and III would include additional trenching during the construction phases, and would increase the operational capacity at the SRWTP. The exact trenching locations are not yet known. Potential concerns involving lead and asbestos could also occur in subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, and adherence to existing laws and regulations governing the transport, use, and storage of hazardous materials and wastes as well as use of appropriately trained employees would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant levels.

8. Hydrology and Water Quality

The proposed Project would not affect existing hydrologic patterns on the site. The Project consists of two types of activities: placement of new skid mounted appurtenances at the flat WWTP site and installation of 2,800 feet of new pipeline within existing pipe easements or rights-of-way. The Project involves the redevelopment of existing infrastructure of the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery, and would not introduce substantial additional impervious surfaces. Finally, while the Point Pinos site is within a tsunami hazard zone, no new housing or other structures would be built in this location, thus the proposed SRWTP improvements would

not exacerbate vulnerability to a tsunami hazard or the effects of sea level rise. No effects analyzed in this section were found to exceed significance criteria, thus no mitigation measures are contained within this Section.

9. Land Use and Planning

The proposed Project would be consistent with all applicable land use plans and policies for all Demand Groups, within the jurisdictions of the City of Pacific Grove, Monterey, and Monterey County. The Project would reuse the existing Point Pinos WWTP facilities and all pipelines would be installed in existing rights-of-way and below grade. No effects analyzed in this section were found to exceed significance criteria, thus no mitigation measures are contained within this Section.

10. Noise

Construction noise at the Point Pinos WWTP site may exceed the City's noise standards as listed in the General Plan; however, proposed mitigation measures would reduce noise to less than significant levels. Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant impacts to less than significant levels. The noise levels generated by the operation of the proposed Project would not exceed the City's noise standards, given that the majority of infrastructure provided as part of the Project would be underground in pipelines either within the City's Municipal Golf Course, El Carmelo Cemetery or within other linear open space areas. The reuse of the existing WWTP facility at Point Pinos would be located a sufficient distance from sensitive receptors.

Demand Groups II and III would include additional trenching during the construction phases. The exact trenching locations are not yet known. Short-term construction noise exceeding either Noise Standards of the City of Pacific Grove, the City of Monterey or Monterey County could also occur in these subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, as well as adherence to existing laws and regulations related to construction noise would avoid or reduce significant noise impacts to less than significant levels.

11. Transportation/Traffic

This section presents the findings and recommendations contained in the following four documents: 1) Monterey-Pacific Grove ASBS Stormwater Management Project Final EIR (Rincon 2014), 2) Pacific Grove Municipal Golf Course Clubhouse Mitigated Negative Declaration, 3) City of Pacific Grove General Plan, and 4) the Traffic Operations Analysis prepared by Hexagon Transportation Consultants (2013) for the Monterey-Pacific Grove ASBS Stormwater Management Project (Rincon 2014). Construction of proposed Project facilities would temporarily close portions of Ocean View Boulevard and Asilomar Avenue to traffic. This could increase traffic levels on roadways due to transporting equipment, materials, and personnel to construction areas. Construction traffic trips, including deliveries, would not exceed 62 (31 one way, with both ways counted). This amount assumes workers would be driving their own vehicles. While these numbers are not high, this area of Point Pinos is a major tourist attraction and thus any new traffic, especially large vehicles, could result in a significant impact. Projected traffic generated by operation of the SWRTP could result in a total generation of 16 new daily trips (8 one way, with

both ways counted). This is considered a Less than Significant impact. Mitigation measures contained in this Section would avoid impacts or reduce potentially significant impacts from traffic to less than significant levels.

12. Utilities and Service Systems

Public services in the Project area include fire and police protection services, emergency medical services, hospitals, and schools. Public utilities include solid waste disposal, water, wastewater, electricity, and natural gas. In general, implementation of the PGLWP would not have direct long-term effects on the demand for public services and utilities, with the exception of water service. No effects analyzed in this section were found to exceed significance criteria, thus no mitigation measures are contained within this Section. The proposed Project would result in a beneficial effect of providing recycled water for landscaping and other uses to the City so that the need for potable water services within the City and region are reduced.

S.3 OTHER ENVIRONMENTAL CONSIDERATIONS

Sections 4.0 through 15.0 of the EIR present an assessment of potential adverse impacts to specific resources that could result from implementing the proposed Project and its constituent elements. Pursuant to CEQA Guidelines Section 15126, this section discusses the following additional environmental issues associated with the proposed Project as Section 16.0:

- Significant Irreversible and Irretrievable Commitment of Resources;
- Growth Inducing Impacts;
- Cumulative Impacts;
- Effects Found Not to be Significant; and
- Unavoidable Adverse Impacts.

1. Significant Irreversible and Irretrievable Commitment of Resources

This section considers the effects of the proposed Project that would result in a commitment of resources and uses of the environment that could not be recovered if the Project were constructed. An irreversible or irretrievable commitment of resources would occur when resources are consumed, committed, or lost as a result of the proposed Project. The commitment of a resource would be "irreversible" if the Project started a process (chemical, biological, or physical) that could not be stopped. As a result, the productivity of the resource or its utility would be consumed, committed, or lost forever. Commitment of a resource would be considered "irretrievable" when the Project would directly eliminate the resource, its productivity, or its utility for the life of the Project.

Construction and maintenance of proposed Project components would consume building materials and energy, some of which are non-renewable resources. Resources consumed as a result of Project implementation include water, electricity, and fossil fuels during construction and operations; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Compliance with all applicable building codes, as well as City policies, and the mitigation

measures identified in this EIR would ensure that all natural resources are conserved to a feasible extent.

2. Growth Inducing Impacts

The CEQA Guidelines require a discussion of the ways in which a project could potentially foster economic or population growth or the construction of additional housing in the surrounding environment. This discussion should include the characteristics of the proposed Project that may encourage or facilitate future growth that, either individually or cumulatively, could significantly affect the environment. The City has identified three parameters to determine if the project would be growth inducing: 1) Population and Economic Growth, 2)

Population and Economic Growth

The proposed Project does not propose construction of any new residences and would therefore not directly induce population growth. The proposed Project would directly generate up to 31 short-term jobs during construction of Project components. Construction of proposed Project (i.e., Demand Group I) components would occur over a maximum estimated 9-month construction period. Future expansion of the proposed SRWTP would be required to serve Demand Groups II and III. Timing and approval for the future expansion of the proposed Project from 125 AFY to 600 AFY would be determined by the City based upon the following considerations:

- Recycled water needs of the individual customers in Demand Groups II and III;
- Cost effectiveness of expanding the treatment capacity to produce 600 AFY of recycled water and to construct and operate additional recycled water distribution facilities from Point Pinos to the reuse customer sites in Demand Groups II and III; and
- Future coordination and the development of recycled water supply agreements with the customers that compose Demand Groups II and III. This would also include the execution of some form of agreement between the City and the potable water purveyors to Demand Groups II and III.

As stated above, the proposed Project would generate short-term employment opportunities during construction of Project components and a limited amount of long-term employment opportunities associated with the operation and maintenance of Project components. However, both temporary and long-term employment opportunities would be expected to be filled from within the existing community and long-term employment would be limited to 1 to 3 people. Therefore, construction and operation of Project components would not be considered growth inducing and impacts related to direct or indirect population growth would be less than significant.

Removal of Obstacles to Growth

The proposed Project components would be located in an urbanized area, served by existing infrastructure. The proposed Project would not provide any capacity-increasing transportation and circulation improvements. No new roadways are proposed. The Project essentially constitutes refurbishment and upgrades to existing infrastructure at the retired Point Pinos Wastewater Treatment Plant (WWTP), which is within an urbanized area. The proposed Project would not expand services to provide additional opportunities for growth.

The proposed Project does not include changes in land use or zoning designations, nor does it include changes in housing density limits. Therefore, the proposed Project would not facilitate growth in the surrounding area by removing any land use, zoning, or density restrictions, which could currently be considered obstacles to such growth.

3. Cumulative Impacts

According to the CEQA Guidelines Section 15130(a)(1), "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." In addition, an EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects is "cumulatively considerable" [Section 15130(a)]. Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" [Section 15164(b)(1)]. Together, these projects comprise the cumulative scenario that forms the basis of the cumulative impact analysis. A cumulative impact analysis should highlight past actions that are closely related (either in time or location) to the project being considered, catalogue past projects and discuss how past projects have harmed the environment, and discuss past actions, even if they were undertaken by another agency or another person.

Reasonably foreseeable projects that could contribute to the cumulative effects scenario are listed below. They are all located within the City.

1) A stormdrain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue (from 12th to 14th Streets).
2) Lovers Point stormdrain retrofit (Pine Avenue and 19th Street to Lovers Point).
3) Monterey-Pacific Grove Area of Special Biological Significance (ASBS) Stormwater Management Project.

There are no reasonably foreseeable projects that could contribute to the cumulative effects scenario within the City of Monterey (City of Pacific Grove, 2014).

As contained in this Section and listed above in this Summary, while there are effects that would cause Project-specific impacts, no cumulative impacts would occur as a result of implementing this Project.

4. Effects Found Not to be Significant

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various potentially significant effects of a project were not discussed in detail in the EIR. This EIR contains an analysis of the potentially significant environmental effects associated with the proposed Project. The following issues have not been found to be significant, based on "No Impact" and/or "Less than Significant Impact" answers in the entire section of the City of Pacific Grove Local Water Project CEQA Environmental Checklist (Appendix G of the CEQA Guidelines, as amended): 1) Agriculture and Forestry Resources, 2) Mineral Resources, 3) Population and Housing, and 4) Recreation.

5. Unavoidable Adverse Impacts

No unavoidable potentially significant adverse project-level impacts were identified for the proposed Project. The issues related to program-level effects will be analyzed in separate CEQA documents once details are known.

S.4 ALTERNATIVES

As required by Section 15126(d) of the CEQA Guidelines, this EIR at Section 17.0 examines a range of reasonable alternatives to the proposed PGLWP that would feasibly attain the objectives of the Project and would avoid or substantially lessen any of the significant effects of the Project. Included in this analysis are the CEQA-required "no project" alternative and three design alternatives. The alternatives were identified based on: 1) the Draft Facility Plan Report; 2) comments from the PGLWP public scoping meeting; and 3) written comments received on the PGLWP Notice of Preparation (NOP). These alternatives are:

- Alternative 1: No Project Alternative
- Alternative 2: Wastewater Reclamation and Storage at an Alternative Site
- Alternative 3: Alternative Treatment Technology
- Alternative 4: Regional Urban Recycled Water Project Extension

Pursuant to Section 15126.5(f)(2), the alternatives were evaluated based on the following criteria:

Criterion 1: The alternative must avoid or substantially lessen an identified significant effect of the proposed Project; and

Criterion 2: The alternative must feasibly attain most of the proposed Project's objectives. This second criterion focuses on identifying project alternatives capable of serving the same use as the proposed Project (i.e., meeting the objectives of the proposed Project) in a feasible manner ("feasible" is defined by CEQA as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" [CEQA Guidelines Sec. 15364].

An alternative must meet both of the above criteria to be considered in the EIR evaluation. The results of the evaluation are presented in Table 17-1 of this EIR. None of the alternatives met both criteria and thus were not evaluated in this EIR, and the rationale for removing them from consideration is provided in Section 17.0.

With the implementation of the No Project Alternative, no new development would occur within the project component areas. Since new development would not occur, potential impacts related to construction and long-term site disturbances would also not occur. This includes impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gases, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Transportation/Traffic, and Utilities and Service Systems. In addition, since no construction-related vehicle trips would be added to local roadways, temporary impacts to the transportation network, including those resulting from temporary road closures, would not occur.

Under the No Project Alternative, the City would continue to purchase potable water from CAW for irrigation of its golf course, cemetery and for toilet flushing of its public restrooms. However, CAW's rates have and are estimated to continue to increase. Currently, the City spends approximately $6,000 per acre-foot for purchase of water from CAW. It is therefore possible that the City may not be able to afford to continue to purchase potable water for golf course and cemetery irrigation. If the City chose not to irrigate the golf course and cemetery, the turf at both of these facilities would turn brown and die. It is estimated that golf course players would not want to play on brown or dead grass, especially given the local options available provided by numerous courses maintained green by their investments in recycled water treatment and irrigation systems. Fewer players would result in less fees and reduced City revenues. Dead turf roots would also not hold the soil as well as roots of living turf, which could result in water and windborne erosion at the golf course and cemetery sites. This erosion could cause increased soil runoff and turbidity discharges into the Point Pinos ASBS. Dead turf and soil erosion would negatively affect the existing visual quality of the sites. It has been posited that if the golf course turf were to go brown, pressure to change the land use of the golf course site could occur, resulting in more housing, increases in impervious surfaces and a permanent loss of recreation and open spaces.

Neither the No Project Alternative or the alternatives that were considered or evaluated in this EIR offer any substantial benefit over the proposed Project. Based on the above discussion, the No Project Alterantive could result in significant impacts. All of the imapcts identified in this EIR would be avoided or reduced to less than significant levels after mitigiation is applied. Therefore, the proposed Project is considered the Environmentally Superior Alternative.

S.5 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table S-1 includes the environmental impacts and proposed mitigation measures as contained in this EIR. With the implementation of these mitigation measures, all impacts can be avoided or reduced to less than significant levels.

Table S-1
Summary of Significant Environmental Impacts, Mitigation Measures, and Determination of Impacts After Mitigation Has Been Applied

Impact	Mitigation Measure
Biological Resources	
Impact Biological Resources 1: Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) could result in harm, injury, or death of individual birds, or abandonment of an active nest within the Monterey cypress trees surrounding the site. These trees provide nesting habitat for protected avian species. If a raptor or other migratory birds, regardless of its federal or state status, were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws.	**Biological Resources Mitigation Measure 1- Demand Group I:** Construction activities that may directly (e.g., vegetation removal) or indirectly affect (e.g., noise/ground disturbance) protected nesting avian species will be timed to avoid the breeding and nesting seasons. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. Alternatively, a qualified biologist would be retained by the City to conduct pre-construction surveys for nesting raptors and other protected avian species within 300-feet of proposed construction activities if construction occurs between February 1 and September 15. Pre-construction surveys would be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys would be determined by the qualified biologist based on review of the final construction plans and in coordination with the Service and California Department of Fish and Wildlife (DFW), as needed. If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist would notify the City and an appropriate no-disturbance buffer would be imposed within which no construction activities or disturbance should take place (generally 300-feet in all directions for raptors; other avian species may have species-specific requirements) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist. Implementation of this measure would reduce the impact to **less than significant.**
Impact Biological Resources 2: The Monterey cypress trees that surround the Project site are "protected trees", as defined by the City Municipal Code Chapter 12.20. Therefore, any large trimming affecting any one tree by more than 25%, or any removal of any cypress tree could result in a potentially significant impact. A permit is not required for pruning of less than 25% of the	**Biological Resources Mitigation Measure 2-Demand Group I:** The arborist hired by the City would adhere to the permitting procedures detailed in this Municipal Code Chapter. The arborist would apply for a tree removal/pruning permit from the City as necessary. All actions associated with "protected trees" would be conducted under the supervision of the City

live branches of the entire tree within a 12-month period; and/or cutting or removal of any live limb with a diameter less than six inches or a circumference less than 19 inches at any point on such limb, or cutting or removal of roots less than four inches in diameter.	arborist, as stated in the City Municipal Code. The City would select a competent arborist who is well versed in Monterey Cypress growth characteristics. Pruning would be focused on the larger canopied trees and those trees that have either deadwood or are exhibiting some structural defect or minor disease that must be compensated. Those trees that require most pruning are the closest to the compound entrance (north east property corner), compound work areas, and adjacent parking and restroom structure located along the western property line). Trees would be monitored on occasion for health and vigor after pruning. Should the health and vigor of any tree decline, it would be treated as appropriately recommended by a certified arborist or qualified forester (Cypress Tree Assessment 2014). Implementation of this measure would reduce the impact to **less than significant.**
Geology and Soils	
Impact Geology and Soils 1: Demand Group I The Monterey Peninsula is within a seismically active fault region. Impacts could occur related to rupture of a known earthquake fault, strong groundshaking, seismic-related ground failure including liquefaction, or landslides.	**Geology and Soils Mitigation Measure 1-Demand Group I:** The City shall follow and implement all recommendations for the retrofit of the existing PGLWP tanks and for construction of utility trenches as contained in the Geotechnical Report (Appendix G of this EIR). These recommendations include earthwork, water tank foundations, concrete slabs on grade, and surface drainage. Earthwork recommendations include clearing and grubbing; excavations, shoring and dewatering; subgrade preparation; material for engineered fill; engineered fill placement and compaction; cut and fill slopes; utility trench excavation and backfill; and wet weather construction. Water tank foundation recommendations include load bearing capacity; settlement; soil resistance to lateral loads; frictional resistance; and sidewalls of tanks. Recommendations for concrete slabs on grade are also made in this Geotechnical Report, although the Report notes that "none are presently proposed". Because the site is composed of highly erodible dune sand deposits, surface drainage recommendations include establishing positive drainage away from building foundations; concrete slabs on grade and pavements; directing water flow towards suitable collection and discharge facilities; and planting and mulching all disturbed surfaces prior to winter rains. Implementation of this measure would reduce the impact to **less than significant.**
Impact Geology and Soils 2: Demand Group II and III. Proposed facilities and/or pipelines could be subject to seismic events that could damage these facilities and affect reliable use of pipelines. This is considered a significant impact. Primary earthquake hazards include damage from ground displacement along a fault zone, severe ground shaking, and induced secondary hazards such as liquefaction, rapid differential settlement, lurching, and landslides. In general, the most severe hazard is probably posed by seismic-related ground failure including liquefaction.	**Mitigation Measure 2 - Demand Groups II & III** a) At this time, the proposed pipelines and other appurtenances are not near any known Holocene (within the last 10,000 years) faults, but fault movement often occurs on previously unknown or "inactive" faults throughout the State. Therefore, a geotechnical engineering investigation consistent with California geologic and engineering standards would be conducted for Demand Group II and III facilities by a licensed geotechnical engineer. This would be part of any subsequent CEQA review. The geotechnical engineer would prepare a report

	that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards (including fault rupture and severe secondary effects of earthquakes), along with design criteria and construction methods to effectively construct the proposed Project with an acceptable level of risk. The report would address all geologic and geotechnical factors related to the design and construction of the proposed Project. b) All practicable precautions will be taken to design and construct Project facilities to withstand the projected ground shaking associated with the most probable magnitude earthquake (MPE) in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche). The MPE represents the strongest earthquake likely to occur over the design life of the Projects. Project structures will be designed using Project-specific criteria in accordance with the latest revision of the National Electrical Safety Code (American National Standards Institute [ANSI] C.2), UBC, and CBC. Implementation of this measure would reduce the impact to **less than significant.**
Impact Geology and Soils 3: Demand Groups II and III. Facilities could be located within soils that could be susceptible to unstable geologic structures and expansive soils. These conditions could result in the damage or rupture of the proposed facilities.	**Mitigation Measure 3 – Demand Groups II & III** Geology and Soils Mitigation Measure 3: A geotechnical investigation would be required for all facilities and appurtenances within the Demand Groups II and III project areas. The investigation shall be consistent with California geologic and engineering standards applicable facilities and prepared by a licensed geotechnical engineer. The geotechnical engineer would prepare a report that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards (including fault rupture and severe secondary effects of earthquakes), along with design criteria and construction methods to effectively construct the proposed Project with an acceptable level of risk. The report would address all geologic and geotechnical factors related to the design and construction of the proposed Project including unstable geologic structures and expansive soils. Implementation of this measure would reduce the impact to **less than significant.**
Hazards and Hazardous Materials	
Impact Hazards and Hazardous Materials 1: The retired Point Pinos Wastewater Treatment Plant was constructed when asbestos and lead-based paints were used in building construction (prior to 1978). Therefore, the possibility exists that the existing structures contain asbestos or lead-based paint.	**Mitigation Measure 1 – Demand Group I** CCR Title 8 Section 5208 requires that a State-certified risk assessor conduct a risk assessment and/or paint inspection of all structures constructed prior to 1978 for the presence of asbestos or lead-based paint prior to demolition. If such hazards are determined to exist onsite, the risk assessor would then prepare a site-specific hazard control plan detailing asbestos and/or paint removal methods and specific instructions for providing protective clothing and gear for abatement personnel. If necessary, a State-certified lead-based paint

	and an asbestos removal contractor (independent of the risk assessor) would be retained to conduct the appropriate abatement measures as required by the plan. Wastes from abatement and demolition activities would be disposed of at a landfill(s) licensed to accept such waste. Once all abatement measures have been implemented, the risk assessor would conduct a clearance examination and provide written documentation to the City that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations. If any unforeseen conditions are discovered during Project construction, the City would coordinate with the appropriate agencies for the safe handling, sampling, and disposal of encountered materials. Construction workers are required to comply with Cal-OSHA worker health and safety standards that ensure safe workplaces and work practices. Further, compliance with all applicable laws and regulations at the federal, state, and local levels would prevent the exposure of individuals and the environment to the hazards by ensuring that all abatement regulations are carried out prior to demolition. Implementation of this measure would reduce the impact to **less than significant.**
Noise	
Impact Noise-1: During construction, sensitive receptors could be exposed to maximum noise levels of 85 dB, and regular temporary noise levels would likely exceed 70 dB. .	**Mitigation Measures – Demand Groups I, II, III** **Noise Mitigation Measure 1:** Construction Hours. Hours of construction for the proposed Project will be limited to between 8:00 AM and 7:00 PM on weekdays and 9:00 AM to 4:00 PM on Saturdays. No construction work will be allowed to occur on Sundays or other federal, state or local holidays. **Noise Mitigation Measure 2:** Construction Equipment. Stationary construction equipment that generates noise that exceeds 70 dB at the boundaries of adjacent sensitive receptors will be baffled to reduce noise and vibration levels. All construction equipment powered by internal combustion engines will be properly muffled and maintained. Unnecessary idling of internal combustion engines will be prohibited. **Noise Mitigation Measure 3:** Noise Mitigation and Monitoring Program. The City shall provide a Noise Mitigation and Monitoring Program that consists of the following: • Construction contracts that specify that all construction equipment, fixed or mobile, be equipped with properly operating and maintained mufflers and other state required noise attenuation devices. • All property owners and occupants located within 300-feet of the proposed Project will be notified within 15 days of start of construction regarding the schedule of the Project. All notices will be reviewed and approved by the

	City Planning Division prior to the mailing or posting and will indicate the dates and duration of construction activities, as well as provide a contact name and telephone number where residents can inquire about the construction process and register complaints. • Prior to issuance of any grading or building permit, the construction contractor shall demonstrate to the satisfaction of the City Planning Division how construction noise reduction methods such as shutting off idling equipment and vehicles, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging and parking areas and occupied residential areas, and electric air compressors and similar power tools, rather than diesel equipment, be used where feasible. • During construction, stationary equipment will be placed such that emitted noise is directed away from sensitive noise receptors. • For all noise-generating construction activity on each component site, additional noise attenuation techniques will be employed to reduce noise levels to the maximum extent feasible. Such techniques may include, but are not limited to: the use of sound blankets on noise generating equipment and the construction of temporary sound barriers between the construction site and nearby sensitive receptors. **Noise Mitigation Measure 4:** The construction contractor shall provide staging areas on-site to minimize off-site transportation of heavy construction equipment. These areas will be located to maximize the distance between activity and sensitive receptors (neighboring residences). This would reduce noise levels associated with most types of idling construction equipment. **Noise Mitigation Measure 5:** Electrically-Powered Tools and Facilities. Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers. Implementation of these measures would reduce the impact to **less than significant.**
Transportation/Traffic	
Impact Transportation/Traffic-1: Construction of the proposed Project facilities would result in traffic increases of up to 31 new trips from workers commuting, delivery trucks, and haul trucks. While these numbers are not high, this area of Point Pinos is a major tourist attraction.	**Mitigation Measures - Demand Groups I, II, III** **Traffic Mitigation Measure 1:** Temporary Traffic Handling Plans. Temporary Traffic Handling Plans shall be prepared for proposed lane reductions on Ocean View Boulevard and Asilomar Avenue. The plans shall be prepared in accordance with the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) and Work Area Traffic Control Handbook (WATCH) manual requirements (where appropriate) and contain provisions for handling bike and pedestrian traffic, as

	well as ensuring access to neighboring facilities and residences during construction and ensuring emergency access to fire hydrants along all roadways. During construction, the City would use detour signage for vehicles, bicycles, and pedestrians on alternate access streets when temporary full street closure is required. The plans shall be reviewed and approved by the City Works Department prior to construction. At each of the lane closure locations and at the intersection of Asilomar Avenue and Ocean View Boulevard, a traffic flagger shall be utilized to ensure that traffic can be safely accommodated through the closures during construction. **Traffic Mitigation Measure 2:** Coordination with City. Coordinate with City staff regarding the duration and locations of short-term traffic diversions. Temporary traffic handling plans shall be prepared when necessary to detour traffic to appropriate locations. In addition, the daytime hours of traffic diversion shall be restricted to allow for adequate traffic flow at high traffic volume locations during peak commute hours. **Traffic Mitigation Measure 3:** Detours. During construction, the City shall use detour signing for vehicles, bicycles, and pedestrians on alternate access streets when temporary full street closure is required. **Traffic Mitigation Measure 4:** Return Roads to Pre-construction Condition. Following construction, the City shall ensure that road surfaces that are damaged during construction are returned to their pre-construction condition or better. Implementation of these measures would reduce the impact to **less than significant.**
Impact Transportation/Traffic-2: Using a worst-case scenario of all employees present at the SWRTP at once, and having all deliveries occurring at once could result in a total generation of 62 new daily trips (31 one way, with both ways counted). As with the Construction Phase discussion above, while these numbers are not high, this area of Point Pinos is a major tourist attraction.	**Mitigation Measure:** Implement Traffic Mitigation Measures 1 through 4. Implementation of these measures would reduce the impact to **less than significant.**
Impact Transportation/Traffic-3 : During construction of the proposed Project (i.e., Demand Group I), portions and/or lanes of Ocean View Boulevard and Asilomar Avenue could be closed to traffic on a temporary basis. These closures could impede access by emergency response vehicles, including access to fire hydrants on Asilomar Avenue and Ocean View Boulevard. In addition, construction near the City of Pacific Grove Municipal Golf Course could temporarily obstruct the driveway to this facility. However, it is expected that just one lane in these two-lane roads would be closed at any one time, and construction within the roads is not expected to last more than 5 days. While	**Traffic Mitigation Measure:** Implement Traffic Mitigation Measures 1 through 4. Implementation of these measures would reduce the impact to **less than significant.**

these numbers are not high, this area of Point Pinos is a major tourist attraction.	
Impact Transportation/Traffic-4: Short-term increases in safety hazards to bicyclists, and pedestrians, and restriction of access to adjacent uses may occur during pipeline construction and operation of construction equipment. Pipeline construction could also disrupt or delay transit service if construction occurs along bus routes. Designated bikeways could also be affected if pipeline alignments cross these routes.	**Traffic Mitigation Measure:** Implement Traffic Mitigation Measures 1 through 4. Implementation of these measures would reduce the impact to **less than significant.**
Utilities and Service Systems	
Impact Utilities and Service Systems 1: Construction activities for the PGLWP could result in damage to or interference with existing water, sewer, storm drain, natural gas, electric, and/or communication lines and, in some cases could require that existing lines be permanently relocated, potentially causing temporary interruption of service. Utility lines of various sizes are likely to be located along or across proposed pipeline alignments. Trench construction is the project activity most likely to cause service disruption. Streets and roads typically serve as utility corridors, increasing the potential for interference with other existing utilities. If specific locations of underground utilities are not located prior to construction, the utility lines could be damaged and the associated services interrupted.	**Mitigation Measures – Demand Groups I, II and III** **Utilities and Service Systems Mitigation Measure 15-1:** Prior to excavation, the City or its contractor would locate overhead and underground utility lines, such as natural gas, electricity, sewage, telephone, fuel lines, and water lines, that may reasonably be expected to be encountered during excavation work. **Utilities and Service Systems Mitigation Measure 15-2:** The City or its contractors would find the exact locations of underground utilities by safe and acceptable means, including the use of hand excavation and modern potholing techniques as well as customary types of excavation equipment. Pursuant to state law the City or its contractor shall notify Underground Service Alert North (USAN). Information regarding the size, color, and location of existing utilities must be confirmed before construction activities begin. Detailed plans and specifications shall be prepared as part of the Project design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility service providers shall be notified of construction plans and schedule. Arrangements shall be made with these entities regarding protection, relocation, or temporary disconnection of services. **Utilities and Service Systems Mitigation Measure 15-3:** The City shall comply with all conditions of its utility excavation or encroachment permits and shall include such conditions in construction contract specifications. **Utilities and Service Systems Mitigation Measure 15-4:** The City or its contractors would confirm the specific location of all high priority utilities (i.e. pipelines carrying petroleum products, oxygen, chlorine, toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter, or with normal operating measures, greater than 60 pounds per square inch gauge; and underground electric supply lines, conductors, or cables that have a potential to ground more than 300 volts that do not have effectively grounded sheaths) and such locations would be highlighted on all construction drawings. In the contract specifications, the City would require that the contractor provide weekly updates on planned excavation for the upcoming week and

	identify when construction would occur near a high priority utility. On days when this work would occur, the City's construction managers would attend tailgate meetings with contractor staff to review all measures regarding such excavations. The contractor's designated health and safety officer would specify a safe distance to work near high-pressure gas lines, and excavation closer to the pipeline would not be authorized until the designated health and safety officer confirms and documents in the construction records that: (1) the line was appropriately located in the field by the utility owner using as-built drawings and a pipeline-locating device, and (2) the location was verified by hand by the construction contractor. The designated health and safety officer would provide written confirmation to the City that the line has been adequately located, and excavation would not start until the City has received this confirmation. **Utilities and Service Systems Mitigation Measure 15-5:** While any excavation is open, the City or its contractors would protect, support, or remove underground utilities as necessary to safeguard employees. **Utilities and Service Systems Mitigation Measure 15-6:** The City or its contractors would notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety. **Utilities and Service Systems Mitigation Measure 15-7:** The City or its contractors shall contact utility owner if any damage occurs as a result of the proposed Project and promptly reconnect disconnected cables and lines with approval of owner. **Utilities and Service Systems Mitigation Measure 15-8:** The City shall observe California Department of Public Health (CDPH) standards, which require: (1) a 10-foot horizontal separation between parallel sewage and water mains (gravity or force mains); (2) a 1-foot vertical separation between perpendicular water and sewage line crossings; and (3) encasement of sewage mains in protective sleeves where a new water line crosses under or over an existing wastewater main; unless permitted mitigation measures are used per the latest CDPH Guidance Memo. **Utilities and Service Systems Mitigation Measure 15-9:** The City or its contractors shall coordinate final construction plans and specifications with affected utilities, such as PG&E. If any interruption of service is required, the City or its contractors shall notify residents and businesses in the project corridor of any planned utility service disruption two to four days in advance, in conformance with county and State standards. Implementation of these measures would reduce the impact to **less than significant.**
Impact Utilities and Service Systems 2: Project construction would generate truck and employee traffic along haul routes and at the Project component sites,	**Mitigation Measures – Demand Groups I, II and III** Implement Utilities and Service Systems Mitigation Measures 15-1 through 15-

temporarily increasing the potential for accidents in these areas. This increased accident potential could result in a limited, short-term demand for additional police or fire services on an as-needed and emergency basis. Existing resources within the Project areas could accommodate this short-term increase in demand. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access. With implementation of the traffic safety and access measures identified in the Traffic section, the potential impact on the demand for police and fire services would be less than significant. To provide further protection, the City would implement Utilities and Service Systems Mitigation Measure 15-1 through 15-9.	9. Implementation of these measures would reduce the impact to **less than significant.**
Impact Utilities and Service Systems 3: Approximately 2,000 cubic yards of construction waste is expected from the proposed Project construction. Once operational, the proposed Project is estimated to generate 0.3 tons per day of solid waste to be disposed of at the Monterey Regional Waste Management District (MRWMD) landfill.	**Mitigation Measures – Demand Groups I, II and III** **Utilities and Service Systems Mitigation Measure 15-10:** The City would encourage Project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused. **Utilities and Service Systems Mitigation Measure 15-11:** The City would include in its construction specifications a requirement for the contractor to describe plans for recovering, reusing, and recycling wastes produced through construction, demolition, and excavation activities. Implementation of these measures would reduce the impact to **less than significant.**

SECTION 1.0 INTRODUCTION

1.1 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act (CEQA) as amended codified at California Public Resources Code Sections 21000 et. seq., the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3, and CEQA Plus requirements of the State Water Resources Control Board (SWRCB). This EIR evaluates potential environmental impacts associated with the construction and operation of the proposed Pacific Grove Local Water Project (PGLWP or Project). The PGLWP is a multi-phase, long-term project that would provide up to 600 acre-feet per year (AFY) of recycled water to customers within the vicinity of the City of Pacific Grove, California.

1.2 PURPOSE OF THIS EIR

Pursuant to CEQA Guidelines, an environmental assessment must be undertaken for projects that have the "potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (CEQA Section 15378(a)). This EIR has been prepared by the City of Pacific Grove (City) to evaluate environmental impacts that may result from implementation of the proposed PGLWP. The intent of this EIR is to provide full disclosure to the Pacific Grove community, Monterey region, stakeholders and regulatory agencies so that the Project can be approved and recycled water can be provided to meet demands, mostly for irrigation purposes. Meeting irrigation needs and demands using recycled water means potable water can be freed up for human uses and to enhance streams and belowground aquifers in the region by not using water from those sources.

1.3 PROJECT BACKGROUND

The City is located on the tip of the Monterey Peninsula on the Central California Coast. The region is dependent on local rainfall for replenishment of its water supplies. Rainfall patterns have resulted in severe droughts. Near coastal groundwater pumping has resulted in increasing total dissolved solids (TDS) concentrations, seawater intrusion and overdraft of the local aquifers (Monterey Regional Water Pollution Control Agency, 2014). Diversions and pumping of the under drain of the Carmel River has put critical riparian habitat, as well as federal and state listed endangered and threatened species, at risk.

Water supplies to the City's water purveyor, California American Water Company (CAW), and thereby to the City and the Monterey Peninsula, are reduced due to pumping restrictions pursuant to the following three actions: 1) State Water Resources Control Board (SWRCB) Order 95-10, 2) the related issuance of a Cease and Desist Order (CDO) by the SWRCB (Order WR2009-0060), and 3) the reduced pumping of the Seaside Groundwater Basin (SGWB), by a court-ordered adjudication.

1.3.1 State Orders to Reduce Carmel River Diversion

The SWRCB issued Order 95-10, finding that CAW was diverting more water from the Carmel River Basin than it was legally entitled to divert. The SWRCB ordered CAW to maximize the use of the SGWB (to the extent feasible) to reduce diversion of Carmel River water. A CDO was issued in 2009 that required CAW to reduce its Carmel River diversions and secure replacement water supplies for its Monterey District service area by January 2017.

1.3.2 Seaside Groundwater Basin

The SGWB has experienced chronic overdraft conditions with declining water levels in the Basin's primary aquifers used for water supplies. Continued pumping of the groundwater resources in the basin also led to concerns regarding seawater intrusion. An adjudication process (*CAW v. City of Seaside el al*, Case No. M66343) led to the requirement that CAW decrease its operating yield of the SGWB by 10% triennially until it reached its allotted portion of the court-defined "natural safe yield".

1.3.3 Relationship to the Monterey Peninsula Water Supply Project

CAW has proposed construction and operation of a CAW owned and operated desalination project known as the Monterey Peninsula Water Supply Project (MPWSP). The MPWSP is designed to provide the replacement water CAW needs to comply with SWRCB Order 95-10, the related CDO and the SGWB adjudication. CAW is an investor-owned utility regulated by the California Public Utilities Commission (CPUC). The MPWSP is identified as CPUC Application 12-04-19 for CEQA review.

In review of the Application, CPUC administrative law judge Gary Weatherford called for any proposals involving "direct participation" by public agencies in the MPWSP to be submitted by October 1, 2012, and directed CAW to consider in good faith any such proposals. The City submitted a Public Participants Proposal on August 29, 2012 in response to the CPUC ruling concerning public participation in CAW's Application 12-04-019. The City's Public Participation Proposal introduced the PGLWP to provide part of the replacement water needed for CAW to comply with SWRCB Order WR2009-0060, the CDO, and the SGWB adjudication. The proposed PGLWP would provide 125 to 600 AFY of new, local, non-potable water supplies to decrease the operational requirements of CAW's proposed MPWSP.

1.4 PROJECT GOALS

The goals of the PGLWP are:

- To preserve available potable water supplies for domestic uses and to maximize the recycling and reuse of non-potable recycled municipal wastewater in a cost-effective manner.
- To substitute the City's use of CAW potable water with recycled water for non-potable water demands.
- To reduce discharges to Monterey Bay and the Pacific Grove Area of Special Biological Significance (ASBS).

- To maximize the use of existing wastewater collection, treatment, recycling and recycled water distribution infrastructure for the development of irrigation water and other non-potable demands.

1.5 PROJECT BENEFITS

There are at least six primary benefits of the PGLWP:

First, the PGLWP conserves potable water for uses requiring potable water only, thereby helping to meet State requirements to conserve water and regional compliance for CAW's reduction of the use of water from the Carmel River.

Second, it avoids the costs of producing an equivalent volume of potable water.

Third, it requires less energy per unit of water produced as compared to potable water from CAW, creates a smaller carbon footprint, and is otherwise resource-efficient.

Fourth, it provides a new supply of irrigation water, thereby reducing operational demands on CAW's desalinization plant and other system components.

Fifth, by using sewage, stormwater, and dry weather flows as its sources of water, it helps achieve other State and local goals related to keeping the Pacific Grove ASBS in particular and Monterey Bay in general, free of pollution.

And sixth, the PGLWP would be the first of the four primary projects designed to prevent illegal diversions from the Carmel River and excessive pumping from the Seaside Aquifer to come on line. It is the only project that is scheduled to be operational prior to January 1, 2017, the State's designated date for imposing the full CDO. As such, it would reduce illegal diversions and create other significant environmental benefits in advance of the ability of any of the other projects to do so.

1.6 PROJECT COMPONENTS

The PGLWP consists of the construction and operation of a new satellite recycled water treatment plant (SRWTP) to recycle a portion of the City's municipal wastewater, 8-inch pipeline and related appurtenances. During the first phase, recycled water produced at the SRWTP would be used for landscape irrigation at the Pacific Grove Golf Links and El Carmelo Cemetery, owned by the City and located adjacent to the SRWTP. The initial Project consists of installing 2,800 linear feet (LF) of recycled water pipeline to convey recycled water from the SRWTP to the Pacific Grove Golf Links and El Carmelo Cemetery's existing irrigation systems.

Initially, the SRWTP would create a new water supply offset of 125 acre-feet per year (AFY) (average annual demand) of potable water. The potable water offset would assist CAW in meeting its obligations to find a replacement to its use of water from the Carmel River and reduce pumping in the SGWB. The PGLWP thus would reduce the operational production of CAW's proposed seawater desalination plant by this same amount, 125 AFY.

This new non-potable water supply of 125 AFY is the first consideration by the PGLWP, and for purposes of CEQA analysis, it is hereinafter referred to as Demand Group I. The proposed Project facilities would be designed to service Demand Group I customers, with the potential to

expand in the future to 600 AFY. Expansion would include Demand Groups II and III. Demand Group II consists of other sites within the City, including other public landscaping areas within the City and open spaces and play fields at the City's schools. Demand Group III consists of sites and/or customers outside the City, including the City of Monterey, and includes unincorporated areas of Pebble Beach.

1.7 INTENDED USES OF THIS EIR

This EIR has two primary uses. It provides an analysis for decision-makers and the public of environmental effects potentially resulting from implementation of the first phase of the PGLWP (the Project), and it serves as a first-tier EIR for subsequent environmental review on providing recycled water to Demand Groups II and III (the Program). The exact details of the Project are presented in the City of Pacific Grove Draft Facility Plan Report (Facility Plan Report) (Brezack and Associates May 23, 2014). This Facility Plan Report presents the Study Area Characteristics, Treatment Requirements, Recycled Water Market Assessment, Alternatives Analysis and Recommendations for Implementation. This EIR analyzes the Demand Group I Project as presented in the Facility Plan Report. This EIR also considers the proposed projects serving Demand Groups II and III. The exact components of these latter two phases are not yet detailed; when more detail is known, the projects within Demand Groups II and III would be subject to subsequent CEQA review.

A secondary use of this EIR is to enable the City of Pacific Grove to implement the Project. The City would be applying for funding from the United States Environmental Protection Agency (EPA) through the EPA's State Revolving Funds (SRF) Program. In California, the SRF Program is administered by the SWRCB. Because this Program is sponsored by a federal agency, any environmental review must also contain certain environmental factors pursuant to the National Environmental Policy Act of 1972 (NEPA). These factors are called "CEQA-Plus", and are shown in Section 18 of this EIR. The CEQA-Plus requirements have been established by the EPA and are intended to supplement the CEQA Guidelines with specific requirements for environmental documents acceptable to the SWRCB when reviewing applications for SRF loans. They are not intended to supersede or replace CEQA Guidelines.

The EPA's CEQA-Plus requirements have been incorporated into the SWRCB's Environmental Review Process Guidelines for SRF Loan Applicants (SRF Guidelines) (September 2004). These requirements for compliance with CEQA-Plus are as follows:

- Eight copies of the CEQA document must be sent to the SWRCB, which then forwards the copies directly to federally designated agencies.
- The federal agencies must have at least fifty-one calendar days to review the CEQA document from the date it was mailed to the reviewing agency.
- Federal consultation must be completed before an SRF funding agreement can be approved by the SWRCB. The proposed Project must be in compliance with Section 7 of the Federal Endangered Species Act (FESA); must undergo a Clean Air Act conformity analysis (if in a nonattainment area or an attainment area subject to a maintenance plan); and
- The Project must be in compliance with Section 106 of the National Historic Preservation Act.

In addition, the CEQA document must also disclose all project-specific information listed in the outline provided by the SWRCB, as shown in Section 18. Section 18 can be used to support the required federal consultations as described below.

Federal Endangered Species Act

The SWRCB Division of Financial Assistance (Division) is the designated non-federal representative under FESA for water reclamation projects that involve a SRF loan. To ensure compliance with Section 7 of FESA, the Division reviews all SRF projects to determine the potential effects to federally listed species. This EIR includes the documentation required by the Division to disclose the proposed Project's effects on sensitive species (see Section 6.0). The Division staff uses this information to confer informally (and formally if necessary) with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service, as appropriate.

Federal Clean Air Act

The Federal Clean Air Act (FCAA) requires the EPA to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM_{10}, $PM_{2.5}$, and lead. Pursuant to the 1990 FCAA Amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for these criteria air pollutants, based on whether or not the NAAQS had been achieved. The FCAA requires each state to prepare a State Implementation Plan (SIP), which is an air quality control plan that includes pollution control measures for states that violate the NAAQS. For SRF-funded projects, CEQA-Plus requirements include a FCAA general conformity analysis for projects in a federal nonattainment area or an attainment area subject to a SIP. The proposed Project is in a federal nonattainment area for ozone, PM_{10} and $PM_{2.5}$, as explained in Section 5.0. If a FCAA general conformity analysis is required, the information provided in this EIR would be used to support the analysis.

National Historic Preservation Act

CEQA-Plus requires SRF-funded projects to comply with Section 106 of the National Historic Preservation Act. Consultation with the State Historic Preservation Officer (SHPO) is required to demonstrate/confirm that Section 106 compliance has been achieved. The Division's Cultural Resources Officer (CRO) is responsible for the consultation with the SHPO. This EIR and the administrative record include the information and documentation the Division CRO is required to provide to the SHPO to initiate the Section 106 consultation, including, (1) identification of the proposed Project's Area of Potential Effects (APE), (2) cultural records searches for the APE at the appropriate Information Centers, (3) documentation of Native American consultation, (4) cultural resources field surveys of the APE, (4) evaluations of elements of the built environment in and around the APE that are eligible for the National Register of Historic Places, and (5) Determination of Eligibility for any cultural resources that cannot be avoided during project construction.

1.8 CONTENTS AND ORGANIZATION OF THIS EIR

The EIR is organized by chapter as shown in the Table of Contents. The chapters include an analysis of impacts by issue, such as land use or flood hazards. Each issue is examined covering the following areas:

- Environmental Setting: CEQA Section 15125 requires an EIR include a description of the environment in the vicinity of the Project site as it exists before the start of the Project from both a local and regional perspective. The setting describes existing conditions.
- Impact and Analysis of Impact: Potentially significant impacts are identified in this section with analysis of the potential effect of implementing the Project in regards to this issue. This analysis includes relevant impacts to the Planning Area, the resources involved, physical changes to ecosystems and changes due to population and use of the land, health and safety problems caused by physical changes and other areas of potential change.
- Significance Standard: Significance standards are taken from Appendix G (environmental checklist) of the CEQA Guidelines.
- Level of Significance and Mitigation Measure: The impact is rated according to its level of significance, usually either significant but mitigable, or significant and not mitigable. CEQA Section 15370 states that mitigation measures alleviate adverse changes in the environment by:
    a. Avoiding the impact altogether;
    b. Minimizing the impact by limiting its magnitude;
    c. Rectifying the impact through restoration;
    d. Reducing or eliminating the impact over time; or,
    e. Compensating for the impact by replacing or providing substitute resources or environments.
- Impacts Found Not to be Significant: CEQA Section 15128 states that an EIR shall contain a brief statement indicating the reasons that possible impacts of the Project were determined not to be significant.

1.9 NOTICE OF PREPARATION AND PUBLIC SCOPING

The City of Pacific Grove Planning Division sent a Notice of Preparation (NOP) to governmental agencies and organizations and persons interested in the proposed Project on March 3, 2014. The NOP 30-day review period (known as the public scoping period) ended on April 4, 2014. The NOP is included in Appendix A of this EIR. The NOP and associated Environmental Checklist (Appendix B of this EIR) asked agencies and interested parties to comment on environmental issues that should be addressed in the EIR. The comment letters received in response to the NOP are included in Appendix A.

1.10 PUBLIC PARTICIPATION

CEQA Guidelines encourage public participation in the planning and environmental review processes. This Draft EIR is being circulated to local, state, and federal agencies and to interested organizations and individuals that may wish to review and comment on the document. CEQA Guidelines Sections 15086(c) and 15096(d) call for responsible agencies or other public agencies to provide comment on those project activities within an agency's area of expertise or project

activities that are required to be carried out or approved by the agency. The agency should support those comments with either oral or written documentation. Publication of the Draft EIR marks the beginning of the 51-day public review period, which includes the standard CEQA 45-day public review period, and an additional six days for review by the SWRCBBoard to satisfy SRF Guideline requirements. During this time, the Pacific Grove Planning Division would accept comments on the Draft EIR.

Copies of the Draft EIR are available for public review at the following locations:

(1) Pacific Grove Planning Division, 300 Forest Ave., Pacific Grove, CA 93950, and
(2) Pacific Grove Library, 550 Central Avenue, Pacific Grove, CA 93950.

The EIR can also be accessed through the internet at http://CAW.ci.pg.ca.us.

All documents referenced in this Draft EIR are available for review at the Pacific Grove Planning Division, 300 Forest Ave., Pacific Grove, CA 93950.

The distribution list for the Draft EIR is also available for review at this location.

Comments on the Draft EIR can be sent by mail to Daniel Gho, Superintendent Public Works, City of Pacific Grove, Public Works Division, 2100 Sunset Drive, Pacific Grove, CA 93950. Comments can be sent by email to dgho@ci.pg.ca.us.

Written comments can also be sent by fax to Mr. Gho at (831) 648-5722. During the 51-day public review period, the Pacific Grove Planning Division would hold a public hearing to receive oral comments on the Draft EIR.

1.11 POTENTIAL PERMITS AND APPROVALS

The City would address permitting issues and stakeholder agency coordination during the design and construction process. Construction, operation, and environmental permits would be required for the construction and operation of the SRWTP. The following sub-sections show the expected agreements, permits and approvals.

1.11.1 Institutional Agreements

1.11.1.1 Monterey Regional Water Pollution Control Agency

An agreement with Monterey Regional Water Pollution Control Agency (MRWPCA) would be required for discharge of the SRWTP Waste Activated Sludge (WAS) to the sanitary sewer system. The City would be required to adhere to flow and quality requirements for WAS discharges to their system.

1.11.1.2 CAW

A review of the existing franchise agreement between the City and CAW would be required to determine any potential modifications to the agreement.

1.11.1.3 Coastal Development Permit (CDP)

A CDP would be required because of the "change in the intensity of use of water" occurring within the Coastal Zone as a result of the Project. "Development," as defined within the Coastal

Act means, on land, in or under water, the placement or erection of any solid material or structure. Further "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. Therefore, it is anticipated a CDP would be required for the construction of the wastewater pipeline diversion and the reclaimed water pipeline extension, and upgrades to the former Point Pinos Wastewater Treatment Plant (WWTP). The City does not have a certified Local Coastal Plan in place, and therefore the permit would be issued by the California Coastal Commission.

1.11.2 Construction Permits

The following permit approvals are anticipated to be required for the construction of the proposed Project:

- Authority to Construct (Monterey Bay Air Quality Management District);
- General Construction Storm Water NPDES Permit (Regional Water Quality Control Board (RWQCB);
- Construction, Trenches, Excavation, and Demolition (California OSHA); and
- Sewer Discharge and Connection Permits (MRWPCA).

1.11.3 Operational Permits

The following permit approvals are anticipated to be required for the operations of the proposed Project:

1.11.3.1 Title 22 Engineering Report

The City would need to prepare a Title 22 Engineering Report for the proposed Project in accordance with California Code of Regulations (CCR) Title 22 and California Department of Public Health (CDPH) Guidelines for the Preparation of an Engineering Report for the Production, Distribution, and Use of Recycled Water (2001). The report is prepared for submittal to the Central Coast RWQCB, CDPH, and Monterey County Department of Health Services (MCDHS) as part of the project permitting process. The report typically includes significantly more detail on the recycled water production facilities, transmission and distribution facilities and recycled water use areas.

1.11.3.2 General Waste Discharge Requirements for Recycled Water Use

The City would need to submit a Notice of Intent (NOI) for coverage under the SWRCB Water Quality Order 2014-0090 General Waste Discharge Requirements for Recycled Water Use (General Order). The General Order authorizes the use of recycled water for all Title 22 approved uses except groundwater recharge. The General Order would require a recycled water program be established. The recycled water program would include requirements for on-site design, installation, and operations of recycled water system at customer sites. The recycled water program would also outline the standards for on-site construction, inspection, and training for recycled water site supervisors at customer sites.

1.11.3.3 Other Operational Permits

Other requisite operational permits include:

- Permit to operate (Monterey Bay Air Quality Management District)
- Permit for the storage of hazardous materials (Monterey County Environmental Health)
- Compliance with backflow prevention requirements (CAW).

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SECTION 2.0 PROJECT DESCRIPTION

2.1 INTRODUCTION AND OVERVIEW

The proposed Project is the Pacific Grove Local Water Project (PGLWP or Project). The Lead Agency is the City of Pacific Grove (City). The primary purpose of the Project is to produce and distribute high quality recycled water to replace potable water used for non-potable water demands such as landscaping. The Project service area is consistent with the water franchise agreement between the City and the California American Water Company (CAW).

This Project Description uses units of "million gallons per day (mgd)" or "gallons per minute (gpm)" to describe facility sizing or capacity. Units of "acre-feet per year (AFY)" are use to describe water demands or source water supplies. In some cases, both descriptive units are presented.

The proposed Project consists of the construction of a sewer diversion structure, a 0.25 mgd Satellite Recycled Water Treatment Plant (SRWTP), waste pump station and force main pipeline, recycled water pump station, approximately 0.50 miles (2,800 linear feet (LF)) of 8-inch pipeline to convey recycled water to existing irrigation systems, connections to two public restrooms for toilet flushing, customer connections and onsite retrofits required for the use of recycled water, and 1,100 feet of 1-inch diameter potable water pipeline.

The proposed Project is intended to serve approximately 125 acre-feet per year (AFY) of recycled water, primarily to the City of Pacific Grove Golf Links and El Carmelo Cemetery (Demand Group I). The predominant use of recycled water would be for landscape irrigation. Irrigation would occur primarily at night to maximize water management efficiency and minimize public contact. The proposed Project is the first phase of a multi-phase, long-term PGLWP that could provide up to 600 AFY of recycled water at sites within the cities of Pacific Grove, Monterey, and unincorporated areas of Pebble Beach, CA. Thus, for purposes of California Environmental Quality Act (CEQA) analysis, it is hereinafter referred to as Demand Group I. Expansion would include Demand Groups II and III. Demand Group II consists of other sites within the City, including other public landscaping areas, open spaces and play fields at the City's schools. Demand Group III consists of sites and/or customers outside the City, including the city of Monterey and unincorporated areas of Pebble Beach.

This EIR considers the effects of implementing Demand Group I Project at the Project EIR level and bases analysis on the Project details as provided in the City of Pacific Grove Draft Facility Plan Report (Facility Plan Report) (Brezack &Associates May 23, 2014). This EIR also considers the proposed Demand Groups II and III Projects at a programmatic level. The exact components of these two Projects are not yet detailed; when more detail is known, Demand Groups II and III Projects would be subject to subsequent CEQA review.

This section of the EIR presents the goals and objectives of the proposed Project, its location and sites, Project description and Project construction, operation, and maintenance procedures.

2.2 PROJECT GOALS AND OBJECTIVES

The primary goal of the proposed Project is to create a new supply of non-potable water for irrigation of the Pacific Grove Golf Links, El Carmelo Cemetery and to create new uses of recycled water within the Project service area as permitted in the State of California. The Project service area is consistent with the water franchise agreement between the City and CAW. The PGLWP objective is to substitute recycled water where potable water is currently being used. The City would construct and own the PGLWP facilities. Operations of the proposed Project would be by a contractor under agreement with the City. Demand Group I is being analyzed in this EIR as the proposed Project, with additional Program-level analysis for Demand Groups II and III.

2.3 PROJECT LOCATION AND SITE DESCRIPTION

The Demand Group I Project is located in the City, Monterey County, California (Figure 2-1, Program Vicinity). The SRWTP site is located at Point Pinos on the Pacific Grove Golf Links, south of Ocean View Boulevard (Figure 2-2, Project Vicinity). Demand Group II project components are also located entirely within the City. Demand Group III project includes portions of the proposed recycled water distribution system located within the adjacent communities of Pebble Beach and the City of Monterey.

The retired Point Pinos Wastewater Treatment Plant (WWTP) is located adjacent to the 15th and 17th Tees of the Pacific Grove Golf Links, west of the intersection of Asilomar Avenue and Ocean View Boulevard, within the City of Pacific Grove in Monterey County (Figure 2-3, Proposed Site Plan). The retired Point Pinos WWTP is fenced and is surrounded by open space, pedestrian trails, the Monterey Bay to the north, dune habitat restoration to the west, and the Pacific Grove Golf Links to the south and east.

The PGLWP study area, including but not limited to the City, is comprised of residential, office and commercial land uses, golf courses, recreational parks, schools, military installments, and open space reserves. The current population of the City is 15,295 (US Census Bureau, 2011).

The Point Pinos WWTP parcel is approximately 2.23-acres in area and was deeded to the City by the United States Coast Guard. The City currently uses the site as a maintenance and storage facility for the Pacific Grove Golf Links, and public works field operations. Two circular concrete tank structures remain onsite, consisting of a clarifier/administrative office (east tank) and a sludge digester (west tank). The majority of the site is comprised of dirt driveways, with storage of construction material and debris along the periphery. The Cities of Pacific Grove and Monterey have also proposed the Pacific Grove and Monterey Areas of Special Biological Significance (ASBS) Project, and a Project DEIR and FEIR was prepared by Rincon Associates (Rincon Associates 2014). The ASBS Project is a stormwater quality improvement project with some facilities proposed to be located on the west side of the Point Pinos WWTP parcel.

The weather of the PGLWP area is influenced by a marine climate that is pronounced due to the upwelling of cold water from the Monterey submarine canyon. The warmest month is September, with an average daily high of 71.5°F. The average daily low temperatures are 43°F in January and 53°F in September. Average rainfall is 19.7 inches per year, with 90.3% falling during November through April. During summer, fog drip is a primary source of moisture for

plants that would otherwise not be able to persist with such low summer precipitation. (CAW 2010, UWMP Update, 2012).

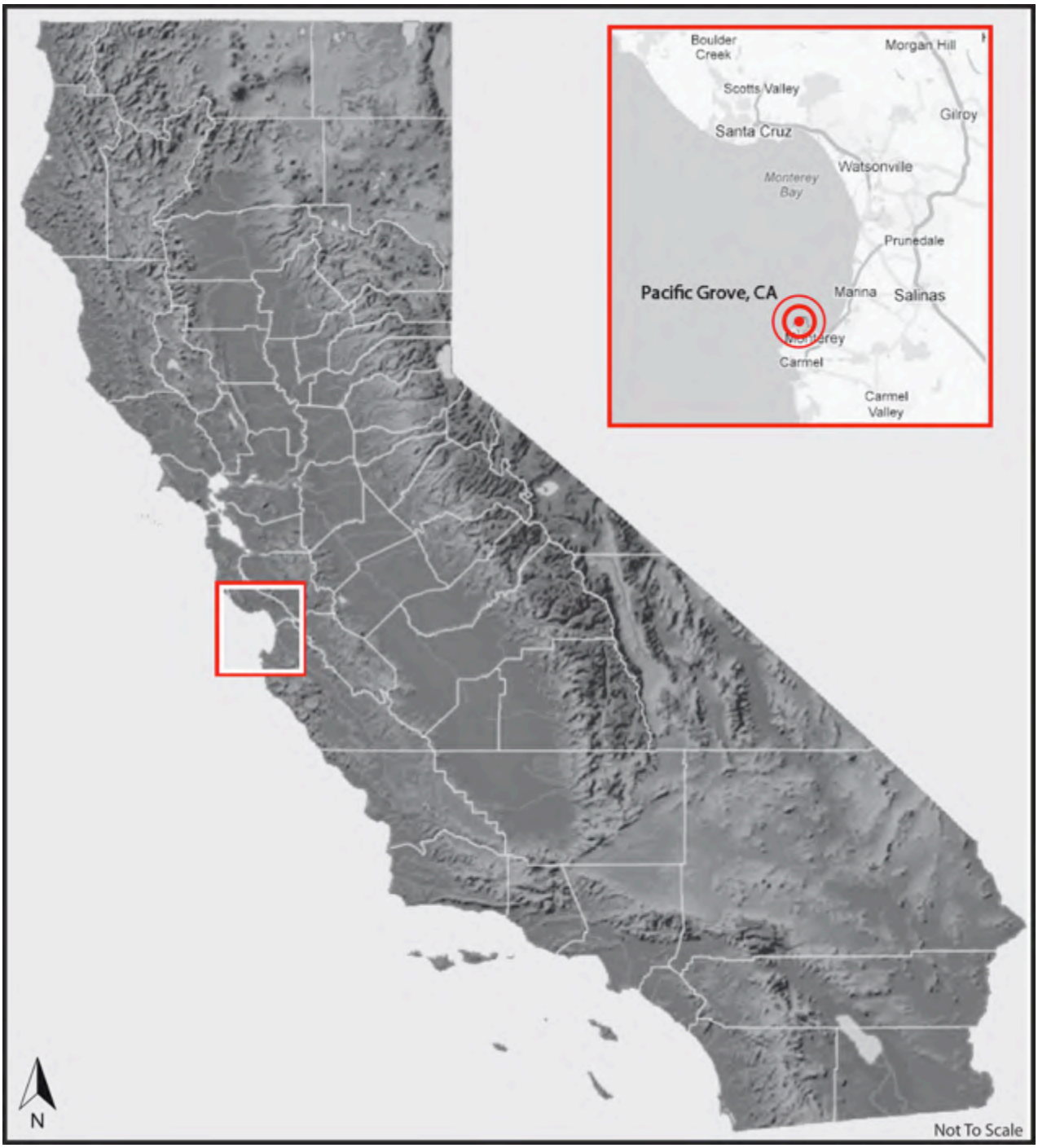

Figure 2-1: Project Location

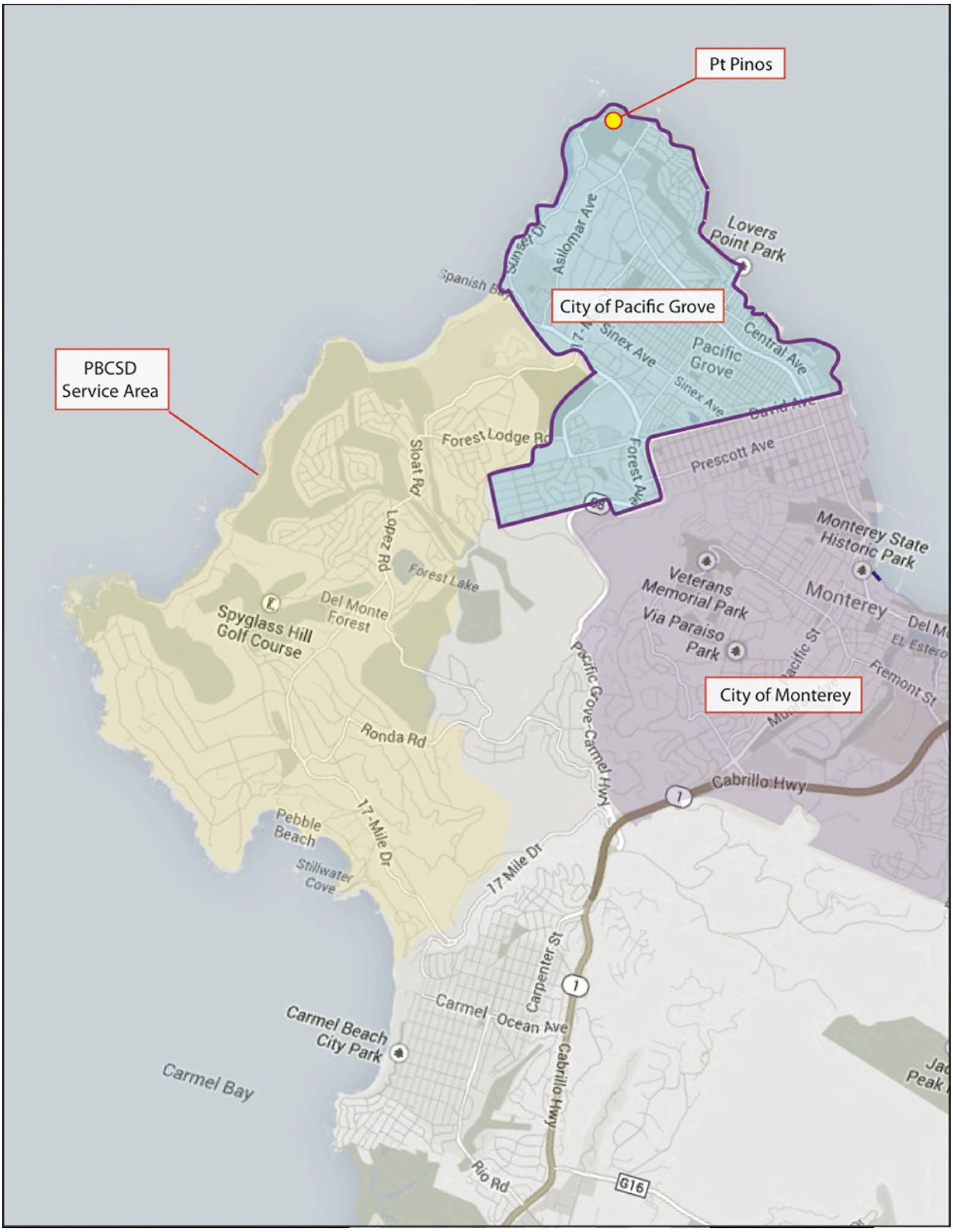

Figure 2-2: Project Vicinity

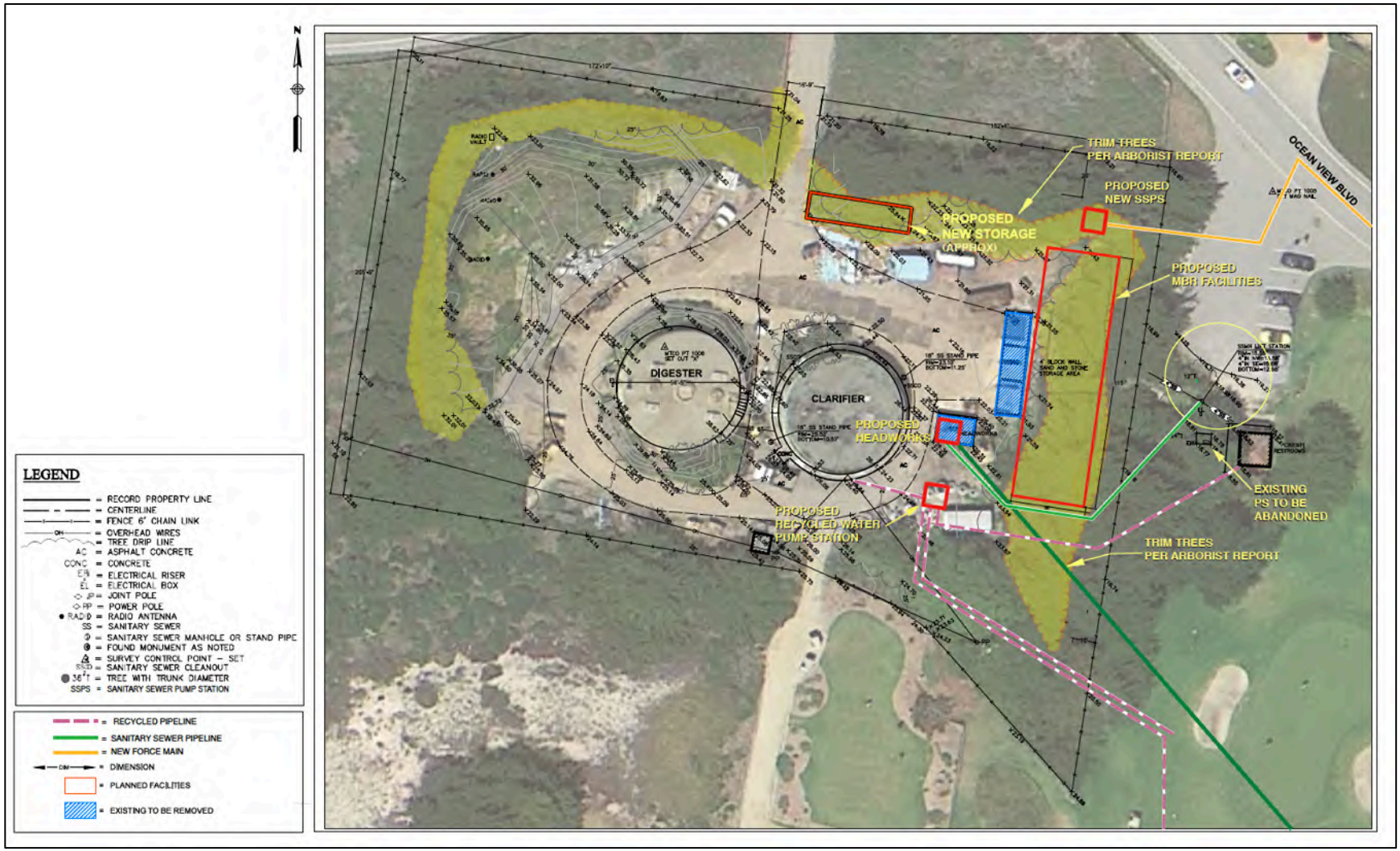

Figure 2-3: Proposed Site Plan

2.4 PROJECT DESCRIPTION

The PGLWP would produce and distribute high quality recycled water to replace potable water used for non-potable water demands. The PGLWP would recycle and reuse a portion of the wastewater generated within the City. Wastewater would be diverted from a gravity sewer in Asilomar Avenue that collects wastewater from the City's western-most sewershed[1]. Wastewater would be collected from existing sewer trunks and pipelines through a new diversion structure located in Asilomar Avenue. Diverted wastewater would be conveyed from this diversion structure to the proposed SRWTP. The SRWTP would produce disinfected tertiary treated water, the highest grade of recycled water suitable for landscape irrigation described by the State of California in Title 22 Water Recycling Criteria, as defined in the California Code of Regulations (CCR) 60301.230 (California Department of Health Services, 2009). Following treatment at the proposed SRWTP, recycled water would be distributed through new 8-inch diameter transmission pipelines to customers.

The PGLWP includes construction and operation of the following proposed new facilities as presented in Figure 2-4 and described in the following sections:

- *Wastewater Diversion:* wastewater diversion facilities, including the construction of a new diversion pipeline within an existing pipeline alignment to convey source water to the proposed new SRWTP.
- *Treatment Facilities:* a new SRWTP using membrane bioreactor (MBR) treatment technology, and associated facilities to filter, treat, and disinfect the recycled water.
- *Recycled Water Storage and Distribution Facilities:* facilities consisting of the retrofit of two existing concrete tanks at Point Pinos, a new pump station, distribution pipelines, and appurtenant facilities to convey the recycled water to customers.
- *Waste Disposal Facilities*: facilities consisting of a new pump station and force main pipeline that would discharge waste activated sludge into the existing Monterey Regional Water Pollution Control Agency (MRWPCA) sewage collection facilities.
- *Replacement Potable Water Pipeline*: pipeline consisting of 1,100 feet of 1-inch diameter pipeline from Asilomar Avenue through the El Carmelo Cemetery to the cemetery maintenance building.
- *Future Facilities*: facilities consisting of expansion of both the SRWTP and the distribution system to provide recycled water to other non-potable demands throughout the City and other locations. These future facilities would be analyzed in greater detail at a later time when Demand Group II and III projects are developed.

[1] "Sewershed" means, for the purposes of this EIR, all the land area drained by a network of municipal sewer system conveyances to a single identifiable point. In this case, the sewershed includes the City and portions of the City of Monterey and unincorporated Pebble Beach.

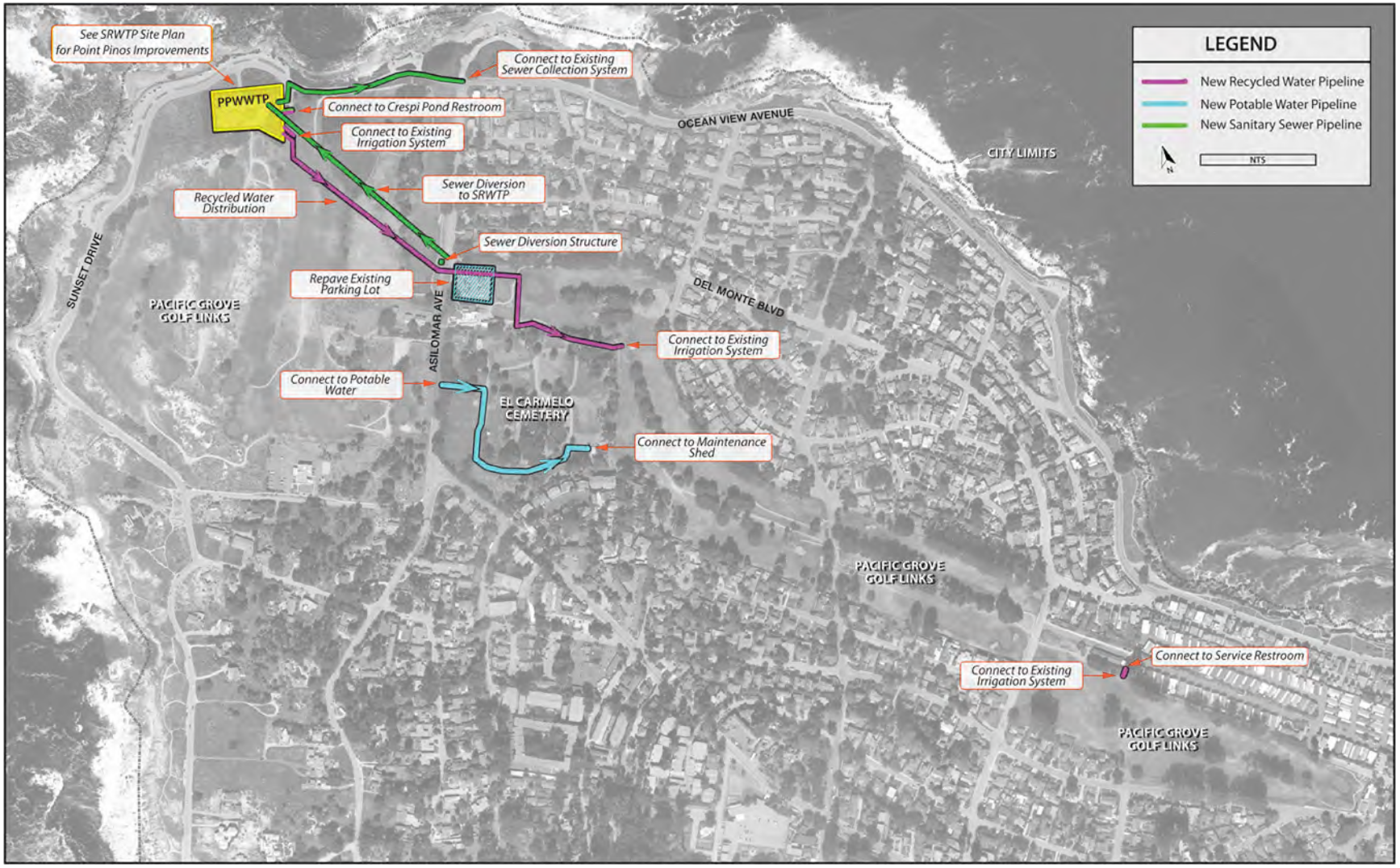

Figure 2-4: PGLWP Facilities Plan

The Project would be implemented according to a Design-Build (DB) procurement process. In a DB procurement process, the DB Contractor is responsible for the integration of the Project design with construction. The DB Contractor can initiate some construction activities (subject to regulatory and environmental approvals) much earlier than traditional contracting methods and before design has been completed. Therefore, some facility and operational details of the proposed Project have not yet been fully determined. A DB approach would be used for cost and schedule efficiency. The City would develop performance criteria for the SRWTP in accordance with the Title 22 recycled water requirements to ensure the recycled water quality and reliability of treatment meets the requirements for proposed recycled water uses. Performance criteria would ensure that the distribution and use of recycled water would not create health hazards or nuisance conditions.

The City would contract with a single DB entity for final design and construction of the PGLWP facilities. A separate contract for operation and maintenance of the SRWTP and recycled water distribution facilities would be implemented. All operation, maintenance, and monitoring, would be provided by the operations contractor entity after acceptance of the facility by the City. The City would retain ownership of the facilities and would remain responsible for the compliance of all facilities with regulatory requirements.

The City is coordinating with CAW, Monterey Peninsula Water Management District (MPWMD), Pebble Beach Community Services District (PBCSD), and other public agency stakeholders in implementing the PGLWP. The PGLWP would be designed, constructed and operated in compliance with applicable regulatory requirements to ensure the protection of the public health and of the environment.

2.5 DEMAND GROUPS

A market study was prepared to identify the feasibility of providing recycled water to potential demand sites suitable for allowable uses of recycled water. This study is included as Chapter 4 of the Facility Plan Report (Brezack & Associates Planning, May 23, 2014). Recycled water demand sites were identified throughout the City and in neighboring communities. The elevation differential and distance between any potential demand site from the proposed SRWTP were used to determine the size and type of piping and pumping facilities required to distribute recycled water from Point Pinos. Additionally, the volume of the demand for recycled water at any potential demand site and the proximity of demand sites to one another were used to determine the cost of the distribution system. Using these criteria, the market study recommended three recycled water "Demand Groups".

The market survey estimated the average recycled water demand for the City area and other regional customer sites to be a minimum of approximately 263 AFY. This demand is based on records of metered potable water use between 2010 and 2012. This does not include demands from the Carmel Area Wastewater District (CAWD)/PBCSD system that may vary depending on available storage in Forest Lake Reservoir. Due to the escalating cost of potable water, the Pacific Grove Golf Links and El Carmelo Cemetery have significantly reduced irrigation over the past five years. The City has been actively implementing conservation best management practices and limiting water use to the greatest extent feasible. Site supervisors have indicated that additional water for irrigation demand based upon turf requirements and local evapotranspiration rates result in an irrigation requirement approximately 20% greater than recent actual water use.

The SRWTP would initially be constructed and operated to service Demand Group I consisting of customer sites within the immediate vicinity of Point Pinos. Demand Group I would be provided with an annual average total supply of 125 AFY of recycled water to meet the irrigation needs of the Pacific Grove Golf Links and the El Carmelo Cemetery and for toilet and urinal flushing at the Pacific Grove Golf Links restrooms. The SRWTP would be designed for an average daily capacity of 0.11 mgd and a peak capacity of 0.25 mgd. The average daily capacity is based upon the average annual recycled water demand. Peak capacity is based upon the recycled water demand during the peak month.

The Demand Group II project consists of expansion of the SRWTP and recycled water distribution system from Demand Group I to serve numerous small irrigation sites located throughout the City that would be converted from their current use of potable water to recycled water. Sites in the Demand Group II project consist of schoolyards, parks, playfields, and other City-wide customers with a total potential average daily recycled water demand of 99 AFY. The SRWTP would be expanded to an average daily capacity of 0.2 mgd and a peak capacity of 0.49 mgd to meet the irrigation needs of Demand Group II.

The Demand Group III project consists of larger demand sites located both east and west of the City and the expansion of the SRWTP from the proposed Project. To the east, the Demand Group III project would connect to the recycled water system owned and operated by the CAWD/PBCSD. To the west, the Demand Group III project would connect to the military installation known as the Presidio of Monterey (POM) in the City of Monterey. Recycled water use in the Demand Group III project consists of large irrigation sites, conversion of rainwater cisterns to recycled water use, and irrigated golf courses with a total potential average daily recycled water demand of 376 AFY.

The SRWTP would have an ultimate treatment capacity and wastewater supply source to provide an annual average of 600 AFY of recycled water to service Demand Groups I, II and III. Table 2-1 presents the average demands and SRWTP design capacities for each Demand Group component. Figure 2-5 present the location of the sites in Demand Groups I, II and III projects.

Table 2-1: Demand and SRTP Design Capacity by Demand Group

Demand Group	Average Demand (AFY)	SRWTP Design Capacity (mgd)
Demand Group I	125	0.25
Demand Groups I and II	224	0.49
Total, Demand Groups I, II, and III	600	1.24

The proposed Project consists of the construction and operation of facilities necessary to serve Demand Group I. Future expansion of the proposed SRWTP would be required to serve Demand Groups II and or III. Timing and approval for the future expansion of the proposed Project from 125 AFY to 600 AFY would be determined by the City based upon the following considerations:

- Recycled water needs of the individual customers in Demand Groups II and III;
- Cost effectiveness of expanding the treatment capacity to produce 600 AFY of recycled water and to construct and operate additional distribution facilities from Point Pinos to the sites in Demand Groups II and or III; and
- Future coordination and the development of recycled water supply agreements with the customers that comprise Demand Groups II and or III. This would include the execution of an agreement between the City and the potable water purveyors to Demand Groups II and or III.

Table 2-2 presents the proposed project facilities for service to Demand Group I.

Table 2-2: Demand Group I Proposed Project Facilities

Description	Quantity	Units
SRWTP (Average Capacity)	0.11	mgd
UV Disinfection System (Average Capacity)	0.11	mgd
Sanitary Sewer Pump Station	15	hp
6-inch diameter Sewer Force Main Pipeline from Sanitary Sewer Pump Station to existing wastewater collection system	1,000	LF
Recycled Water Pump Station	30	hp
Recycled Water Distribution Pipeline	2,800	LF
8-inch diameter Sewer Diversion Pipeline from Sewer Diversion Structure to SRWTP	1,370	LF
Pipeline Easement Across Pacific Grove Golf Links (Open Cut through Turf)	2,800	LF
1-inch diameter Potable Water pipeline to the El Carmelo Cemetery Maintenance Facility	1,100	LF

Construction of the following facilities at the following capacities and sizes would be completed as a part of the proposed Project to serve Demand Group I and would also be sufficient for later service to Demand Groups II and III:

- Sewage diversion structure in Asilomar Avenue (0.9 mgd)
- Sewage diversion pipeline from Asilomar Avenue to Point Pinos (8-inch)

The SRTWP would require internal construction upgrades to provide the additional capacity to serve Demand Groups II and or III. The additional recycled water distribution pipelines would be installed as future recycled water service is requested and additional CEQA analysis and project approvals are completed.

Table 2-3: Implementation Schedule

Project	Average Demand (AFY)	Project Component	Construction Schedule
Demand Group I	125	• SRWTP • Wastewater diversion • Recycled water distribution facilities, including tank retrofits, pump station, and pipelines • 1" diameter potable water service to the El Carmelo maintenance building	2015-2016
Demand Group II	224	• Capacity expansion and upgrades to the SRWTP • Extension of recycled water distribution facilities to Demand Group II sites.	Following CEQA analysis and regulatory approvals
Demand Group III	600	• Capacity expansion and upgrades to the SRWTP • Extension of recycled water distribution facilities to Demand Group III sites.	Following CEQA analysis and regulatory approvals

Construction activities to serve Demand Group I would begin in 2015. Construction-related activities for Demand Groups II and or III would begin following CEQA analysis and regulatory approvals. It is estimated that the analysis of the Demand Group II and or III projects would begin when the recycled water is required due to lack of potable water availability or increased cost of potable water.

2.6 WASTEWATER DIVERSION FACILITIES

The City's Sewer collection System Master Plan (Wallace Group, 2013) estimated the average daily and peak daily wastewater flows and total capacity in the 15-inch sewer pipeline located in Asilomar Avenue. Approximately 606,000 gallons per day (679 AFY) of wastewater is available in the Asilomar sewer at the proposed diversion structure location. A portion of this flow would be diverted to the SRWTP from the City's sewer collection system adjacent to manhole (MH) 801 located near the intersection of Asilomar Avenue and Del Monte Boulevard. The wastewater flow would be diverted in a new flow diversion structure equipped with a gravity flow bypass pipeline. The diversion structure would allow non-diverted wastewater to continue to flow to the regional wastewater collection system and ultimately to the MRWPCA Regional Treatment Plant (RTP) for treatment, rather than to the SRWTP. The flow diversion structure would have a ground-

surface area of approximately sixty-four square feet. Final design investigations would determine the precise location and size of the diversion structure. The location of existing utilities, evaluation of accessibility, minimization of operational impacts, constructability, and availability of adequate space would determine this diversion structure site.

An 8-inch diameter pipeline would be constructed from the diversion structure to the SRWTP. The proposed pipeline alignment is located within the existing easement and alignment of the retired sewage diversion pipeline to the Point Pinos Wastewater Treatment Plant through the Pacific Grove Golf Links. Approximately 1,370 linear feet of 8-inch diameter pipeline would be constructed from the diversion structure to the SRWTP. This sewer diversion pipeline would include two manholes approximately 450 feet apart to accommodate maintenance activities.

2.7 DESCRIPTION OF THE SRWTP SITE AT POINT PINOS

As stated above, the proposed SRWTP would be constructed at the site of the retired Point Pinos WWT), located on the Pacific Grove Municipal Golf Course, south of Ocean View Boulevard. The WWTP site is approximately 2.28 acres in area. The site has been heavily disturbed, fenced and continually used for municipal maintenance purposes for the past 65 years. The City owns and operates this site as a maintenance yard for golf course operations, secondary public works corporation yard and truck fill station obtaining local groundwater seepage for street sweeping and sewer flushing. The City collects and stores groundwater seepage in the existing WWTP clarifier and digester tanks for use by street sweeping trucks, sewer pipeline flushing, and for construction water. The two large tanks of the retired WWTP facilities and heavily traveled dirt driveways dominate the site. Previously excavated construction materials and spoils are currently stored around the driveways and fill material is stockpiled in the northwestern corner of the site.

2.7.1 Facilities

Because the City is using a DB approach, the facility detailed construction design has not yet been completed. However, based upon the sewage quality and quantity, recycled water requirements to meet Title 22 standards, the City's performance criteria, and site constraints, the SRWTP would consist of the following facilities:

- Headworks facility, including flow metering, fine screens, and grit removal;
- Combined Biological and Filtration treatment, likely using a Membrane Bioreactor (MBR) process;
- Ultraviolet Disinfection (UV);
- Solids management, odor control;
- Emergency power equipment;
- Waste sewage pipeline, pump station, and force main;
- Retrofit of the existing tanks to serve as recycled water storage reservoirs; and
- Pump station to pressurize the recycled water distribution system.

The PGLWP will comply with Title 22 criteria as follows:

- The PGLWP will be designed to pass effluent through a membrane following which the turbidity does not exceed 0.2 NTU for more than 5 percent of the time within a 25-hour period and 0.5 NTU at any time, and

- Disinfection will consist of ultraviolet disinfection equipment that can achieve 5-log inactivation of virus; 99.999 percent of plaque forming unit F-specific bacteriophage MS2.

Raw sewage would enter the headworks of the treatment facilities by gravity flow though a bar screen that would remove large debris. Sewage would be pumped through a fine screen. Screened sewage would be routed to the MBR for biological treatment. The MBR would have aerated and unaerated zones to reduce nutrient concentrations (e.g., ammonia and phosphorous). The membranes would remove suspended solids. Discharge (permeate) from the membranes would flow to a UV disinfection system. The treated water would be pumped to the existing onsite storage tanks. This process would ensure the SRWTP produces recycled water suitable for unrestricted uses pursuant to California Code of Regulations, Title 22, Sections 60301- 60355.

Headworks

The SRWTP would include enclosed, odor-controlled headworks where wastewater would be screened to remove inorganic materials (e.g. plastics, fibers) to prevent damage and excessive wear to downstream equipment.

A grit removal system would extract heavy inorganic particles (e.g., sand and grit) by settling to provide additional protection of downstream equipment. Grit, sand and screened materials would be discharged to an enclosed container for offsite disposal.

Biological Treatment and Filtration

Biological treatment and filtration processes would use the natural ability of active bacteria and other microscopic organisms to consume a major portion of the wastewater's organic pollutants. The colloidal particles in the sewage would be coagulated and flocculated making them easier to remove from the wastewater. In the MBR stage, microorganisms and flocculated suspended solids would be separated from the wastewater using membrane filters. Excess solids, known as waste activated sludge (WAS) would be drawn off and conveyed to the Coral Street wastewater pump station. From there, the WAS would be pumped to the regional wastewater collection system for treatment at the RTP. Performance criteria for the flow quantity and quality of the recycled water would be specified by the City to the DB firm to ensure that optimal treatment methods are used to meet state regulatory requirements for treatment and recycling.

Disinfection

The disinfection process would reduce pathogens in accordance with Title 22 requirements. A UV system would provide primary disinfection and chlorination (using sodium hypochlorite) to maintain a disinfectant residual and thereby protect recycled water users from bacterial regrowth in the distribution and irrigation systems.

Solids Management

The SRWTP would produce the following wastes that would require further treatment or disposal:

- Screenings (both large debris and fine screenings);
- WAS (from the bioreactor);
- Fine screen wash water; and

- Membrane Cleaning Solution.

Debris from the fine screens would be processed through a washer/compactor to remove organic materials and eliminate odors. The screenings would be transported offsite for disposal in a covered, leak-proof trailer in compliance with applicable state regulations.

The screenings would be regularly collected and hauled offsite to the Monterey Peninsula Landfill (MPL) for disposal. It is anticipated that approximately 0.5 cubic yards of solids from headworks screenings would be generated per day at the initial start up of the facility. Screened solids would be stored in a 2 cubic yard storage bin. It is estimated that two truck trips per week would be required to transport the screenings to the MPL for disposal.

Sludge is the biomass produced from the biological treatment process that removes biological oxygen demand (BOD). Following its optimal growth and age for use in the treatment process, sludge would be removed from the system for offsite disposal as WAS. Approximately 2 gpm of WAS from the SRWTP would be returned to the wastewater collection system for conveyance to the MRWPCA RTP. For purposes of this CEQA analysis, it is projected that the Pacific Grove and Monterey ASBS project would be constructed and that the WAS pipeline would need to be 8-inches in diameter to accommodate wastes from both the ASBS and the Proposed project. The WAS pipeline would be approximately 1,000 feet in length and would be constructed in Ocean View Boulevard.

Wastes would be pumped to the existing sewage collection system through a new pump station at the SRWTP. The new pump station would include a wet well for temporary WAS storage.

Odor and Noise Control

All facilities at the SWRTP site would be enclosed to minimize noise transmission and eliminate the potential for uncontrolled odor release. Acoustical treatments to eliminate offsite noise impacts would include constructing enclosures around equipment, addition of exhaust and blower muffling devices, and acoustical design of structures that house pumps, blowers and generators. Noise impacts and mitigation measures are addressed in Section 12 Noise of this EIR. Active odor control units would be located to manage gases from the wet and solid stream treatment processes. The odor control design would eliminate odors to an imperceptible level to the area immediately adjacent to the SRWTP site and the nearest sensitive receptors.

Architecture and Landscaping

The SRWTP is visually screened from the adjoining golf course and coastline properties by the building setback landscaping consisting of existing Monterey Cypress. If needed at the time of construction, and throughout the life of the Project thereafter, trees and other vegetation would be added and maintained to retain visual screening.

The SRWTP facilities would be structured with aesthetic properties typical of existing municipal corporation yards. The architecture would be unobtrusive in its existing environment and would have a minimalistic quality. The new facilities would be approximately 36 feet wide, 60 feet long, and 10 feet tall. Existing structures onsite are 12- feet tall. Lighting at the SRWTP would be low intensity and shielded to minimize ambient light in the area and to inhibit glare to adjoining properties.

2.8 RECYCLED WATER DISTRIBUTION FACILITIES

Planning for the proposed recycled water distribution system is based upon the results of the recycled water market study and hydraulic modeling of the existing landscape irrigation systems in Demand Group I. Locations of the recycled water demand sites are identified in Figure 2-5. The SRWTP would initially be designed with a peak capacity of 0.25 mgd of recycled water that would serve Demand Group I. The SRWTP may ultimately produce a maximum of 1.24 mgd of recycled water to serve Demand Groups I, II, and III. SRWTP design is based upon the peak month irrigation demands of the sites to be served recycled water.

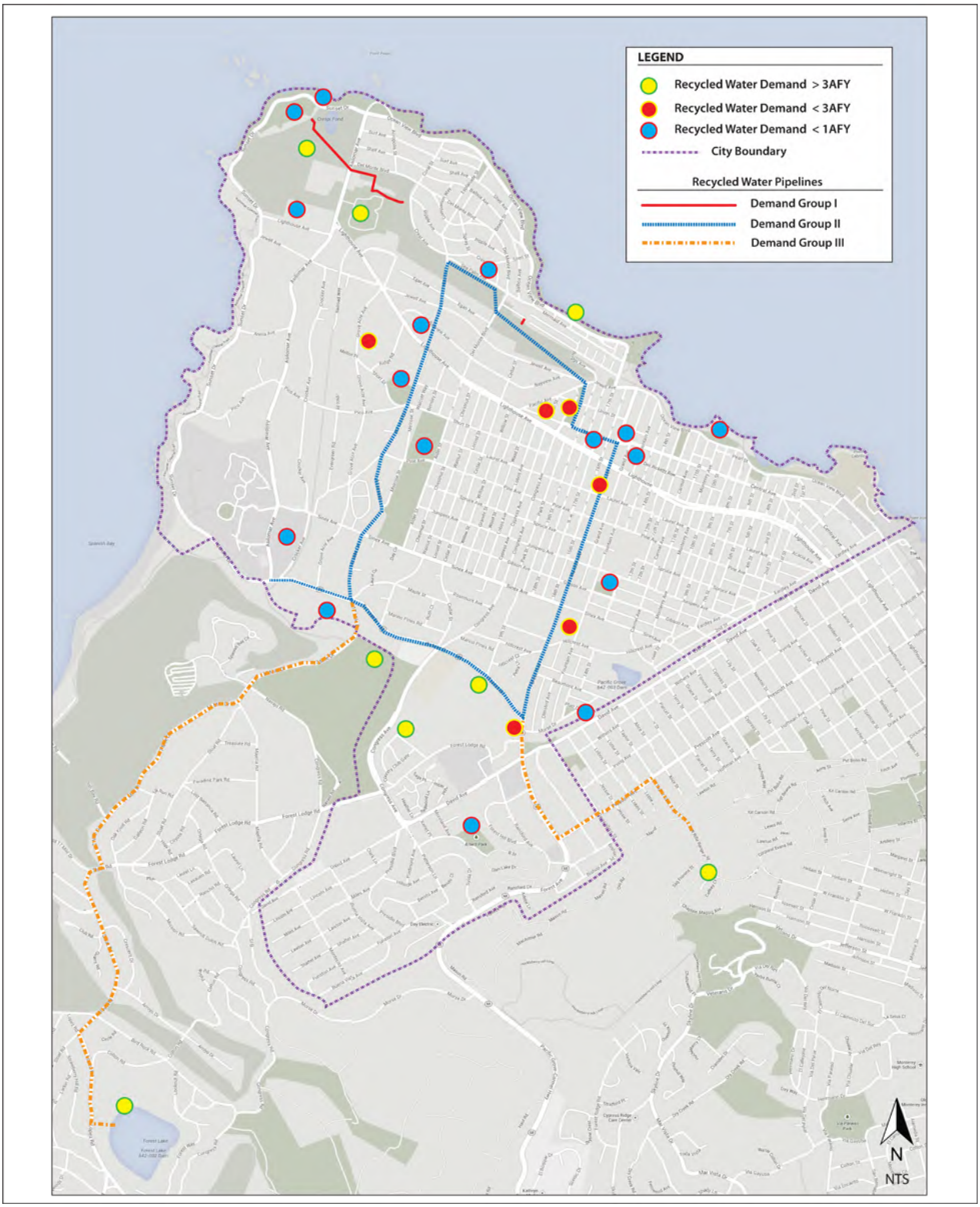

Figure 2-5: Demand Groups I, II, and III Sites

2.8.1 Recycled Water Storage

The existing clarifier and sludge digestion tanks from the retired Point Pinos WWTP would be retrofitted to provide recycled water storage. Activities to retrofit the WWTP include the following:

- Removal and as-needed spot replacement of corroded exterior surfaces;
- Removal and replacement of roofing systems;
- Repainting of exposed piping and reinforcing steel;
- Cleaning and repair of exterior concreted surfaces;
- Repair of spot corrosion on interior concrete surfaces;
- Cleaning and recoating of interior steel appurtenances;
- Removal of debris;
- Installation of Occupational Safety and Health Administration (OSHA) required handrails, ladders, and gates;
- Rehabilitation of former WWTP administration offices for use by SRWTP personnel.

The total volume of recycled water storage in the two tanks is 630,000 gallons. From these two tanks, recycled water would be pumped through transmission pipelines for distribution to the recycled water customers.

2.8.2 Planned Recycled Water Customers and Discharge Points

Irrigation is the primary planned use of the SRWTP recycled water. Recycled water would also be used for toilet and urinal flushing and industrial uses such as laundry facilities. The recycled water distribution system would be constructed and operated in accordance with the Titles 22 and 17 of the CCR Water Recycling Criteria and Requirements for the Protection of Water Systems, and in compliance with all applicable rules and regulations governing the use of recycled water including the following:

- California Health and Safety Code Division 104;
- California Water Code (CWC) Division 7;
- 22 CCR, Division 4;
- State Water Resources Control Board (SRWCB) General Order For Recycled Water Use; and
- Central Coast Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements.

Recycled water would be applied for irrigation purposes with amounts pursuant to the Water Conservation in Landscaping Act of 2006 (AB 1881). AB1881 requires landscape design, installation, maintenance and management be water efficient and irrigation systems be designed to prevent runoff, low head drainage (water that flows onto the sidewalk or curb after the sprinklers turn off), overspray, or other similar conditions where irrigation water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures. AB1881 specifies calculation of a Maximum Allowable Water Allocation (MAWA) so that water is used in its most efficient manner for landscape irrigation. Additionally, the provisions of Title 22 require that no excess recycled water inadvertently run off or percolate to groundwater. Therefore, any groundwater recharge that would occur because of the use or discharge of recycled water from the

SRTWP would be incidental. Recycled water users would be required to undergo training before receiving recycled water from the SRWTP to ensure their usage is compliant with the Title 22 Water Recycling Criteria.

No agreements for the use of recycled water are currently in place with the sites identified for recycled water use or with CAW. However, since the City owns and is responsible for the irrigation and water use of the sites in the Demand Group I project, no new agreements are required for the proposed Project. It is anticipated that the City and CAW would review and amend as necessary its existing water service franchise agreement as necessary to facilitate implementation of the proposed Project. Further, it is anticipated that the future implementation of the Demand Group II and or III projects would require the establishment of service agreements between the City and or CAW and the reuse sites that would be served at that time.

The following are types of facilities that could use the recycled water for irrigation, industrial uses, or toilet and urinal flushing, pursuant to state and local law:

- Golf courses
- Cemeteries
- Parks
- Schools
- Public Facilities
- Commercial Areas

2.8.3 Recycled Water Pump Station

A pump station is required to pressurize the recycled water distribution system. A 30 horsepower (hp) pump station would be located at the SRWTP site to pump water from the storage tanks to the distribution system to service Demand Group I sites. Additional capacity would be added to the pump station to service Demand Groups II and or III sites as those projects are approved.

The pump station would include two pumps: one for active duty and one for standby. These pumps would be driven by electric motors. Backup power would not be required for the recycled water pump station because of the non-critical nature of the irrigation use of recycled water.

The pump station would be enclosed within an acoustically designed and insulated structure to prevent noises that would exceed the maximum nighttime level of 65 decibels (dB) per the City's noise standards specified in the Health and Safety Element of the Pacific Grove General Plan.

2.8.4 Distribution Pipelines

In general, the recycled water distribution system for the Demand Group I project would consist of a purple pipeline system constructed within City-owned properties. The pipelines and appurtenances would be colored purple to distinguish them from the potable water supply pipelines, as required by Title 22. The distribution system would consist of 8 and 12-inch diameter recycled water transmission mains and smaller lines extending from the transmission mains. All pipelines would be constructed of polyvinyl chloride (PVC) or ductile iron pipe.

The proposed recycled water distribution pipeline alignment would ultimately service all three Demand Groups and would begin at a connection point to the SRWTP recycled water pump station. The Demand Group I roject would be constructed first. The main portion of the recycled

water distribution pipeline would be constructed through the Pacific Grove Golf Links, across Asilomar Avenue, and connect to the existing Pacific Grove Golf Links irrigation system at approximately the 8th Tee. Other portions of the recycled water distribution pipelines include connections to the Pacific Grove Golf Links "Back 9" irrigation system located adjacent to the 7th Fairway and connections to the restrooms at Crespi Pond.

A new or relocated potable water meter and service pipeline would be constructed to provide potable water to the El Carmelo Cemetery Maintenance Building located at the southeast corner of the cemetery. A potable water meter would be relocated from Del Monte Boulevard to the cemetery entrance at Asilomar Boulevard. Approximately 1,100 feet of new potable water pipeline would be constructed from Asilomar Avenue through the El Carmelo Cemetery to the maintenance building.

The recycled water pipeline alignment would be extended in the future to additional recycled water customers (i.e., Demand Groups II and III) as demand for recycled water and financial effectiveness warrant. Future environmental analysis and regulatory permitting would be completed for pipeline extensions to serve Demand Groups II and or III.

The recycled water pipeline alignments would be located as follows:

- From the SRWTP through the Pacific Grove Golf Links (crossing Asilomar Avenue to the "Front 9").
- From the along upper property line of Pacific Grove Golf Links "Front 9" to Briggs Avenue to Jewell Avenue; along Jewell Avenue to 19th Street.
- From Forest Avenue to Sunset Drive.
- From Sunset Drive to 17 Mile Drive; along 17 Mile Drive to Lighthouse Avenue along Lighthouse Avenue to Asilomar Avenue.
- From 17 Mile Drive to Lopez Avenue to Forest Lake.
- From Forest Avenue to Prescott Avenue to Rifle Range Road.

Distribution pipelines would include fittings and valves at locations where planned recycled water pipelines would connect if future Demand Group II and or III projects are constructed. The fittings would be of the appropriate size to accommodate connection to future recycled water projects. Air release and blow off valves would be installed as necessary to protect against surges and air gaps and to allow draining of the pipelines with discharges to the sewer.

The recycled water distribution system would require flow control valves and other minor appurtenant facilities. The proposed Project includes installing connections between the recycled water distribution system and existing irrigation systems, recycled water meters, valves, valve boxes, and installation of a "swivel-ell". The swivel-ell allows the user to switch from the potable or recycled water distribution system while maintaining an air gap, as required by California Department of Public Health (CDPH) regulations. Site retrofits include signage, painting vaults, and above ground piping purple, tags, and purple sprinkler heads as required by Title 22.

2.9 PROJECT CONSTRUCTION

Project construction would normally occur between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, excluding holidays. Demand Group I facilities would be constructed between June 2015 and September 2016.

2.9.1 Construction Methods for the Wastewater Diversion Facilities

The proposed SRWTP would initially be constructed to meet a peak recycled water demand of 0.25 mgd to serve Demand Group I, and would later be expanded to a peak demand up to 1.24 mgd if Demand Groups II and or III projects are approved in the future. Construction of the wastewater diversion structure would include earthwork such as excavation and stockpiling of excavated materials for use as backfill. Excavation at the wastewater diversion would be expected to be up to 6 feet deep.

An 8-inch diameter diversion pipeline would be constructed using either open-cut or trenchless construction methods. The appropriate construction method would be selected based upon site constraints and soil conditions. For CEQA purposes, it is assumed that all pipeline trenches would be constructed using open-cut methods for environmental analysis of a worst-case scenario.

2.9.2 Satellite Recycled Water Treatment Plant (SRWTP) Construction Methods

The SRWTP would be constructed such that the major underground and structural components are sized to meet the requirements of Demand Groups II and III and installed as a part of Demand Group I project. SRWTP expansion requirements necessitate that structures would be designed and built with space for additional future equipment such as blowers, pumps, screens, UV galleries, and motor control centers required to accommodate the plant capacity expansion without major structural additions or expansion to accommodate Demand Group II and III facilities, if approved in the future. Subsurface structural elements, major pipelines, and electrical/communications duct banks would also be installed to accommodate the ultimate plant capacity of Demand Group III and would thereby minimize future site disturbances from excavation. Expansion would not include new unit processes, changes in treatment technology or expansion of the site perimeter. The proposed Demand Group I MBR facility would be highly modular and self-contained. If Demand Group II and or III are later approved, additional treatment capacity would be achieved by the inclusion of additional MBR modules. It is anticipated that MBR treatment components would be delivered to the SRWTP site mounted on skids as complete modular units.

All structures would be designed to minimize and accommodate anticipated differential ground settlement without compromising any of the structures. Conventional or mat footings would be used unless soil conditions are deemed inadequate. Headworks and disinfection tanks would be constructed of cast-in-place reinforced concrete using conventional techniques. Major yard piping would be installed below grade using conventional open trench excavation and backfilling techniques with appropriate connections to accommodate the potential for differential settlement between pipelines and structures at all structural penetrations. The depths of construction are expected to be between 3 and 12 feet.

Typical construction techniques would be used at the SRWTP such as site grading and excavation. Construction truck and equipment traffic would occur, both on the site, and to and from the site. Deliveries of construction related materials and equipment would be limited to

weekdays between the hours of 7:00 a.m. and 5:00 p.m. to minimize the impacts on local residents and in the surrounding community. Dust and noise-control measures would be used to minimize migration of offsite impacts. Appropriate construction storm water best management practices as required by a Storm Water Pollution Prevention Plan (SWPPP) such as Wind Erosion Control by applying water to control dust and wind erosion would be implemented. Construction equipment would be modified with adequate mufflers to ensure the City's noise standards are not exceeded. Materials storage, contractor staging areas, temporary office support, and worker parking facilities would be provided onsite at the SRWTP with visual screening such as temporary fencing to minimize offsite visual and aesthetic impacts. Damage to offsite facilities, including the Pacific Grove Golf Links fairways, would be promptly repaired, and damaged facilities would be restored to the original conditions.

Prior to initial earthwork, trimming of the existing Monterey Cypress would be completed as recommended by the most recent Point Pinos WWTP tree survey (Ohno, 2014). After initial earthwork (clearing and grubbing), existing stockpiled materials would be relocated to a new location on the northwest side of the WWTP. Other major construction phases include site grading, installation of yard piping, headworks structure, disinfection structure, pump station structure, placement of skid mounted treatment units, and installation of mechanical equipment. Final site work would include site lighting, installation of gates and fences, and landscape improvements. Project design would minimize the construction of new imperious surfaces. Parking areas and roadways would be constructed using permeable, decomposed granite surfaces to maintain onsite percolation of rain.

Construction depths are estimated to be approximately 8 feet for pipelines, and up to 12 feet for the pump station and the SRWTP. The foundation and structural components of the project facilities would be constructed in accordance with recommendations from the site geotechnical engineering investigation report (Appendix G of this EIR).

2.9.3 Recycled Water Distribution System Construction Methods

The PGLWP recycled water distribution system would be constructed with typical construction methods and equipment, although trenchless technologies maybe used for pipeline installations through major intersections along the distribution pipeline alignments. For purposes of this EIR, it is assumed that conventional construction methods of open-cut excavation would be used so that the worst case scenario of potential environmental impacts is analyzed.

2.9.3.1 Construction and Operation Responsibilities

Operation of the Demand Group I recycled water pipelines and pump stations would be by a private recycled water operations firm under contract with the City. Construction and operation of Demand Groups II and III recycled water pipelines would require the City's coordination and agreement with the local water purveyors.

Demand Group I

The pipelines for the recycled water distribution system would be installed within the Pacific Grove Golf Links property to minimize the effect on other existing and planned facilities including gas, electric, and communication utilities and water, sewer, and storm drain pipelines. The distance between the wastewater diversion pipeline and recycled water pipelines would meet CDPH separation requirements of at least 10 feet. Where existing conditions prohibit a 10-foot

separation, the pipelines would be located between 6 and 10 feet horizontally, and special pipeline materials and crossings would be used in conformance with CDPH standard mitigation requirements for pipeline construction.

It is assumed that conventional construction methodologies (i.e. open trenching, excavation, and backfilling) for pipeline construction would be used. Trenchless construction technology such as horizontal boring and or Bore-and-Jack may be used based upon field conditions. The City would select the appropriate technology to minimize disturbance of the golf links and roadways.

Demand Groups II and III

Pipelines for the recycled water distribution systems of Demand Group II and III projects would be installed within existing roadways and easements to avoid or minimize the effect on other existing and planned facilities including gas, electric, and communication utilities and water, sewer, and storm drain pipelines. The distance between the wastewater diversion pipeline and recycled water pipelines would meet CDPH separation requirements of at least 10 feet apart. Where existing conditions prohibit a 10-foot separation, the pipelines would be location between 6 and 10 feet horizontally, and special pipeline materials and crossings would be used in conformance with CDPH requirements.

Pipelines would be installed in 0.5-mile segments using standard open trenching, excavating, and backfilling methods where appropriate. Excavation depths for the recycled water distribution pipelines are anticipated to be between 6-12 feet below ground surface.

Trench backfilling would begin immediately after the pipelines are installed in the trenches and in accordance with appropriate City inspection requirements. Appropriate backfill materials would be used to prevent damage to the pipelines. Once backfilling is complete, the ground surface would be restored to the equivalent of the existing pavement or better. Pavement repair would consist of laying asphalt, slurry, or concrete over the entire length of the trenches after backfilling and soil compaction are complete. Construction equipment may include scrapers, backhoes, loaders, dump trucks, graders, compactors, concrete trucks, and rollers.

Pipelines may be installed by boring and jacking beneath intersections. Boring and jacking pits would be constructed on either side of the intersection to send and receive the pipeline.

2.9.3.2 Right of Way and Easements

No additional right-of-way or easement acquisition is expected for construction of the Demand Group I project. Installation of pipelines to service Demand Groups II and III projects would generally be in existing rights-of-way. Right-of-way acquisition may be required though an existing Southern Pacific Railway Alignment for Demand Group II or III. No disruption would be expected to any existing buildings or structures.

2.9.3.3 Construction Staging

A City-approved construction staging area would be located near the active construction sites to be used for temporary job office, equipment storage, and construction employee parking. The staging area for the proposed Project would be at the retired Point Pinos WWTP.

2.9.3.4 Utilities

The proposed Project would be designed to avoid or minimize the effect on other existing or planned facilities including gas, electric, and communication facilities, as well as storm drains,

water, and sewer pipelines. Wherever practical, existing utilities would not be disrupted during construction. Existing utility infrastructure, such as PG&E service poles would be stabilized during construction to avoid service disruption.

2.9.3.5 Solid Waste Disposal

The contractor would be required by the City to properly dispose of all construction-related solid waste at appropriate disposal facilities and in compliance with applicable California Integrated Waste Management Board and local Regulations.

2.10 PROJECT OPERATIONS AND MAINTENANCE

The SRTWP facilities would be operated 24 hours per day during the irrigation season between April and October (10% offline for maintenance). Minimal operations would be required during the non-irrigation season (Oct 15-April 15) to maintain the biological integrity of the treatment facilities. Operations for Demand Group III service to PBCSD may include SRWTP operations during the wet season to supply seasonal storage at the Forest Lake Reservoir. The facility would be supplied operational power from the existing electric utility grid. The SRTWP is expected to use approximately 495 kWh/day during the irrigation season. The SRWTP would include a 50 kw portable emergency generator as required by Title 22 for the provision of backup power. In the event of a power loss at the SRWTP, the diversion structure would be closed; sewage would bypass the SRWTP and would be conveyed to the regional wastewater collection system, consistent with existing operations.

2.10.1 Employees and Visitors

The facility would operate 24 hours per day, but it is expected that operating personnel would be at the facility for a typical 8-hour workday. The operations contractor would determine the exact number of employees working at the facility. However, for purposes of this analysis it is projected that between one and three employees would be working at the facility at any 24-hour period. Material vendors for parts and chemicals may produce an average of approximately two trips per week. Additional trips to the plant by visitors and other administrative purposes are expected to be approximately three trips to week.

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SECTION 3.0 ENVIRONMENTAL IMPACT ANALYSIS

3.1 INTRODUCTION TO THE ANALYSIS

Sections 4.0 through 15.0 provide a description of the existing environmental setting (baseline) for the proposed Project, regulatory setting, and identifies the potential environmental impacts and mitigation measures for each of the following resource topics:

Section 4.0 – Aesthetics
Section 5.0 – Air Quality
Section 6.0 – Biological Resources
Section 7.0 – Cultural Resources
Section 8.0 – Geology and Soils
Section 9.0 – Greenhouse Gas Emissions
Section 10.0 – Hazards and Hazardous Materials
Section 11.0 – Hydrology and Water Quality
Section 12.0 – Land Use and Planning
Section 13.0 – Noise
Section 14.0 – Transportation/Traffic
Section 15.0 – Utilities and Service Systems

Each Section listed above describes the existing setting, background information and regulatory setting for the resource to help the reader understand the conditions that could be affected by the Project. In addition, each section includes a discussion of the criteria used in determining the significance levels of the Project's environmental impacts. Each Section identifies the potentially significant adverse project-level and program-level impacts, and required mitigation measures. Detailed evaluations of the impacts of the proposed Project, as described as Demand Group I are addressed in the project-level analysis contained herein. Program-level analysis is prepared for Demand Groups II and III. This analysis is not intended to describe or address the impacts in detail; as stated in Section 2.0, detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review.

3.2 RESOURCE AREAS ELIMINATED FROM FURTHER ANALYSIS

Several CEQA checklist resource areas have been eliminated from further analysis based on the nature and scope of the proposed PGLWP, the Demand Groups and associated appurtenances. These are:

Agricultural and Forest Resources

There are no lands in the Project area zoned or designated as forest resources (or as agricultural resources (City of Pacific Grove, 1994). Implementation of the proposed Project would not result in impacts to forest resources. No further study of this issue is required.

Mineral Resources

There is no land designated for mineral resources in the City (Pacific Grove General Plan, 1994). The proposed Project is not located on, adjacent to, or near mineral resources or recovery sites. There are no known mineral resources known to exist on or in the vicinity of project component sites. There would be no impact to mineral resources. No further study of this issue is required.

Recreation

The proposed Project would not create an increase in population or promote activities that would increase the use of existing parks and recreational facilities. The proposed Project does not propose any new homes and would therefore not directly induce substantial population growth and would only generate short-term employment during construction of project components. In addition, the proposed Project would not expand services so as to provide for additional opportunities for growth. Additionally, the proposed Project would not include any recreational facilities or promote any activities that would require the construction or expansion of recreational facilities. The proposed Satellite Recycled Water Treatment Plant (SRWTP) at the former Point Pinos WWTP would be located adjacent to the Pacific Grove Municipal Golf Links. Construction of irrigation pipelines at the golf course would cause temporary impacts to course play; however, construction activities would be scheduled to avoid peak use time. Therefore, the impact to recreation is considered less than significant; these issues would not be further analyzed in the EIR.

3.3 ENVIRONMENTAL IMPACT ANALYSIS

This section contains a discussion of the possible environmental effects of the proposed Project for the specific issue areas identified through the scoping process as having the potential to experience significant impacts. The Notice of Preparation (NOP) used for the scoping process and the Initial Study Checklist (Appendix G of the CEQA Guidelines) are listed in this document as Appendix A and B, respectively.

"Significant effect" is defined by the CEQA Guidelines §15382 as:

> *"a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."*

The assessment of each issue area begins with the environmental setting and is followed by the impact analysis. Within the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City (as the CEQA Lead Agency), other resource agencies or as listed in Appendix G of the CEQA Guidelines. Other thresholds are universally recognized or have been developed specifically for this analysis. The next subsection describes each impact of the proposed Project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text, with the discussion of the effect and its significance following. Each bolded impact listing also contains a statement of the significance determination for the environmental impact as follows:

Significant and Unavoidable: *An impact that cannot be reduced to below the significance threshold level with implementation of reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the State CEQA Guidelines.*

Significant but Mitigable: *An impact that can be reduced to below the significance threshold level with implementation of reasonably available and feasible mitigation measures. Such an impact requires findings to be made under §15091 of the State CEQA Guidelines.*

Less than Significant: *An impact that may be adverse, but does not exceed the significance threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.*

No Impact: *No impact would occur.*

Beneficial Impact: *The Project would result in a beneficial impact on the environment.*

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SECTION 4.0 AESTHETICS

4.1 INTRODUCTION

Existing facilities at the retired WWTP site include two existing structures (sludge digester and admin building / clarifier) that would be reused as recycled water storage tanks. The tanks and the overall Point Pinos site are mostly obscured from Ocean View Boulevard and the Pacific Grove Golf Links by large Monterey Cypresses (*Cupressus macrocarpa*) planted along the site boundary fence as a visual screen. The only places onsite where Monterey Cypresses are not planted along the fence are at the front entrance to the site, which is within views of passing motorists and recreational users on Ocean View Boulevard and the adjacent parking area, and a rear entrance to the site, that is visible by golfers from locations on the Pacific Grove Golf Links course. Therefore, Project facilities would continue to be screened by these existing Monterey Cypress trees and thus no visual impacts related to project construction and operation would occur. Additionally, the WWTP site is surrounded by a chain link fence for site security. A grape stake fence on the west side of the WWTP Site, along Ocean View Boulevard protects native species planted as part of the restoration project and also restricts public access to the restoration areas. There are no plans to remove or replace the grape stake fencing. Security lighting is proposed at the WWTP site, but any new lights would be directed downwards and consistent with City standards. Other project facilities such as pipelines and appurtenances would be located underground and are not expected to impact visual aesthetics.

Future phases of the proposed Project (Demand Groups II and III) would require expansion of both the SRWTP and the distribution system to provide recycled water to other non-potable demands throughout the City and other locations. As stated above, the upgrades to the SRWTP would be shielded from external views by the existing chain link fence and vegetation bordering the periphery of the site. The proposed improvements would not degrade views from surrounding viewpoints or scenic vistas during the operational phase. In addition, construction activities would be temporary and largely obscured from public viewpoints by existing vegetation. Therefore, no mitigation measures are proposed in this Section.

4.2 ENVIRONMENTAL SETTING

Pacific Grove's many natural features provide a dramatic backdrop for the proposed PGLWP. The most striking features are its oceanfront setting, trees, and geographical containment. The City is surrounded by ocean on the north and west, and vehicular entrances to the City are limited. The two main entrances to the City are Highway 68 (Holman Highway) from the south, and Central Avenue (which is named Lighthouse Avenue in Monterey) from the east. David Avenue, Prescott Lane, and Ocean View Boulevard are the other major entrances from Monterey on the east. The coastal corridor is an important scenic resource appreciated by Pacific Grove residents and visitors alike. Its roads and pedestrian paths are used principally and extensively for recreation. The corridor can be divided into four distinctive subareas: Coastal dunes, Commercial areas, Residential areas, and Golf course.

The PGLWP components as part of the proposed Project (Demand Group I) are located entirely within the City. The landscape within the City is predominantly residential in character with

commercial, recreational, and open space uses located in the immediate vicinities of some of the project components. Within the vicinity of the coastal areas of the City, dramatic ocean views are available, including from Ocean View Boulevard and the retired Point Pinos Wastewater Treatment Plant (WWTP). Views of the Point Pinos Lighthouse are also available from the retired WWTP and the northern segment of Ocean View Boulevard. With the exception of the area around the WWTP, the City, and thus the majority of the Project area, is almost completely built out and is characterized primarily by residential development. Development in the City is a mixture of historical (late 1800s to early 1900s) and modern architectural design with the areas of the City closer to the historic commercial and residential cores.

The retired WWTP site is bounded by urban open space (e.g., Municipal Golf Course), pedestrian trails, and the Monterey Bay to the north, dune habitat to the west, and the Pacific Grove Golf Links to the south and east. Photographs of the site are displayed in Figure 4-1 through 4-4. These figures demonstrate that the majority of views through the proposed Project site from the surrounding area are blocked by existing trees and shrubs that bound the site, with the exception of views afforded to passing motorists and recreational users by the entrance to the site along Ocean View Boulevard.

Figure 4-1: View of the Proposed Satellite Recycled Water Treatment Plant from South Side of Site.

Figure 4-2: View of the Proposed Satellite Recycled Water Treatment Plant from North Side of Site.

Figure 4-3: View of the Proposed Satellite Recycled Water Treatment Plant from Northwest Side of Site.

Figure 4-4: View of the Proposed Satellite Recycled Water Treatment Plant from West Side of Site.

4.3 REGULATORY SETTING

4.3.1 Federal

Aesthetic resources are managed by the Federal Government using various visual resource management programs, depending on the type of federal land and/or the federal agency involved with a given project. Examples of federal visual resource management programs include the Visual Resource Management System utilized by the Bureau of Land Management (BLM), and the Visual Management System utilized by the United States Forest Service (USFS). However, since there are no federal lands or federal agencies involved with the proposed Project facilities, federal visual resources management policies would not apply.

Coastal Zone Management Act

Congress enacted the Coastal Zone Management Act (CZMA) (16 U.S.C. 1451 et seq.) to protect the coastal environment from growing demands associated with residential, recreational, commercial, and industrial uses (e.g., State and Federal offshore oil and gas development). The CZMA provisions help States develop coastal management programs (Programs) to manage and balance competing uses of the coastal zone. The California Coastal Commission is one of California's three designated coastal management agencies for the purpose of administering the federal CZMA in California.

4.3.2 State

California Environmental Quality Act

CEQA requires that project proponents assess potential impacts to aesthetic resources, including:

- Impacts on scenic vistas;
- Impacts on state scenic highways;
- Visual character of the project area in general; and
- Potential for a project to emit light or glare that could affect nighttime views.

State Scenic Highways Program

Caltrans administers the State Scenic Highways Program, established through the State Legislature in 1963 under Senate Bill 1467, to preserve and protect scenic highway corridors from projects that would diminish the aesthetic value of lands adjacent to highways (Sections 260 et seq. of the California Streets and Highways Code). Scenic highway corridors are defined as the land generally adjacent to and visible by motorists from a scenic highway, and are generally comprised of scenic and natural features. Scenic corridor boundaries are defined by topography, vegetation, or jurisdictional lines (Caltrans, [no date]). The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

California Coastal Act

In 1972, voters in California passed Proposition 20, which was designed to protect California's coast from unchecked development and other risks to coastal resources, such as point and nonpoint source pollution. The proposition created the California Coastal Commission (CCC), which, in 1976, was made permanent by the passage of the California Coastal Act. In addition, the California Coastal Act defined the Coastal Zone and established a coastal protection program designed to incorporate both local governments and the CCC into the planning and decision-making processes for coastal resources.

Under the California Coastal Act, local governments develop a Local Coastal Program (LCP) to identify land use classifications, zoning ordinances, and goals and policies concerning development that is submitted to the CCC for approval. Once approved, the local government becomes the Coastal Development Permit authority. Permits are generally required for any development in the Coastal Zone that involves new construction, changes in land use density or intensity, changes to water demand or changes to access to water, and major vegetation removal. Some local government permit decisions may be appealed by the CCC and permit decisions related to development on tidelands, submerged lands, and public trust lands remains with the CCC.

Under the California Coastal Act (section 30244), "where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

4.3.3 Local

City of Pacific Grove General Plan

The Urban Structure and Design Element of the City's General Plan contains goals, policies, and programs relating to maintaining and improving the appearance of the physical environment. This Element calls for emphasizing and promoting the overall visual attractiveness of Pacific Grove, enhancing the relationship between the City and the Pacific Ocean and the Monterey Bay, and maintaining and enhancing the quality of the City's landscape and streetscape. Consistency of the proposed Project with specific visual resources policies is evaluated in Section 12.0, Land Use and Planning.

City of Pacific Grove Local Coastal Program

The City of Pacific Grove Local Coastal Program Land Use Plan (LUP) includes numerous policies related to visual quality and scenic resources. Specifically, the LUP designates all areas seaward of Ocean View Boulevard and Sunset Drive as scenic, and limits development within these areas. Views of the Pacific Ocean and Monterey Bay are also protected. In addition, Policy 2.5.4.5 requires the preparation and approval of a landscaping plan for any project affecting landforms and landscaping. Consistency of the proposed project with visual resources policies is evaluated in Section 12.0, Land Use and Planning.

Monterey County General Plan

The Circulation and Conservation and Open Space Elements of the Monterey County General Plan contain goals and policies related to visual quality and scenic resources. The goal of the Scenic Highways Section of the Circulation Element of the General Plan is to "Maintain and enhance a system of scenic roads and highways through areas of scenic beauty without imposing undue restrictions on private property or constricting the normal flow of traffic." The goal of the Scenic Resources Section of the Conservation and Open Space Element of the General Plan is to "Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations." Consistency of the proposed project with specific visual resources policies is evaluated in Section 12.0, Land Use and Planning.

City of Monterey General Plan

The Urban Design and Circulation Elements of the City of Monterey General Plan contain goals and policies related to visual quality and scenic resources. The goal of the Scenic Entrances and Corridors Section of the Urban Design Element of the General Plan is to Protect and enhance scenic entrances. The goal of the Roads Section of the Circulation Element of the General Plan is to "Provide a safe, efficient, well-maintained, and environmentally sound roadway system that supports the "complete streets" concept of equality of choice among all modes of transportation." Consistency of the proposed Project with specific visual resources policies is evaluated in Section 12.0, Land Use and Planning.

4.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, impacts would be considered potentially significant if the proposed Project would:

1) Have a substantial adverse effect on a scenic vista;
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
3) Substantially degrade the existing visual character or quality of the site and its surroundings; or
4) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

4.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. The program-

level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of Demand Group II and III Projects would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the proposed Project are addressed in the project-level analysis.

Impact 4-1: Would the project have a substantial adverse effect on a scenic vista or would it substantially degrade the existing visual character or quality of the site and its surroundings?

Project-Level Impact Analysis

As stated above, existing facilities at the retired WWTP site include two water storage tanks that are twelve feet tall. These tanks and the overall site itself are mostly obscured from Ocean View Boulevard and the Pacific Grove Golf Links by an existing chain link fence and large Monterey Cypresses planted along the site boundary fence as a visual screen. The only places where Monterey Cypresses are not planted along the fence are at the front entrance to the site, which is within views of passing motorists and recreational users on Ocean View Boulevard and the adjacent parking area, and the rear entrance to the site, and by golfers from locations on the Pacific Grove Golf Links course.

Development associated with this project component would involve new above- and below-grade infrastructure both within the retired WWTP site. The existing tanks will be retrofitted, and new appurtenances would be installed at the site, mounted on skids. These new appurtenances are not to exceed fifteen feet in height. Ground disturbing activities associated with the proposed SRWTP facilities, the proposed new recycled and potable water distribution pipelines, and the proposed sanitary sewer diversion could temporarily impact scenic vistas or temporarily degrade the existing visual character or quality of the project sites and their surroundings. However, the majority of the Project facilities would be screened by the existing Monterey Cypress trees. Other Project facilities such as pipelines and appurtenances would be located underground and are not expected to impact visual aesthetics.

A Cypress Tree Assessment (see Appendix C) was prepared by Frank Ono, Urban Forestry, Society of American Foresters member #48004, ISA Certified Arborist #536, to assess the overall condition of the cypress trees within the fence line of the sewage treatment plant, which were found to be minimally maintained and overgrown. The Assessment includes recommendations for pruning maintenance required to preserve and maintain cypress tree health and structural integrity. No tree removal is recommended at this time; however, pruning is recommended to clear away overgrown limbs and make a determination for trees that present a clear and present danger for surrounding areas. The type of pruning required for each tree would be determined on a case-by-case basis. In general, the trees would be pruned first for safety, next for health, and finally for aesthetics. No new views into the WWTP site from surrounding areas are expected as a result of this tree trimming. Compliance with the Cypress Tree Assessment would ensure that tree trimming would not substantially degrade the existing visual character or quality of the site and its surroundings.

Given the limited amount of new above-ground facilities proposed for the site, as well as the existing fence and vegetation that almost entirely shields the interior of the site from external views, the proposed improvements would not degrade views from surrounding viewpoints or scenic vistas during the operational phase. In addition, construction activities would be

temporary and largely obscured from public viewpoints by existing vegetation. Potential impacts would be **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

Future phases of the proposed Project (Demand Groups II and III) would require expansion of both the SRWTP and the distribution system to provide recycled water to other non-potable demands throughout Pacific Grove and other locations. As stated above, the upgrades to the SRWTP would be shielded from external views by the existing fence and vegetation bordering the periphery of the site. Therefore, the proposed improvements would not degrade views from surrounding viewpoints or scenic vistas during the operational phase. In addition, construction activities would be temporary and largely obscured from public viewpoints by existing vegetation. Other Project facilities such as pipelines and appurtenances would be located underground and are not expected to impact visual aesthetics. Potential impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: Less than significant.

Impact 4-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?

Project-Level Impact Analysis

The WWTP site would continue to be surrounded by existing Monterey Cypress trees. These trees were planted to form a scenic visual barrier of the site from viewers such as golfers and residents. In addition, the two clarifier/administration building and sludge digester building are visually pleasing. The proposed Project would not change the façade of the water tanks nor would the new skid-mounted recycled water appurtenances be located close enough to visually conflict with these two water tanks. The proposed Project (Demand Group I) would not adversely affect a scenic resource within a state scenic highway. According to the California Department of Transportation Scenic Highways Program, State Route 1 is an Officially Designated State Scenic Highway and All American Road within Pacific Grove.[1] However, the project area is not visible from State Route 1; therefore, **no impact** would occur.

Project-Level Mitigation Measures

None required.

1 Source: California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/scenic_highways/.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed pipelines and appurtenances to serve Demand Groups II and III would be installed underground within existing City and County rights of ways and easements, and would thus not adversely affect a local scenic resource or one within a state scenic highway. Construction equipment to install underground pipelines would be temporary in nature and thus would not cause a significant visual impact. According to the California Department of Transportation Scenic Highways Program, State Route 1 is an Officially Designated State Scenic Highway and All American Road.[2] However, the Demand Group II and III customer sites and alternative pipeline routes are not adjacent to or visible from State Route 1; therefore, **no impact** would occur.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 4-3: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Project-Level Impact Analysis

Reuse of the retired WWTP as part of the proposed Project would introduce nighttime security lighting at the site. The site is currently used for storage and stockpiling of materials by the City and does not currently have nighttime security lighting. However, provision of new lighting would not result in a substantial increase in lighting. The SRWTP would continue to be largely concealed by the existing vegetation. In addition, all lighting would be directed downwards, consistent with City standards (i.e., City of Pacific Grove Architectural Review Guidelines). Therefore, Project lighting at the proposed site for the treatment facility would be installed so as not to interfere or cause confusion with the beam of light from the Federal Aid-to Navigation Lighthouse. Thus, the visual impact from nighttime lighting would be **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

The pipelines and appurtenances to serve Demand Groups II and III would all be installed underground or within small boxes. No additional lighting would be needed; therefore, **no impact** would occur.

[2] Source: California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/scenic_highways/.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

SECTION 5.0 AIR QUALITY

5.1 INTRODUCTION

The proposed Project, for all Demand Groups, would not conflict or obstruct implementation of the applicable air quality management plan, which is implemented by the Monterey Bay Unified Air Pollution Control District (MBUAPCD), nor would it violate any air quality standard or contribute substantially to an existing or projected air quality violation. Both short-term construction-related emissions and long-term operational emissions of the Project are expected to be well below MBUAPCD Thresholds of Significance. The air quality effect associated with operation of the SWRTP would consist of traffic generated by employees of the SRWTP, vendors and visitors, estimated to be no more than 16 round trips per day. The North Central Coast Air Basin is an attainment area for all federal criteria pollutant standards. While the local North Central Coast Air Basin exceeds the California Air Resources Board State standards for ozone and particulate matter smaller than 10 microns (PM^{10}), the additional traffic generated by the Project would not result in a significant net increase of, nor expose sensitive receptors to, any criteria pollutant or toxic air contaminant (TAC). Finally, the proposed Project would be constructed so that no significant odors affecting sensitive receptors would be generated. Therefore, no mitigation measures are proposed in this Section.

5.2 ENVIRONMENTAL SETTING

The Project area lies on Point Pinos within the Monterey Peninsula, which includes the cities of Pacific Grove, Monterey, and Carmel. The North Central Coast Air Basin (NCCAB) is comprised of Monterey, Santa Cruz and San Benito Counties. The basin lies along the central coast of California and covers an area of 5,159 square miles. The northwest sector of the basin is dominated by the Santa Cruz Mountains. The Diablo Range marks the northeastern boundary, and together with the southern extent of the Santa Cruz Mountains, forms the Santa Clara Valley, which extends into the northeastern tip of the Basin. Farther south, the Santa Clara Valley evolves into the San Benito Valley, which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at its northwestern end to King City at its southeastern end. The western side of the Salinas Valley is formed by the Sierra de Salinas, which also forms the eastern side of the smaller Carmel Valley. The coastal Santa Lucia Range defines the western side of the Carmel Valley.

The semi-permanent high-pressure cell in the eastern Pacific is the basic controlling factor in the climate of the air basin. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire California coast. Air descends in the Pacific High forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft acts as a lid to inhibit vertical air movement.

The generally northwest-southeast orientation of mountainous ridges tends to restrict and channel the summer onshore air currents. Surface heating in the interior portion of the Salinas and San Benito Valleys creates a weak low pressure, which intensifies the onshore airflow during the afternoon and evening.

In the fall, the surface winds become weak, and the marine layer grows shallow, dissipating altogether on some days. The airflow is occasionally reversed in a weak offshore movement, and the relatively stationary air mass is held in place by the Pacific High pressure cell, which allows pollutants to build up over a period of a few days. It is most often during this season that the north or east winds develop to transport pollutants from either the San Francisco Bay area or the Central Valley into the NCCAB.

During the winter, the Pacific High migrates southward and has less influence on the air basin. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. Northwest winds are nevertheless still dominant in winter, but easterly flow is more frequent. The general absence of deep, persistent inversions and the occasional storm systems usually result in good air quality for the basin as a whole in winter and early spring.

Monterey Bay is a 25-mile wide inlet, which allows marine air at low levels to penetrate the interior. The Salinas Valley is a steep-sloped coastal valley, which opens out on Monterey Bay and extends southeastward with mountain ranges of two to three thousand feet elevation on either side. The broad area of the valley floor near the mouth is twenty-five miles wide, narrowing to about six miles at Soledad, which is forty miles inland, and to three miles wide at King City, which is about sixty miles from the coast. At Salinas, near the northern end of the Valley, west and northwest winds occur about one-half the time during the entire year. Although the summer coastal stratus rarely extends beyond Soledad, the extended sea breeze, which consists of warmer and drier air currents, frequently reaches far down the Salinas Valley. In the southern end of the Valley, which extends into the South Central Coast Air Basin to Paso Robles, winds are generally weaker most of the year except during storm periods.

5.3 REGULATORY SETTING

Air quality is regulated by public agencies that range from the federal to the local level. These agencies implement policies, rules, and regulations that establish the criteria for assessing air quality impacts of a project under CEQA. This section describes the regulatory framework for air quality and explains how federal, state, regional, and local regulations relate to a CEQA air quality analysis.

Air quality with respect to criteria air pollutants and TACs within the NCCAB is regulated by such agencies as the MBUAPCD, California Air Resources Board, and the Environmental Protection Agency (EPA). Each of these agencies develops rules, regulations, policies, and/or goals to attain the goals or directives imposed through legislation. A local region's ability to demonstrate meeting the air quality standards set by these agencies determines its "attainment status". A region's attainment status in turn prescribes whether local air district regulations are designed to maintain current levels of air quality, or are part of a locally-tailored strategy to reduce air pollutants and meet air quality standards. Although the EPA regulations may not be superseded, both state and local regulations may be more stringent.

Air Quality Attainment Status designations in relation to the State standards are made by the California Air Resources Board (ARB) while designations in relation to the National standards are made by EPA. State designations are reviewed annually while the National designations are reviewed when either the standards change, or when an area requests that they be re-designated due to changes in the area's air quality. Designations are made by air basin and in some cases designations are made at the county level.

Designations are made by pollutant according to the following categories:

- Attainment – Air quality in the area meets the standard.
- Nonattainment – Air quality in the area fails to meet the applicable standard.
- Unclassified – Insufficient data to designate area, or designations have yet to be made.

- Attainment/Unclassified - An EPA designation, which, in terms of planning implications, is essentially the same as Attainment.

Nonattainment designations are of most concern because they indicate that unhealthy levels of the pollutant exist in the area, which typically triggers a need to develop a plan to achieve the applicable standard.

5.3.1 Federal Air Quality Regulation

In 1990, the U.S. Congress adopted the federal Clean Air Act Amendments (CAAA), which updated the nation's air pollution control program. The CAAA established a number of requirements, including new deadlines for achieving federal clean air standards.

The EPA is the federal agency charged with administering the CAAA and other air quality-related legislation. As a regulatory agency, the EPA's principal air quality related functions include setting national ambient air quality standards (AAQS); establishing minimum national emission limits for major sources of pollution; and promulgating regulations.

The CAAA require the EPA to approve state implementation plans (SIPs) to meet or maintain the national AAQS. California's SIP is comprised of plans developed at the regional or local level. The approved SIP for the NCCAB consists of the 2012 Triennial Plan Revision and Contingency Control Measures for the Monterey Bay Region and adopted rules and regulations.

Pursuant to the CAAA, the EPA passed two separate federal conformity rules to ensure air pollutant emissions associated with federally approved or funded activities do not exceed emission budgets established in the applicable SIP and do not otherwise interfere with the State's ability to attain and maintain the NAAQSs in areas working to attain or maintain the standards. The rules were incorporated as Section 40 CFR Parts 51 and 93 and include Transportation Conformity, which applies to transportation plans, programs, and projects, and General Conformity, which apply to all other non-transportation-related projects. Only those federal actions that take place in a region designated as an NAAQS non-attainment area or maintenance area must be evaluated for general conformity.

Relationship to CEQA

The MBUAPCD uses many of the EPA's requirements as the basis for determining the significance of air quality impacts under CEQA, including:

- Ambient Air Quality Standards. Exceedance of any national AAQS is considered a significant impact to air quality.
- New Source Review Offset Requirements. The MBUAPCD uses federal offset thresholds for inhalable particulates (PM^{10}) and carbon monoxide (CO) as criteria for significance (82 and 550 lb/day, respectively).
- Conformity. Federal regulations requiring that certain general and transportation projects conform to the SIP are used to help determine the cumulative significance of air quality impacts.

5.3.2 State Air Quality Regulation

In 1988, the State legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. The CCAA's requirements include annual emission reductions, increased development and use of low emission vehicles, and submittal of air quality attainment plans by

air districts.

The ARB is the State agency responsible for coordinating both State and federal air pollution control programs in California. The ARB approves local air quality management plans (AQMPs) which address attainment and maintenance of State AAQS as mandated by the CCAA. The ARB also coordinates and approves local plans, which eventually become part of the SIP for submittal to the EPA.

Relationship to CEQA

The MBUAPCD uses many of the State's requirements as the basis for determining the significance of air quality impacts under CEQA, including:

- Ambient Air Quality Standards. Exceedance of any State AAQS is considered a significant impact to air quality.
- Air Quality Management Plans. Project emissions that are not accounted for in the AQMP's emissions inventory are considered a significant cumulative impact to regional air quality.
- New Source Review Offset Requirements. Under State regulations, new or modified stationary sources that would emit 137 pounds per day or more of volatile organic compounds (VOC) or oxides of nitrogen (NOx) are required to offset their emissions. The MBUAPCD considers these thresholds to determine a project's impact on existing regional air quality.

5.3.3 Regional Air Quality Regulation

The MBUAPCD shares responsibility with the ARB for ensuring that State and national AAQS are achieved and maintained within the NCCAB. State law assigns local air districts the primary responsibility for control of air pollution from stationary sources while reserving to the ARB an oversight function. The MBUAPCD is responsible for developing regulations governing emissions of air pollution, permitting and inspecting stationary sources of air pollution, monitoring of ambient air quality, and air quality planning activities, including implementation of transportation control measures.

The Association of Monterey Bay Area Governments (AMBAG) is the designated Metropolitan Planning Organization for Monterey, Santa Cruz, and San Benito Counties and their respective cities. While AMBAG does not regulate air pollution, it prepares various transportation control measures and employment and population forecasts, which are used in the AQMP. AMBAG is also responsible for ensuring transportation plans, programs, and projects conform with the applicable SIP under the federal transportation conformity rule, as applicable. AMBAG also develops planning assumptions that are used to determine conformity of general federal projects with the applicable SIP.

The San Benito County Council of Governments (COG) is a single county COG comprised of the cities of Hollister and San Juan Bautista and County of San Benito. While the San Benito County COG does not regulate air quality, it serves as the Areawide Planning Organization for San Benito County.

As required by the CCAA, the MBUAPCD adopted the 1991 AQMP for the Monterey Bay Region. The AQMP addressed attainment of the State AAQS for ozone. The AQMP recommended adoption of 20 measures to control emissions of VOC from stationary sources, 5 measures for stationary sources of NOx, and eight transportation control measures. Since the 1991 AQMP was adopted, control requirements have been reduced, and the plan was updated in 1994, 1997, 2000 and 2004 to reflect this change. The 1997 AQMP showed that the MBUAPCD could achieve the required 20 percent reduction in both VOC and NOx emissions in the near term without adopting any additional regulations. The 1997 AQMP also included updated Transportation Control Measures. The 2000 AQMP concluded the

NCCAB remained on the borderline between attainment and nonattainment in part due to variable meteorological conditions occurring from year to year, transport of air pollution from the San Francisco Bay Area, and locally generated emissions.

In 1994, the MBUAPCD began the process of requesting redesignation from a federal ozone nonattainment area to an attainment area when it submitted a redesignation request and NOx Exemption Request to the EPA. In conjunction with this request, the MBUAPCD, AMBAG, and San Benito County COG adopted a Maintenance Plan in May 1994 and amended it in October 1994. The MBUAPCD was redesignated to a maintenance area for the federal one-hour ozone standard in March 1997. In June 2005, the federal one-hour ozone standard was revoked, and the NCCAB was classified attainment for all federal standards. In 2007, a Federal Maintenance Plan for the NCCAB was submitted to ARB, and was reviewed by EPA in 2008. The NCCAB is no longer subject to the 2007 Federal Maintenance Plan for maintaining the national ozone standard (Amy Clymo, MBUAPCD - Planning Department, personal communication, August 14, 2014).

The main objective of the 2008 AQMP is to reduce emissions of certain air pollutants that lead to the formation of ozone, or "smog". The 2008 AQMP shifted emphasis from achieving the State's 1-hour ozone standard, to achieving the more stringent 8-hour requirement. The AQMP represents a comprehensive strategy to reduce ozone precursor emissions from area and mobile sources. The AQMP includes specific measures that encourage cities and counties to develop and implement local plans, policies and programs to reduce auto use and improve air quality. In April 2013, MBUAPCD adopted the 2012 Triennial Plan Revision, which assesses and updates elements of the 2008 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs. The 2012 AQMP revision only addresses attainment of the state ozone standard. In 2012, USEPA designated the NCCAB as in attainment of the current national 8-hour ozone standard of 0.075 ppm.

The MBUAPCD regulates new and modified stationary sources through Rule 207, which incorporates State and federal requirements for new and modified stationary sources as well as MBUAPCD-specific regulations. When net emissions from a new or modified facility exceed State offset thresholds, the increase must be offset, with certain exceptions. The rule also requires application of Best Available Control Technology when a source would emit 25 lb/day or more of VOC or NOx emissions.

Relationship to CEQA

The MBUAPCD establishes the criteria for determining significance of air quality impacts under CEQA in the NCCAB. These are listed in Section 5.4.2 Significance Threshold Criteria.

AMBAG is responsible for making consistency determinations for population-related projects in Monterey, San Benito and Santa Cruz counties and their respective cities. The MBUAPCD makes all other consistency determinations. Consistency with the AQMP is used to determine a project's cumulative impact on regional air quality under CEQA. Further, AMBAG makes federally-required conformity determinations on transportation plans, programs, and projects, which are used to determine the cumulative significance of transportation projects on federal AAQS.

5.3.4 Pacific Grove General Plan

Local land use decisions have the potential to affect air quality within the region. While local governments do not participate directly in developing the AQMP, they help develop the population and growth forecasts used in the AQMP. Local governments also have the option of establishing local air quality policies through amendments to the General Plan or adoption of ordinances.

The Pacific Grove General Plan notes that there are no significant air quality problems in the PGLWP Planning Area. The excellent ventilation provided by the weather patterns inhibits the buildup of air pollutants. However, Pacific Grove is part of the NCCAB, which is a non-attainment area for State ozone standards and for State inhalable particulate standards.

There are few industrial sources of air pollution in the City. Emissions come from automobiles, and from sources such as dry cleaners and gasoline dispensers.

The City has the following air quality goals, policies, and programs:

GOAL 3 Promote attainment, and insofar as possible, improve air quality in Pacific Grove and the Monterey Bay area.

POLICY 10 Address State and federal regulations to keep funding to maintain attainment.

Program M Support and participate in regional air quality planning programs.

POLICY 11 Use the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of development.

In doing so, the City will consult with the MBUAPCD concerning air quality issues associated with specific development proposals.

POLICY 12 Continue to support the efforts of the Transportation Agency for Monterey County to implement the Monterey County Congestion Management Plan.

Program N Ensure that new development, or major rehabilitation, redevelopment, or conversion, incorporates the infrastructure, facilities, and design standards necessary to encourage and accommodate public transportation, ridesharing, and nonautomobile travel modes.

Relationship to CEQA

As a lead agency under CEQA, the City reviews air quality impacts of proposed projects within its jurisdictions. The City works closely with the MBUAPCD to ensure the CEQA process is effective in identifying projects with a potential negative impact, and ensuring any impacts are mitigated.

5.3.5 Regulation of Toxic Air Contaminants

Toxic air contaminants are not considered criteria pollutants because the federal and California Clean Air Acts do not address them specifically through the setting of National or State AAQS. Instead, the EPA and ARB regulate hazardous air pollutants and toxic air pollutants, respectively, through statutes and regulations. In conjunction with MBUAPCD rules, they establish the regulatory framework for TACs.

Federal Regulation of Toxic Air Contaminants

The EPA has established National Emission Standards for Hazardous Air Pollutants (NESHAPs) as required by the federal CAAA. These include source-specific regulations that limit allowable emissions of hazardous air pollutants. EPA develops NESHAPs based upon national priorities that focus on significant environmental risks and noncompliance patterns. NESHAPs focus on the control of specific hazardous air pollutants and rely primarily upon technology-based emissions standards referred to as Maximum Achievable Control Technology (MACT).

State Regulation of Toxic Air Contaminants

The State regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588).

The Tanner Air Toxics Act institutes a formal procedure for designating substances as TACs. This includes research, public participation, and scientific peer review before ARB designates a substance as a TAC. The ARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below the threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions. Air districts adopt and enforce the ATCM locally.

The Air Toxics Hot Spots Act requires that existing facilities that emit toxic substances:

- Prepare a toxic emissions inventory
- Prepare a risk assessment if emissions are significant
- Notify the public of significant risk levels
- Prepare and implement risk reduction measures

These requirements apply to facilities that: a) either manufacture, formulate, use, or release toxic substances, and emit more than 10 tons per year of criteria pollutants; b) fall into facility categories listed in Appendix E1 of the State's Emissions Inventory Criteria and Guidelines Regulation; or c) are listed on a District's toxic inventory list.

Regional Regulation of Toxic Air Contaminants

The MBUAPCD regulates TACs from new or modified sources under Rule 1000 and a Board-approved protocol. They apply to any source that requires a permit to construct or operate pursuant to MBUAPCD Regulation II-Permits, and has the potential to emit carcinogenic or noncarcinogenic TACs. TACs are listed in Title I, California Administrative Code §5155 or are established by the Office of Environmental Health Hazards Assessment, California Air Pollution Control Officers Association (CAPCOA) Risk Assessment Guidelines, U.S. Environmental Protection Agency, or Rule 1000, §3.1.2. Rule 1000 also requires sources of carcinogenic TACs to install best available control technology and reduce cancer risk to less than one incident per 100,000 population. Sources of noncarcinogenic TACs must apply reasonably available control technology.

The MBUAPCD also implements Rule 1003, Air Toxic Emissions Inventory and Risk Assessments, which establishes and implements the Air Toxics Hot Spots Act. Unlike Rule 1000, Rule 1003 affects existing facilities and addresses several times as many TACs. It also requires that potential noncancer health effects from acute and chronic exposure to toxic emissions are compared to Relative Exposure Levels (RELs), another indicator of potential adverse health effects. Rule 1003 also requires that any increased cancer risk resulting from an existing facility's emissions is less than one incident per 100,000 population.

The MBUAPCD enforces the Federal NESHAPS, which are adopted by reference in Rule 424. The MBUAPCD addresses demolition and/or renovation activities that are subject to the asbestos NESHAP in Rule 306. In addition, if a new or modified source of hazardous emissions is within 1,000 feet from the outer boundary of a school site, the MBUAPCD is required to notify families of children enrolled and all persons within 1,000 feet of the source before approving any permits (Health & Safety Code §42301.6).

5.3.6 State and Federal Air Quality Standards

The federal and State governments have established AAQS for certain pollutants, known as criteria pollutants, to protect the public health and welfare. Criteria pollutants of primary concern within the basin are ozone and inhalable particulates. In addition, carbon monoxide pollution is a concern given the increasing traffic congestion within the basin.

The following summarizes the State and national AAQS for ozone, PM^{10}, $PM^{2.5}$ and carbon monoxide. A complete summary of State and national AAQS is provided in Table 5-1.

Ozone

The ARB has set a health-based AAQS for ozone that includes two components that are not to be exceeded. The ambient concentration of ozone is not to exceed 0.09 parts per million (ppm) averaged over a one-hour period and 0.070 ppm averaged over an eight-hour period. The revised State AAQS, which includes the stringent eight-hour component, became effective in May of 2006. Both components of the standard must be met for an area to achieve the revised State AAQS for ozone. The EPA has set the federal ozone AAQS at 0.075 ppm, averaged over an eight-hour period.

Inhalable Particulates

The ARB has established a health based AAQS for PM^{10} which also includes two not to exceed components. The ambient concentration of PM^{10} is not to exceed 50 micrograms per cubic meter ($\mu g/m^3$) averaged over a 24-hour period and 20 $\mu g/m^3$ measured as an annual average. The EPA's 24-hour AAQS for PM^{10} is 150 $\mu g/m^3$, and its annual average AAQS is 50 $\mu g/m^3$. EPA's $PM^{2.5}$ 24-hour standard is 35 $\mu g/m^3$and the annual average is 12.0 $\mu g/m^3$. ARB's annual $PM^{2.5}$ standard is also 12 $\mu g/m^3$.

Carbon Monoxide

The ARB's primary AAQS for carbon monoxide is greater than 20 ppm for a one-hour period; the EPA's primary and secondary AAQS is greater than 35 ppm for one hour. For an eight-hour average, the ARB and EPA AAQS is greater than 9 ppm.

5.3.7 Attainment Status of the North Central Coast Air Basin

The NCCAB is designated as an attainment area for the federal eight-hour ozone AAQS. Under the Federal Clean Air Act, the NCCAB was designated as a maintenance area for the federal one-hour ozone AAQS. In June 2005, the federal one-hour ozone standard was revoked, and the NCCAB was classified attainment for all federal standards. The NCCAB is no longer subject to the 2007 Federal Maintenance Plan for Maintaining the National Ozone Standard (Amy Clymo, MBUAPCD - Planning Department, personal communication, August 14, 2014).

Prior to revision of the State AAQS for ozone, the NCCAB was close to attaining the State one-hour AAQS, which was reflected in the area's nonattainment-transitional designation. However, in November 2006 the ARB issued new designations to reflect the introduction of the stringent eight-hour requirement and the NCCAB, like several other areas in California, was redesignated from nonattainment-transitional to nonattainment for the State AAQS. Further, the NCCAB is designated a nonattainment area for the State PM^{10} AAQS and an attainment area for the State $PM^{2.5}$ AAQS. Table 5-1 lists the ARB's Ambient Air Quality Standards, and Table 5-2 summarizes the attainment status of the NCCAB in relation to these standards.

Table 5-1: Ambient Air Quality Standards[a] *(California Air Resources Board (6/4/13))*

Pollutant	Averaging Time	California Standards[b]		National Standards[c]			
		Concentration		Primary[d]		Secondary[e]	
		ppm	µg/m³	ppm	µg/m³	ppm	µg/m³
Ozone	1 hour	0.09	180				
	8 hours	0.070	137	0.075	147	0.075	147
Respirable Particulate Matter (PM_{10})[f]	24 hours		50		150		150
	Annual		20				
Fine Particulate Matter ($PM_{2.5}$)[g]	24 hours				35		35
	Annual		12		12		15
Carbon Monoxide	1 hour	20.0	23,000	35.0	40,000		
	8 hours	9.0	10,000	9.0	10,000		
Nitrogen Dioxide	1 hour	0.18	339	0.10	188		
	Annual	0.030	57	0.053	100	0.053	100
Sulfur Dioxide	1 hour	0.25	655	0.75	196		
	3 hours					0.5	1,300
	24 hours	0.04	105	0.14			
	Annual			0.030			
Lead	30-day avg		1.5				
	Calendar quarter				1.5		1.5
	Rolling 3-Month Average				0.15		0.15
Visibility Reducing Particles	8 hours	Extinction of 0.23 per kilometer.					
Sulfate	24 hours		25				
Hydrogen Sulfide	1 hour	0.03	42				
Vinyl Chloride	24 hours	0.01	26				

[a] Standards first promulgated in ppm concentrations except where noted. Equivalent µg/m³ concentrations based on reference temperature of 25°C and reference pressure of 760 mm of mercury.
[b] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide, nitrogen dioxide, PM10, and visibility reducing particles are values not to be exceeded.
[c] National standards, other than ozone and those based on annual averages, are not to be exceeded more than once a year.
[d] Designed to protect human health with an adequate margin of safety
[e] Designed to protect public welfare (i.e., prevent damage to vegetation, property, visibility)
[f] PM_{10} refers to respirable particulate matter less than 10 microns in size.
[g] $PM_{2.5}$ refers to respirable particulate matter less than 2.5 microns in size.

Table 5-2: Attainment Status of the North Central Coast Air Basin January 2013

Pollutant	State Standard	National Standards
Ozone (O)	**Nonattainment**[2]	Attainment/Unclassified[3]
Inhalable Particulates (PM[10])	**Nonattainment**	Attainment
Fine Particulates (PM[2.5])	Attainment	Attainment/Unclassified[4]
Carbon Monoxide (CO)	Monterey Co. – Attainment San Benito Co. – Unclassified Santa Cruz Co. - Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO)	Attainment	Attainment/Unclassified[5]
Sulfur Dioxide (SO)	Attainment	Attainment[6]
Lead	Attainment	Attainment/Unclassified[7]

Notes:
1) State designations based on 2009 to 2011 air monitoring data.
2) Effective July 26, 2007, the ARB designated the NCCAB a nonattainment area for the State ozone standard, which was revised in 2006 to include an 8-hour standard of 0.070 ppm.
3) On March 12, 2008, EPA adopted a new 8-hour ozone standard of 0.075 ppm. In April 2012, EPA designated the NCCAB attainment/unclassified based on 2009-2011 data, with a design value of 0.070 ppm.
4) In 2006, EPA revised the 24-hour standard for PM[2.5] from 65 to 35 µg/m[3]. In 2009, EPA designated the NCCAB as attainment/unclassified.
5) In 2011, EPA indicated it plans to designate the entire state as attainment/unclassified for the 2010 NO2 standard. Final designations have yet to be made by EPA.
6) In June 2011, the ARB recommended to EPA that the entire state be designated as attainment for the 2010 primary SO2 standard. Final designations have yet to be made by EPA.
7) On October 15, 2008 EPA substantially strengthened the national ambient air quality standard for lead by lowering the level of the primary standard from 1.5 µg/m[3] to 0.15 µg/m[3]. EPA made final designations in November 2011.

5.3.8 Existing Ambient Air Quality

Ambient air quality is monitored at seven MBUAPCD-operated monitoring stations. These stations are located in Salinas, Hollister, Carmel Valley, Santa Cruz, Scotts Valley, Davenport, and Watsonville. In addition, the National Park Service operates a station at the Pinnacles National Monument and an industry consortium operates a station in King City. Table 5-3 summarizes pollutants monitored at Monterey County stations.

From 2009 to 2013, only one exceedance of the 8 hour State Ozone was observed in Monterey County (2009 at the Carmel Valley-Ford Road monitoring station). There were no recorded violations of the federal PM^{10} 24-hour AAQS at MBUAPCD monitoring stations from 2003 to 2013.

Inhalable Particulates

The NCCAB is a nonattainment area for the State PM^{10} AAQS. From 2009 to 2013, only 2010 recorded exceedance of the 8 hour State Ozone was observed in Monterey County (approximately 11.5 days exceeding the standard at the Carmel Valley-Ford Road monitoring station). Overall, coastal exceedances were due in large part to naturally occurring sea salt, while fugitive dust is a major contributor to exceedances at the inland sites.

Carbon Monoxide

There have been no recorded violations of the federal or State carbon monoxide AAQS at MBUAPCD monitoring stations. However, based on air quality dispersion modeling, violations have been predicted at heavily congested intersections within the basin.

Table 5-3: Local Ambient Air Quality Data (California Air Resources Board-iADAM: Air Quality Data Statistics)

Pollutant	Standards		Year	Maximum Concentration	State / Federal Exceedances
	California	Federal			
Ozone (O_3) (1-hour)	0.09 ppm 1 hour	NA	2009	0.085	0/0
			2010	0.078	0/0
			2011	0.078	0/0
			2012	0.072	0/0
			2013	0.072	0/0
Ozone (O_3) (8-hour)	0.070 ppm 8 hour	0.075 ppm	2009	0.082	1/0
			2010	0.07	0/0
			2011	0.064	0/0
			2012	0.065	0/0
			2013	0.068	0/0
Fine Particulate Matter ($PM^{2.5}$)	NA	35 mg/m^3 24 hours	2009	18.7	0/0
			2010	16.2	0/0
			2011	19.7	0/0
			2012	16.5	0/0
			2013	33.7	0/0
Particulate Matter (PM^{10})	50 mg/m^3 24 hours	150 mg/m^3 24 hours	2009	43.0	0/0
			2010	54.0	11.5/0
			2011	19.0	0/0
			2012	*	*
			2013	*	*

Data includes only monitoring stations in Monterey County (King City-415 Pearl Street, King City-415 Pearl Street, and Salinas.)

5.3.9 Existing Emissions from the Project Site

There are only very limited emissions from the retired Point Pinos WWTP site, as the City currently uses the site as a maintenance and storage facility for its public works field operations. The WWTP was decommissioned in 1980. Two circular concrete tank structures remain on-site, including a clarifier/administrative office (east tank) and a sludge digester (west tank). The majority of the site is comprised of dirt driveways, with storage of construction material and debris along the periphery. The retired Point Pinos WWTP is fenced and is surrounded by open space, pedestrian trails, and the Monterey Bay to the north, dune habitat restoration to the west, and the Pacific Grove Golf Links to the south and east.

5.3.10 Sensitive Receptors

The MBUAPCD CEQA Air Quality Guidelines define sensitive receptors as "any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals,

hospices, prisons, and dormitories or similar live-in housing". Proper siting of a new land use can minimize or eliminate significant impacts to local or regional air quality.

The closest sensitive receptors to the proposed Project (i.e. Demand Group I) are the residences located along the pipeline alignment on Asilomar Ave. Sensitive receptors near the SRWTP site include single-family residences, approximately 0.18 miles east of the site. In the immediate vicinity of the SRWTP site is open space, golf course, and coastal uses. Potential sensitive receptors in the area of Demand Groups II and III would likely include residences, motels, and hotels.

5.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

Air quality is described for a specific location as the concentration of various pollutants in the atmosphere. Air quality conditions at a particular location are a function of the type and amount of air pollutants emitted into the atmosphere, the size and topography of the regional air basin, and the prevailing meteorological conditions. While significance threshold criteria are based primarily upon standards for ambient air quality contaminant concentrations, screening level significance thresholds are expressed as air contaminant emission rates. Screening level emission rate significance thresholds are estimated by applying conservative dispersion modeling assumptions, such that it would be highly unlikely for emission rates below significance thresholds to negatively effect ambient air quality.

5.4.1 Emissions Estimation Methodology

The CAPCOA California Emissions Estimator Model (CalEEMod), version 2013.2.2, was used to estimate construction and operational related emissions for the proposed Project, as recommended by MBUAPCD. The CalEEMod emissions model allows calculations of both construction emissions and operational emissions from land use projects. It calculates the daily maximum and annual average for criteria pollutants as well as total or annual Greenhouse Gas (GHG) emissions. See also Section 9.0 of this EIR for a complete discussion of the proposed Project's potential GHG effects. The CalEEMod software utilizes emissions models, USEPA AP-42 emission factors, CARB vehicle emission models, and studies commissioned by other California agencies such as the California Energy Commission and CalRecycle.

The CalEEMod program models construction emissions associated with land use development projects and allows for the input of project-specific information, including construction equipment information. The model also calculates indirect criteria pollutant and GHG emissions from processes "downstream" of the project under evaluation such as GHG emissions from energy use, solid waste disposal, vegetation planting or removal, and water use. CalEEMod also estimates changes in carbon sequestration potential due to changes in vegetation and the planting of trees. The model calculates a one-time only change in sequestration potential resulting in changes in land use such as converting vegetation to hardscape, and also calculates a carbon "offset" from planting new trees.

For this analysis, air emissions associated with construction of the PGLWP were estimated using conservative default values for construction phasing and equipment, as detailed below. Pipelines are assumed to be installed with open-trench methods, as opposed to trenchless methods, which would require less construction time and effort. Open trench methods involve a greater amount of earthwork and may result in increased emissions of particulate matter (dust) in the air. Emissions were calculated for both annual (tons per year) and winter (lbs per day) conditions based primarily on the default parameters contained in the model (maximum daily construction emissions are typically modeled under winter month conditions). Land use assumptions were chosen to allow for site-specific energy, water and

waste use assumptions to be applied for determining operational emissions, while developing conservative construction phases and equipment lists. A detailed list of construction and operational emissions estimation assumptions are summarized below. Detailed construction and operational emissions estimation assumptions together with CalEEMod outputs files are in Appendix E.

5.4.1.1 Construction Emissions Methodology

Two CalEEMod project files were created to estimate construction emissions for the Project: one to estimate construction emissions associated with build-out of the SRWTP, and one to estimate construction emissions associated with trenching activities to install Demand Group I pipelines and hook-ups.

The SRWTP included three land use classifications to facilitate (1) the estimation of default construction phase lengths and construction equipment required, and (2) to allow for site specific data to be input for estimating operational emissions. The land uses included (1) a total disturbed area of 1.7-acres to account for site preparation, grading and paving activities over the maximum area anticipated to be impacted by the SRWTP construction, (2) a 2,160 sq-ft "warehouse" to serve as the foot-print for the SRWTP treatment equipment and allow for project specific inputs for energy usages and waste generation, and (3) Control Building (Clarifier) and Digester combined area of 4,750 sq-ft were included as a "General Light Industry" land use, allowing for the estimation of rehab construction emissions estimations for build out for office space and treated water storage tanks (assumed in the Demolition, Building Construction and Architectural Coating phases).

The length of the construction phases and equipment parameters for Site Preparation, Grading and Paving were all defaults generated by CalEEMod. Modifications were made to the Demolition, Building Construction and Architectural Coating phases to account for the fact that rehabbing the existing tanks would be substantially less involved that a full demolition and new construction. The demolition phase includes relocating existing stockpiled materials and related structures, and removal of corroded exterior surfaces and roofing systems in preparation for retrofit of the existing tanks. The building construction phase entails the refurbishment and retrofit of existing buildings, rather than new construction. Retrofit activities would include:

- Replacement of corroded exterior surfaces;
- Replacement of roofing systems;
- Repainting of exposed piping and reinforcing steel;
- Cleaning and repair of exterior concreted surfaces;
- Repair of spot corrosion on interior concrete surfaces;
- Cleaning and re-coating of interior steel appurtenances;
- Installation of OSHA required handrails, ladders, and gates;
- Rehabilitation of former WWTP administration offices for use by SRWTP personnel; and
- Installation of SRWTP equipment and piping.

The CalEEMod trenching project file was created to separate Demolition and Paving construction phases related to trenching activities from SRWTP construction phases. CalEEMod trenching included land uses estimates for the Wastewater Diversion Facilities (the sewage diversion structure in Asilomar Avenue and the sewage diversion pipeline from Asilomar Avenue to Point Pinos), SRWTP trenching for the sanitary sewer force main, trenching for the Demand Group I Recycled Water Distribution Pipeline, and trenching, demolition and repaving for potable water connections. Construction phases were

estimated assuming a conservative trenching rate of 200 ft/day. Demolition and Paving phases were included for construction of the sewage diversion structure in Asilomar Avenue and to account for pipelines crossing streets and installation of the 1" Potable Water Connection.

The results of CalEEMod emissions estimates for construction activities at the SRWTP and trenching related emissions are summarized in Table 5-4.

Table 5-4: Construction-Related Criteria Pollutants

	Construction-Related Emissions			MBUAPCD Significance Threshold
Pollutant	SRWTP	DG-I Trenching	Total	Average Daily Emissions (lb/day)
	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	Average Daily Emissions (lb/day)	
ROG	46.8	2.7	49.4	-
NOx	42.4	23.6	66.0	-
CO	42.5	16.8	59.3	-
SO_2	0.061	0.023	0.084	-
PM^{10}	8.1	2.1	10.2	82
$PM^{2.5}$ (total)	5.0	1.6	6.6	-

5.4.1.2 Operational Emissions Methodology

The SRWTP includes separate land use classifications to allow for site-specific data to be input for estimating operational emissions from the SRWTP treatment equipment and the Control Building (Clarifier) which is to be built out to serve as office space and control room. The 2,160 sq-ft "warehouse" serves as the footprint for the SRWTP treatment equipment and allow for project specific inputs for energy usages and waste generation. The Control Building (Clarifier) and Digester combined area of 4,750 sq-ft were included as a "General Light Industry" land use, allowing for the estimation of default CalEEMod operational data.

Mobile source emissions were associated with the Control Building land use. As stated in Section 2, Project Description, it is projected that between one and three employees would be working at the facility at any 24-hour period during the operation of the SRWTP. In addition, material vendors for parts and chemicals during normal operations may produce approximately two trips per week. Additional trips to the plant by visitors and other administrative purposes are expected to be approximately three trips per week. Using a worst-case scenario of all employees present at the SWRTP at once, and having all deliveries as once could result in a total generation of 16 new daily trips (8 one way, with both ways counted). CalEEMod defaults for electricity usage and solid waste generation rates were assumed for the Control Building land use (which includes the area of both tanks, and is therefore conservative). The CalEEMod water usage estimate for the Control Building land use is overridden based upon an estimated usage of 70 gal/employee/day, because SRTWP potable water use assumed for employee use only. For other uses, it is projected that recycled water would be used (the CalEEMod default assumed over 3,000 gal/day based upon a "General Light Industry" land use).

The "warehouse" land use for the SRWTP treatment equipment allowed for site-specific data to be input for electricity use and solid waste generation. The SRWTP treatment equipment is assumed to use

495 kWh/day (180.7 MWhr/year) of electricity. It is also expected the SRWTP would generate approximately 0.5 cubic yards of solids generated per day (110 tons per year, assuming a density of 45 lbs/ft^3).

It is expected the SRWTP would include a 3000 kW emergency generator. The generator would provide emergency back-up power to all SRWTP equipment in the event of power outages. For purposes of this analysis, it is expected that the emergency generator would operate only 1-hr per week for testing and minor power disruptions. In the event of a longer power outage, it is expected that the emergency generator would provide short-term back-up power to the proposed Project until the resumption of normal power

The results of CalEEMod emissions estimates for operational activities at the SRWTP are summarized in Table 5-5. Detailed assumption for operational emissions are included in Appendix E, together with the construction modeling assumptions for the SRWTP. The operational emissions are estimated using the same CalEEMod project input file as the SRWTP construction data.

Table 5-5: Operational-Related Criteria Pollutants

	Operational-Related		MBUAPCD Significance Threshold
Pollutant	Max Daily Emissions (lb/day)	Max Annual Emissions (tpy)	Daily Emissions (lb/day)
ROG	1.94	0.32	137
NOx	1.99	0.067	137
CO	1.22	0.099	550
SO_2	0.0040	0.00021	150
PM^{10}	0.106	0.0099	82
$PM^{2.5}$	0.049	0.0038	-

Note: the MBUAPCD is in attainment for $PM^{2.5}$, and has not developed a $PM^{2.5}$ Significance Threshold.

5.4.2 Significance Threshold Criteria

According to Appendix G of the CEQA Guidelines, a project may create a significant environmental impact if it would:

(1) Conflict with or obstruct implementation of the applicable air quality plan;
(2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
(3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
(4) Expose sensitive receptors to substantial pollutant concentrations; or
(5) Create objectionable odors affecting a substantial number of people.

These guidelines provide the basis for the MBUAPCD CEQA Air Quality Guidelines, which provide specific criteria for determining the significance of construction and operational air quality impacts by

pollutant. The MBUAPCD also uses many of EPA and the ARB's requirements as the basis for determining the significance of air quality impacts under CEQA, including:

- Ambient Air Quality Standards. Exceedance of any national AAQS is considered a significant impact to air quality.
- New Source Review Offset Requirements. The MBUAPCD uses federal offset thresholds for PM^{10} and CO as criteria for significance (82 and 550 lb/day, respectively).
- Conformity. Federal regulations requiring that certain general and transportation projects conform to the State Implementation Plan (SIP) are used to help determine the cumulative significance of air quality impacts.
- Air Quality Management Plans. Project emissions that are not accounted for in the AQMP's emissions inventory are considered a significant cumulative impact to regional air quality.
- New Source Review Offset Requirements. Under State regulations, new or modified stationary sources that would emit 137 pounds per day or more of VOC or NOx are required to offset their emissions.

General Conformity

The proposed Project would be subject to the General Conformity rule because the State Revolving Fund (SRF) Program, which would assist in financing the Project, is partially funded by the EPA. As part of the CEQA Plus process, a federal CAA conformity analysis is required if a project is located in an area that is not meeting national AAQS or is subject to a maintenance plan. An analysis would then be required for each criteria pollutant for which an area is considered in nonattainment or maintenance, if the Project emissions exceed the "de minimis" level.

As shown in Table 5-2, the proposed Project is within the NCCAB, which is an attainment area for all Federal criteria pollutant standards. The NCCAB is also no longer subject to the 2007 Federal Maintenance Plan for maintaining the national ozone standard (Amy Clymo, MBUAPCD - Planning Department, personal communication, August 14, 2014). Due to the attainment status of the NCCAB, the proposed Project is not subject to a SIP conformity determination.

5.4.2.1 Criteria for Determining Construction Impacts

Emissions from construction activities represent temporary impacts that are typically short in duration. Air quality impacts can nevertheless be acute during construction periods, resulting in significant localized impacts to air quality. Table 5-1 summarizes the thresholds of significance for construction activities.

Inhalable Particulates

Construction activities (e.g., grading, trenching, facility construction), which directly generate 82 pounds per day or more of PM^{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors. The threshold is based upon conservative modeling to ensure the project does not cause an exceedance of the State PM^{10} AAQS (50 $\mu g/m^3$) at existing receptors as averaged over 24 hours.

Based upon this PM^{10} Threshold of Significance Construction Impacts, the MBUAPCD developed screening criteria based upon the proposed project size 8.1 acres per day for a construction site with minimal earthmoving, and 2.2 acres per day for a obstruction site with earthmoving (grading, excavation). Construction projects below the screening level thresholds are assumed to be below the 82 lb/day threshold of significance, while projects with activity levels higher than those above may have a

significant impact on air quality. Additional mitigation and analysis of the project impact may be necessary for those construction activities.

Ozone

Construction projects using typical construction equipment such as dump trucks, scrappers, bulldozers, compactors and front-end loaders that temporarily emit precursors of ozone [i.e., VOC or NOx], are accommodated in the emission inventories of State- and federally-required air plans and would not have a significant impact on the attainment and maintenance of ozone AAQS.

Other Pollutants

Construction projects that may cause or substantially contribute to the violation of other State or national AAQS or that could emit toxic air contaminants could result in temporary significant impacts.

5.4.2.2 Criteria for Determining Operational Impacts

Emissions from operational activities represent ongoing project impacts that are longer-term in duration. Air quality impacts from operational activities may result in significant regional and localized impacts to air quality and may include in acute or chronic health effects. Table 5-6 summarizes the thresholds of significance for operational activities.

Table 5-6: Operational Air Emissions Thresholds

Criteria Pollutant	Daily Thresholds (lbs)
Volatile Organic Compounds (VOC)	137
Oxides of Nitrogen (NOx)	137
Particulate Matter (PM^{10})	82
Carbon Monoxide (CO)	550
SOx as SO2	150
Source: Monterey Bay Unified Air Pollution Control District (MBUAPCD), California Environmental Quality Act (CEQA) Air Quality Guidelines 2008.	

Ozone

Projects that would emit 137 pounds per day or more of direct and indirect VOC emissions have been determined by the MBUAPCD as having a significant impact on regional air quality by emitting substantial amounts of ozone precursors. Such projects would significantly impact attainment and maintenance of ozone AAQS. Similarly, projects that emit 137 pounds per day or more of direct and indirect NOx emissions would generate substantial emissions and have a significant impact on regional air quality.

Inhalable Particulates

Similar to construction activities, projects with operational emissions of 82 pounds per day or more of PM^{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors. The threshold is based upon conservative modeling to ensure the project does not cause an exceedance of the State PM^{10} AAQS (50 $\mu g/m^3$) at existing receptors as averaged over 24 hours. Projects with operational emissions exceeding this threshold, however, may elect to use MBUAPCD-approved dispersion modeling to refute (or validate) this determination.

Carbon Monoxide

Indirect sources that would significantly affect levels of service (LOS) at intersections or road segments could cause or substantially contribute to violation of State or national AAQS for carbon monoxide. The

following would represent a potentially significant impact to intersections or road segments after mitigation (references are to peak-hour LOS):

- Intersections or road segments that operate at LOS D or better that would operate at LOS E or F with the project's traffic, or
- Intersections or road segments that operate at LOS E or F where the volume-to-capacity (V/C) ratio would increase 0.05 or more with the project's traffic, or
- Intersections that operate at LOS E or F where delay would increase by 10 seconds or more with the project's traffic, or
- Unsignalized intersections that operate at LOS E or F where the reserve capacity would decrease by 50 or more with the project's traffic. This criterion is based on the turning movement with the worst reserve capacity or
- Project would generate substantial heavy duty truck traffic or generate substantial traffic along urban street canyons or near a major stationary source of CO.

If any of these scenarios would occur, carbon monoxide modeling should be undertaken to determine if indirect source emissions would cause an exceedance of State or national AAQS at existing or reasonably foreseeable receptors. If modeling demonstrates that the project would not cause an exceedance of CO AAQS, the project would not have a significant impact on local air quality.

For cumulative analyses, the traffic impact of the project should be combined with that of other closely related past, present, and reasonably foreseeable future projects. The cumulative impact should be compared to the same criteria above to determine if cumulative development could cause an exceedance of State or national AAQS at existing or reasonably foreseeable receptors. If so, carbon monoxide modeling should be undertaken.

Sources that directly emit 550 pounds or more per day of carbon monoxide (e.g., industrial operations) would result in substantial air emissions and have a significant impact on local air quality. However, CO modeling can be used to refute (or validate) this determination.

Oxides of Sulfur

Oxides of sulfur, as sulfur dioxide (SO_2), are formed by the combustion of sulfur containing materials (e.g., coal, fuel oil, tires). High levels of ambient SO_2 may increase the risk of adverse symptoms in asthmatic patients. Sources which directly emit 150 pounds or more per day of oxides of sulfur as SO_2 (e.g., industrial operations) would result in substantial air emissions and have a significant impact on air quality. However, modeling can be used to refute (or validate) this determination. If modeling demonstrates that the source would not cause a violation of State or national AAQS at existing or reasonably foreseeable receptors, the project would not have a significant impact on air quality.

Other Pollutants

Projects that emit other criteria pollutants could have a significant impact if total emissions would cause or substantially contribute to the violation of State or national AAQS. Projects that have the potential to emit toxic air contaminants could also result in significant air quality impacts. In addition, projects that alter air movement, moisture, temperature, or climate either locally or regionally could have significant air quality impacts.

Projects that would emit pollutants associated with objectionable odors in substantial concentrations could result in significant impacts if odors would cause injury, nuisance, or annoyance to a considerable number of persons or would endanger the comfort, health, or safety of the public. Because people have

mixed reactions to odors, the nuisance level of an odor varies. Estimation of potential odor impacts should be coordinated with the MBUAPCD.

5.4.2.3 MBUAPCD Criteria for EIRs

MBUAPCD February 2008 CEQA Air Quality Guidelines provide that if all of the following criteria are met, a project does not have a significant effect on the environment:

(1) Short-term construction would emit less than 82 lb/day of PM^{10} or would not cause a violation of PM^{10} AAQS at existing receptors; and the equipment used is "typical construction equipment" as specified in Section 5.3, herein, which is accommodated in the emission inventories of State- and federally-required air plans (regarding attainment and maintenance of ozone AAQS).

(2) Long-term operation of the project would:
   a) emit less than 137 lb/day of VOC or NOx;
   b) directly emit less than 550 lb/day of CO or would not cause a violation of CO AAQS at existing or reasonably foreseeable receptors;
   c) not significantly impact traffic levels of service or would not cause a violation of CO AAQS or contribute 550 lb/day to an existing or projected violation at existing or reasonably foreseeable receptors;
   d) directly emit less than 82 lb/day of PM^{10} on-site or would not cause a violation of PM^{10} AAQS or contribute 82 lb/day to an existing or projected violation at existing or reasonably foreseeable receptors;
   e) not indirectly generate PM^{10} along unpaved roads or would not cause a violation of PM^{10} AAQS or contribute 82 lb/day to an existing or projected violation at existing or reasonably foreseeable receptors; and
   f) directly emit less than 150 lb/day of SOx or would not cause a violation of SO_2 AAQS at existing or reasonably foreseeable receptors.

(3) The project would not cause a violation of any other State or national AAQS.

(4) The project is consistent with the Air Quality Management Plan.

(5) The project would not have any other significant adverse impacts (e.g., create objectionable odors; alter air movement, moisture, temperature, or climate).

5.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. Detailed evaluations of the impacts of the proposed Project (Demand Group I) are addressed in the project-level analysis below. The program-level analysis is prepared for Demand Groups II and III. This program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review.

MBUAPCD February 2008 CEQA Air Quality Guidelines provide a "Checklist", which can be used by lead agencies for determining the significant of Air Quality Impacts addressed by Appendix G of the State CEQA Guidelines. The checklist items are addressed for each of the following Appendix G Air Quality Impacts.

Impact 5-1: Conflict with or obstruct implementation of the applicable air quality plan?

Project-Level Impact Analysis

MBUAPCD CEQA Air Quality Guidelines provide that if a Project would emit less than 137 lb/day of VOC or NOx, and be consistent with the MBUAPCD Air Quality Management Plan, then the Project would not conflict with or obstruct implementation of the applicable air quality plan (Figure 5-1, MBUAPCD 2008).

As shown in Table 5-4, Construction-Related Criteria Pollutants and Table 5-5, Operational-Related Criteria Pollutants, both short-term construction related emissions and long-term operational emissions of the Project would emit less than 137 lb/day of VOC or NOx. There would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The installation of pipelines and other appurtenances within the areas of Demand Group II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, and air quality effects in Table 5-4, Construction-Related Criteria Pollutants, and remain below MBUAPCD Thresholds of Significance. As shown in Table 5-5, Operational-Related Criteria Pollutants, long-term operational emissions are far below Operational-Related Criteria Pollutants. While Demand Group III would increase the peak capacity of the SRWTP from 0.25 to1.24 million gallons per day, even a directly proportional increase in operational emissions would remain well below MBUAPCD Thresholds of Significance. Therefore, this increase in peak capacity of the SRWTP as a result of implementing Demand Groups II and II would result in a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 5-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Project-Level Impact Analysis

MBUAPCD CEQA Air Quality Guidelines provide that if a project would not generate traffic that significantly affects levels of service and would emit less than:

- 137 lb/day of VOC or NOx ,
- 82 lb/day or more of PM^{10} on site during operation or construction,
- 550 lb/day of SO, and
- 150 lb/day of SOx,

then the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation (Figure 5-1, MBUAPCD 2008).

As shown in Table 5-4, Construction-Related Criteria Pollutants and Table 5-5, Operational-Related

Criteria Pollutants, both short-term construction-related emissions and long-term operational emissions of the Project would not exceed the [state the regulatory agency] Significance Thresholds, as described above. There would be **No Impact.**

The air quality effect associated with operation of the SWRTP would consist of traffic generated by employees of the SRWTP, estimated to be no more than three round trips per day, with a worst-case total of 16 round trips per day. It is estimated that vendor/visitor trips would be no more that five round trips per week. This would not cause a noticeable change in traffic in the area. There would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The installation of pipelines and other appurtenances within the areas of Demand Group II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, and air quality effects in Table 5-4, Construction-Related Criteria Pollutants, and remain below MBUAPCD Thresholds of Significance. As shown in Table 5-5, Operational-Related Criteria Pollutants, long-term operational emissions are far below Operational-Related Criteria Pollutants. While Demand Group III would increase the peak capacity of the SRWTP from 0.25 to1.24 million gallons per day, even a directly proportional increase in operational emissions would remain well below MBUAPCD Thresholds of Significance. There would be a **less than significant impact.**

An increase in SRWTP capacity would not require additional staff, though increases in vendor traffic and waste hauling may result. Therefore, this increase would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

***Impact 5-3*: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?**

Project-Level Impact Analysis

As shown in Table 5-3, Construction-Related Criteria Pollutants and Table 5-4, Operational-Related Criteria Pollutants, both short-term construction-related emissions and long-term operational emissions of the Project are expected to be well below MBUAPCD Thresholds of Significance. The SRWTP would apply for any required MBUAPCD Permits to Construct and Operate to ensure the facility would be in full compliance with MBUAPCD regulations and be consistent with the MBUAPCD Air Quality Management Plan. There would be a **less than significant impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The installation of pipelines and other appurtenances within the areas of Demand Group II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, and air quality effects in Table 5-4, Construction-Related Criteria Pollutants, and remain below MBUAPCD Thresholds of Significance. As shown in Table 5-5, Operational-Related Criteria Pollutants, long-term operational emissions are far below Operational-Related Criteria Pollutants. While Demand Group III would increase the peak capacity of the SRWTP from 0.25 to1.24 million gallons per day, even a directly proportional increase in operational emissions would remain well below MBUAPCD Thresholds of Significance. There would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 5-4: Expose sensitive receptors to substantial pollutant concentrations?

Project-Level Impact Analysis

MBUAPCD CEQA Air Quality Guidelines provide that if a project would not cause a violation of any CO, PM^{10} or toxic air contaminant standards at an existing or reasonably foreseeable sensitive receptor, then the project would not expose sensitive receptors to substantial pollutant concentrations (Figure 5-1, MBUAPCD 2008).

As shown in Table 5-4, Construction-Related Criteria Pollutants and Table 5-5, Operational-Related Criteria Pollutants, both short-term construction related emissions and long-term operational emissions of the Project are well below MBUAPCD Thresholds of Significance for CO, and PM^{10}. Therefore, there is **no impact** that sensitive receptors would experience substantial pollutant concentrations as a result of constructing or operating the proposed Project.

SRWTP operation would result in emissions of small amounts of TACs. For this analysis, project-specific operational information is not yet available to accurately estimate operational TAC emissions, however, they are expected to be quite small, and well below applicable Thresholds of Significance.

The SRWTP would apply for any required MBUAPCD Permits to Construct and Operate to ensure the facility would be in full compliance with MBUAPCD TAC regulations and screening procedures and would not result in exposing sensitive receptors to substantial pollutant concentrations. There would be a **less than significant impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

While project-specific operational information is not yet available to accurately estimate operational TAC emissions, they are expected to be quite small, and well below applicable Thresholds of Significance. Increases to capacity required to meet Demand Groups II and III would be minimal, and thus are not likely to increase these emissions above threshold amounts. The SRWTP would apply for any required MBUAPCD Permits to Construct and Operate to ensure the facility would be in full compliance with MBUAPCD TAC regulations and screening procedures and would not result in exposing sensitive receptors to substantial pollutant concentrations. This would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 5-5: Create objectionable odors affecting a substantial number of people?

Project-Level Impact Analysis

Under normal operating conditions, objectionable odors would not be detectable outside the fenced SRWTP facility. Normal operating conditions are when the SRWTP is processing the average daily amount of effluent as described in the Project description. SRWTP odors are primarily comprised of reduced sulfur compounds formed in the breakdown of raw sewage under reducing anaerobic conditions. These reducing conditions primarily occur within the sewage collection system prior to sewage entering the SRWTP, and as such, the proposed SRWTP does little to facilitate the generation of odors, rather is merely a location for fugitive release. Therefore, the entrance point of raw sewage, anaerobic basin, and solid waste handling would be the primary potential odor sources at the proposed SRWTP. The raw sewage at the proposed SRWTP is primarily located in enclosed facilities that are not exposed to the air; thus, no odor from raw sewage would be emitted. The MBR process adds oxygen to the wastewater, and does not allow anaerobic conditions to occur; thereby reducing and in most instances eliminating offensive odors. The processing of solids handling at the SRWTP would be fully enclosed thereby reducing or eliminating odors.

The SRWTP would apply for any required MBUAPCD Permits to Construct and Operate to ensure the facility would be in full compliance with MBUAPCD regulations and would not result in the generation of objectionable odors. There would be a **less than significant impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Increases to capacity required to meet Demand Groups II and III are not likely to increase emissions of odorous substances. The SRWTP would apply for any required MBUAPCD Permits to Construct and

Operate to ensure the facility would be in full compliance with MBUAPCD and would not result in the generation of objectionable odors. There would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

SECTION 6.0 BIOLOGICAL RESOURCES

6.1 INTRODUCTION

This section presents the findings of four documents included in Appendix C of this EIR: 1) City of Pacific Grove Waste Water Treatment Plant Cypress Tree Assessment (Cypress Tree Assessment) prepared by Frank Ono, Certified Arborist on January 21, 2014, 2) Initial Reconnaissance Survey prepared by Denise Duffy & Associates, Inc. (July 18, 2013), 3) Biological Resources Report, Pacific Grove Local Water Project Satellite Recycled Water Treatment Plant Site, also prepared by Denise Duffy & Associates, Inc. (May 13, 2014), and 4) 2012 Annual Dune Restoration and Monitoring Report, City of Pacific Grove Golf Course at Point Pinos Pacific Grove, California prepared by Rana Creek Restoration. Both ruderal/developed and Monterey Cypress habitat types are at the site. The Monterey Cypress were planted on the Project boundary to screen the Point Pinos Water Treatment Plant. No special-status plant species were observed within these habitat types or surrounding areas and none are expected to occur. No other sensitive habitats, including riparian habitat, were observed on the Project site or within adjacent areas. The Project is not located within the boundaries of any adopted Habitat Conservation Plans or Natural Community Conservation Plans. No special-status wildlife species were observed within the ruderal/developed areas of the Project site. However, nesting raptors and other migratory bird species, which are protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code, could utilize the Monterey Cypresses for nesting. Mitigation measures contained in this Section would avoid impacts or reduce potentially significant impacts to nesting raptors to less than significant levels.

6.2 ENVIRONMENTAL SETTING

6.2.1 Project Site Description

The Satellite Recycled Water Treatment Plant (SRWTP) is proposed at the site of the retired Point Pinos Wastewater Treatment Plant (WWTP), located on Pacific Grove Municipal Golf Links, south of Ocean View Boulevard. The Project site is approximately 2 acres in area. The site is heavily disturbed, fenced and has been continually used for municipal maintenance purposes for the past 65 years. The vegetation located within the SRWTP fence line is primarily planted Monterey cypress (*Cupressus macrocarpa*) interspersed with some nonnative Myoporum (*Myoporum laetum*) shrubs with no significant understory present. The cypress trees are overgrown and minimally maintained. The site is surrounded by trees planted as both a hedge that visually shields the compound and a physical windbreak for the area. The trees located along the western and northern property line act as a buffer for dominant coastal winds. Overgrown limbs have fallen inside the interior of the fenced compound with many cracked branches but still with green foliage. Long elongated limbs are resting on the ground, foliage green and overgrown to have overtaken maintenance service areas. Trees along the north and western perimeter are wind trained with low heights and dead wood on the north and west sides of the plants. Remaining trees that receive protection from coastal winds by being in the shadow of existing buildings and forefront protection of north and western plantings appear healthier. They have resultant taller growth and better structure. (Cypress Tree Assessment 2014).

The City owns and operates this site as a maintenance yard for golf course operations, secondary public works corporation yard and truck-fill station obtaining local groundwater seepage for street sweeping and sewer flushing. The City collects and stores groundwater seepage in the existing WWTP clarifier and digester tanks for use by street sweeping trucks, sewer pipeline flushing, and for construction water. The two large tanks of the retired WWTP facilities and heavily traveled dirt driveways dominate the site. Previously excavated construction materials and spoils are currently stored around the driveways and fill material is stockpiled in the northwestern corner of the site.

The Project site is generally surrounded by the following:

- Pacific Grove Golf Links is located to the south and east of the Project site;
- Coastal scrub habitat is located immediately west and north of the Project site; and
- Ocean View Boulevard borders the coastal scrub habitat to the north of the Project site.

6.2.1.1 History of the Site

The following information is from the Annual Dune Restoration and Monitoring Report, City of Pacific Grove Golf Course at Point Pinos Pacific Grove, California (Rana Creek Restoration 2012). The Point Pinos Lighthouse Reservation has been owned by multiple entities since the mid-1800s. Until recently, the United States Coast Guard (USCG), which inherited the property from the disestablished U.S. Lighthouse Service in 1939, owned the property and maintained a licensing agreement with the City for the operation of the municipal golf course. The property was transferred from the USCG to the City on August 23, 2006 and involved approximately 66 acres of land and improvements. During several years proceeding and leading up to the property transfer, certain protective measures were initiated to ensure that golf course and lighthouse operations carried out by the City were designed to protect and enhance the dune habitat and the State and Federal listed species associated with the site. Such measures included preparation of the May 17, 2004 Biological Assessment (BA), which was prepared in connection with the formal consultation process conducted by the United States Fish and Wildlife Service (USFWS) in order to comply with Section 7 of the Endangered Species Act of 1973. The formal consultation resulted in preparation of the Biological Opinion (USFWS 2005), which referenced the 2004 BA and mandated restoration of the dune areas specifically described in that document.

Restoration and monitoring activities at the site have been conducted in accordance with the site-specific Biological Assessment and Restoration of Dune Habitat Plan (May 17, 2004) and the Biological Opinion for Transfer of Surplus Property from Federal to City Ownership at Light Station Point Pinos, dated June 2, 2005 (Biological Opinion). In addition, restoration activities have been also performed under California Department of Fish and Game (CDFG) Management Memorandum of Understanding (MOU) No. 2081(a)- 11-01-M.

The original habitat at Point Pinos has been modified extensively over the past century as a result of construction of the historic Point Pinos Lighthouse, construction of roads, the former sewage treatment facility/regional water collection system, introduction of non-native iceplant and other exotic species, and grading associated with golf course construction. The nine golf course holes associated with the site were reportedly constructed between approximately 1957 and 1960 with various improvements and modifications occurring during subsequent years (Yadon and others, 1997).

Early descriptions of the Point Pinos area indicated the presence of a combination of foredunes[1] and Monterey Pine forest in the area where the Point Pinos Lighthouse and golf course currently exist. Lesser quantities of Northern Foredune Grassland, Northern Dune Scrub, and Northern Coastal Bluff Scrub were also reportedly present. Before initiation of the current dune restoration project, remnants of the original Northern Foredune habitat were reportedly evident amongst the extensive carpet of iceplant. The most dominant remaining native plants included mock heather (*Ericameria ericoides*), beach sagewort (*Artemesia pycnocephala*), pink sand verbena (*Abronia umbellata),* beach primrose (*Camissonia cheiranthifolia*), and seaside daisy (*Erigeron glaucus)* (Yadon and others, 1997).

Additionally, existing populations of listed plant species were surveyed and mapped during spring 2001. These included a substantial population of Tidestrom's lupine, six Monterey spineflower, and five Menzies' wallflower plants. In addition to being one of the State and Federal listed species at the site, the current presence of Menzies' wallflower at Point Pinos is notable because the plant was reportedly first collected at the site by Archibald Menzies during the Vancouver Expedition of the late 1700s, thereby earning Point Pinos the designation of type locality for the species (Yadon and others, 1997). Monterey spineflower has been reintroduced to the site as of 2011 from seed collected on a portion of the Point Pinos Lighthouse Reservation that lies west of Sunset Drive and outside of the area designated for restoration under the 2004 BA and 2005 Biological Opinion. Suitable habitat is also present for beach layia (Layia carnosa), although this species has never been observed at the site.

6.2.2 Survey Methodology

As stated above, an initial reconnaissance-level survey was conducted on July 18, 2013 by DD&A biologists. The reconnaissance-level survey was conducted to prepare a biological constraints memo during the preliminary phases of the Project. Habitats within the Project site were characterized in the field to assess potential Project-related impacts to wildlife and wildlife habitats and for potential occurrences of special-status plant and wildlife species.

Additional biological surveys, including a floristic survey, were conducted at the Project site on May 13, 2014. Both of these documents are included in this EIR as Appendix C. Survey methods included walking the survey area and using aerial maps to identify general habitat types and potential sensitive habitats, and conducting a focused survey of appropriate habitat for special-status plant species. Concurrently, a reconnaissance-level wildlife habitat survey was conducted to identify suitable habitat and observe any special-status wildlife species. Available reference materials were reviewed prior to conducting the field surveys, including the California Department of Fish and Wildlife's (DFW) California Natural Diversity Database (CNDDB) occurrence reports (DFW, 2014), U.S. Fish and Wildlife Service (Service or USFWS) list of Federally Listed Threatened and Endangered Species that May Occur in Monterey County (USFWS 2014), and aerial photographs of the Project site. The Project site was surveyed for botanical resources following the applicable guidelines outlined in the Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants (USFWS 2000), Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (DFW 2009), and California Native Plant Society (CNPS)

[1] Foredunes are low sand hummocks directly inland from the beach that are held together by plant material. (Barbour, Keeler-Wolf, and Schoenherr 2008)

Botanical Survey Guidelines (CNPS 2001). Reference populations for special-status plant species with the potential to occur on the Project site were checked periodically to ensure that the botanical survey was conducting during the appropriate blooming period.

6.2.3 Habitat Types

Two habitat types were observed during Project site surveys—ruderal/developed and Monterey Cypress grove. Project pipelines traverse existing rights-of-way/pipeline corridors within the City of Pacific Grove Municipal Golf Links, which is also considered a "developed" habitat (Figure 6-1). A brief description of these habitats can be found below, along with a statement of the presence or potential presence of special-status species.

6.2.3.1 Ruderal/Developed

Ruderal/developed areas are those areas that have been disturbed by human activities and are dominated by non-native annual grasses and other "weedy" species. A majority of the site is classified as ruderal/developed habitat. The City owns and operates the Project site as a secondary corporation yard, a maintenance yard for golf course operations, and truck fill station for street and sewer maintenance. The City collects and stores groundwater seepage in the existing WWTP clarifier and digester tanks for use by street sweeping trucks, sewer pipeline flushing, and for construction water. The two large tanks of the retired WWTP facilities and heavily traveled dirt driveways dominate the site. Previously excavated construction materials and spoils are currently stored around the driveways and fill material is stockpiled in the northwestern corner of the site.

While most of this habitat is dominated by bare ground, there are areas of vegetation. Dominant species found within these vegetated areas include; black mustard (*Brassica nigra*), rip-gut brome (*Bromus diandrus*), kikuyu grass (*Pennisetum clandestinum*), and slender oat (*Avena barbata*). Non-dominant plant species observed within this habitat type include; New Zealand spinach (*Tetragonia tetragonioides*), milk thistle (*Silybum marianum*), iceplant (*Carpobrotus edulis*) and tocalote (*Centaurea melitensis*). For a complete list of the plants identified on the Project site, please refer to Appendix C.

Wildlife species that thrive in urbanized and disturbed areas that may utilize this habitat include the American crow (*Corvus brachyrhynchos*), California ground squirrel (*Otospermophilus beecheyi*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), western scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), coast range fence lizard (*Sceloporus occidentalis bocourtii*), and rock pigeon (*Columba livia*). This habitat type is considered to have a low biological value, as it is generally dominated by non-native plant species and consists of relatively low quality habitat from a wildlife perspective.

No special-status plant species were observed within ruderal/developed habitat and none are expected to occur. No special-status wildlife species were observed within this habitat type and none are expected to occur.

6.2.3.2 Monterey Cypress Grove

A grove of mature Monterey cypress trees surround the ruderal/developed habitat, within and along the boundary of the Project site. Due to the dense nature of the cypress trees, few other plant species exist within this habitat type. Common wildlife species listed above for

ruderal/developed habitat would also utilize this habitat type. Avian species including song sparrow (*Melospiza melodia*), western scrub jay, American goldfinch (*Spinus tristis*), western tanager (*Piranga ludoviciana*), spotted towhee (*Pipilo maculatus*) and white crowned sparrow (*Zonotrichia leucophrys*), could utilize this habitat type for nesting and foraging. Additionally, raptors such as red-tailed hawks (*Buteo jamaicensis*) and red-shouldered hawks (*Buteo lineatus*) could use this habitat as nesting habitat.

Native Monterey cypress is a CNPS List 1B.2 plant, which is treated as special-status species in accordance with CEQA Guidelines Section 15380. Only two native stands of Monterey cypress are found on the Monterey Peninsula, located at Point Lobos and Pebble Beach. All other stands of Monterey cypress, including those that were identified on the Project site, are assumed to have been planted as landscape trees. Therefore, the Monterey cypress located at the Project site would not be classified as a special-status plant species.

Figure 6-1: Habitat Types Within PGLWP Site

No other special-status plant species were observed within this habitat type and no special-status plant species are expected to occur. No special-status wildlife species were observed within this habitat type within the Project site. Nesting raptors and other migratory bird species, which are protected under the MBTA and Fish and Game Code, could however utilize this habitat type for nesting.

6.2.4 Special Status Species

In general, special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Section 15380 are also considered special-status species. Animals on the DFW's list of "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. The DFW also includes some animal species that are not assigned any of the other status designations in the CNDDB "Special Animals" list. The DFW considers the taxa on this list to be those of greatest conservation need, regardless of their legal or protection status.

Published occurrence data within the survey area and surrounding USGS Quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the Project site. These species were evaluated for their likelihood to occur within and immediately adjacent to the Project site. The special-status species that are known to, or have been determined to have a moderate or high potential to occur within or immediately adjacent the Project site are discussed below and in the impacts and mitigation section of this EIR. All other species are presented in Appendix C and are "unlikely to occur" or have a low potential to occur and are unlikely to be impacted.

6.2.4.1 Special-Status Wildlife Species

The Project site and adjacent areas were evaluated for the presence or potential presence of a variety of special-status wildlife species. The following species are discussed due to their moderate or high potential to occur or known presence within the Project site and potential to be impacted by the proposed Project. All other species presented in Appendix C are "unlikely to occur" or have a low potential to occur but are unlikely to be impacted by the proposed Project for the species-specific reasons presented.

Nesting Raptor, Migratory Birds, and Other Protected Avian Species

Raptors and their nests and migratory birds are protected under Fish and Game Code and the MBTA. While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent evaluation and discussion. Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest habitats, as well as open grasslands, are used most frequently for nesting. Breeding occurs from February through August, with peak activity occurring during May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and along habitat edges. Various species of raptors (such as red-tailed hawk, red-shouldered hawk,

American kestrel (*Falco sparverius*), and turkey vulture (*Cathartes aura*)) have a potential to nest within any of the Monterey cypress trees that are on the property line and within the Project site. Additionally, migratory bird species that may be present within the Project site include, but are not limited to, western tanager, song sparrow, western scrub jay, American goldfinch, spotted towhee and white crowned sparrow.

6.2.4.2 Special-Status Plant Species

Plants listed as rare under the California Native Plant Protection Act (CNPPA) or on CNPS lists are also treated as special-status species in accordance with CEQA Guidelines Section 15380. In general, DFW considers plant species on List 1 (List 1A [Plants presumed extinct in California] and List 1B [Plants rare, threatened, or endangered in California and elsewhere]), or List 2 (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2014) as qualifying for legal protection under the abovementioned CEQA Section 15380[2] In addition, species of vascular plants, bryophytes, and lichens listed as having special-status by DFW are considered special-status plant species (DFW, 2011).

The Project site and adjacent areas were evaluated and surveyed for the presence or potential presence of a variety of special-status plant species (Appendix C). Floristic surveys were conducted at the Project site and surrounding area as described in the "Methods" section above. No special-status plant species were observed at the Project site during focused surveys and none are expected to occur.

6.2.4.3 Sensitive Habitats

Sensitive habitats include riparian corridors, wetlands, habitats for legally-protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the CNDDB's working list of high priority and rare natural communities (i.e., those habitats that are rare or endangered within the borders of California) (DFW, 2010b), those that are occupied by species listed under ESA or are critical habitat in accordance with ESA, and those that are defined as Environmentally Sensitive Habitat Areas (ESHA) under the California Coastal Act (CCA). Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the Clean Water Act [CWA] and Executive Order 11990 – Protection of Wetlands), state regulations (such as CEQA and the DFW Stream and Lakebed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

The Project site was evaluated for sensitive habitats during the two biological survey efforts. No sensitive habitats were observed during the Project site surveys and none are expected to occur. In addition, the Project site is not designated as ESHA per the City of Pacific Grove Local Coastal Program (LCP) Land Use Plan.

[2] Species on CNPS List 3 (Plants about which we need more information - a review list) and List 4 (Plants of limited distribution - a watch list) may, but generally do not, qualify for protection under this provision.

6.3 REGULATORY SETTING

6.3.1 Federal Regulations

Migratory Bird Treaty Act

The MBTA of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the U. S. Department of Interior. Most actions that result in "take", which is defined by the ESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species. Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction)" or in permanent or temporary possession of a protected species constitute violations of the MBTA. The Service is responsible for overseeing compliance with the MBTA and implements Conventions (treaties) between the United States and four countries for the protection of migratory birds – Canada, Mexico, Japan, and Russia. The Service maintains a list of migratory bird species that are protected under the MBTA, which was updated in 2010 to: 1) correct previous mistakes, such as misspellings or removing species no longer known to occur within the United States; 2) add species, as a result of expanding the geographic scope to include Hawaii and U.S. territories and new evidence of occurrence in the United States or U.S. territories; and 3) update name changes based on new taxonomy (USFWS 2010).

The MBTA protects the majority of migrating birds breeding in the U.S., regardless of their official federal or state listing status under the ESA or CESA. The law applies to the disturbance or removal of active nests occupied by migratory birds during their breeding season. It is specifically a violation of the MBTA to directly kill or destroy an occupied nest of any bird species covered by the MBTA. DFW Code Section 3503 protects the nest and eggs of native non-game birds. Under this law, it is unlawful to take, possess, or destroy any such birds or to take, possess, or destroy the nests or eggs of any such bird. The DFW Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Most of the birds observed or with the potential to occur within the Project site are protected under both the MBTA and CDFG Code Section 3503.

6.3.2 State Regulations

California Fish and Game Code

Birds: Section 3503 of the Fish and Game Code states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3503.5 prohibits the killing, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey). Section 3511 prohibits take or possession of fully protected birds. Section 3513 prohibits the take or possession of any migratory nongame birds designated under the federal MBTA. Section 3800 prohibits take of nongame birds.

Species of Special Concern: As noted above, the DFW also maintains a list of animal "species of special concern." Although these species have no legal status, the DFW recommends considering these species during analysis of project impacts to protect declining populations and avoid the need to list them as endangered in the future.

6.3.3 Local Regulations

City of Pacific Grove Municipal Code

The City of Pacific Grove Municipal Code (PGMC) Chapter 12.20 requires approval and permit procurement for the removal or substantial pruning of a "protected tree". Conditions of the permit may require that "protected trees" planned for significant pruning or removal be replaced at a ratio determined by the City arborist. "Protected trees" are defined by five categories:

1. Native Trees. All gowen cypress, regardless of size; all coast live oak, Monterey cypress, Shore pine, torrey pine, and Monterey pine six inches or greater in trunk diameter, measured at 54 inches above native grade.
2. All Other Private Trees. In addition to definition (1) of this section, all other trees on private property, regardless of species, 12 inches or greater in trunk diameter, measured at 54 inches above native grade.
3. Monarch Butterfly Habitat Trees. All trees in or within 100 yards of designated Monarch sanctuaries. For the purposes of this title, the following sites are designated as Monarch sanctuaries, serving as official Pacific Grove Monarch butterfly over-wintering sites:
    a. Monarch Grove Sanctuary. That portion of land bordered on the east and west by Ridge Road and Grove Acre Avenue, respectively, on the south by Short Street, and on the north by the northerly boundary of assessor's parcel numbers 006-361-30-031, -032, -033, and -034, extended from Grove Acre easterly to Ridge Road.

    b. Washington Park Site. That portion of land bordered on the east and west by Alder Street and Melrose Avenue, respectively, on the north by Pine Avenue, and on the south by the imaginary extension of Junipero Avenue westerly from Alder to Melrose.

4. Public Trees. All trees on public property six inches or greater in trunk diameter, measured at 54 inches above native grade, and all street trees, regardless of size.
5. Designated Trees. All trees that are otherwise protected and would be impacted as a result of development, both proposed for pruning or removal and where the development would impact the critical root zone of the tree that requires protection during construction, and all trees otherwise identified – during development or otherwise – for special protection by the property owner.

City of Pacific Grove Local Coastal Program (LCP) Land Use Plan

The City of Pacific Grove LCP contains policies protecting land designated in the coastal zone and designated as ESHA. Chapter 3.4 of the LCP contains these specific policies and defines the lands that are designated as ESHA. The Project site is located in the coastal zone, however, it is not designated as ESHA.

Habitat Conservation Plan or NCCP

There are no adopted Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP) associated with the Project site.

6.4 STANDARDS OF SIGNIFICANCE

In accordance with CEQA Guidelines, a project impact would be considered significant if the proposed Project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance;
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan; or
- impede the use of native wildlife nursery sites or directly harm nesting species protected under the provisions of the Migratory Bird Treaty Act.

6.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. Detailed evaluations of the impacts of the proposed Project (Demand Group I) are addressed in the project-level analysis below. The program-level analysis is prepared for Demand Groups II and III. This program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review.

Impact 6-1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact 6-2: Impede the use of native wildlife nursery sites or directly harm nesting species protected under the provisions of the Migratory Bird Treaty Act?

Project-Level Impact Analysis

Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) could result in harm, injury, or death of individual birds, or abandonment of an active nest within the Monterey cypress trees surrounding the site. These

trees provide nesting habitat for protected avian species. If a raptor or other migratory bird, regardless of its federal or state status, were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws and thus is a **potentially significant impact**.

According to the Arborist's report (Cypress Tree Assessment 2014), "pruning is recommended to clear away overgrown limbs to find and make a determination for trees that present a clear and present danger for surrounding areas. Type of pruning of each tree shall be determined on a case-by-case basis and supervised by a certified arborist. Overall pruning would consist of lower limb removal, dead wooding, and some crown thinning. It is important to get tree limb weight over center and to minimize thick heavy and tall crown sails. Many of the trees viewed on site are in need of intense crown reduction and deadwood removal. There was also a case of the tallest tree appearing to have root plate movement that would need drastic crown reduction and thinning. Should the health and vigor of any tree decline, it would be treated as appropriately recommended by a certified arborist or qualified forester."

Project-Level Mitigation Measures

Biological Resources Mitigation Measure 1: Construction activities that may directly (e.g., vegetation removal) or indirectly affect (e.g., noise/ground disturbance) protected nesting avian species would be timed to avoid the breeding and nesting season. Specifically, vegetation and/or tree removal can be scheduled after September 16 and before January 31. Alternatively, a qualified biologist would be retained by the City to conduct pre-construction surveys for nesting raptors and other protected avian species within 300-feet of proposed construction activities if construction occurs between February 1 and September 15. Pre-construction surveys would be conducted no more than 14 days prior to the start of construction activities during the early part of the breeding season (February through April) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May through August). Because some bird species nest early in spring and others nest later in summer, surveys for nesting birds may be required to continue during construction to address new arrivals, and because some species breed multiple times in a season. The necessity and timing of these continued surveys would be determined by the qualified biologist based on review of the final construction plans and in coordination with the Service and DFW, as needed.

If raptors or other protected avian species nests are identified during the pre-construction surveys, the qualified biologist would notify the City and DB contractor, and an appropriate no-disturbance buffer would be imposed within which no construction activities or disturbance should take place (generally 300 feet in all directions for raptors; other avian species may have species-specific requirements) until the young of the year have fledged and are no longer reliant upon the nest or parental care for survival, as determined by a qualified biologist.

Significance after mitigation: Less than significant

Program-Level Impact Analysis

The Project pipeline alignments and other appurtenances as proposed to serve Demand Groups II and III have not been specifically surveyed at this time. As stated elsewhere in this EIR,

subsequent project-level CEQA analysis would be required before any project within Demand Groups II and/or III is approved. The mitigation measures as listed above would be applied to any subsequent work to install the recycled water components for these two Demand Groups.

Significance after mitigation: Less than significant

Impact 6-3: Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

The Monterey cypress trees that surround the Project site are "protected trees", as defined by the PGMC Chapter 12.20. Therefore, any large trimming affecting any one tree by more than 25%, or any removal of any cypress tree could result in a **potentially significant impact.** A permit is not required for pruning of less than 25% of the live branches of the entire tree within a 12-month period; and/or cutting or removal of any live limb with a diameter less than six inches or a circumference less than 19 inches at any point on such limb, or cutting or removal of roots less than four inches in diameter.

Biological Resources Mitigation Measure 2: The arborist hired by the City would adhere to the permitting procedures detailed in this Municipal Code Chapter. The arborist would apply for a tree removal/pruning permit from the City. All actions associated with "protected trees" would be conducted under the supervision of the City arborist, as stated in the PGMC.

The City will select a competent arborist who is well versed in Monterey cypress growth characteristics. Pruning would be focused on the larger canopied trees and those trees that have either deadwood or are exhibiting some structural defect or minor disease that must be compensated. Those trees that require most pruning are the closest to the compound entrance (north east property corner), compound work areas, and adjacent parking and restroom structure located along the western property line). Trees shall be monitored on occasion for health and vigor after pruning. Should the health and vigor of any tree decline it would be treated as appropriately recommended by a certified arborist or qualified forester (Cypress Tree Assessment 2014).

Significance after mitigation: Less than significant

Program-Level Impact Analysis

The above listed mitigation measure would be applied in each time protected trees need to be trimmed, as defined by PGMC Chapter 12.20. Application of this measure would ensure impacts to protected trees are either avoided or reduced to less than significant levels.

Significance after mitigation: Less than significant

6.6 EFFECTS NOT FOUND TO BE SIGNIFICANT

6.6.1 Impacts to Special-Status Plant and Animal Species

The Project site contains Monterey cypress trees along its boundary. Native Monterey cypress is a CNPS List 1B.2 plant, which is treated as special-status species in accordance with CEQA Guidelines Section 15380. Only two native stands of Monterey cypress are found on the Monterey Peninsula, located at Point Lobos and Pebble Beach. All other stands of Monterey

cypress, including those that were identified surrounding the Project site, are assumed to have been planted as landscape trees. Therefore, the Monterey cypress located at the Project site would not be classified as a special-status plant species. As such, the impact to special-status plants species is considered less-than-significant. Monterey cypress is protected under the PGMC and is discussed in detail, above, under Biological Mitigation Measure 2. No other special status plant species exist on the Project site or within the pipeline corridors that would serve Demand Groups II and III. In addition, no special status animal species, either terrestrial or aquatic, exist on the Project site or within the pipeline corridors that would serve Demand Groups II and III. Project-specific biological assessments would be prepared for any subsequent portion of the Project to serve Demand Groups II or III.

6.6.2 Impacts to Riparian Habitat and Other Sensitive Natural Communities

No sensitive habits were observed on the Project site or the adjacent areas. As such, there would be no impact to riparian and other sensitive habitat.

6.6.3 Impacts to Wildlife Movement and Nursery Sites

Implementing the Project may result in a minor loss of Monterey cypress trees due to planned trimming. These trees provide habitat for avian species including song sparrow (*Melospiza melodia*), western scrub jay, American goldfinch (*Spinus tristis*), western tanager (*Piranga ludoviciana*), spotted towhee (*Pipilo maculatus*) and white crowned sparrow (*Zonotrichia leucophrys*). Additionally, raptors such as red-tailed hawks and red-shouldered hawks could use these trees for nesting. However, during site visits, these species were not identified as utilizing these trees as habitat. Therefore, trimming the trees is not expected to result in significant impacts on wildlife movements. In addition, the implementation of Biological Mitigation Measure 1, which requires preconstruction surveys to determine if avian and terrestrial species would be present, would avoid or reduce any negative effects from the tree trimming.

6.6.4 Conflict with the Provisions of a Habitat Conservation Plan

The Project is not located within the boundaries of any adopted Habitat Conservation Plans or Natural Community Conservation Plans. The Project would therefore not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional or state habitat conservation plan and no mitigation is required.

6.6.5 Degradation of Water Quality in Seasonal Creeks, Reservoirs, and Downstream Waters

There are no seasonal creeks, reservoirs, or downstream waters located in the Project site. Project construction would therefore not contribute to the degradation of water quality. As such, the Project would have a less-than-significant impact on federally protected wetlands as defined by Section 404 of the Clean Water Act.

SECTION 7.0 CULTURAL RESOURCES

7.1 INTRODUCTION

This section presents the findings of three documents: 1) Preliminary Review For Potential Historic Resources (Fatal Flaw analysis) of Pacific Grove's former Point Pinos Wastewater Treatment Plant (undated) prepared by Archives & Architecture, Inc., 2) Archaeological Assessment for the Satellite Recycled Water Treatment Plant (SRWTP) at the Former Point Pinos Wastewater Treatment Plant, Pacific Grove, California, prepared by Albion Environmental, Inc. (August 2013), and 3) Phase 1 Archaeological Survey for The City of Pacific Grove Local Water Project, Pacific Grove, Monterey County, California by Archaeological Consulting, Salinas, CA (June 2014). These documents are contained in this EIR as Appendix D.

Fourteen sites, including 12 prehistoric and two historic age sites, have been identified within a 0.5-mi radius of the Area of Potential Effect (APE). Two of the prehistoric sites are mapped in close proximity to the location of the proposed Project. The remainder of the APE does not contain surface evidence of significant historic resources. Excavations within those portions of the APE for the proposed Project (Demand Group I) components would have no effect on these significant historic/cultural resources. However, the paved areas of the proposed Project for all Demand Groups may have buried artifacts or remains that would result in significant impacts. Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant impacts to less than significant levels. The Project pipeline alignments and other appurtenances as proposed to serve Demand Groups II and III have not been specifically surveyed at this time. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, and well as adherence to existing laws and regulations would avoid or reduce significant cultural resources impacts to less than significant levels.

7.2 ENVIRONMENTAL SETTING

The Project APE includes the retired Point Pinos Waste Water Treatment Plant (WWTP), sewer pipelines eastward along Ocean View Boulevard and southeastward across the City of Pacific Grove Municipal Golf Links to Asilomar Avenue, recycled water pipelines across the Golf Links to the northeast corner of Carmelo Cemetery, and a potable water line eastward through Carmelo Cemetery in Pacific Grove, Monterey County, California (see Maps 1 through 5). The Universal Transverse Mercator Grid (UTMG) coordinates for the approximate limits of the Project area are as follows: sewer plant 5.9535/40.5487; sewer lines to the plant, ne end 5.9567/40.5487 se end 5.9560/40.5460, nw ends 5.9560/40.5460; recycled water line se 5.9585/40.5445 to nw 5.9542/40.5488 and near the maintenance facility 5.9642/40.5389; potable water line se 5.9577/40.5445 to nw 5.9555/40.5445, all on the U.S. Geological Survey (USGS) 7.5 minute Monterey Quadrangle (1947; photo-revised 1983).

At the time of the archaeological survey, many parts of the Project APE were under turf, fill and pavement. Soil in and/or adjacent to the Project APE afforded generally fair surface visibility. Soil was visible in areas under the Cypress trees and fence at the retired PPWWTP and near the

maintenance facility, intermittently along the sides of Ocean View Boulevard, in patches in the alignments across the golf course and by the clubhouse, and along the road through El Carmelo Cemetery. Overall, soil visibility supplemented by the results of previous studies was adequate for the reconnaissance surveys conducted as a part of this EIR.

7.3 REGULATORY SETTING

7.3.1 Federal Regulations

Historic properties are protected through the National Historic Preservation Act (NHPA) of 1966, as amended (16 United States Code section 470), and its implementing regulations. Under the NHPA, a historic property is considered significant if it meets the National Register of Historic Places (NRHP) listing criteria at 36 Code of Federal Regulations (CFR) 60.4, as stated below:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:
>
> a) That are associated with events that have made a significant contribution to the broad patterns of our history, or
> b) That are associated with the lives of persons significant in our past, or
> c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
> d) That have yielded, or may likely to yield, information important in prehistory or history.

Section 106 of the NHPA requires that a federal agency with direct or indirect jurisdiction over a proposed federal or federally-assisted undertaking, or issuing licenses or permits, must consider the effect of the proposed undertaking on historic properties. A historical property may include a prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the NRHP maintained by the U.S. Secretary of the Interior. Federal Agencies must also allow the Advisory Council on Historic Preservation (ACHP) to comment on the proposed undertaking and its potential effects on historical properties.

The implementing regulations for Section 106 of the NHPA (36 CFR 800) require consultation with the State Historic Preservation Officer (SHPO), the ACHP, federally recognized Indian tribes and other Native Americans, and interested members of the public throughout the compliance process. The four principal steps are:

- Initiate the Section 106 process (36 CFR 800.3);
- Identify historical properties, i.e., resources eligible for inclusion in the NRHP (36 CFR 800.4);
- Assess the effects of the undertaking on historical properties within the area of potential effect (36 CFR 800.5); and
- Resolve adverse effects (36 CFR 800.6).

Adverse effects on historical properties are often resolved through preparation of a memorandum of agreement or programmatic agreement developed in consultation between the federal agency, the SHPO, Indian tribes, and interested members of the public. The ACHP is also invited to participate. The agreement describes stipulations to mitigate adverse effects on historical properties listed in or eligible for the NRHP (36 CFR 60).

7.3.2 State Regulations

The state of California implements those aspects of the NHPA pertinent to state and local governments through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historical Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the State's jurisdictions.

7.3.3 Local Regulations

Pacific Grove General Plan. The Historic and Archaeological Resources Element of the Pacific Grove General Plan includes specific goals, policies and programs to identify and protect archaeological, paleontological, and historical resources. The policies encourage avoidance of impacts to significant resources, protection of Native American cemeteries, and preservation of shrines and sacred places to the greatest extent feasible. Where avoidance and preservation in place are not feasible, the General Plan requires that Phase 2 and Phase 3 archaeological studies be carried out, as appropriate, and notes that the requirements of CEQA and other state laws would apply.

Pacific Grove Municipal Code. The Pacific Grove Zoning Ordinance (Title 23 of the Pacific Grove Municipal Code (PGMC)) provides development standards that help to ensure the protection and appropriate treatment of historical sites. Title 23.76 includes requirements for the development and alteration of designated historic structures in the City's historic resources inventory.

7.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

7.4.1 Methodology

The methodology used in the preparation of this EIR included three primary steps, as prepared by Archaelogical Consulting, Salinas, CA (June 2014). This methodology is as follows:

1) Background Research

The background research for this Project included an examination of the archaeological site records, maps, and project files of the Northwest Information Center of the California Historical Resources Information System (CHRIS), located at Sonoma State University. In addition, extensive files and maps maintained by Archaelogical Consulting, Salinas, were examined for supplemental information, such as mention of historic or prehistoric resources in the general area.

These literature searches are undertaken to determine the locations of recorded archaeological resources in and near the area of the proposed Project and the scope and findings of previous archaeological projects in the area.

The CHRIS system is established by the California Office of Historic Preservation and the California State University System. The CHRIS are the local repository for all archaeological reports prepared under cultural resource management regulations. A background literature search is required by state guidelines and current professional standards. Following completion of a project, a copy of the report must be deposited with the appropriate Information Center.

2) Native American Consultation

A Sacred Lands File search was initiated with the Native American Heritage Commission. Following its search, the commission recommended consultation with locally-affiliated Native Americans and provided a list of individuals from several bands to contact for that consultation. Initial contact with the listed consultants was made by mail and/or email, followed by telephone calls or additional email if a timely response was not received.

3) Field Reconnaissance

The field reconnaissance, completed by Mary Doane, Patrick Cave and Gina Kay of Archaeological Consulting on June 3, 2014, consisted of a "general surface reconnaissance" of all areas of visible soil in and/or adjacent to the Project APE that could reasonably be expected to contain visible cultural resources and that could be viewed without major vegetation, fill or pavement removal or excavation. Trowel probes were made under the cypress duff at the SRWTP and near Crespi Pond. Pedestrian transects were walked along the lengths of the various pipeline alignments.

7.4.2 Standards of Significance

The City has not formally adopted significance standards for impacts related to cultural and historical resources; therefore the standards listed in Appendix G of the State CEQA Guidelines apply. These are as follows. The proposed Project could have a potentially significant impact on cultural resources if the Project were to:

- Cause substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those interred outside of formal cemeteries.

7.5 IMPACTS AND MITIGATION MEASURES

7.5.1 Results

There are four recorded cultural resources within or immediately adjacent to the Project APE, including the southeastern edge of CA-MNT-127 at the SRWTP, CA-MNT-128 south of Crespi

Pond in the Pacific Grove Golf Links Back Nine, CA-MNT-125 on Asilomar Avenue and at the Golf Clubhouse and El Carmelo Cemetery, and CA-MNT-831 near the golf maintenance facility. CA-MNT-127 (located immediately north of the Project boundary) is a rich occupation midden containing abundant shell and bone. CA-MNT-128 is a shell midden located 100 meters to the south. Historic site CA-MNT-676 is located 100 meters to the southwest; the site is reported to have produced at least six "Indian" and one "white" skeleton as well as hundreds of musket balls. Historic site CA-MNT-674 is the Point Pinos Lighthouse, located about 220 meters to the south. The structure was built in 1885 and is listed on the National Register of Historic Places (#7700312). Portions of the Project that lie along the recorded southern boundaries of archaeological sites CA-MNT-125 and CA-MNT-127 and near the recorded northern boundary of site CA-MNT-128 contain sparse surface evidence of those cultural resources in largely disturbed contexts. There are twenty-five other recorded archaeological resources located within one kilometer of the Project APE (see Attachment 1 in Appendix C, CHRIS documentation).

Several previous reconnaissance studies have included portions of the APE. These are ACRS 1977; Edwards and Breschini 1977; Peak and Associates 1978; Runnings and Haversat 1994; Breschini and Haversat 2005; Farquahar 2013. A description of the four pertinent recorded cultural resources is as follows:

CA-MNT-127, originally surveyed by Fisher in 1935, was recorded by Pilling in 1949 on Point Pinos. This site extends southward to the SRWTP site. Albion's investigation confirmed the presence of prehistoric cultural materials likely associated with previously recorded site CA-MNT-127. Surface artifacts include one ground stone tool, a single chert flake, fire altered rock, and marine shell. Dietary remains (marine shell and mammal bone) were observed to a depth of 60cm below current grade. Details on the nature, extent, depth, and integrity of the deposit are unknown; however, the assemblage is consistent with other prehistoric occupation sites in the vicinity. Subsequently, another site to the east, CA-MNT-397, was included within the boundary of CA-MNT-127. Both sites are now included in the later designation P-27-260. A single radiocarbon date obtained during a recent monitoring of a fence line project within the Project site produced a Measured Radiocarbon Age of 920±60 BP (Doane 2002). 2 Sigma calibration produced an intercept date of AD 1295, well into the Late Period of Prehistoric Occupation of the Monterey Peninsula.

CA-MNT-128 (P-27-261) was originally recorded as a 150'x300' deposit in the dunes of the Lighthouse Reservation northwest of the Lighthouse. During a subsequent survey the deposit was found to extend approximately 100x200 meters in area and up to 143 cm in depth. The site has been subject to considerable disturbance during the development of the Pacific Grove Golf Links.

CA-MNT-125 (P-27-259) was originally recorded by Pilling on the east side of Asilomar Boulevard (then Ocean View Boulevard). Located east of the Lighthouse at the northwestern corner of El Carmelo Cemetery, it was recorded as an occupation site that contained bedrock mortar holes in adjacent rocks. Archaeological testing of the northern portion of the site for the golf course clubhouse reconstruction found evidence of a small occupation site containing shellfish and other faunal remains (Breschini and Haversat 2006). Radiocarbon dating of four shell samples, including an *Olivella* bead (Type E2a), two *Mytilus* (mussel) shells and one *Haliotis* (abalone) shell produced Late Period dates ranging from AD 1440 to AD 1630.

Site CA-MNT-831 (P-27-898) was originally recorded on the western end of the Monarch Pines Mobile Home Park in the old railroad right of way (Morris 1978)(vicinity of pipeline alignment under Demand Group II). Morris stated that the midden was possibly imported because of its location. Subsequent projects within the Monarch Pines property found that a deep and rich subsurface deposit was found on the eastern half of their property (Doane 1999). Monitoring of subsurface trenching in the western part of the property discovered no subsurface cultural materials adjacent to the City of Pacific Grove Golf Links maintenance facility.

The proposed Project area lies within the currently recognized ethnographic territory of the Costanoan (often called Ohlone) linguistic group. Discussions of this group and their territorial boundaries can be found in Breschini, Haversat, and Hampson (1983), Kroeber (1925), Levy (1978), Margolin (1978), and other sources. In brief, the group followed a general hunting and gathering subsistence pattern with partial dependence on the natural acorn crop. Habitation is considered to have been semi-sedentary and occupation sites can be expected most often at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Also, resource gathering and processing areas and associated temporary campsites are frequently found on the coast and in other locations containing resources utilized by the group. Factors that may influence the locations of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones, the presence of specific resources (oak groves, marshes, quarries, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors.

Native American Consultation

A search of the Native American Heritage Commission Sacred Lands File found no recorded Sacred Sites in the proposed Project area (see Attachment 2: Native American Consultation). Katy Sanchez of the Native American Heritage Commission (NAHC) had advised the City that they recommended archaeological and Native American monitoring of all ground disturbing activity in a letter dated April 10, 2014. Correspondence and consultation with several of the Native Americans recommended by the commission elicited concerns about the proposed Project in the vicinity of recorded archaeological sites but no new information specific to the sites themselves. Louise Miranda-Ramirez of the Ohlone/Costanoan-Esselen Nation (OCEN) has concerns about the potential for the discovery of human remains during Project excavations based on a site record noted in a previous report (Edwards and Breschini 1977). However that site, CA-MNT-676, is not within the current Project APE. Mrs. Miranda-Ramirez also requested that a Native American monitor from OCEN be present during all excavations within their aboriginal territory. Michelle Zimmer and Irene Zwierlein of Amah/Mutsun Tribal Band had three recommendations for the Project as follows: 1) cultural sensitivity training for work crews, 2) archaeological monitoring during Project excavations and 3) Native American monitoring of Project excavations. Tony Cerda of the Coastanoan Rumsen Carmel tribe requested to be kept informed of any positive findings of cultural sensitivity in the Monterey area. Follow up voice mails and emails were left with several others on the contacts list, but responses have not yet been received. Any information received after submittal of the draft EIR would be included in the final EIR.

Field Research

SRWTP Site: Except for a few fragments of *Mytilus* (mussel) and *Haliotis* (abalone) shell along the northern perimeter fence, none of the materials frequently associated with prehistoric cultural resources in this area (dark midden soil, eroded marine shell fragments, flaked or ground stone, bone fragments, fire-affected rock, etc.) were observed on the ground surface of the retired PPWWTP. The shell fragments may indicate the inland boundary of site CA-MNT-127. Much of the native soil at the retired PPWWTP has been disturbed previously, both during construction of the sewer facility and the subsequent use of the grounds as a maintenance yard for the past 65 years.

Golf course sewer and recycled water pipeline alignments, SRWTP to Asilomar Avenue (Demand Group I): A fragment of *Haliotis* (abalone) shell was seen near the south end of Crespi Pond. Visibility was extremely limited through the golf course because of fairway turf. No evidence of site CA-MNT-128 was visible on the surface.

Recycled water pipeline, clubhouse parking lot and eastward (Demand Group I): soil is not currently visible due to existing pavement in the parking lot. However, the parking lot area was examined during the recent clubhouse project (Breschini and Haversat 2004 and 2005). No resources were noted in that area when soil was accessible and visible. Although visibility was fair along the recycled waterline alignment east of the parking lot, no evidence of cultural resources was noted there.

Recycled water pipeline alignment, golf course maintenance facility (Demand Group I): No evidence of cultural resources was found in the Project APE. The maintenance facility area has been previously surveyed with negative results (Doane and Haversat 1999).

Potable water pipeline in El Carmelo Cemetery (Demand Group I): Sparse fragments of *Haliotis* shell were noted at the entrance to the cemetery from Asilomar Avenue. These may indicate the southern boundary of site CA-MNT-125. The original site record notes that it is located at the northwestern corner of the cemetery and gives a dimension of 20 yards in diameter.

Ocean View sewer alignment (Demand Group II): Sparse mixed marine shell fragments in a context of imported base rock were noted sporadically along edge of the pavement in the eastern part of the CA-MNT-127 site, the original recorded location of CA-MNT-394.

Impacts and Mitigation Measures

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. Detailed evaluations of the impacts of the proposed Project (Demand Group I) are addressed in the project-level analysis below. The program-level analysis is prepared for Demand Groups II and III. This program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review.

Impact 7-1: Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

Impact 7-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Impact 7-3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

Impact 7-4: Disturb any human remains, including those interred outside of formal cemeteries.

Project-Level Impact Analysis

Portions of the Project APE, which lie along the recorded southern boundaries of archaeological sites CA-MNT-125 and CA-MNT-127 and near the recorded northern boundary of site CA-MNT-128, contain sparse surface evidence of those cultural resources in largely disturbed contexts. Previous radiocarbon dating has placed two of these sites, CA-MNT-125 and CA-MNT-127, within the Late Period of Prehistoric Occupation. Site CA-MNT-128 has been subject to no testing or data recovery mitigation previously. The remainder of the APE does not contain surface evidence of significant historic resources. Excavations within those portions of the APE would have **no effect** on significant historic/cultural resources.

The current paved environment precludes further examination of the APE under Ocean View Boulevard and the portions of the sewer treatment facility that would be subject to direct Project impacts. Previous sewer trenching, sewer facility development, road grading and golf course development has caused significant previous disturbance in portions of the Project APE nearest to the identified archaeological sites. Nevertheless, remnants of undisturbed archaeological soil associated with the archaeological sites may remain in and/or near the Project APE. Therefore, installation of the SRWTP and appurtenances within the APE could result in **a potentially significant impact.**

Project-Level Mitigation Measures

1. The City of Pacific Grove would perform an extended Phase 1 survey to determine the presence/absence of site CA-MNT-128 within the sewer and recycled water alignment APE in the golf course between Asilomar Avenue and the SRWTP. This subsurface survey most likely would involve augering the length of the sewer and recycled water pipeline alignment APE through the golf course between Asilomar Avenue and the SRWTP. All recommendations contained in the extended Phase 1 survey would be implemented by the City.

2. A qualified archaeological monitor would be present during all Project excavations in the SRWTP, for the Ocean View Boulevard sanitary sewer pipeline, for the sewer pipeline and recycled water pipes between the SRWTP and Asilomar Avenue, and in El Carmelo Cemetery. The monitor would document and recover any potentially significant cultural materials that may be found in the excavated soil. If it is determined by the archaeological monitor, excavated soil may be screened to assist in such data recovery.

3. If, at any time, previously undisturbed midden containing potentially significant cultural materials or features is encountered, work shall be halted until the monitor and/or the principal archaeologist have evaluated the discovery. If the find is determined to be

significant, an appropriate data recovery mitigation shall be developed and implemented with the concurrence of the Lead Agency.

Because of the possibility of unidentified (e.g., buried) cultural resources being found during any ground-breaking or construction activity, the following standard language be included in any permits issued for the Project area:

4. If archaeological resources or human remains are unexpectedly discovered during construction, work shall be halted on the Project parcel until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated, with the approval of the lead agency, and implemented.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

The Project pipeline alignments and other appurtenances as proposed to serve Demand Groups II and III have not been specifically surveyed at this time. As stated elsewhere in this EIR, subsequent project-level CEQA analysis would be required before any project within Demand Groups II and/or III is approved. The mitigation measures as listed above would be applied to any subsequent work to install the recycled water components for these two Demand Groups.

Significance after mitigation: Less than significant.

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SECTION 8.0 GEOLOGY AND SOILS

8.1 INTRODUCTION

This section presents the findings and recommendations contained in the Geotechnical Investigation Pacific Grove ASBS Stormwater Management Project (Pacific Geotechnical Engineering August 2013) (Appendix G) as these findings relate to the proposed Project site. As a mitigation measure, the construction contractor would follow all recommendations contained within this Geotechnical Report. In addition, all structures associated with the proposed Project (Demand Group I) would be designed and constructed in adherence with the standards as set forth in the City of Pacific Grove's (City) Standard Specifications, the current California Building Code (CBC 2010) and the National Electrical Safety Code (American National Standards Institute [ANSI] C.2). Adherence to these standards ensures structures would be able to withstand anticipated seismic events, that expected seismic activity would not result in significant damage or harm to the public, and that all Demand Group I tank retrofitting, trenching and engineered fills would be constructed to avoid impacts from geologic hazards.

The exact location of the pipelines and appurtenances in Demand Groups II and III are not yet known, therefore mitigation is proposed that would include preparation of a subsequent Geotechnical Investigation by a licensed geotechnical engineer at the time of CEQA review. All practicable precautions would be taken to design and construct Project facilities to withstand the projected ground shaking associated with the most probable magnitude earthquake (MPE) in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche), and exposure to unstable geologic features and/or expansive soils. Therefore, impacts related to rupture of a known earthquake fault, strong groundshaking, seismic-related ground failure including liquefaction, or landslides and expansive soils are not expected.

8.2 Environmental Setting

8.2.1 Topography and Geology

Topography. The topography of Pacific Grove peaks near the City boundary with the Presidio of Monterey and slopes gently north and west toward Monterey Bay and the Pacific Ocean. Only a relatively small portion of the City contains slopes over 30 percent: Calabrese Canyon, some coastal bluffs, Benito Avenue, Piedmont Avenue, Hillside Avenue, Adobe Lane, and Syida Drive. The ocean and bay shore to the north and west of the City are subject to weathering, erosion, and deposition of rocks and sand from both ocean winds and waves. Those portions of Ocean View Boulevard adjacent to a steep drop to sea level are protected by retaining walls (City of Pacific Grove, 1994).

The elevation of the proposed Project site ranges from approximately 20 feet above mean sea level (amsl) to approximately 25 feet amsl. The City of Pacific Grove Golf Links is generally flat with minor undulations in the fairways, roughs and areas of restored native vegetation.

Geology. California is divided into eleven geomorphic provinces. These provinces are naturally defined geologic regions that display a distinct landscape or landform. Each region displays unique, defining features based on geology, faults, topographic relief and climate. As defined by the California Geological Survey (CGS), the Project site is located within the Coast Ranges Geomorphic Province of California

(CGS, 2002). Pacific Grove's shoreline is dominated by exposed granitic rock that forms a relatively stable and durable barrier that protects shoreline development from the constant barrage of ocean waves. Although wave activity can become intense during winter storms, the Pacific Grove shore has not retreated significantly (City of Pacific Grove, 1994).

The Coast Ranges are northwest-trending mountain ranges and valleys that subparallel the San Andreas Fault. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary rocks. The SRWTP site is located on Younger dune deposits (Qod1), Ocean View coastal terrace (Qcto), and Dune sand deposits (Qd), (USGS, 1997).

Monterey County is situated in a seismically active area, as shown on Figure 8-1. A number of faults traverse the county near the Monterey Peninsula, including the San Andreas Fault, which runs north-south about 28 miles east of Pacific Grove. The San Andreas Fault is considered capable of producing an earthquake with a magnitude of up to 8.5 on the Richter scale (City of Pacific Grove, 1994). The U.S. Geological Survey in 1990 estimated that there is a 67 percent chance of a magnitude 7 or larger earthquake in the San Francisco Bay Area during the next 30 years with an epicenter somewhere between San Jose and Santa Rosa (*ibid*). Two other active fault zones affecting Pacific Grove are the Monterey Bay and the Palo Colorado-San Gregorio Fault Zones. These two areas, both of which have experienced movement along individual fault segments, are separated by the submerged Monterey Canyon. The Monterey Bay Fault Zone is located offshore in the northern and southern areas of the Monterey Bay. The maximum magnitude earthquake likely to be generated by this fault zone is about 6.5, which could generate tsunamis on the Pacific Grove coastline (*ibid*). The Palo Colorado-San Gregorio Fault Zone is a northwest-trending zone located six miles west and south of Pacific Grove. This active fault zone connects the Palo Colorado Fault near Point Sur, south of Monterey, with the San Gregorio Fault near Point Año Nuevo, where it intersects the San Andreas Fault System.

The Palo Colorado-San Gregorio Fault has the capability of producing an earthquake with an estimated maximum magnitude of 7.5 on the Richter scale (*ibid*). There are another 15 potentially active faults within Monterey County (refer to Figure 8-1). Those closest to Pacific Grove are the Navy Fault and Cypress Point Fault. The Navy Fault is a northwest-trending fault that runs through the center of the City of Monterey into Monterey Bay. The Cypress Point Fault also trends northwest, running through the southwestern portion of the Monterey Peninsula, just northeast of Pescadero and Cypress Points. Most faults in Monterey County run parallel to the San Andreas Fault in a northwest direction, and are considered sub-units of the San Andreas Fault System (*ibid*).

San Andreas Fault. The San Andreas Fault is a major structural feature of California. The fault zone is a major strike-slip fault zone that extends for about 684 miles along the western side of California that collectively accommodates the majority of relative north-south motion between the Pacific and North American plates. The San Andreas Fault is capable of producing earthquakes that would cause strong ground shaking at the proposed Project site.

Monterey Bay Fault. The Monterey Bay Fault Zone is located offshore in the northern and southern areas of Monterey Bay. The maximum magnitude earthquake likely to be generated by this fault zone is about 6.5, which could generate tsunamis at the proposed Project site.

Palo Colorado-San Gregorio Fault. The Palo Colorado-San Gregorio Fault Zone is a northwest-trending zone located six miles west and south of Pacific Grove. This active fault zone connects the Palo Colorado Fault near Point Sur, south of Monterey, with the San Gregorio Fault near Point Año Nuevo, where it intersects the San Andreas Fault System. The Palo Colorado-San Gregorio Fault has the

capability of producing an earthquake with an estimated maximum magnitude of 7.5 on the Richter scale.

8.2.2 Soils

There are no agricultural land uses within the Project area. With the notable exception of rock outcrops, soils in Pacific Grove are all sand or sandy loam. The permeability of the soil varies, as does the runoff rate. Erosion hazard is high along the coastline's rock outcroppings. Beach and sand dune areas are particularly susceptible to disturbance. The Soil Survey Geographic Database (SSURGO) was used as the source for the identification of soil classifications. Soils at the proposed Project Site are mapped as Baywood Sand with 2 to 15 percent slopes and Dune Land (NRCS, 2014).

8.2.3 Geologic Hazards

Faulting and Seismically Induced Ground Shaking. The United States Geological Survey (USGS) defines active faults as those that have had surface displacement within Holocene time (approximately within the last 11,000 years). Surface displacement can be recognized by the existence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, sag ponds, and the existence of steep mountain fronts. Active faults as defined by the State Geologist have been designated as Alquist-Priolo Fault Zones and require special regulation and study for projects proposed in these zones. Further discussion of the Alquist-Priolo Earthquake Fault Zoning Act is provided in Section 4.5.1(c) (Regulatory Setting). Potentially active faults are those that have had surface displacement during Quaternary time (the last 1.6 million years). Inactive faults have not had surface displacement within the last 1.6 million years.

Faults generally produce damage in two ways: ground shaking and surface rupture. Ground shaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. Surface rupture is limited to areas very near the fault. The proposed Project is located in a seismically active region and a number of potentially active and active faults are located within its proximity. None of the proposed Project components, however, are located within an Alquist-Priolo Earthquake Fault Zone. No active faults are known to transect the individual Project component sites. The San Andreas Fault is located approximately 28 miles east of Pacific Grove. Two other active fault zones affecting Pacific Grove are the Monterey Bay and the Palo Colorado-San Gregorio Fault Zones, located east and west of the Project area respectively (see Figure 8-1).

***Landslides*.** Landslides and other forms of mass wasting, including mud flows, debris flows, soil slips, and rock falls occur as soil or rock moves down slope under the influence of gravity. Intense rainfall or seismic shaking could trigger landslides. Most areas of Pacific Grove have an extremely low potential for landslides. No significant landslides have been recorded in the City, and with the exception of a few low bluff areas along the waterfront that are used as parks and are protected by retaining walls, no significant areas of landslide susceptibility have been identified. Only a relatively small portion of the city contains slopes over 30 percent: Calabrese Canyon, some coastal bluffs, Benito Avenue, Piedmont Avenue, Hillside Avenue, Adobe Lane, and Syida Drive.

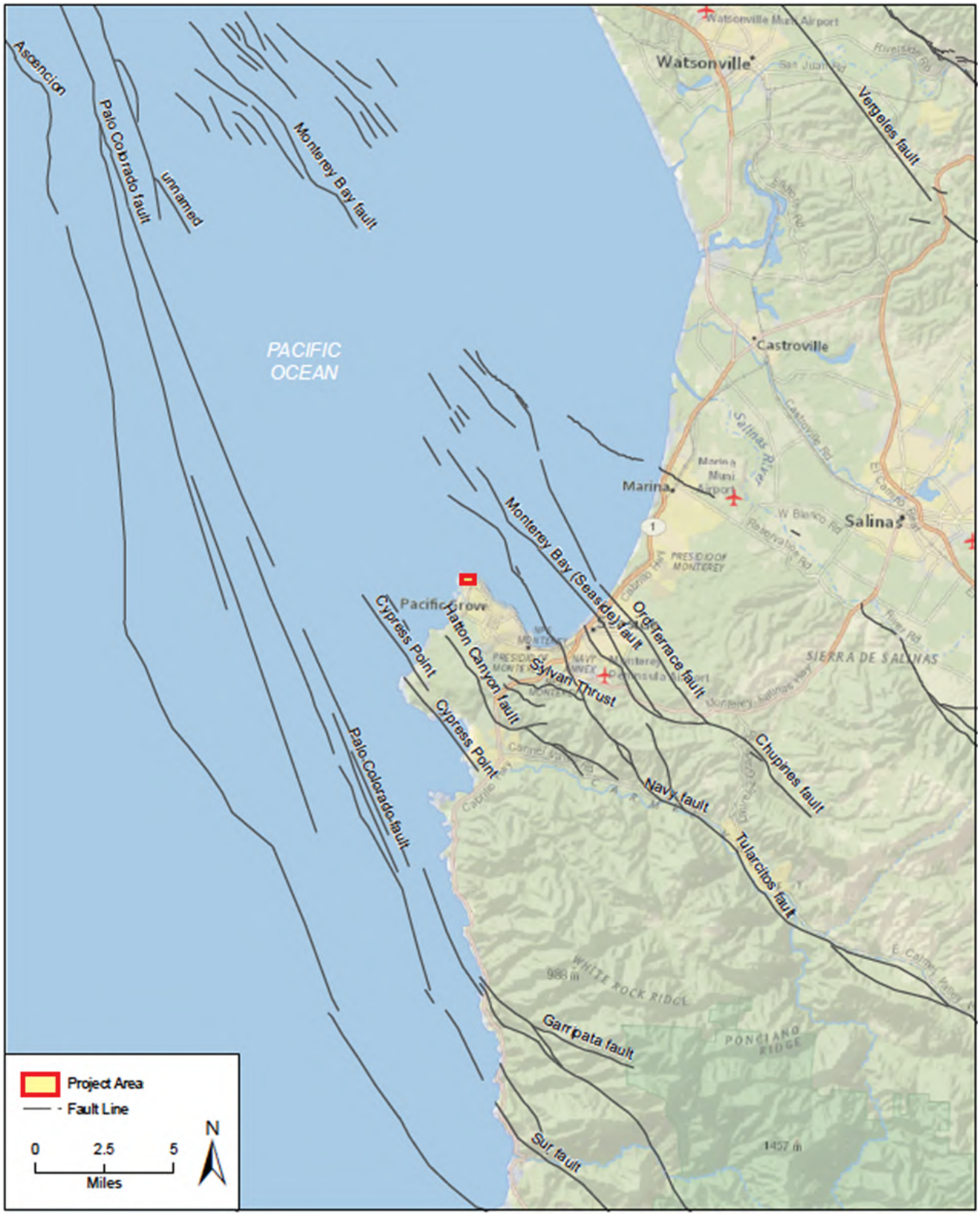

Figure 8-1: Faults Within the PGLWP Area

Liquefaction and Land Subsidence. Liquefaction is the loss of soil strength due to seismic forces acting on water-saturated granular soils. This loss of strength leads to a "quicksand" condition in which objects can either sink or float depending on their density. The potential for liquefaction in Pacific Grove exists primarily in beach and sand dune areas, and in fill areas close to the shoreline. The General Plan indicates the potential for liquefaction is greatest in the Spanish Bay and Asilomar areas.

The Geotechnical Report prepared for this component site (Pacific Geotechnical Engineering, August 2013) indicates that the proposed Project site has low potential for liquefaction because water does not accumulate above the bedrock, but rather drains away rapidly.

In addition, because there is a low potential for liquefaction at the WWTP site, there is a correspondingly low potential of land subsidence in this area of the site.

Expansive Soils. Expansive soils shrink and swell depending on moisture level as the clay minerals in the soil deposits expand and contract. Soils with moderate or high expansion potential are susceptible to shrinking and swelling due to fluctuations in moisture content. This can cause foundation deterioration, pavement damage, cracking of concrete slabs, and shifting of underground utilities. Soil expansion and shrinkage can cause damage to lightly loaded foundations. According to the Monterey Soil Survey, Baywood Sand, Coastal Beaches, and Dune Land soil types have low shrink-swell potential.

Lurch Cracking and Lateral Spreading. Lurch cracking refers to fractures, cracks, and fissures from a few inches to many feet in length produced by groundshaking, settling, compaction of soil, and sliding. In a major earthquake, lurch cracking could result in rippling and fracturing of pavements and curbs, and damage to sewer, gas, and water lines.

Lateral spreading is the horizontal movement or spreading of soil toward an open face such as a stream bank or the open side of fill embankments. In the City, the most likely locations to be affected are improperly engineered fill areas or steep, unstable banks. But because Pacific Grove is situated on stable bedrock, the potential for significant damage from either lurch cracking or lateral spreading is low. Because the Project components are situated on relatively flat or already developed areas underlain by bedrock, the potential for lateral spreading and lurch cracking would be low.

Settlement. Settlement is the vertical compaction of soils and alluvium caused by groundshaking. It may range from a land surface drop of a few inches to several feet, and may occur as far as 75 to 80 miles from the epicenter of an earthquake. Because the Project components are situated on relatively flat or already developed areas underlain by bedrock, the potential for settlement would be low.

Erosion. Project component locations are relatively flat or within existing pipeline right-of-ways that are typically covered with asphalt, thereby having a low potential for erosion.

8.2.4 Minerals

The State Surface Mining and Reclamation Act requires the State Geologist to classify mineral areas in the state, and the State Mining and Geology Board to designate mineral deposits of regional or statewide significance. The Pacific Grove area was evaluated for the presence or likely occurrence of specific mineral deposits based on past mineral production and modern geologic concepts relating to mineral occurrence (City of Pacific Grove General Plan, 1994). Since such large areas of the City are covered with decomposed granite, marine terrace deposits, dune sands, and alluvium, the amount of good material is impossible to determine without detailed drilling and sampling. The deposit is therefore classified as "Mineral Resource Zone (MRZ) - 3, areas containing mineral deposits, the significance of

which cannot be evaluated from available data." As a practical matter, Pacific Grove is nearly built-out, precluding any mineral extraction.

8.3 REGULATORY SETTING

8.3.1 Federal

International Building Code

Published by the International Code Council (ICC), the scope of this code covers major aspects of construction and design of structures and buildings, except for three-story one and two-family dwellings and town homes. The 2006 International Building Code (IBC) replaces the 1997 Uniform Building Code and contains provisions for structural engineering design. Published by the International Conference of Building Officials, the 2006 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

Environmental Protection Agency – Clean Water Act

Stormwater runoff from construction activities can have a significant impact on water quality. As stormwater flows over a construction site, it picks up pollutants like sediment, debris, and chemicals. Polluted stormwater runoff can harm or kill fish and other wildlife. Sedimentation can destroy aquatic habitat and high volumes of runoff can cause stream bank erosion. Under the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) Stormwater program requires operators of construction sites one acre or larger (including smaller sites that are part of a larger common plan of development) to obtain authorization to discharge stormwater under an NPDES construction stormwater permit, and the development and implementation of stormwater pollution prevention plans (SWPPPs) is the focus of NPDES stormwater permits for regulated construction activities.

Most states are authorized to implement the NPDES Stormwater permitting program. The EPA remains the permitting authority in a few states, territories, and on most tribal land. For construction (and other land disturbing activities) in areas where the EPA is the permitting authority, operators must meet the requirements of the EPA Construction General Permit (CGP). In California, Stormwater NPDES General Construction permits are regulated by the SWRCB and administered through the local RWQCB. On non-tribal and non-federal land NPDES actions are overseen by California EPA.

A SWPPP must include a site description, including a map that identifies sources of stormwater discharges on the site, anticipated drainage patterns after major grading, areas where major structural and nonstructural measures would be employed, surface waters including wetlands, and locations of discharge points to surface waters. The SWPPP also describes measures that would be employed, including at least protection of existing vegetation wherever possible, plus stabilization of disturbed areas of site as quickly as practicable, but no more than 14 days after construction activity has ceased.

8.3.2 State

California Building Code (CBC)

The CBC requires, among other things, seismically resistant construction and foundation and soil investigations prior to construction. The CBC also establishes grading requirements that apply to excavation and fill activities, and requires the implementation of erosion control measures such as

mulching and/or hydroseeding bare soils; planting steep slopes as soon as possible after construction; using willow wattles or coir rolls in areas of transition, such as toes of slopes or edges between pervious and impervious surfaces; and constructing projects within the dry season (April 15-October 15) as much as practicable. The City is responsible for enforcing the 2010 CBC.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses geo-seismic hazards, other than surface faulting, and applies to public buildings and most private buildings intended for human occupancy. The City applies these requirements through the Pacific Grove General Plan. The Seismic Hazards Mapping Act identifies and maps seismic hazard zones to assist cities and counties in preparing the safety elements of their general plans and encourages land use management policies and regulations that reduce seismic hazards. The Act mandated the preparation of maps delineating "Liquefaction and Earthquake-Induced Landslide Zones of Required Investigation."

Mineral Resources

The California Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Geologist to classify areas by their mineral content (Mineral Resource Zones). Categories include areas with few or no mineral deposits, areas with significant deposits, and areas containing significant deposits that require further evaluation. Local agencies are required to use the classification information when developing land-use plans and when making land-use decisions.

8.3.3 Local

City of Pacific Grove

Pacific Grove Municipal Code (PGMC) Section 24.06.020 is intended to control the erosion-inducing effects of development. The City also requires that temporary cover or mulching be used to protect bare soil and slopes to mitigate erosion hazards during construction in rainy periods. Infrastructure improvements beneath city roadways would be made in road base, which has been engineered to accommodate utilities and roadways according to standard specifications of the State of California, Department of Transportation pursuant to *City of Pacific Grove Department of Public Works Standard Details for Street Improvements* (2010). Policy 1 of the Health and Safety Element directs the City to "Design underground utilities, including water and natural gas mains, to withstand seismic forces." Consistency with specific Health and Safety Policies that apply to the Project is evaluated in Section 11.0, *Land Use and Planning*.

8.4 STANDARDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, project implementation may result in a significant impact related to geologic resources and soils if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, and seismic related ground failure, including liquefaction or landslides;
- Result in substantial soil erosion or the loss of topsoil;

- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the UBC, creating substantial risks to life or property; or
- Be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

8.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the Proposed Project. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of Demand Group II & III would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the Proposed Project are addressed in the project-level analysis.

Impact 8-1: Would the proposed project expose people to injury or structures to damage from potential rupture of a known earthquake fault, strong groundshaking, seismic-related ground failure including liquefaction, or landslides?

Project-Level Impact Analysis – Demand Group I Facilities

Potential Rupture of a Known Earthquake Fault. Faults generally produce damage in two ways: ground shaking and surface rupture. Ground shaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. Surface rupture is limited to close proximity to the fault. While the proposed Project is located in a seismically active region and a number of potentially active and active faults are located within proximity, no active faults are known to transect the individual Project components. The San Andreas Fault is located approximate 28 miles east of Pacific Grove. The Palo Colorado-San Gregorio Fault Zone is located east and west of the Project area respectively.

Strong Groundshaking. The Project area is located in a seismically active region that could be subject to seismic shaking impacts during earthquakes generated from surrounding active faults in the region.

Seismic-Related Ground Failure Including Liquefaction. The Geotechnical Report prepared for this component site (Pacific Geotechnical Engineering August 2013) indicates that the Point Pinos WWTP Site has low potential for seismic-related ground failure including liquefaction because water does not accumulate above the bedrock, but rather drains away rapidly.

Landslides. The California Geologic Survey Seismic Hazard Zone Map for the Project area indicates the Project site is not located within landslide hazard zone. In addition, pursuant to the City's General Plan, most areas of Pacific Grove have an extremely low potential for landslides.

As a mitigation measure, the construction contractor would follow all recommendations contained within the Geotechnical Report. In addition, the Project would comply with the seismic standards as set forth in the current CBC 2010 and the National Electrical Safety Code (American National Standards Institute [ANSI] C.2). Adherence to these standards would ensure that structures would be able to withstand anticipated seismic events, and that expected seismic activity would not result in significant

damage or harm to the public. Therefore, impacts related to rupture of a known earthquake fault, strong groundshaking, seismic-related ground failure including liquefaction, or landslides are expected to be **less than significant.**

Project-Level Mitigation Measures – Demand Group I Facilities

Geology and Soils Mitigation Measure 1: The construction contractor would follow and implement all recommendations for the retrofit of the existing PGLWP tanks and for construction of utility trenches as contained in the Geotechnical Report (Appendix G of this EIR). These recommendations include earthwork, water tank foundations, concrete slabs on grade, and surface drainage. Earthwork recommendations include clearing and grubbing; excavations, shoring and dewatering; subgrade preparation; material for engineered fill; engineered fill placement and compaction; cut and fill slopes; utility trench excavation and backfill; and wet weather construction. Water tank foundation recommendations include load bearing capacity; settlement; soil resistance to lateral loads; frictional resistance; and side walls of tanks. Recommendations for concrete slabs on grade are also made in this Geotechnical Report, although the Report notes that "none are presently proposed". Because the site is composed of highly erodible dune sand deposits, surface drainage recommendations include establishing positive drainage away from building foundations; concrete slabs on grade and pavements; directing water flow towards suitable collection and discharge facilities; and planting and mulching all disturbed surfaces prior to winter rains.

Significance after mitigation: N/A

Program-Level Impact Analysis – Demand Groups II & III

Proposed facilities and/or pipelines could be subject to seismic events that could damage these facilities and affect reliable use of pipelines. Primary earthquake hazards include damage from ground displacement along a fault zone, severe ground shaking, and induced secondary hazards such as liquefaction, rapid differential settlement, lurching, and landslides. Most earthquake-related hazards would be mitigated by engineering design or avoidance of high hazard areas. In general, the most severe hazard is probably posed by seismic-related ground failure including liquefaction. This a **potentially significant impact.** Implementation of mitigation measures would be required as presented below, and would reduce this impact to **less than significant**.

Program-Level Mitigation Measures – Demand Groups II & III Facilities

Geology and Soils Mitigation Measure 2:

a) At this time, the proposed pipelines and other appurtenances are not near any known Holocene (within the last 10,000 years) faults, but fault movement often occurs on previously unknown or "inactive" faults throughout the State. Therefore, a geotechnical engineering investigation consistent with California geologic and engineering standards would be conducted for Demand Group II and III facilities by a licensed geotechnical engineer. This would be part of any subsequent CEQA review. The geotechnical engineer would prepare a report that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards (including fault rupture and severe secondary effects of earthquakes), along with design criteria and construction methods to effectively construct the proposed Project with an acceptable level of risk. The report would address all geologic and geotechnical factors related to the design and construction of the proposed Project.

b) All practicable precautions would be taken to design and construct Demand Groups II and III facilities to withstand the projected ground shaking associated with the MPE in the area. This includes secondary hazards induced by earthquakes (liquefaction, lurching, lateral spreading, rapid differential settlement, induced landslides, and rock-fall avalanche). The MPE represents the strongest earthquake likely to occur over the design life of the projects. Project structures would be designed using project-specific criteria in accordance with the latest revision of the National Electrical Safety Code (American National Standards Institute [ANSI] C.2), UBC, and CBC.

Significance after mitigation: Less than significant

Impact 8-2: Would construction of the proposed Project involve grading and movement of earth, which could expose soils to erosion and result in the loss of topsoil?

Project-Level Impact Analysis – Demand Group I Facilities

The SWRTP and related pipelines would disturb approximately 0.77 acres. Thus, a SWPPP would not be required. Recommendations included in the Geotechnical Investigation (Geology and Soils Mitigation Measure 1) would be implemented. In addition, construction BMPs established by the City Public Works Department would be required. These construction BMPs require that every construction project have an erosion and sediment control plan to prevent soil and materials from leaving the site. Construction activities must be scheduled so that soil is not exposed for long periods of time, and key sediment control practices must be installed. These practices may include, but are not limited to: perimeter control (use of gravel bags, silt fences, and straw wattles); construction material storage (covered when not in use); dirt and grading measures (daily watering of dirt and travel mounds; covering during the rainy season [October 15 – April 15]); and storm drain measures (use of perimeter controls). Compliance with the Geology and Soils Mitigation Measure 1, and with existing requirements would reduce construction-related erosion impacts to a **less than significant** level.

Project-Level Mitigation Measures – Demand Group I Facilities

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis – Demand Groups II & III Facilities

Construction of the proposed Project (Demand Group I) could result in surface disturbances and removal of vegetation along the pipeline corridor leading to increased soil erosion. Sedimentation into streams and water bodies would likely increase if disturbed soils were left exposed during winter, early spring, and summer storm events (periods of high precipitation, runoff, and winds). Erosion potential is generally more severe on steep, sparsely vegetated slopes; fine sandy or silty soils; and in loose sandy soils where strong winds occur. Erosion potential is also elevated in recently burned areas if such areas remain largely unvegetated, especially in areas with previously existing high erosion potential. Soil erosion is expected to be minimal because a SWPPP and construction BMPs established by the City Public Works Department would be required. Compliance with these existing requirements would reduce construction-related erosion impacts to a **less than significant** level.

Program-Level Mitigation Measures – Demand Group I & III Facilities

None required.

Significance after mitigation: Less than significant.

Impact 8-3: Locate development or structures on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse, or locate development on expansive soils (as defined in Table 18-1-B of the 1994 Uniform Building Code) that may create substantial risks to life or property?

Project-Level Impact Analysis – Demand Group I Facilities

The Geotechnical Investigation prepared for this site indicates near surface soils are sands with a low percentage of fines and that these soils generally have a low potential for expansion (Pacific Geotechnical Engineering, August 2013). Therefore, the impact with respect to shrink-swell potential at the Point Pinos WWTP would be **less than significant**. In addition, the site has a low potential for on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse (Pacific Geotechnical Engineering, August 2013).

Project-Level Mitigation Measures – Demand Groups II & III Facilities

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis – Demand Groups II & III Facilities

The facilities proposed as part of Demand Groups II and III could be located within soils that could be susceptible to unstable geologic structures and expansive soils. These conditions could result in the damage or rupture of the proposed facilities. Therefore, this potential impact is considered **significant**.

Program-Level Mitigation Measures – Demand Groups II & III Facilities

Geology and Soils Mitigation Measure 3: A geotechnical investigation would be required for all facilities and appurtenances within the Demand Groups II and III project areas. The investigation would be consistent with California geologic and engineering standards applicable facilities and prepared by a licensed geotechnical engineer. The geotechnical engineer would prepare a report that summarizes the results of a field investigation, including site inspection and soil testing, potential geologic hazards (including fault rupture and severe secondary effects of earthquakes), along with design criteria and construction methods to effectively construct the proposed Project with an acceptable level of risk. The report would address all geologic and geotechnical factors related to the design and construction of the proposed Project including unstable geologic structures and expansive soils. Implementation of all Findings and Recommendations as contained within any geotechnical report for facilities would avoid impacts or reduce them to **less than significant** levels.

Significance after mitigation: Less than significant.

Impact 8-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (UBC), creating substantial risks to life or property?

Project-Level Impact Analysis – Demand Group I Facilities

The Geotechnical Investigation prepared for this site indicates the near surface soils are sands with a low percentage of fines and that these soils generally have a low potential for expansion (Pacific Geotechnical Engineering, August 2013). Therefore, this is considered **less than significant**.

Project-Level Mitigation Measures – Demand Group I Facilities

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis – Demand Groups II & III Facilities

As stated under Program-Level Impact 8-3, the facilities proposed as part of Demand Groups II and III could be located within soils that could be susceptible to unstable geologic structures and expansive soils. These conditions could result in the damage or rupture of the proposed facilities. Therefore, this potential impact is considered **significant.**

Program-Level Mitigation Measures – Demand Groups II & III Facilities

Implement Geology and Soils Mitigation Measure 8-3.

Significance after mitigation: Less than significant.

Impact 8-5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Project-Level Impact Analysis – Demand Group I Facilities

The proposed Project (Demand Group I) does not include the use of septic tanks or alternative wastewater disposal systems that rely on soil. Therefore, there would be **No Impact**.

Project-Level Mitigation Measures – Demand Group I Facilities

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis – Demand Groups II & III Facilities

The proposed Project (Demand Groups II and III) does not include the use of septic tanks or alternative wastewater disposal systems that rely on soil. Therefore, there would be **No Impact**.

Program-Level Mitigation Measures – Demand Groups II & III Facilities

None required.

Significance after mitigation: N/A

SECTION 9.0 GREENHOUSE GAS EMISSIONS

9.1 INTRODUCTION

The quantity of greenhouse gas (GHGs) emissions that the proposed Project would emit would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Implementation of the proposed Project would result in a less than significant impact associated with conflicts with plans and regulations adopted for the purposes of reducing GHG emissions. The combined short-term construction-related GHG emissions and long-term operational emissions of the Project would emit less than the "zero-equivalency" threshold of 230 metric tons of carbon dioxide equivalent (CO_2e) per year. Projected emissions of Demand Group I are also well below the most stringent thresholds of 1,100 metric tons CO_2e per year. Demand Group II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, which would result in less than significant impacts.

9.2 ENVIRONMENTAL SETTING

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of GHGs that contribute to global warming or global climate change have a broader, global impact. Global warming is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. The primary GHGs of concern are summarized in Table 9-1. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global warming are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria and toxic air pollutants, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree by improved coordination of land use and transportation planning on the city, county, and subregional level, and other measures to reduce automobile use. Energy conservation measures also can contribute to reductions in GHG emissions.

California Greenhouse Gas Emissions Inventory

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4, a highly potent GHG, is largely associated with energy production from natural gas, coal and petroleum, decomposition in landfills, raising ruminant animals, and agricultural practices. N_2O is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, respectively, two of the most common processes of CO_2 sequestration.

Table 9-1: Examples of Greenhouse Gases

	Sources
Carbon dioxide (CO_2)	Fossil fuel combustion in stationary and point sources; emission sources, includes burning of oil, coal, gas. (GWP = 1.0)
Methane (CH_4)	Incomplete combustion in forest fires, landfills, and leaks in natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, and certain industrial processes. (GWP = 25)
Nitrous oxide (N_2O)	Fossil fuel combustion in stationary and point sources; other emission sources include agricultural soil management, animal manure management, sewage treatment, adipic acid production, and nitric acid production. (GWP = 298)
Chlorofluorocarbon (CFC), and Hydro-chlorofluorocarbon (HCFC)	Agents used in production of foam insulation; other sources include air conditioners, refrigerators, and solvents in cleaners. (GWP = 675 to 14,800)
Sulfur hexafluoride (SF_6)	Electric insulation in high voltage equipment that transmits and distributes electricity, including circuit breakers, gas-insulated substations, and other switchgear used in the transmission system to manage the high voltages carried between generating stations and customer load centers. (GWP = 22,800)
Perfluorocarbons (PFCs)	Primary aluminum production and semiconductor manufacturing. (GWP = 7,390 to 12,200)

Source: EPA 2009

California produced 474 million gross metric tons (MMT) of CO_2 equivalent (CO_2e) averaged over the period from 2002-2004. CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 25 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2. Expressing emissions in CO_2e takes the contributions of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2002-2004, accounting for 38 percent of total GHG emissions in the state. This sector was followed by the electric power sector (including both in-state and out-of-state sources) (18 percent) and the industrial sector (21 percent).

California Greenhouse Gas Emissions Projections

Pursuant to the requirements of AB 32, California's Global Warming Solutions Act, the 1990 GHG emissions limit is approximately 430 MMT CO_2e, which must be met in California by 2020. ARB's GHG inventory for all emissions sectors would require an approximate 28 percent reduction in GHG emissions from projected 2020 forecasts to meet the target emissions limit (equivalent to levels in 1990) established in AB 32. The AB 32 Scoping Plan, discussed further below, is ARB's plan for meeting this mandate.

9.3 REGULATORY SETTING

9.3.1 Federal Greenhouse Gas Regulations Supreme Court Ruling

The U.S. Environmental Protection Agency (EPA) is the Federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court ruled in its decision in Massachusetts et al. v. Environmental Protection Agency et al. ([2007] 549 U.S. 05-1120), issued on April 2, 2007, that carbon dioxide (CO_2) is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs.

EPA Actions

In response to the mounting issue of climate change, EPA has taken actions to regulate, monitor, and potentially reduce GHG emissions.

Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, EPA issued a final rule for mandatory reporting of GHGs from large GHG emissions sources in the United States. In general, this national reporting requirement would provide EPA with accurate and timely GHG emissions data from facilities that emit 25,000 metric tons or more of CO_2 per year. This publically available data would allow the reporters to track their own emissions, compare them to similar facilities, and aid in identifying cost effective opportunities to reduce emissions in the future. Reporting is at the facility level, except that certain suppliers of fossil fuels and industrial greenhouse gases along with vehicle and engine manufacturers would report at the corporate level. An estimated 85% of the total U.S. GHG emissions, from approximately 10,000 facilities, are covered by this final rule.

Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Clean Air Act

On April 23, 2009, the EPA published its Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases under the CCA (Endangerment Finding) in the Federal Register. The Endangerment Finding is based on Section 202(a) of the CAA, which states that the Administrator (of EPA) should regulate and develop standards for emission[s] of air pollution from any class of classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. The proposed rule addresses Section 202(a) in two distinct findings. The first addresses whether or not the concentrations of the six key GHGs (i.e., carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perflurorocarbons [PFCs], and sulfur hexafluoride [SF_6]) in the atmosphere threaten the public health and welfare of current and future generations. The second addresses whether or not the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs and to the threat of climate change.

The Administrator proposed the finding that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CCA. The evidence supporting this finding consists of human activity resulting in high atmospheric levels of GHG emissions, which are very likely responsible for increases in average temperatures and other climatic changes. Furthermore, the observed and projected results of climate change (e.g., higher likelihood of heat waves, wild fires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The Administrator also proposed the finding that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. The proposed finding cites that in 2006, motor vehicles were the second largest contributor to domestic GHG emissions (24 percent of total) behind electricity generation. Furthermore, in 2005, the U.S. was responsible for 18 percent of global GHG emissions. Therefore, GHG emissions from motor vehicles and motor vehicle engines were found to contribute to air pollution that endangers public health and welfare.

9.3.2 State Greenhouse Gas Regulations

Assembly Bill 1493 (2002)

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 requires that ARB develop and adopt, by January 1, 2005, regulations that achieve the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state.

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for the 2016 model year are approximately 37 percent lower than the limits for the first year of the regulations, the 2009 model year. For light-duty trucks with LVW of 3,751 pounds to gross vehicle weight (GVW) of 8,500 pounds, as well as medium-duty passenger vehicles, GHG emissions would be reduced approximately 24 percent between 2009 and 2016.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against ARB to prevent enforcement of 13 CCR Sections 1900 and 1961 as amended by AB 1493 and 13 CCR 1961.1 (*Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in Her Official Capacity as Executive Director of the California Air Resources Board, et al.*). The auto-makers' suit in the U.S. District Court for the Eastern District of California contended California's implementation of regulations that, in effect, regulate vehicle fuel economy violates various federal laws, regulations, and policies.

On December 12, 2007, the Court found that if California receives appropriate authorization from EPA (the last remaining factor in enforcing the standard), these regulations would be

consistent with and have the force of federal law, thus, rejecting the automakers' claim. This authorization to implement more stringent standards in California was requested in the form of a CAA Section 209, subsection (b) waiver in 2005. Since that time, EPA failed to act on granting California authorization to implement the standards. Then-Governor Schwarzenegger and Attorney General Edmund G. Brown filed suit against EPA for the delay. In December 2007, EPA Administrator Stephen Johnson denied California's request for the waiver to implement AB 1493. Johnson cited the need for a national approach to reducing GHG emissions, the lack of a need to meet compelling and extraordinary conditions, and the emissions reductions that would be achieved through the Energy Independence and Security Act of 2007 as the reasoning for the denial.

The state of California filed suit against EPA for its decision to deny the CAA waiver. The recent change in presidential administration directed EPA to reexamine its position for denial of California's CAA waiver and for its past opposition to GHG emissions regulation. California received the waiver, notwithstanding the previous denial by EPA, on June 30, 2009. With the granting of the waiver, it was expected that the GHG emissions regulations would reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs.

Assembly Bill 32 (2006), California Global Warming Solutions Act

In September 2006, then-Governor Schwarzenegger signed AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006, which enacted Sections 38500–38599 of the California Health and Safety Code. AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020. This equates to an approximate 15 percent reduction compared to existing statewide GHG emission levels or a 30 percent reduction from projected 2020 business as usual emission levels. The required reduction would be accomplished through an enforceable statewide cap on GHG emissions beginning in 2012.

To effectively implement the statewide cap on GHG emissions, AB 32 directs ARB to develop and implement regulations that reduce statewide GHG emissions generated by stationary sources. Specific actions required of ARB under AB 32 include adoption of a quantified cap on GHG emissions that represent 1990 emissions levels along with disclosing how the cap was quantified, institution of a schedule to meet the emissions cap, and development of tracking, reporting, and enforcement mechanisms to ensure that the state achieves the reductions in GHG emissions needed to meet the cap.

In addition, AB 32 states that if any regulations established under AB 1493 (2002) cannot be implemented then ARB is required to develop additional, new regulations to control GHG emissions from vehicles as part of AB 32.

AB 32 Climate Change Scoping Plan

In December 2008, ARB adopted its Climate Change Scoping Plan, which contains the main strategies California would implement to achieve reduction of approximately 169 million metric tons (MMT) of CO_2e, or approximately 30% from the state's projected 2020 emission level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10%, from 2002-2004 average emissions). The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);
- the Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- a renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The Scoping Plan states that the ultimate GHG reduction assignment to local government operations is to be determined (ARB 2008). With regard to land use planning, the Scoping Plan expects approximately 5.0 MMT CO_2e would be achieved associated with implementation of SB 375, which is discussed further below.

The First Update to the Scoping Plan was approved by the ARB on May 22, 2014, and builds upon the initial Scoping Plan with new strategies and recommendations. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines ARB's climate change priorities for the next five years, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Senate Bills 1078, 107 and X1-2 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) establishes the California Renewables Portfolio Standard (RPS) Program, which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by December 31, 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to December 31, 2010. In November 2008, then-Governor Schwarzenegger signed Executive Order S-14-08, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020.

Governor Edmund G. Brown, Jr. signed Senate Bill X1-2 into law to codify the ambitious 33 percent by 2020 goal. The new RPS goals applies to all electricity retailers in the state including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators.

Senate Bill 1368 (2006)

SB 1368 is the companion bill of AB 32 and was signed by then-Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor owned utilities by February 1, 2007. The California Energy Commission (CEC) must establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and CEC.

The California Public Utilities Commission (CPUC) and the Energy Commission, in consultation with ARB, established a mandate for new or renewed long-term contracts to purchase electricity

from baseload facilities owned by, or under long-term contract to publicly owned utilities, to meet the GHG emission performance standard of 1,100 lbs CO_2 per megawatt-hour (MWh). SB 1368 states that geologically stored CO_2 shall not count as an emission of a power plant for determination of GHG emission performance standard compliance.

Senate Bill 97 (2007)

SB 97, signed by then-Governor Schwarzenegger in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Resources Agency by July 1, 2009 guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA. As part of the administrative rulemaking process, in December 2009 the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. These CEQA amendments clarified several points, including the following:

- Lead agencies must analyze the greenhouse gas emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's greenhouse gas emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of greenhouse gases on a project level by using a programmatic greenhouse gas emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- An EIR must consider analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives (see CEQA Guidelines Appendix F, Energy Conservation)

Senate Bill 375 (2008)

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. As part of the alignment, SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which prescribes land use allocation in that MPOs' Regional Transportation Plan (RTP). The ARB, in consultation with MPOs, is required to provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets would be updated every 8 years but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The ARB is also charged with reviewing each MPOs, SCS, or APS for consistency with its assigned GHG emission reduction targets. If MPOs do not meet the GHG reduction targets, transportation projects located in the MPO boundaries would not be eligible for funding programmed after January 1, 2012.

This bill also extends the minimum time period for the Regional Housing Needs Allocation (RNHA) cycle from 5 years to 8 years for local governments located in an MPO that meets certain requirements. City or County land use policies (e.g., General Plans) are not required to be consistent with the RTP including associated SCSs or APSs. Qualified projects consistent with an approved SCS or APS and categorized as transit priority projects would receive incentives under new provisions of CEQA.

Executive Order S-3-05 (2005)

Then-Governor Schwarzenegger signed Executive Order S-3-05 on June 1, 2005 that proclaimed California is vulnerable to the impacts of climate change. The executive order declared increased temperatures could reduce snowpack in the Sierra Nevada Mountains, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established targets for total GHG emissions that include reducing GHG emissions to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The executive order also directed the secretary of the California EPA to coordinate a multiagency effort to reduce GHG emissions to the target levels. The secretary would submit biannual reports to the governor and legislature describing progress made toward reaching the emission targets; impacts of global warming on California's resources; and mitigation and adaptation plans to combat impacts of global warming.

To comply with the executive order, the Secretary of the California EPA created the California Climate Action Team that is made up of members from various state agencies and commissions. The California Climate Action Team released its first report in March 2006 of which proposed achieving the GHG emissions targets by building on voluntary actions of California businesses and actions by local governments and communities along with continued implementation of state incentive and regulatory programs.

Executive Order S-13-08

Then-Governor Schwarzenegger signed Executive Order S-13-08 on November 14, 2008 that directs California to develop methods for adapting to climate change through preparation of a statewide plan. In 2009, California adopted a statewide Climate Adaptation Strategy (CAS) that summarizes climate change impacts and recommends adaptation strategies across seven sectors: Public Health, Biodiversity and Habitat, Oceans and Coastal Resources, Water, Agriculture, Forestry, and Transportation and Energy. The 2009 CAS was the first of its kind in the usage of downscaled climate models to more accurately assess statewide climate impacts as a basis for providing guidance for establishing actions that prepare, prevent, and respond to the effects of climate change.

The California Natural Resources Agency, in coordination with other state agencies, will be updating the Climate Adaptation Strategy. This update will augment previously identified strategies in light of advances in climate science and risk management options. The update was released to the public as a draft for comment by the end of 2013.

Executive Order S-1-07

Then-Governor Schwarzenegger signed Executive Order S-1-07 in 2007 that proclaimed the transportation sector as the main source of GHG emissions in California. The executive order proclaims the transportation sector accounts for over 40 percent of statewide GHG emissions.

The executive order also establishes a goal to reduce the carbon intensity of transportation fuels sold in California by a minimum of 10 percent by 2020.

In particular, the executive order established a Low-Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, the ARB, the University of California, and other agencies to develop and propose protocols for measuring the life-cycle carbon intensity of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to ARB for consideration as an "early action" item under AB 32. The ARB adopted the LCFS on April 23, 2009.

9.3.3 Regional Greenhouse Gas Regulations

Monterey Bay Unified Air Pollution Control District

The MBUAPCD has been in the process of developing guidance for evaluation of GHG emissions impacts for several years. In June 2011, the MBUAPCD proposed interim thresholds of significance for use in the CEQA analysis process. After release of the interim guidance, the MBUAPCD consulted with various stakeholders within the District regarding the proposed thresholds. However, to date, the MBUAPCD has not formally adopted thresholds of significant or other district-specific guidance regarding analysis of GHG impacts as part of the CEQA process.

Monterey County General Plan

To date, Monterey County has not adopted regulations or standards of significance pertaining to GHGs. The 1982 General Plan contains two polices whose implementation have benefits for GHG emissions reductions. Policy 14.3.1 notes that the County shall encourage energy-efficient businesses and agricultural practices, and Policy 14.3.2 notes that the County should encourage the development and utilization of renewable energy sources such as solar, wind generation, and biomass technologies in the Central Salinas Valley.

Monterey County Greenhouse Gas (GHG) Reduction Plan

The 2010 Monterey County General Plan contains a policy to develop and adopt a Greenhouse Gas (GHG) Reduction Plan within 24 months of General Plan adoption (Policy OS-10.11). Once the County adopts a qualified GHG reduction plan, compliance of future projects with that plan would be the basis for determining the significance of their impact on global climate change.

9.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

The California Air Pollution Control Officers Association (CAPCOA) California Emissions Estimator Model (CalEEMod), version 2013.2.2 was used to estimate construction and operational related emissions for the proposed Project, as recommended by MBUAPCD. The CalEEMod emissions model allows calculations of both construction emissions and operational emissions from land use projects. It calculates the daily maximum and annual average for criteria pollutants as well as total or annual GHG emissions. The CalEEMod software utilizes emissions models USEPA AP-42 emission factors, CARB vehicle emission models, and studies commissioned by other California agencies such as the California Energy Commission and CalRecycle.

The CalEEMod program models construction emissions associated with land use development projects and allows for the input of project-specific information, including construction equipment information. The model also calculates indirect criteria pollutant and GHG emissions from processes "downstream" of the project under evaluation such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. CalEEMod also estimates changes in carbon sequestration potential due to changes in vegetation and the planting of trees. The model calculates a one-time only change in sequestration potential resulting in changes in land use such as converting vegetation to hardscape, and also calculates a carbon "offset" from planting new trees.

Default values for construction phasing and equipment were used, based upon the estimated operational date of 2015 for the proposed Project. Emissions were calculated for both annual and winter conditions based primarily on the default parameters contained in the model (maximum daily construction emissions are typically modeled under winter month conditions). Land use assumptions were chosen to allow for site-specific energy, water and waste use assumptions to be applied for determining operational emissions, while developing conservative construction phases and equipment lists. A detailed list of construction and operational emissions estimation assumptions are summarized below. Detailed construction and operational emissions estimation assumptions together with CalEEMod result outputs files are in Appendix E.

Construction Emissions

Two CalEEMod project files were created to estimate construction emissions for the Project: one to estimate construction emissions associated with build-out of the Satellite Recycled Water Treatment Plant (SRWTP), and one to estimate emissions associated with trenching activities to construct Demand Group I pipelines and hook-ups.

The SRWTP included three land use classification to facilitate (1) the estimation of default construction phase lengths and construction equipment required, and (2) to allow for site specific data to be input for estimating operational emissions. The land-uses included (1) a total disturbed area of 1.7-acres to account for site preparation, grading and paving activities over the maximum area anticipated to be impacted by the SRWTP construction, (2) a 2,160 sq-ft "warehouse" to serve as the foot-print for the SRWTP treatment equipment and allow for project specific inputs for energy usages and waste generation, and (3) Control Building (Clarifier) and Digester combined area of 4,750 sq-ft were included as a "General Light Industry" land use, allowing for the estimation of rehab construction emissions estimations for build out for office space and treated water storage tanks (assumed in the Demolition, Building Construction and Architectural Coating phases).

The length of the construction phases and equipment parameters for Site Preparation, Grading and Paving were all default values generated by CalEEMod. Modifications were made to the Demolition, Building Construction and Architectural Coating phases to account for the fact that rehabbing the existing tanks would be substantially less involved that a full demolition and new construction. The demolition phase includes relocating existing stockpiled materials and related structures, and removal of corroded exterior surfaces and roofing systems in preparation for retrofit of the existing tanks. The building construction phase entails the refurbishment and retrofit of existing buildings, rather that new construction. Retrofit activities would include:

- Replacement of corroded exterior surfaces;
- Replacement of roofing systems;

- Repainting of exposed piping and reinforcing steel;
- Cleaning and repair of exterior concreted surfaces;
- Repair of spot corrosion on interior concrete surfaces;
- Cleaning and re-coating of interior steel appurtenances;
- Installation of OSHA required handrails, ladders, and gates;
- Rehabilitation of former WWTP administration offices for use by SRWTP personnel.
- Installation of SRWTP equipment and piping.

The CalEEMod trenching project file was created to separate Demolition and Paving construction phases related to trenching activities from SRWTP construction phases. CalEEMod trenching included land uses estimates for the Wastewater Diversion Facilities (the sewage diversion structure in Asilomar Avenue and the sewage diversion pipeline from Asilomar Avenue to Point Pinos), SRWTP trenching for the sanitary sewer force main, trenching for the Demand Group I Recycled Water Distribution Pipeline, and trenching, demolition and repaving for the potable water connection. Construction phases were estimated assuming a conservative trenching rate of 200-ft/day. Demolition and Paving phases were included for construction of the sewage diversion structure in Asilomar Avenue and to account for pipelines crossing streets and installation of the 1" Potable Water Connection.

The results of CalEEMod emissions estimates for construction activities at the SRWTP and trenching related emissions are summarized in Table 9-2.

Table 9-2: Construction-Related Greenhouse Gas Emissions

Pollutant	Construction-Related Emissions		
	SRWTP	DG-I Trenching	Total
	MT/yr	MT/yr	MT/yr
CO_2	73.1	24.5	97.6
CH_4	0.013	0.006	0.019
CO_2e	73.4	24.6	99.0

Operational Emissions

The SRWTP included separate land use classification to allow for site-specific data to be input for estimating operational emissions from the SRWTP treatment equipment and the Control Building (Clarifier) which is to be built out to serve as office space and control room. The 2,160 sq-ft "warehouse" serves as the footprint for the SRWTP treatment equipment and allow for project specific inputs for energy usages and waste generation. The Control Building (Clarifier) and Digester combined area of 4,750 sq-ft were included as a "General Light Industry" land use, allowing for the estimation of default CalEEMod operational data.

Mobile source emissions were associated with the Control Building land use. A total of 8 trips/day for weekdays (3 employees to/from work and one additional trip for vendors and visitors), and 6 trips/day for Saturday and Sunday (3 employees to/from work). CalEEMod defaults for electricity usage and solid waste generation rates were assumed for the Control Building land use (which includes the area of both tanks, and is therefore conservative). Water usage for the Control Building land use is estimated at 70 gal/employee/day, because SRTWP potable water use estimated for employee use only. Recycled water would be available for all

other uses (the CalEEMod default assumed over 3,000 gal/day based upon a "General Light Industry" land use).

The "warehouse" land use for the SRWTP treatment equipment allowed for site-specific data to be input for electricity use and solid waste generation. The SRWTP treatment equipment is estimated to use 495 kWh/day (180.7 MWhr/year) of electricity. It is also estimated that the SRWTP would generate approximately 0.5 cubic yards of solids per day (110 tons per year, assuming a density of 45 lbs/ft^3).

It is expected that the SRWTP would include a 300 kW emergency generator. The generator would provide emergency back-up power to all SRWTP equipment in the event of power outages. For purposes of this analysis, it is expected that the emergency generator would operate only 1-hour per week for testing and during minor power disruptions. In the event of a longer power outage, it is expected that the emergency generator would provide short-term back-up power to the proposed Project until the resumption of normal power.

The results of CalEEMod emissions estimates for operational activities at the SRWTP are summarized in Table 9-3. Detailed assumptions for operational emissions are included in Appendix E. The operational emissions are estimated using the same CalEEMod project input file as the SRWTP construction estimates.

Table 9-3: Operational-Related Greenhouse Gas Emissions

Pollutant	MT/yr
CO_2	99.9
CH_4	1.40
CO_2e	129.5

9.3.5 Significance Threshold Criteria

To date neither the MBUAPCD nor Monterey County have developed standards of significance for GHG emissions that would apply to the proposed Project. The guidance provided in Section VII, Greenhouse Gas Emissions, in Appendix G, Environmental Checklist Form, of the CEQA Guidelines is therefore used as a basis for standards of significance.

According to Section VII of Appendix G of the CEQA Guidelines, a project may create a significant environmental impact if it would:

(1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
(2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. It is difficult to deem a single project as individually responsible for a global temperature increase. In actuality, GHG emissions

from the proposed Project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In this context, thresholds of significance for GHG emissions address whether the incremental cumulative contribution of a specific project to global climate change is considered significant. However, the ARB, MBUACD, or the County has not yet adopted quantified thresholds of significance for GHG emissions. Consequently, assessment of what constitutes a volume of GHG emissions that directly or indirectly may have a significant impact on the environment is a qualitative judgment.

Regarding conflict with an applicable GHG reduction plan, because neither the MBUAPCD nor the County have developed an applicable plan for the purpose of reducing GHG emissions, AB 32 serves as the only GHG reduction plan that has relevance to the proposed Project. Implementation of the emissions reductions actions and programs identified in the Scoping Plan would enable California to meet AB 32 emissions reduction targets. Consequently, a qualitative assessment of project consistency with applicable Scoping Plan actions and programs is the methodology used by the County to assess whether a proposed project would conflict with AB 32.

Once the County adopts a qualified GHG reduction plan as called for in 2010 General Plan Policy OS-10.11, compliance of future projects with that plan would be the basis for determining the significance of their impact on global climate change.

Other California regional Air Quality Management Districts have developed Significance Thresholds for addressing GHG emissions. For example, the San Joaquin Valley Air Pollution Control District (SJVAPCD) considers a project less than significant if GHG emissions are less than a "zero-equivalency" threshold of 230 metric tons of CO_2e/year. The Bay Area Air Quality Management District has an operational threshold of 1,100 CO_2e per year. Other operational mass emissions GHG thresholds include those set by the San Luis Obispo County Air Pollution Control District (1,150 metric tons per year, which includes amortized construction plus operational emissions), the Santa Barbara Air Pollution Control District (10,000 metric tons per year for industrial sources), and the South Coast Air Quality Management District (10,000 metric tons per year for industrial sources). The most stringent of these thresholds is 1,100 metric tons CO_2e per year, therefore this threshold is considered conservative. Operational GHG emissions have therefore been considered less than significant if the generated GHG emissions are less than the operational threshold of 1,100 metric tons CO_2e /year.

9.4 IMPACTS AND MITIGATION MEASURES

The MBUAPCD February 2008 CEQA Air Quality Guidelines provide no specific Criteria for determining the significant of GHG Impacts addressed by Appendix G of the State CEQA Guidelines. However, guidance available from other California regional Air Quality Management Districts provides a context for assessing the significance of the proposed Project.

Impact 9-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project-Level Impact Analysis

As shown in Table 9-2, Construction-Related Greenhouse Gas Emissions, and Table 9-3 Operational-Related Greenhouse Gas Emissions, combined short-term construction related emissions and long-term operational emissions of the Project would emit less than the "zero-equivalency" threshold of 230 metric tons of CO_2e/year. These are also well below the most stringent thresholds of 1,100 metric tons CO_2e per year, established by other California regional Air Quality Management Districts. There would be a **less than significant impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Demand Group II and III would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, in Table 9-2, Construction-Related Criteria Pollutants, and remain below Thresholds of Significance. As shown in Table 9-3, Operational-Related GHG Emissions, long-term operational emissions are well below the most stringent thresholds of 1,100 metric tons CO_2e per year, established by other California regional Air Quality Management Districts. It is unlikely additions to capacity required to meet Demand Groups II and III would increase these emissions enough to cause concern. There would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 9-2: Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

Project-Level Impact Analysis

Because neither the MBUAPCD nor the County have developed an applicable plan for the purpose of reducing GHG emissions, AB 32 serves as the only GHG reduction plan that has relevance to the proposed Project. Implementation of the emissions reductions actions and programs identified in the Scoping Plan would enable California to meet AB 32 emissions reduction targets. Consequently, a qualitative assessment of project consistency with applicable Scoping Plan actions and programs is the methodology used by the County to assess whether a proposed project would conflict with AB 32.

As identified above, once the County adopts a qualified GHG reduction plan as called for in 2010 General Plan Policy OS-10.11, compliance of future projects with that plan would be the basis for determining the significance of their impact on global climate change.

The quantity of GHG emissions that the proposed Project would emit would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Implementation of the proposed Project would result in a less than significant impact associated with conflicts with plans and regulations adopted for the purposes of reducing GHG

emissions. There would be a **less than significant impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Demand Group II and III Projects would include additional trenching and would increase operational emissions at the SRWTP. Trenching emissions would be of a similar scale to those estimated for Demand Group I, in Table 9-2, Construction-Related Criteria Pollutants, and remain below Thresholds of Significance. As shown in Table 9-3, Operational-Related GHG Emissions, long-term operational emissions are well below the most stringent thresholds of 1,100 metric tons CO_2e per year, established by other California regional Air Quality Management Districts.

The quantity of GHG emissions that the proposed Project would emit would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. Implementation of the Demand Group II and III Projects would result in a less than significant impact associated with conflicts with plans and regulations adopted for the purposes of reducing GHG emissions. There would be a **less than significant impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

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SECTION 10.0 HAZARDS AND HAZARDOUS MATERIALS

10.1 INTRODUCTION

An environmental site assessment and due diligence review was completed for the PGLWP study area through the review of available records, site visits, inspections and windshield surveys, and interviews with site operators and City officials. In addition, Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records on the PGLWP study area in May 2014. Results of that search are provided as Appendix F.

The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. However, the retired Point Pinos WWTP was constructed when asbestos and lead-based paints were used in building construction (prior to 1978). Without samples to show that no asbestos or lead-based paints are present this becomes a potentially significant impact. Thus, a mitigation measure to prepare a risk assessment and clean up as necessary pursuant to CCR Title 8 section 5208 is contained within this Section to avoid or reduce this impact to less than significant levels.

Demand Group II and III would include additional trenching during the construction phases, and would increase the operational capacity at the SRWTP. The exact trenching locations are not yet known. Potential concerns involving lead and asbestos could also occur in subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, and well as adherence to existing laws and regulations governing the transport, use, and storage of hazardous materials and wastes as well as use of appropriately trained employees would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant levels.

10.2 SETTING

10.2.1 Regulatory Setting

Because regulations for hazardous materials are developed over time, hazardous materials are regulated by numerous agencies whose jurisdictions and responsibilities sometimes overlap. Federal agencies that regulate hazardous materials include the EPA and the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). At the state level, agencies such as the California Department of Industrial Relations, Cal/OSHA, and the California Emergency Management Agency (Cal EMA) govern the use of hazardous materials. State and local agencies often have either parallel or more stringent rules than federal agencies.

Generation, transportation, and disposal of hazardous wastes can also be regulated by different agencies. The lead federal agency is EPA. The California Department of Toxic Substances Control (DTSC) has primary state regulatory responsibility but may delegate enforcement authority to local jurisdictions that enter into agreements with the state agency.

The following is a review of federal and state regulations that are potentially pertinent to the proposed Project.

10.2.1.1 Federal Laws, Regulations, and Policies

Resources Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed.

The EPA has primary responsibility for implementing the RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program and California's own hazardous waste laws, collectively known as the Hazardous Waste Control Law.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, the EPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act (SARA) pertains primarily to emergency management of accidental releases of hazardous materials. It requires formation of state and local emergency planning committees responsible for collecting material handling and transportation data for use as a basis for planning. Chemical inventory data is made available to the community at large under the "right-to-know" provision of the law. SARA also requires annual reporting of continuous emissions and accidental releases of specified compounds. These annual submissions are compiled into a nationwide Toxics Release Inventory.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (DOT) is the federal agency with regulatory responsibility for the safe transportation of hazardous materials. These regulations govern all means of transportation, except for those packages shipped by mail that are covered by U.S. Postal Service regulations.

Occupational Safety and Health Act

Under the authority of the Occupational Safety and Health Act of 1970, OSHA is the federal agency responsible for ensuring worker safety in the handling and use of chemicals in the workplace, and has adopted numerous regulations for that purpose (29 CFR 1910). These regulations set standards for safe workplaces and work practices, including accident and occupational injury reporting, hazardous material handling, workplace conditions, employee protection requirements, first aid and fire protection, and material handling and storage.

10.2.1.2 State Laws, Regulations, and Policies

California Public Resource Code Section 21151.4

This code requires the lead agency to consult with any school district with jurisdiction over a school within 0.25 mile of a proposed project, regarding potential impacts on the school if the project might reasonably be anticipated to emit hazardous air emissions, or handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

Hazardous Materials Release Response 1 Plans and Inventory Law

This law, also known as the Business Plan Act of 1985, requires facilities using hazardous materials to prepare Hazardous Materials Business Plans that include information such as inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1).

Hazardous Waste Control Act

DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under the RCRA and the California Hazardous Waste Control Law. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. DTSC has delegated some of its authority under the Hazardous Waste Control Law to local health or fire departments.

Hazardous Waste and Substances Site List

The Hazardous Waste and Substances Sites List (Cortese List, California Government Code Section 65962.5) is a planning document used by the state, local agencies, and developers to comply with CEQA requirements to provide information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California EPA to develop, at least annually, an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the California Department of Forestry and Fire Protection (CAL FIRE) administer state policies regarding wildland fire safety. Construction contractors are required to comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Pub. Resources Code § 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Pub. Resources Code § 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10-feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (Pub. Resources Code § 4427).

- On days when a burning permit is required, portable tools powered by gasoline fueled internal combustion engines must not be used within 25-feet of any flammable materials (Pub. Resources Code § 4431).

10.2.1.3 Local Laws, Regulations, and Policies

The Unified Program Agencies

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. The California Environmental Protection Agency (Cal/EPA) and other state agencies set the standards for their programs and local governments implement the standards. These local implementing agencies are called Certified Unified Program Agencies (CUPAs). For each county, the CUPA regulates/oversees the following:

- Hazardous-materials business plans;
- California accidental-release prevention plans or federal risk management plans;
- The operation of underground storage tanks (USTs) and aboveground storage tanks (ASTs);
- Universal waste and hazardous-waste generators and handlers;
- On-site hazardous-waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

Monterey County Hazardous Materials Program

The Monterey County Health Department Environmental Health Division manages and regulates the storage, use, and disposal of hazardous wastes through the Hazardous Materials Program. The program provides measures for hazardous waste onsite treatment, spill prevention control and countermeasures for aboveground and underground storage tanks, site mitigation and risk management and prevention.

Monterey County General Plan

The Monterey County General Plan was adopted by the Board of Supervisors in 1982. Goal 18 in the Monterey County General Plan aims to "minimize the risks from chemical usage." Policy 18.1.1 supports this goal by requiring that the County of Monterey establish land use controls to reduce undesirable effects of hazardous chemicals.

Goal 17 in the Monterey County General Plan and its corresponding policies support minimizing the risks of fire hazards. Policies support the continued maintenance and access of fire roads, the use of fire safety programs to educate the residents of the County of Monterey on preventive measures, and the continued updating of fire hazards information. In addition, minimum requirements for new developments are supported along with the use of fire resistant plantings where appropriate. New developments are required to comply with minimum standards in relation to the building of structures that would also minimize fire hazards.

The following policies support this goal:

- Policy 17.3.3 The County shall encourage all new development to be located within the response time of 15 minutes from the fire station responsible for serving the parcel. If this is not possible, on-site fire protection systems (such as fire breaks, fire-retardant building

materials, and/or water storage tanks) approved by the fire jurisdiction must be installed or development may only take place at the lowest density allowed for the parcel by the General Plan.

- Policy 17.3.4 The County shall require all new development to have adequate water available for fire suppression. Water availability can be provided from a conventional water system; from an approved alternative water system if within 300 feet of a habitable structure; by the firefighting equipment of the fire district within which the property is located; or by an individual water storage facility (e.g. water tank, swimming pool, etc.) on the property itself. The fire and planning departments shall determine the adequacy and location of individual water storage to be provided.
- Policy 17.4.1 All residential, commercial, and industrial structural development (not including accessory uses) in high and very high fire hazard areas shall incorporate recommendations by the local fire district before a building permit can be issued.
- Policy 17.4.7 The County shall require all subdivisions, multi-unit residential complexes, and commercial and industrial complexes to obtain, prior to permit approval, a statement from the fire department that adequate structural fire protection is available within minimum response time established by this Plan.

Pacific Grove General Plan

The Pacific Grove General Plan notes:

- The generation, storage, disposal, and transportation of toxic or hazardous wastes in Pacific Grove is not a significant issue. The City maintains a hazardous materials storage area at the City Corporation Yard.
- The City supports the establishment of a substation in the city for the collection of hazardous materials.

- Program L - Continue to maintain appropriate licenses and permits for the storage of hazardous materials.

- Policy 13 through 23 and Policy O through DD relate to fire protection. These policies address minimum water supply flow rates for fire control, hazard abatement, including vegetation, and specific fire related policies where endangered species occur.

10.2.2 Existing Setting

As stated above, an environmental site assessment was completed for the PGLWP study area. The intent of the environmental site assessment is to complete a due diligence review of available data, identify known and potential sources of environmental liabilities, and document activity and use limitations and potential human health concerns related to hazardous materials. This is done through the review of available records, site visits, inspections and windshield surveys, and interviews with site operators and City officials. The environmental site assessment consisted of the following focus areas: (1) Former Point Pinos Wastewater Treatment Plant Site; (2) The Municipal Golf Links Course; and (3) El Carmelo Cemetery.

In addition, Environmental Data Resources, Inc. (EDR) conducted a search of available environmental records on the PGLWP study area in May 2014. Results of that search are provided as Appendix F. The EDR research consists of the following reports:

- EDR Radius Map™ Report with GeoCheck®: Provides a search of available environmental records from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The search also includes historical environmental records collected by EDR that are no longer updated or maintained by the sponsoring federal, state, tribal, or local agency. A complete list can be found in the EDR report.
- EDR Aerial Photo Decade Package and EDR Historical Topographic Map Report: Includes a search of digitally reproduced historical aerial photographs (one photo per decade when available), and a collection of public and private color historical topographic maps, dating back to the early 1900s.
- The EDR environmental data search also provided the following reports, included in Appendix F: Certified Sanborn® Map Report, EDR Building Permit Report, EDR Property Tax Map Report, EDR Environmental Lien Search Report, EDR-City Directory Image Report.

Data from the EDR reports is referenced throughout this section. In addition to the EDR reports, this section relies on documents provided by the City during the ESA, and other publicly available sources accessed via the Internet.

10.2.2.1 Site and Vicinity Description

Site Location and Description

The proposed SRWTP would be located on Point Pinos, in Pacific Grove, California, at the site of the retired Point Pinos WWTP. The environmental site assessment focused on the Point Pinos WWTP and surrounding areas, and included a review of areas that would be directly impacted by pipeline construction to serve Demand Group 1.

The primary parcels associated with the SRWTP include:

007-011-003-000	2.23 acres	Former Point Pinos Wastewater Treatment Facility
007-011-006-000	58.18 acres	US Lighthouse Reservation (Back-Nine holes of Golf Links)

Additional parcels reviewed for potential pipeline trenching/construction activities associated with the City of Pacific Grove Local Water Project include:

007-011-004-000	1.38 acres	US Coast Guard Housing
007-011-005-000	4.30 acres	US Navy / NOAA
006-101-002-000	2.90 acres	Municipal Golf Links - Clubhouse
006-102-001-000	12.68 acres	El Carmelo Cemetery
006-101-001-000	13.25 acres	Municipal Golf Links – Front-Nine
006-103-001-000	3.52 acres	Municipal Golf Links – Front-Nine
006-097-099-000	3.81 acres	Municipal Golf Links – Front-Nine
006-095-099-000	3.84 acres	Municipal Golf Links – Front-Nine
006-094-099-000	10.77 acres	Municipal Golf Links – Front-Nine
006-087-002-000	3.12 acres	Municipal Golf Links – Front-Nine

Site and Vicinity Characteristics

The former Point Pinos WWTP property lies within the Municipal Golf Link "back-nine" property. To the north and west of the former Point Pinos WWTP is Ocean View Boulevard, and the shoreline and public parking. West of the facility is currently open space, but was the site of an approximately 600 sq-ft, single story Foghorn Building until Fall 2011.

The golf course back-nine holes are bounded to the east by Asilomar Boulevard. East of Asilomar Boulevard, moving north to south, is a residential neighborhood, the Golf Links Clubhouse, and the Little Chapel-by-the-Sea on the grounds of the El Carmelo Cemetery.

To the South is the Golf Links Municipal Golf Course, the Point Pinos Lighthouse, Coast Guard residences, and a NOAA facility.

Physical Setting

The subject property's elevation is approximately 20 feet above mean sea level. The surrounding topography slopes gently from south to the north (coastline). To the west, the topography slopes to the coastline, and to the east the slope is downward to Crespi Pond. US Department of Agriculture's (USDA) Soil Conservation Service (SCS), Soil Survey Geographic Database (SSURGO) lists the soil at the site as Baywood sand in the Class A Hydrologic Group, characterized with high infiltration rates.

10.2.2.2 Historical Review of Site and Vicinity

Historical Summary

A Phase I Environmental Site Assessment, completed in 2002 for the Point Pinos Lighthouse, reported that the approximately 77 acres Point Pinos Light Station property was acquired by the United States Coast Guard (USCG) between 1880 and 1910. Based upon the Phase I ESA, 25 acres were obtained through condemnation in 1880 and another 52 acres were purchased in 1901. Of the original 77 acres, 2.23 acres were deeded to the City in 1951 for the WWTP and 4.28 acres were conveyed to the Navy in 1997. The Navy subsequently conveyed its parcel to NOAA for use as a meteorological monitoring station. In 2002, 0.7 acres of the Point Pinos Light Station property served as Coast Guard housing, and 69.8 acres were reported as excess to the GSA (Tetra-Tech, 2002).

In 2006, the Coast Guard officially deeded the Point Pinos Lighthouse and the property that has become the back-nine holes of the Municipal Golf Links to the City under the Excess Military Property Initiative. As part of the deed, the City agreed to a Historic Preservation and Endangered Species Covenant and to re-introduce many native and endangered plant species to the dunes surrounding portions of the golf course (Deed, 2006).

Point Pinos Wastewater Treatment Plant

The City sought permission to construct a new municipal sewage system as early as 1947 (Albion, Aug-2013). The Point Pinos WWTP was formally opened in January of 1953.

When in operation, the Point Pinos WWTP had a capacity of 2 million gallons per day (mgd). Treated wastewater was discharged through an outfall to the Pacific Ocean. The Point Pinos WWTP was decommissioned in 1980 (Albion, Aug-2013).

There is no indication that an environmental site assessment has ever been completed for the former Point Pinos WWTP. There is no record of spills or other potential contamination at the site.

Point Pinos Lighthouse

The Point Pinos Lighthouse is located on Asilomar Avenue approximately 1,000-ft of the former Point Pinos WWTP. The site consists of the historic lighthouse structure and landscaping located on the US Coast Guard Point Pinos Light Station. The Lighthouse was constructed in 1855 and continues to operate as an aid to navigation. Historic maintenance to the structure has resulted in lead contamination in the soil adjacent to the structure from chipping, flaking, scraping, and/or blasting of lead based paint. Lead concentrations range from 6 mg/kg to 6490 mg/kg (Geotracker Case Summary).

The US Coast Guard transferred ownership of the Point Pinos Lighthouse to the City on August 23, 2006. The quitclaim deed for the property transfer contains use restrictions, soil management requirements, and notice requirements to ensure the site is not used for residential purposes. Disturbance of the soil around the lighthouse building would generate a hazardous waste. If the soil is disturbed, an approved soil management plan is required.

Pacific Grove Municipal Golf Links

The idea for the Pacific Grove Municipal Golf Links began in 1929, when the Del Monte Properties Company and its owner S.F.B. Morse, decided to make their beach tract more desirable by introducing a golf course to its ocean-side parcel of land (Pacific Grove Golf Links website). In 1932, the Pacific Grove Municipal Golf Course property, which encompasses the current front-nine, was deeded to the City from Del Monte Properties. The covenants to the transfer required that (Laredo, 2006):

1. A nine-hole Golf Course "be constructed, completed and made playable within two years";
2. The Golf Course be maintained "for play for a period of not less than five years" after opening day;
3. The property "be used solely for the purposes of the golf course, or for a public park, and/or recreational purposes," except for campground purposes;
4. Any buildings erected or maintained on the property must be lawfully erected upon a public park, and must be "attractive, sightly and beneficial to the City of Pacific Grove"; and
5. The covenants shall be enforceable by the parties to the transfer.

That year, the Golf Course was built as a 9-hole facility with a clubhouse situated on the eastern edge of the Golf Course, where the Sally Griffin Senior Center building is now located. The course officially opened for play on May 9, 1932.

In 1960, the City leased the Point Pinos Lighthouse property, which encompasses the current back-nine, from the US Coast Guard and expanded the Golf Course to 18-holes. The clubhouse was moved to its present location and construction was completed that same year (Laredo, 2006).

In 2001, the Golf Course Advisory Committee and a Clubhouse Subcommittee reviewed the needs of the Golf Course in comparison to other similar municipal golf courses. The Committee's work "included looking at the existing 42-year old building and its present configuration and how the facility can be better utilized to accommodate the 90,000 golfers that use the golf course, as well as the 35,000 visitors that visit the Point Pinos Lighthouse. The Committee also anticipated how a facility might be used for community or civic use." (Laredo, 2006)

In November 2003, the City Council authorized demolition of the existing clubhouse facilities and construction of a new clubhouse, restaurant, and pro shop. The Resolution set forth "Special Conditions of Approval," that included mitigations to address archeological concerns, cemetery activities in light of construction activities as well as wildlife protections. The new clubhouse and Grill opened in February and March 2006, respectively.

Foghorn Building

The Foghorn Building was constructed to provide fog warnings to passing ships and boats. The structure was built in 1945 using poured concrete and concrete block, with a concrete slab roof (Gho, 2011). A High Frequency Radar deployment was installed by researchers from the Naval Postgraduate School at the foghorn building in 1994. The system operated continuously until December 2008, when it was deemed unsafe to operate electrical equipment onsite due to the deterioration of the building. All Radar related equipment was removed from the building in March 2009 (Gho, 2011). A 2011 memo reported that the building was sustaining a large amount of degradation from weather and lack of maintenance (Gho, 2011).

PG&E removed the electrical transformers to eliminate concern they might contain PCBs (Gho, 2014). Based upon a review of historic photos, the Foghorn Building was completely removed in late 2011, with subsequent photos indicating the site was restored to match local vegetation. There is no information available indicating that there may have been contamination associated with the Foghorn Building.

Pacific Grove Naval Reserve Center

The Pacific Grove Naval Reserve Center is a one-acre facility located approximately 1,500 feet south of the former WWTP. The facility was used for Navy operations from 1954 through 1994, when the base was closed. The base remained unoccupied until 1995, at which point, after completion of all environmental compliance requirements, use of the land was transferred to the Pacific Fisheries Environmental Group of the National Oceanographic Atmospheric Administration (NOAA) for use as a scientific research facility. The property is approximately 4.5 acres in size. The current building on the site was constructed in 1952, and it served several purposes until its closure in 1994. A major renovation was completed in 1989. (Geotracker Case Summary).

El Carmelo Cemetery

Historic maps indicate that El Carmelo Cemetery in Pacific Grove dates to before 1900. In 1948, the Paul family built the Little Chapel-by-the-Sea Crematory on the grounds of the El Carmelo Cemetery, becoming the first crematory on the central coast in California (Paul Mortuary website). The crematory is permitted with the Monterey County Air Quality Management District. There is no embalming work done at this location.

Aerial Photograph and Historical Maps Review

Aerial photographs and historic topographic maps provided by the EDR search were reviewed. In addition, other aerial photographs and maps were collected from public data sources on the Internet. The earliest aerial photo provided by the EDR search is from 1956, and shows the former Point Pinos WWTP is present. No historic aerial photo was available to confirm the land use in the area before the WWTP was constructed in 1953. The Foghorn Building, El Carmelo Cemetery and the Little Chapel-by-the-Sea are also present in the 1956 photo. An historic topographic map from 1913 indicates that only the lighthouse was present at that time, though it

is likely the El Carmelo Cemetery was present based upon a map of Monterey County dated 1898 that includes the cemetery.

The Golf Links Clubhouse is not present in the 1956 photo, and first appears in the photo dated 1961. The Golf Links back-nine also first appears in the 1961 photo. In a 2005 aerial photo the new Golf Links clubhouse appears to be under construction, and a 2009 aerial photo shows the old clubhouse completely removed.

A Google street view image from April 2007 shows the Foghorn Building operating as a High Frequency Radar deployment by researchers from the Naval Postgraduate School (Gho, 2011). A June 2011 Google street view image shows the building standing but with equipment removed. An aerial photo from December 2011 shows the Foghorn Building completely removed, with subsequent photos indicating the site was restored to match local vegetation.

10.2.2.3 Regulatory Agency Records Review

EDR conducted a search of available environmental records from federal, state, tribal, and local databases containing known and suspected sites of environmental contamination. The EDR search identified no known records of environmental contamination at the former Point Pinos WWTP site. Three known sites of environmental contamination, and one unconfirmed historic underground storage tank were identified by the EDR search. The known sites of environmental contamination are the Point Pinos Lighthouse, the Pacific Grove Naval Reserve Center, and a leaking underground storage tank at Oceanview Boulevard and Coral Street. The unconfirmed historic underground storage tank is recorded as having been registered at the same address as the Golf Links Clubhouse.

Point Pinos Lighthouse

The Point Pinos Lighthouse is located on Asilomar Avenue approximately 1,000-ft south of the former Point Pinos WWTP. Historic maintenance of the structure has resulted in lead contamination in the soil adjacent to the structure from chipping, flaking, scraping, and/or blasting of lead based paint. Concentrations range from 6 mg/kg to 6490 mg/kg (Geotracker Case Summary).

The US Coast Guard transferred ownership of the Point Pinos Lighthouse to the City on August 23, 2006. The quitclaim deed contains use restrictions, soil management requirements, and notice requirements to ensure the site is not used for residential purposes. Disturbance of the soil around the lighthouse building would generate a hazardous waste. If the soil is disturbed, an approved soil management plan is required. The following use restrictions placed upon the Point Pinos Lighthouse are detailed in the Quitclaim Deed:

(1) Property shall not be used for any of following purposes: a residence, including any mobile home or factory built housing used as residential human habitation, a hospital for humans, a public or private school, a day care center for children, a playground.
(2) Soil Management. No activities that would disturb the surface soil to 12 inches below ground surface (e.g. excavation, grading, removal, trenching, filling, earth movement, or mining) shall be allowed on Property without a pre-approved Soil Management Plan and a Health and Safety Plan approved by the Department.
(3) Owner shall provide the Department written notice at least thirty (30) days prior to any building, filling, grading, mining, or excavation of the Property surface soil to 12 inches below the ground surface.

(4) Any soil removed from the Property shall be managed in accordance with all applicable provisions of state and federal law.

Pacific Grove Naval Reserve Center

The Pacific Grove Naval Reserve Center is a one-acre facility located approximately 1,500 feet south of the former WWTP. Sources of potential contamination identified on the base included an Underground Storage Tank (UST), and a septic tank that was installed in 1954. The UST in question held diesel fuel and was removed in 1990. No evidence of significant contamination from release of diesel fuel was detected from beneath the tank upon its removal. As for the septic system, its final point of discharge was unable to be located. As such, the Navy removed the septic system and constructed a sewer connection to the Monterey Regional Water Control Agency's sewer collection system. Work on the septic tank removal and construction of the new sewer system took place between September 1995 and September 1996. The Central Coast RWQCB has since approved of the Base Realignment and Closure Cleanup Plan for the Naval Reserve Center, Pacific Grove, California (Geotracker Case Summary).

Leaking Underground Storage Tank

A leaking underground storage tank was reported in December 1994 at Oceanview Boulevard and Coral Street, approximately 2,400 feet east of this former Point Pinos WWTP, just north of Ocean View Blvd. The site, possibly a Monterey Regional Water Pollution Control Agency pump station, reported a valve on the tank was leaking, affecting ground water (uses other than drinking water). The site was excavated and contaminated soil was removed and disposed of in an approved site. Cleanup was completed and the case was closed in October 17, 1996.

Golf Links Clubhouse

The EDR Radius Map identified a 500 gallon Regular-Unleaded UST at 77 Asilomar Blvd. The record is from an historical database called the SWEEPS UST Listing. The Statewide Environmental Evaluation and Planning System was an underground storage tank listing updated and maintained by a company contacted by the SWRCB in the early 1990s. The listing is no longer updated or maintained. The database lists the UST as *Monterey CUPA Facility ID: FA0812096; Program/Element: BASE FEE-HAZARDOUS MATERIALS REGISTRATION.*

The Monterey County CUPA was contacted for any records available for a UST at 77 Asilomar Blvd. The agency noted that there was no record of a UST at that site. If there was a UST at this location, then it would have been removed before 1988 when the State UST program began (Welch, 2014).

No records or knowledge of the existence of this tank was discovered during interviews with responsible officials.

10.2.2.4 Interviews and User Provided Information

Previous Reports and Other Provided Documentation

The following documents were provided by the City of Pacific Grove, and have been referenced throughout this section. Copies of these documents can be found in Appendix F.

Phase 1 Environmental Due Diligence Audit, US Coast Guard Point Pinos Light Station, Pacific Grove, Monterey County, California, Tetra Tech, Inc., July 2002

Quitclaim Deed for Point Pinos Light Station, GSA Control No. 9-U-CA-1603, August 23, 2006.

Phase II Lead Contamination Assessment Point Pinos and Pigeon Point Light Stations San Mateo and Monterey Counties, California, Prepared by the Engineering/Remediation Resources Group, January 2006

Golf Course: Zoning and Use Permit, City of Pacific Grove Memorandum to City Officials, from David Laredo (City Attorney), October 12, 2006.

Foghorn Building, City of Pacific Grove Memorandum to Golf Links Advisory Commission, from Daniel Gho (Department of Public Works Superintendent), March 22, 2011.

10.2.2.5 Site Inspection and Reconnaissance

Subject Property Reconnaissance Findings

Lead and Asbestos Inspection

Historically, the Coast Guard, and before that the Lighthouse Service, routinely painted its lighthouses with lead-based paint (LBP) (USCG, 2006). In November 2005, the Coast Guard sampled the soils and tested them for lead. Based on the results of the soil sampling, Coast Guard engineers estimate that 39 cubic yards of soil surrounding the Point Pinos lighthouse were affected by LBP chipping, flaking, scraping, or blasting residue at a rate of a little more than 1 pound of lead per year. The Coast Guard estimates that since 1855 approximately 152 pounds of lead has accumulated within the affected area (USCG, 2006).

The Phase II Lead Contamination Assessment Report, January 2006, provides the results of lead sampling conducted around the lighthouse. Lead concentrations in soil ranged from 6 mg/kg to 6490 mg/kg.

A Phase I Environmental Site Assessment completed in 2002 for the Point Pinos Lighthouse included laboratory analysis of samples collected from the Lighthouse indicating the presence of asbestos (Tetra-Tech, 2002). No assessment was made of the WWTP site during the 2002 ESA.

The 2006 Quitclaim Deed provides notice of asbestos and lead contamination at the Point Pinos Lighthouse site, and in the immediate vicinity of the Lighthouse.

A meeting was held with the City Public Works Superintendent to discuss past practices for the use and disposal of hazardous materials, hazardous wastes and petroleum products. The following relevant information was obtained (Gho, personal communication 2014):

- No records or recollections exist regarding the identification, location, use or removal of underground storage tanks at any of the Project sites. Several searches were made through the City files for relative permits, photographs, reports and drawings. The original design drawings for the Point Pinos WWTP were obtained, providing information on the design for the facility.
- The City provided an extensive library of reference materials for each of the parcels included within the proposed Project. These materials were reviewed for information on the handling, use, disposal of hazardous materials, hazardous wastes and petroleum products, maps, land use practices and photographs.
- No records exist throughout the archives of the City regarding the site maintenance activities at the retired Point Pinos WWTP. Information is not available on the potential for asbestos and lead based paints.

- As a part of the removal of the Foghorn Building, PG&E expressed concerns about the potential for PCB's within the power pole mounted transformer. Removal of the transformer was completed by PG&E.

Field meetings were held with the Maintenance Supervisor for the City at the Point Pinos WWTP, El Carmelo Cemetery. The purpose of the meetings was to discuss past practices for the use and disposal of hazardous materials, hazardous wastes and petroleum products. The following relevant information was obtained (Gentry, 2014):

- No oil or fuel storage is practiced by the City at the Point Pinos WWTP site. The City uses the site as a secondary maintenance facility. All oils, fuels, lubricants etc., are only used at the City's Corporation Yard at 2100 Sunset Avenue. No insecticides, pesticides or fertilizers are stored onsite.
- The El Carmelo Cemetery maintenance building was constructed approximately 15 years ago. The new building was built on the site of a former maintenance building. The City uses the site for the support required for burials. Small batches of concrete are mixed for work on headstones and burial vaults. No oils, fuels, lubricants etc., are used onsite, with all equipment maintenance taking place at the City's Corporation Yard at 2100 Sunset Avenue. No insecticides, pesticides or fertilizers are stored onsite.

A meeting was held on June 3, 2014 with Steve Honegger, Rehabilitation Inspector, Housing Division for the City. The Sanborn maps were reviewed. Information in the City files is generally pertinent only to lands within the City. Since the proposed Project sites were historically owned by the Coast Guard, the City did not maintain information on these areas. Similarly, aerial and site photographs were not available for any of the Project sites.

10.2.3 Known On-Site and Adjacent Hazardous Materials Contamination

The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. Potential soil contamination resulting from the possibility that lead based paints may have been used on the former WWTP tanks is under investigation. The possibility therefore exists that the existing structures contain asbestos or lead-based paint. However, without samples and test results from the buildings, this assumption cannot be confirmed. Such testing has not been performed to date, so there is the potential that refurbishment of these structures could result in the inadvertent release or improper disposal of debris containing these materials.

Adjacent sites having the potential for hazardous material contamination were identified through a search of public records. Of these sites, only the Point Pinos Lighthouse was identified as having known hazardous material contamination requiring specific use restrictions. Other sites identified, and discussed previously in this section, have undergone remediation and are not considered to be of continuing concern.

The possibility that an underground gasoline storage tank may have existed at the Golf Links Clubhouse is unconfirmed. The Monterey County CUPA noted that there was no record of a UST at that site and indicated that if there was a UST at this location, then it would have been removed before 1988 when the State UST program began (Welch, 2014). .

10.2.4 Other Potential Hazards

Hazardous Materials Transport and Storage

The proposed Project may require the transport of hazardous materials during construction (e.g., fuel for construction equipment, oil, solvents, or paints), as well as during operations. The roads used most frequently for this transport would include Oceanview Boulevard and Asilomar Avenue.

Underground Utilities

Several components of the Project would be located within existing roadways that may have existing underground utilities, potentially including oil, gas, or other utility pipelines. A rupture of the pipelines could expose maintenance workers, and nearby residences to flammable and toxic substances (natural gas or oil).

Potential Fire Hazards

A fire occurred in the administration offices of the former Point Pinos WWTP in 2010. The fire was attributed to vagrants that may have been occupying the retired facility or an act of vandalism. Fire damage was limed to the interior of the administration offices.

The Pacific Grove General Plan notes that there is a potential for both wildland and structural fires to threaten life and property in Pacific Grove. Wildland fires, which result from both human activity and natural causes, occur in forests, brush, or grasslands, but may threaten structures and urban development. Structural fires usually result from human activity. Substandard structures present the highest potential for injury, death, or loss of property.

The California Department of Forestry has developed a classification of wildland fire hazards for all "State responsibility lands." The State responsibility lands within the Pacific Grove Planning Area, all of which are unincorporated, have been designated as having a moderate fire potential. None of the areas in the current PGLWP study area are outside the incorporated area of Pacific Grove.

A number of areas within the Pacific Grove incorporated area are noted in the Pacific Grove General Plan as lacking adequate fire protection due to their age or lack of adequate water supply. None of the areas in the current PGLWP study area are located in areas noted as lacking adequate fire protection.

Policy 13 through 23 and Policy O through DD relates to fire protection. These policies address minimum water supply flow rates for fire control, hazard abatement, including vegetation, and specific fire related policies where endangered species occur.

10.3 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

10.3.1.1 Methodology

For the purpose of this assessment, hazardous materials are defined as any materials that, because of quantity, concentration, or physical or chemical characteristics, pose a significant, present, or potential hazard to human health and safety or to the environment, if released. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a handler or the administering regulatory agency has a reasonable basis for believing would be injurious to the health and safety of persons or would be harmful to the environment if released into the workplace or the environment (California Health and Safety Code § 25501).

This section is based primarily on information collected during the environmental site assessment. The environmental site assessment included a review of existing literature, government databases, and field surveys. As a component of the assessment, EDR performed a database search in May 2014, to identify federal, state, and local records of hazardous materials activities within a mile of the Project site that have the potential to affect conditions onsite. Additional available files and reports were reviewed for records of hazardous materials or incidents in the vicinity of the PGLWP study area. A field survey was conducted on May 2014 to search for signs of use or disposal of hazardous materials. The field survey also included interviews with City maintenance and supervisory personnel.

Data collected during the EDR review and field survey was analyzed to determine the potential for hazards within the PGLWP study area and to identify potential hazardous constraints at the Project site.

10.3.1.2 Significance Threshold Criteria

According to Appendix G of the CEQA Guidelines, a project may create a significant environmental impact if it would:

(1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
(2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
(3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
(4) Be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
(5) Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working on the project site;
(6) Be located within the vicinity of a private airstrip, and would result in a safety hazard for people residing or working on the project site;
(7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and
(8) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

10.4 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the proposed Project are addressed in the Project-level analysis.

Impact 10-1*: *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Impact 10-2*: *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Project-Level Impact Analysis

Construction: Construction equipment uses various hazardous materials (diesel fuel, oil, solvents, etc.) and these materials would be disposed of off-site in accordance with all applicable laws pertaining to the handling and disposal of hazardous waste. Hazardous or flammable materials used during construction would consist primarily of small volumes of petroleum hydrocarbons and their derivatives (e.g., fuels, oils, lubricants, and solvents) required for the operation of construction equipment. Materials would be those routinely associated with the operation and maintenance of heavy construction equipment or other support vehicles, including gasoline, diesel fuels, and hydraulic fluids. In addition, it is anticipated that small quantities of additional common hazardous materials would be used and produced on-site during construction, including antifreeze and used coolant, latex and oil-based paint, paint thinners and other solvents, cleaning products, and herbicides.

Soils, surface water, groundwater, or members of the public could be affected if a spill of motor vehicle fuel or transformer fluid were to occur as a result of transportation of these materials during project construction. However, such materials are routinely safely transported on public roadways. The transport of large quantities of hazardous materials is strictly regulated by the California Highway Patrol (CHP), and the transport of oversize/overweight loads is regulated by California Department of Transportation (Caltrans). Large quantities of hazardous materials used during project construction would be transported along regulated routes by a licensed transporter, and would therefore not pose a substantial hazard to people or the environment.

Operation: The purpose of the Project is to treat municipal sewage for use as recycled non-potable irrigation water.

Operation and maintenance of some Project components may involve periodic and routine transport, use, and disposal of minor amounts of hazardous materials, primarily petroleum products (fuels and lubricating oils).

The proposed treatment Facility would implement a UV disinfection system to water treatment, which eliminates the need for permanent chemical storage on-site. In addition, the filters that are currently proposed for treatment do not use chemicals as part of their backwash process. It is expected that chemicals may be used as part of the regular quarterly or annual cleaning of the filters, but no chemicals would be stored on-site as part of the cleaning process. Backwash water would be carefully managed and taken off-site for disposal. The transportation of these chemicals would occur infrequently and is not a significant concern.

During the operation of the proposed SRWTP, suspended solids would be filtered out of the municipal sewage. A rotary screen would collect the pollutants and implement a helical screw system to lift and dewater the waste before conveying it to a dumpster. The waste would then be dried and stored on-site before being disposed of at the Marina Regional Solid Waste Management Facility.

As required by OSHA Standard 1910.120, Hazardous Waste Operations and Health Standards, safety training would be conducted prior to construction to educate personnel of potential safety issues. Compliance with all applicable regulations, including OSHA and Cal/OSHA would ensure that all fuels, fluids, and components with hazardous materials or hazardous wastes would be handled properly and kept in segregated storage with secondary containment, as necessary. In compliance with RCRA regulations, the City would maintain all records of storage and inspection and provide for proper off-site disposal.

Compliance with existing laws and regulations governing the transport, use, and storage of hazardous materials and wastes as well as use of appropriately trained employees would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Demand Group II and III would include additional trenching construction phases, and would increase the operational capacity at the SRWTP. Construction activities would be of a small scale to those assumed for Demand Group I. Compliance with existing laws and regulations governing the transport, use, and storage of hazardous materials and wastes as well as use of appropriately trained employees would reduce impacts related to exposure of the public or environment to hazardous materials to **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 10-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Project-Level Impact Analysis

The PGLWP impact area is not located within one-quarter mile of an existing or proposed school. There would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The PGLWP impact area is not located within one-quarter mile of an existing or proposed school. There would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 10-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Project-Level Impact Analysis

The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. As identified in the environmental setting, the retired Point Pinos WWTP was constructed when asbestos and lead-based paints were used in building construction (prior to 1978). Therefore, the possibility exists that the existing structures contain asbestos or lead-based paint. However, without samples and test results from the buildings, this assumption cannot be confirmed. This is a **potentially significant impact.**

Adjacent sites were identified through a search of public records to determine if any possessed the potential for hazardous material contamination. Of these sites, only the Point Pinos Lighthouse was identified as having known hazardous material contamination requiring specific use restrictions. Other sites identified and discussed previously in this section, have undergone remediation and are not considered to be of continuing concern.

The possibility that an underground gasoline storage tank may have existed at the Golf Links Clubhouse is unconfirmed, but if a tank existed at this location, it is likely that it was removed prior to 1988. In addition, no evidence of PCBs was identified during the 2014 Phase I ESA; therefore, exposure to PCBs would be less than significant.

Project-Level Mitigation Measures

Hazardous Materials Mitigation Measure 1: CCR Title 8 Section 5208 requires that a State-certified risk assessor conduct a risk assessment and/or paint inspection of all structures constructed prior to 1978 for the presence of asbestos or lead-based paint prior to demolition. If such hazards are determined to exist onsite, the risk assessor would then prepare a site-specific hazard control plan detailing asbestos and/or paint removal methods and specific instructions for providing protective clothing and gear for abatement personnel. If necessary, a State-certified lead-based paint and an asbestos removal contractor (independent of the risk assessor) would be retained to conduct the appropriate abatement measures as required by the plan. Wastes from abatement and demolition activities would be disposed of at a landfill(s) licensed to accept such waste. Once all abatement measures have been implemented, the risk assessor would conduct a clearance examination and provide written documentation to the City that testing and abatement have been completed in accordance with all federal, state, and local laws and regulations.

If any unforeseen conditions are discovered during Project construction, the contractor would coordinate with the appropriate agencies for the safe handling, sampling, and disposal of encountered materials. Construction workers are required to comply with Cal-OSHA worker health and safety standards that ensure safe workplaces and work practices. Further, compliance with all applicable laws and regulations at the federal, state, and local levels would prevent the

exposure of individuals and the environment to the hazards by ensuring that all abatement regulations are carried out prior to demolition.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

Demand Group II and III would include additional trenching during the construction phases, and would increase the operational capacity at the SRWTP. The exact trenching locations are not yet known. Potential concerns involving lead and asbestos that may be present in the retired Point Pinos WWTP as part of Demand Group I could also occur in subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, and well as adherence to existing laws and regulations governing the transport, use, and storage of hazardous materials and wastes as well as use of appropriately trained employees would reduce impacts related to exposure of the public or environment to hazardous materials to **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 10-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working on the project site?

Impact 10-6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working on the project site?

Project-Level Impact Analysis

The PGLWP impact area is not located within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. There would be **No impact.**

Project-Level Mitigation Measures

Significance after mitigation: N/A

Program-Level Impact Analysis

The PGLWP impact area is not located within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. There would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 10-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project-Level Impact Analysis

The PGLWP Project would not impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. There would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The PGLWP Project would not impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. There would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 10-8: Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Project-Level Impact Analysis

None of the areas in the current PGLWP study area are outside the incorporated area of Pacific Grove where the potential exists for wildland fires. None of the areas in the current PGLWP study area are located in areas noted as lacking adequate fire protection. There would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Much of the proposed Project within the Demand Group II and Demand Group III areas is outside City limits, where the potential exists for wildland fires. However, the proposed Project would not increase population within the Pacific Grove/City of Monterey area, nor would new structures would be built. The exact locations of the pipelines and appurtenances is unknown at this time, but any subsequent CEQA analysis would contain an analysis of risks of fire exposure to this equipment, and would contain findings to determine if the proposed Project could be affected by wildland fires. It is important to note that the pipelines would be installed primarily underground. Therefore, the impact of people and structures from exposure to wildland fires

would not occur as a result of implementing the Demand II and Demand Group III features. There would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

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SECTION 11.0 HYDROLOGY AND WATER QUALITY

11.1 INTRODUCTION

Information contained in this section is derived from a number of sources including the City of Pacific Grove General Plan, the Geotechnical Investigation for the Pacific Grove ASBS Stormwater Management Project, as well as websites from relevant regulatory agencies (e.g., State Water Resources Control Board, Regional Water Quality Control Board, and Federal Emergency Management Agency).

The proposed Project would not affect existing hydrologic patterns on the site. The Project consists of two types of activities: placement of new skid mounted appurtenances at the flat WWTP site and installation of 2,800 feet of new pipeline within existing pipe easements or rights-of-way. The Project involves the redevelopment of existing infrastructure of the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery and would not introduce substantial additional impervious surfaces. Finally, while the Point Pinos site is within a tsunami hazard zone, no new housing or other structures would be built in this location, thus the proposed SRWTP improvements would not exacerbate vulnerability to a tsunami hazard or the effects of sea level rise. No effects analyzed in this section were found to exceed significance criteria, thus no mitigation measures are contained within this Section.

11.2 ENVIRONMENTAL SETTING

11.2.1 Regional Hydrology

General Climate. The City is located on the tip of the Monterey Peninsula on the Central California Coast. The weather of the PGLWP study area is influenced by a marine climate that is pronounced due to the upwelling of cold water from the Monterey submarine canyon. The warmest month is September, with an average daily high of 70°F. The average daily low temperatures are 44°F in January and 53°F in September. Average rainfall is 19.7 inches per year, with approximately 90% falling during November through April (www.weather.com).

Surface Water. The prominent water feature adjacent to the Project site is the Monterey Bay and the Pacific Ocean coastline adjacent to the City. Along the Monterey Bay side of the City's coast, the near shore waters have been designated by the SWRCB as the Pacific Grove ASBS (Figure 10-1). The Pacific Grove ASBS lies entirely within the Monterey Bay National Marine Sanctuary (MBNMS), and overlaps with the Pacific Grove State Marine Conservation Area and Hopkins State Marine Reserve. ASBS areas are accorded special protection under the Marine Managed Areas Improvement Act and the California Ocean Plan (COP). The special protections defined in the COP prohibit waste discharges to the ASBS. Stormwater discharges into ASBS areas are allowed under a SWRCB adopted General Exception to the COP waste discharge prohibition, with Special Protections that require both structural and non-structural control to protect "natural water quality" within the ASBS.

The PGLWP study area also includes Crespi Pond, a brackish to fresh water pond located on the Golf Links between Point Pinos and the north end of Asilomar Avenue. Crespi Pond is habitat to a number of bird species and is managed by the City.

Groundwater. The Project site is situated entirely within the City and does not directly overlie a groundwater basin. The City is located between the Salinas Valley Seaside Groundwater Subbasin, which lies east of Pacific Grove in the vicinity of Seaside, Marina, and the former Fort Ord (IWRIS, 2013) and the Carmel Valley Groundwater Basin, which is located to the south, within the Carmel River Valley Watershed.

Groundwater was not encountered in borings collected at the PGLWP site as part of the geotechnical investigation for the Monterey and Pacific Grove ASBS Project (Pacific Geotechnical Engineering, 2013). Depths of borings were between 9 and 24 feet. The site geology is comprised of granite bedrock surface whose conditions reflect variable groundwater depths. Subsurface drainage is expected to occur relatively quickly and flow outwards toward the Point Pinos bluffs. Surface rainfall is expected to locally pond on the granite bedrock surface and drain outwards towards the Pacific Ocean.

The City collects and stores water from a cistern located on the site for construction water uses.

Hydrology. The Project site is located in the Central Coast Hydrologic Region. The Central Coast Hydrologic Region covers approximately 7.22 million square miles and includes all of Santa Cruz, Monterey, San Luis Obispo, and Santa Barbara counties, as well as parts of San Benito, San Mateo, Santa Clara, and Ventura counties. Major geographic features that define the region include the Pajaro, Salinas, Carmel, Santa Maria, Santa Ynez, and Cuyama valleys; the coastal plain of Santa Barbara; and the Coast Range. The northwest trending southern Coast Range largely defines the region (California Department of Water Resources, 2009).

The proposed Project encompasses a portion of the watershed that drains to the Pacific Grove Area of Special ASBS. This watershed area includes much of the City and a portion of the City of Monterey (New Monterey). The Cities of Pacific Grove and Monterey propose an ASBS Project to divert and treat dry weather and stormwater runoff to new stormwater diversion facilities and treatment plants. An EIR for the ASBS Project was issued in 2014.

Water Quality. Surrounding land uses largely affect surface water quality, with both point and nonpoint source discharges contributing contaminants to surface waters. The Project study area is comprised of residential, office and commercial land uses, golf courses, recreational parks, schools, military installments and open space reserves. Pollutant sources in urban areas include parking lots and streets, rooftops, exposed earth at construction sites, and landscaped areas. Erosion from construction activities can results in sedimentation that ultimately flows into surface waters. Other contaminants in urban runoff include sediment, hydrocarbons, metals, pesticides, bacteria, and trash.

Polluted runoff can result in adverse effects on aquatic ecosystems, public use, and human health from groundwater and surface water contamination, damage to or destruction of wildlife habitat, decline in fisheries, and loss of recreational opportunities. Suspended particulates can restrict light penetration into water and limit photosynthesis of aquatic biota. Metals and petroleum hydrocarbons washed from roadways and parking lots, as well as fertilizers, pesticides, and herbicides from landscaped areas, may cause toxic responses in aquatic life.

MPWMD maintains groundwater and surface water monitoring in the Carmel River Valley and the SGWB. Ambient conditions in surface waters are measured by dissolved oxygen, carbon dioxide, pH, temperature, turbidity, conductivity and salinity, while groundwater is monitored for specific conductance, total alkalinity, pH, chloride, sulfate, ammonia nitrogen, total organic

carbon, calcium, sodium, magnesium, potassium iron, manganese, orthophosphate, and boron.

Monitoring and analysis in both the near shore environment and coastal watersheds has pointed to urban runoff as the leading cause of water pollution affecting the MBNMS. Monitoring revealed high concentrations of nutrients, metals, pathogens, detergents and other contaminants in local creeks and rivers and urban outfalls that drain into the MBNMS. Cities participating in the Monterey Regional Storm Water Management Program and MBNMS Water Quality Protection Program (WQPP) seek to reduce non-point source urban runoff through end of pipe treatments and source control program. These programs use best management practices such as swales, filters, and retention basins, as well as addressing behaviors and activities that introduce pollution.

Discharges to the Pacific Grove ASBS have been monitored over the past decade by a variety of stakeholders and volunteers in a collaborative effort to educate, monitor and protect marine resources in the Monterey Bay.

First Flush Report. The Monterey Bay Sanctuary Citizen Watershed Monitoring Network (the Network) is a consortium of citizen monitoring groups that monitor the health of the eleven watersheds flowing into the MBNMS. The Network has monitored concentrations of nitrate (NO3-NO3), Orthophosphate (PO4-P), total coliform, Escherichia coli. (E. coli), total dissolved solids (TDS), total suspended solids (TSS), oil and grease, zinc, copper, iron, and lead. In recent years, these efforts for the cities of Pacific Grove and Monterey have been folded into the larger Monterey Regional Storm Water Management Program (MRSWMP) Monitoring Program to assist with permit compliance regionally with shared resources while also continuing to engage local volunteers in water quality protection.

Urban Watch. The Urban Watch Water Quality Monitoring Program (Urban Watch) is a collaborative effort between the cities of Monterey, Pacific Grove, Capitola, the Coastal Watershed Council, and the MBNMS. The Coastal Watershed Council is a non-profit organization that advocates for the preservation and protection of coastal watersheds through the establishment of community-based watershed stewardship programs in cooperation with local agencies. Urban Watch volunteers collect water samples and conduct basic field analysis using an EPA approved LaMotte Storm Drain Pollution Detection Kit to detect detergents and chlorine, and a Hach photometer for ammonia and orthophosphate.

The City is implementing the Central Coast ASBS Regional Monitoring program to standardize water quality monitoring to meet the testing requirements of SWRCB pursuant to the requirements of SWRCB Resolution No. 2012-0012. The results of the Central Coast ASBS Regional Monitoring would establish the "natural water quality" objectives to be met by the ASBS Special Protections. The receiving water samples would be monitored for COP indicator bacteria, residual chlorine, copper, zinc, grease and oil, methylene blue active substances (MBAS), ammonia and nitrogen. Sediment samples would be analyzed for COP Table 1 metals (for marine aquatic life beneficial use), acute toxicity (using *Eohaustorius estuarius*), PAHs and tributyltin. The stormwater treatment process target pollutants and reduction levels would be determined based upon findings from this water quality monitoring effort. If receiving water monitoring determines the natural water quality is degraded, target pollutants and removal levels would be determined by the City following the monitoring period.

The ASBS Project is intended to satisfy the ASBS Special Protection requirements and protect

natural water quality if found degraded. If the Central Coast ASBS Regional Monitoring program determines that the cities are already in compliance with the ASBS Special Protections, the ASBS Project would not be required and would therefore not be pursued.

11.2.2 Flood Hazards

FEMA Flood Hazard Zones. The Federal Emergency Management Agency (FEMA) establishes base flood heights for the 100-year flood zone. The 100-year flood zone is defined as the area that could be inundated by the flood that has a one percent probability of occurring in any given year. The 500-year flood zone is defined as the area that could be inundated between the limits of the base flood and the 0.2-percent-annual-chance flood. No Project components are located in an area subject to flooding hazards. Figure 11-1 presents the FEMA flood zone map for the Project area.

Tsunami. A tsunami is a series of waves generated by an impulsive disturbance in the ocean or in a small, connected body of water. Tsunamis are produced when movement occurs on faults in the ocean floor, usually during very large earthquakes. Sudden vertical movement of the ocean floor by fault movement displaces the overlying water column, creating a wave that travels outward from the earthquake source. An earthquake anywhere in the Pacific can cause tsunamis around the entire Pacific basin. Since the Pacific Rim is highly seismically active, tsunamis are not uncommon (City of Santa Cruz, 2011). Tsunami hazards are mapped on Figure 11-2. The proposed SRWTP at Point Pinos and associated recycled water pipelines that comprise the PGLWP are located within a potential tsunami inundation zone as modeled by the University of Southern California (USC) model (County of Monterey, 2007).

Typical peak wave heights from large tsunamis in the Pacific Ocean over the past 80 years have ranged from 21 to 45 feet at the Monterey County shoreline (County of Monterey, 2007). However, a few waves have been higher and were up to 100 feet locally at the shoreline (ibid). The tsunami inundation zone is shown as outlined in green on Figure 11-2. The figure also shows a moderate tsunami run-up area and an extreme tsunami run-up area. The moderate tsunami run-up area is shown in a light purple color and includes those areas below 21 feet mean sea level (MSL). The extreme tsunami run-up area is shown in a darker purple color and covers areas that are situated between 21 feet and 50 feet MSL.

There have been eight observed tsunami-generated waves in Monterey County over the last 200 years (Monterey County, 2007). In addition, the March 11, 2011, magnitude 9.0 Honshu earthquake in Japan generated a tsunami observed over the Pacific region and caused tremendous devastation in Japan. This is the fourth largest earthquake in the world and the largest in Japan since instrumental recordings began in 1900 (NOAA, 2013). The tsunami affected numerous areas, but in the Monterey Bay area the maximum run-up wave height was 0.70 meters in the City of Monterey, 1.90 meters in Santa Cruz Harbor, and 2.0 meters in Moss Landing (NOAA, 2013). In Monterey County, the greatest amount of damage was sustained at Moss Landing, where there were 200 damaged pilings and 20,000 cubic yards of extra sediment deposited in the harbor. The damage was not at first apparent, but two months after the event, the Moss Landing Harbor District filed a claim with the California Emergency Management Agency for $1.75 million in damages (Monterey County Weekly, May 26, 2011).

Figure 11-1: FEMA Map

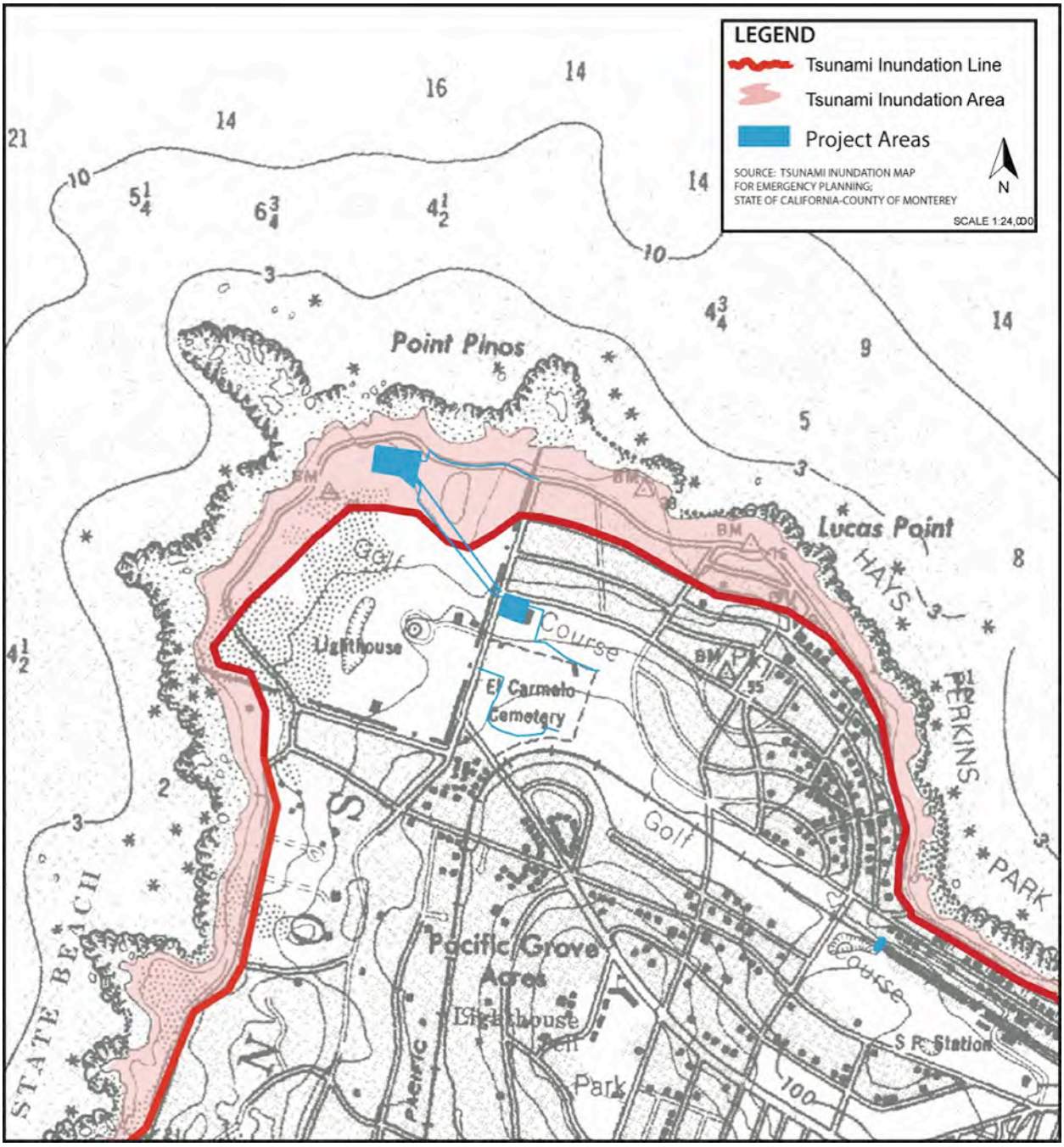

Figure 11-2: Tsunami Map

Almost all of the Pacific Ocean tsunamis were produced by earthquakes and resulted in wave run-ups of one meter or less. A tsunami in 1960 produced severe currents in Monterey, Moss Landing, and Pacific Grove and is blamed for one death. Monterey County has experienced nine tsunamis over the past 100 years and has been impacted significantly by two (Monterey County, 2007). Although these numbers could be averaged to generate an expected occurrence rate, there have been as few as three and as many as 45 years in between events, and an averaged recurrence interval would not be meaningful. According to the Multi-Jurisdictional Hazard Mitigation Plan (Monterey County, 2007), the probability that Monterey County would experience a tsunami is estimated to be high (one event in every three to 45 years, averaging a 1-foot to 11-foot run-up for all coastal and low-lying areas within the County).

***Seiche*.** Seismic seiches, as defined by the USGS, are standing waves set up on rivers, reservoirs, ponds, and lakes when seismic waves from an earthquake pass through the area. This is in direct contrast to tsunamis, which are giant sea waves created by the sudden uplift of the sea floor. Seiches west of the Rockies are very rare and there is limited evidence of damage from seiches in California (USGS, December 2013). Therefore, the Project site components are not considered to be within a seiche hazard area.

***Dam Failure*.** Dam failures can result in severe flood events. A dam failure is usually the result of neglect, poor design, or structural damage caused by a major event such as an earthquake. The closest dam site is the David Avenue Reservoir, located approximately 2 miles southeast from the proposed SRWTP site at Point Pinos. The proposed ASBS Project involves the rehabilitation of the David Avenue Reservoir and activation of the reservoir as a stormwater holding facility. It should be noted that the previous water storage capacity was 56 acre feet, while the proposed rehabilitation as part of the proposed Cities of Pacific Grove and Monterey ASBS Project would contain 49.15 acre feet of water (Rincon, 2014). There are no Project components within the projected dam inundation area.

***Sea Level Rise*.** The California Climate Change Center (CCCC) study, the Impacts of Sea-Level Rise on the California Coast (May 2009*),* identifies a sea level rise on the California coast over the past century of approximately eight inches. This study indicates that climate change has the potential to induce substantial sea level rise in the coming century. Based on the results of various global climate change models, sea level rise is expected to continue. The California Climate Adaptation Strategy (December 2009) estimates a sea level rise of up to 55 inches by the end of this century.

In Monterey County, higher sea levels would allow waves and tides to travel farther inland, exposing beaches, cliffs, and coastal dunes to more persistent erosional forces. The southern portion of Monterey Bay is eroding more rapidly than other regions in the state, with coastal dunes between the Salinas River mouth and Wharf II in Monterey eroding at rates between one and six feet per year (Center for Ocean Solutions, 2013).

A total of approximately 4.4 square miles of Monterey County coastline is susceptible to erosion, and the maximum distances coastal dunes and sea cliffs are expected to retreat in this region are approximately 1,300 and 720 feet, respectively (ibid).

The Pacific Institute (2009) developed a series of coastal hazard maps for the entire coast of California. These maps illustrate the projected sea level rise and landward extent of erosion under a moderate sea level rise scenario. These maps show that the sea level rise scenario (coastal

100-year base flood plus 55 inches) would extend only a short distance further inland than existing conditions in the vicinity of Project components near the coastline. Figure 11-3 presents the projected sea level rise in the Project area. Most Project components would not be subject to substantial effects from sea level rise according to these maps; however, the 6-inch wastewater force main located on Ocean View Drive is located along the coastal area that could be subject to sea level rise.

11.2.3 Drainage

Figure 11-4 presents the existing City's existing storm drainage conveyance facilities. Storm drains within the City currently discharge storm water through 25 outfalls to the Pacific Grove ASBS. Under existing conditions, dry weather flows (nuisance flows that occur in the dry season between April 15 and October 15) between Lovers Point and eastward to Eardley Avenue, are diverted to the MRWPCA Regional Treatment Plant (RTP) prior to discharge into the Pacific Ocean. In areas west of Lovers Point to Point Pinos, stormwater is discharged untreated to the Pacific Ocean ASBS under both dry and wet weather conditions.

11.3 REGULATORY SETTING

11.3.1 Federal

Federal Clean Water Act. Congress passed the Federal Water Pollution Control Act, commonly known as the Clean Water Act (CWA), in 1972, with the goal of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). The CWA directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis. Section 319 mandates specific actions for the control of pollution from non-point sources. The EPA delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) Program, and in California to the SWRCB and the nine Regional Water Quality Control Boards (RWQCBs).

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. Water quality standards are typically numeric, although narrative criteria based upon biomonitoring methods may be employed where numerical standards cannot be established. Water quality standards applicable to the Project are contained in the Water Quality Control Plan for the Central Coast Basin (Basin Plan). Section 303(d) of the CWA bridges the technology-based and water quality-based approaches for managing water quality. Section 303(d) requires that states make a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list (and where the USEPA administrator deems they are appropriate), states are to develop "total maximum daily loads" (TMDL). TMDLs are established at the level necessary to implement the applicable water quality standards.

Figure 11-3: Sea Level Rise Map

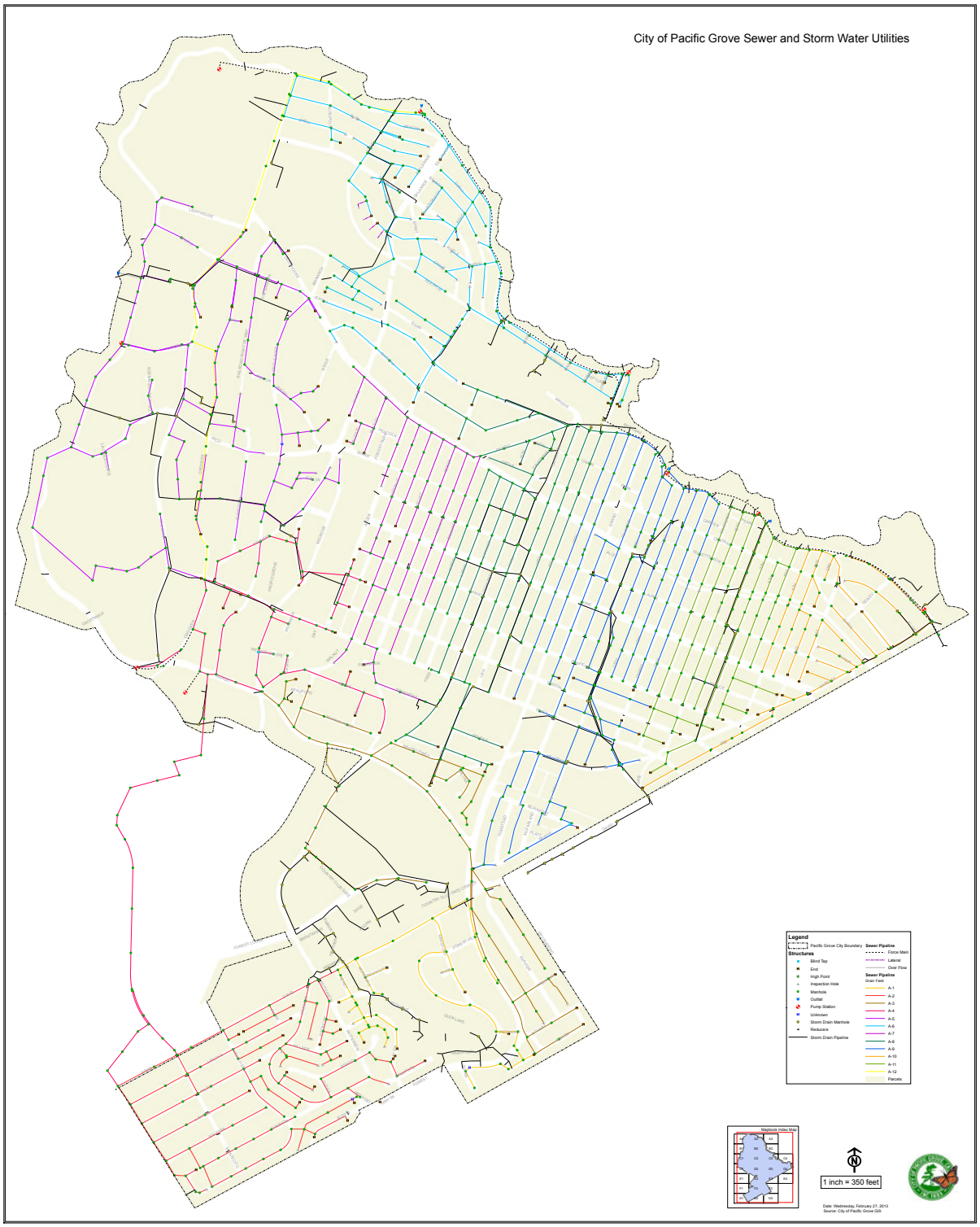

Figure 11-4: Existing Storm Drain Map

Section 401 of the CWA requires water quality certification for any activity, including the construction or operation of a facility, which may result in any discharge into navigable waters (Title 33 CFR §1341). Section 404 of the CWA prohibits the discharge of any pollutants into "waters of the United States," except as allowed by permit. 33 C.F.R. § 328.3(a)(3). Section 404 of the CWA authorizes the U.S. Army Corps of Engineers (Corps) to issue permits for and regulate the discharge of dredged or fill materials into wetlands or other waters of the United States. Under the CWA and its implementing regulations, "waters of the United States" are broadly defined to consist of rivers, creeks, streams, and lakes extending to their headwaters, including adjacent wetlands.

National Pollution Discharge Elimination System (NPDES). The goal of the NPDES nonpoint source regulations is to improve the quality of discharges to receiving waters to the "maximum extent practicable" through the use of Best Management Practices (BMPs). The NPDES permit system was established in the CWA to regulate point source discharges (a municipal or industrial discharge at a specific location or pipe) and certain types of diffuse discharges, including urban stormwater and construction site runoff. The Project would be subject to the Monterey Regional Stormwater Pollution Prevention Program and the associated NPDES permit.

The SWRCB permits all regulated construction activities under NPDES General Permit for Storm Water Discharges Associated with Construction Activity (adopted September 2, 2009) (the "Construction General Permit"). Every construction project that disturbs one or more acres of land surface or that are part of a common plan of development or sale that disturbs more than one acre of land surface would require coverage under this Construction General Permit.

To obtain coverage under this Construction General Permit, the landowner or other applicable entity must file Permit Registration Documents (PRDs) prior to the commencement of construction activity, which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other documents required by the Construction General Permit, and mail the appropriate permit fee to the SWRCB. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least one acre of total land area. The SWPPP has two major objectives: (1) to to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges;; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges. BMPs are intended to reduce impacts to the Maximum Extent Practicable (MEP).

Since the proposed Project would not disturb more than one acre, construction of the Project would not be subject to this Construction General Permit requirements. The proposed Project would also be subject to City BMPs for construction stormwater requirements.

Monterey Bay National Marine Sanctuary. The MBNMS was officially designated by the federal government in September 1992 to protect an enormous variety of marine mammals, seabirds, fish, plants, and animals. This is the largest marine sanctuary in the country with an area of 4,024 square nautical miles. The law that created the sanctuary establishes a permanent ban on exploring for, developing, or producing oil, gas, and minerals throughout the sanctuary.

The proposed Project would decrease waste discharges to the MBNMS, and would not

negatively affect it.

11.3.2 State

Porter-Cologne Water Quality Act. The Porter-Cologne Water Quality Control Act establishes the SWRCB and each RWQCB as the principal State agencies for coordinating and controlling water quality in California. Specifically, the Porter-Cologne Act authorizes the SWRCB to adopt, review, and revise policies for all waters of the State (including both surface and groundwater) and directs the RWQCBs to develop regional Basin Plans.

The Central Coast RWQCB has authority to implement water quality protection standards through the issuance of permits for discharges to waters in its jurisdiction. Water quality objectives for receiving waters within Monterey County are specified in the Water Quality Control Plan for the Central Coast Basin (Basin Plan) prepared by the RWQCB in compliance with the federal CWA and the State Porter-Cologne Act. The principal elements of the Basin Plan are a statement of protected beneficial water uses; water quality objectives necessary to protect the designated beneficial water uses; and strategies and time schedules for achieving the water quality objectives. Together, narrative and numerical objectives define the level of water quality that shall be maintained in the region. The water quality objectives are achieved primarily through the establishment and enforcement of waste discharge requirements (WDRs).

The RWQCBs have primary responsibility for issuing WDRs. The RWQCBs may issue individual WDRs to cover individual discharges or general WDRs to cover a category of discharges. WDRs may include effluent limitations or other requirements that are designed to implement applicable water quality control plans, including designated beneficial uses and the water quality objectives established to protect those uses and prevent the creation of nuisance conditions. Cleanup and Abatement Orders (CAOs) or Cease and Desist Orders (CDOs), assessing administrative civil liability, or seeking imposition of judicial civil liability or judicial injunctive relief address violations of WDRs.

The Pacific Grove ASBS is one of 34 SWRCB-designated ASBS areas along the California Coast. These areas are defined as "ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable" (SWRCB Resolution No. 2012-0012). The California Ocean Plan (Ocean Plan) originally adopted in 1972 and most recently revised in 2012, establishes water quality objectives for California's ocean waters and provides the basis for regulation of point and non-point source discharges into the State's coastal waters.

On March 20, 2012, the SWRCB adopted the "General Exception and Special Protections for the California Ocean Plan Waste Discharge Prohibition for Stormwater and Nonpoint Source Discharges" into the ASBS. The "Special Protections" have since been incorporated in the SWRCB's Order No 2013-0001-DWQ, NPDES No CAS000004 [National Pollutant Discharge Elimination System (NPDES) General Permit For Waste Discharge Requirements (WDRs) For Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (MS4s)]. The "Special Protections" are also part of a General Exception to the COP, which states, "Waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas" (ibid).

Generally, the COP:

- Is the basis for regulation of wastes discharged in coastal waters and establishes water quality objectives for discharges as measured in the ocean receiving water; and
- Applies to point (typically outfall pipes) and non-point (typically overland flow) source waste discharges.

The principle requirements in the General Exception and Special Protections are:

- Elimination of non-stormwater urban runoff (e.g. dry weather discharges) into the ASBS;
- Ensuring that wet weather flows do not alter "natural water quality;" Ocean receiving water monitoring to ensure marine life and other beneficial uses are protected;
- If receiving water monitoring finds natural water quality is degraded by stormwater discharges, reducing pollutant loads by 90% during wet-weather;
- Eliminating all trash from outfalls and discharges;
- Structural BMPs to reduce pollutants, debris (e.g., street sweeping and storm drain inserts), and larger particles (e.g., detention basins and vortex units); and
- Non-structural BMPs such as construction site and commercial and industrial inspections, and public education and outreach.

The "Special Protections" and "General Exception" apply statewide in lieu of individual exceptions.

Regulations Governing Use of Recycled Water. The California Department of Public Health (CDPH) has produced "The Purple Book," which contains California health laws related to reuse of disinfected tertiary recycled water (California Department of Health Services 2001). Disinfected tertiary recycled water is defined as filtered and subsequently disinfected wastewater that exhibits extremely low levels of coliform bacteria and turbidity. Allowable uses for disinfected tertiary recycled water include:

- Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop;
- Parks and playgrounds, school yards, residential landscaping;
- Unrestricted access golf courses;
- Industrial cooling that involves the use of a cooling tower;
- Flushing toilets and urinals, priming drain traps, industrial process that that may come into contact with workers, structural firefighting, decorative fountains, commercial laundries, consolidation of backfill around potable water pipelines, and car washes; and
- Any other irrigation use not prohibited.

The following limitations and requirements apply.

- Irrigation within 50 feet of any domestic water supply well is prohibited unless certain conditions are met.
- Surface impoundments of tertiary treated disinfected effluent within 100 feet of any domestic water supply well are prohibited.
- All irrigation runoff shall be confined to the recycled water use area unless the runoff does not pose a public health threat and is authorized by the regulatory agency.

- Spray, mist, or runoff from reuse shall not contaminate dwellings, outdoor eating areas, food-handling facilities, and drinking-water fountains.
- No cross connections with domestic water systems are allowed. Proposed irrigation systems using wastewater must be entirely separate from irrigation systems using domestic supplies, and all pipes used for water recycling must be colored purple or use another marking system that clearly distinguishes recycled water from potable water.
- Disinfected tertiary recycled water shall be sampled at least once daily for total coliform and continuously for turbidity using a continuous turbidity meter.
- All use areas where recycled water is used and are accessible to the public shall be posted with signs indicating recycled water is in use.
- The supplier of reclaimed water must file an engineering report that indicates the means for compliance with regulations and a contingency plan to prevent untreated or inadequately treated wastewater from delivery to a use area.
- Training of personnel, system maintenance, and operating records and reports are required. The treatment system must be equipped with alarms in the event of a treatment system failure. The law also outlines standards for system reliability.

Backflow prevention devices are required such that effluent does not reach potable supplies or otherwise expose humans.

11.3.3 Local

City of Pacific Grove Subdivision Ordinance. PGMC Section 24.06.020, Pacific Grove's Subdivision Ordinance, is intended to control the erosion-inducing effects of development. PGMC Section 9.30 permits the City Public Works Department to identify and require construction BMPs. These practices may include, but are not limited to: perimeter control (use of gravel bags, silt fences, and straw wattles); construction material storage (covered when not in use); dirt and grading measures (daily watering of dirt and travel mounds; covering during the rainy season [October 15 – April 15]); and storm drain measures (use of perimeter controls). Compliance with these existing requirements would reduce construction-related erosion impacts to a less than significant level.

The City also requires temporary cover or mulching be used to protect bare soil and slopes to mitigate erosion hazards during construction in rainy periods.

City of Pacific Grove General Plan. The City of Pacific Grove General Plan contains several policies related to hydrology and water quality. The General Plan designates the Monterey Bay as a significant marine resource and Crespi Pond as an important freshwater resource for migratory birds. Policy 16 of the Public Facilities Element directs the City to "Promote the recovery of usable water from the storm drain system." Policy 8 of the Natural Resources Element directs the City to "cooperate with State and federal agencies in reducing impacts from urban runoff." Consistency with specific hydrology and water quality policies that apply to the Project is provided in Section 4.9, Land Use and Planning.

11.4 STANDARDS OF SIGNIFICANCE

Consistent with Appendix G of the State CEQA Guidelines, project implementation may result in a significant impact related to hydrology and water quality if it would result in any of the

following:

1) Violate any water quality standards or waste discharge requirements;
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
4) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
5) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
6) Otherwise substantially degrade water quality;
7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
8) Place within a 100-year flood hazard area structures that would impede or redirect flood flows;
9) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
10) Be subject to inundation by seiche, tsunami, or mudflow.

There is no adopted significance threshold for sea level rise. For the purposes of this assessment, impacts related to sea level rise would be considered potentially significant if projected sea level rise would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, consistent with thresholds used in Section 4.5, Geology/Soils.

11.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. Detailed evaluations of the impacts of the proposed Project (Demand Group I) are addressed in the project-level analysis below. The program-level analysis is prepared for Demand Groups II and III. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the proposed Project are addressed in the project-level analysis.

Impact 11-1: Violate any water quality standards or waste discharge requirements?

Project-Level Impact Analysis

Earth-moving activities including grading, trenching, excavation, and soil hauling associated with the project components have the potential to degrade water quality due to erosion and sedimentation. Regulations under the federal CWA require that an NPDES storm water permit be obtained for projects that would disturb greater than one acre during construction [refer to Section 10.3 (Regulatory Setting)]. Each of the five Project components could be undertaken

separately, and only those Project components greater than one acre would be required to comply with the NPDES program through preparation of a SWPPP, which outlines BMPs that would address post construction runoff. BMPs typically specified within the SWPPP may include, but would not be limited to, the following:

- The use of sandbags, straw bales, and temporary de-silting basins during project grading and construction during the rainy season to prevent discharge of sediment-laden runoff into storm water facilities;
- Revegetation as soon as practicable after completion of grading to reduce sediment transport during storms;
- Installation of straw bales, wattles, or silt fencing at the base of bare slopes before the onset of the rainy season (October 15th through April 15th); and
- Installation of straw bales, wattles, or silt fencing at the project perimeter and in front of storm drains before the onset of the rainy season (October 15th through April 15th).

As discussed in Section 7.0, Geology/Soils, all Project components (including those smaller than one acre) would be subject to the City of Pacific Grove Storm Water Management and Discharge Control Ordinance (PGMC Section 9.30). This section of the Municipal Code permits the City Public Works Department to identify construction BMPs. These construction BMPs require that every construction project have an erosion and sediment control plan to prevent soil and materials from leaving the site. Construction activities must be scheduled so that soil is not exposed for long periods of time, and key sediment control practices must be installed.

These practices may include, but are not limited to: perimeter control (use of gravel bags, silt fences, and straw wattles); construction material storage (covered when not in use); dirt and grading measures (daily watering of dirt and travel mounds; covering during the rainy season [October 15 – April 15]); and storm drain measures (use of perimeter controls).

The disturbance associated with this Project would be 0.77 acres, which is less than the one-acre threshold for preparation of a SWPPP; therefore, a SWPPP would not be required. However, construction BMPs established by the City Public Works Department would still be required, as described above. These BMPs would reduce the potential for stormwater pollution associated with construction activities, including on- and off-site sedimentation, deposition, and erosion. These BMPs would be administered by the City Public Works Department prior to start of construction.

Site preparation, grading and construction activities could degrade water quality due to the potential for erosion and sedimentation. However, compliance with existing federal, state, and local requirements would ensure that impacts remain **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Site preparation, grading and construction activities could degrade water quality due to the potential for erosion and sedimentation. However, compliance with existing federal, state, and

local requirements would ensure that impacts remain **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/As

Impact 11-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level?

Project-Level Impact Analysis

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed Project would serve to improve regional groundwater quantities and qualities by providing recycled water as a potable water substitute. The proposed Project would benefit regional groundwater quantities and qualities.

There are no local groundwater supplies used for potable water within the Project area. Some groundwater from wells located at the retired Pacific Grove WWTP is used for construction, pipeline flushing, and street sweeping purposes. The PGLWP would produce recycled water to the groundwater used for construction, pipeline flushing, and street sweeping. Therefore, the proposed Project would benefit the local groundwater qualities and qualities.

The use of recycled water in close proximity to domestic groundwater wells may result in adverse water quality effects that could have health risks. However, there are no domestic groundwater wells within the Project area so no impacts from Project implementation would occur. Any recycled water that infiltrates into the groundwater would not be expected to pose a health risk because there are no groundwater wells within the area. Compliance with Title 22 standards for tertiary treated water would ensure recycled water could not be used within 50 feet of any existing domestic groundwater well. Recycled water use is expected to have a **less than significant effect** within the Project area as potable water supply for customers within the Project area is from others sources in the region such as the Carmel Valley River basin, Salinas Valley Groundwater Basin, and the Seaside Groundwater Basin. Future sources may include seawater desalination from the Monterey Peninsula Water Supply Project.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed Project would serve to improve regional groundwater quantities and qualities by providing recycled water as a potable water substitute. The proposed Project would benefit regional groundwater quantities and qualities.

As stated above, the use of recycled water in close proximity to domestic groundwater wells may result in adverse water quality effects that could have health risks. There are no domestic groundwater wells within the Project area. Any recycled water that infiltrates into the groundwater is not expected to pose a health risk. Compliance with Title 22 standards for tertiary treated water would ensure recycled water could not be used within 50 feet of any existing domestic groundwater well. Recycled water use is expected to have a **less than significant effect** within the Project area as potable water supply for customers within the Project area is from others sources in the region such as the Carmel Valley River basin, Salinas Valley Groundwater Basin, and the Seaside Groundwater Basin.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Project-Level Impact Analysis

The proposed Project does not include modification of the storm drainage pattern of the site. Therefore, the proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site. In addition, the proposed Project is not expected to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. These findings are supported by the following documentation:

- The proposed Project component sites are already mostly developed with water conveyance or treatment infrastructure. The proposed Project would involve rehabilitation or refurbishment of already developed sites of the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery. New sewer diversion pipelines, sewer pump station, sewer force mains, recycled water pipeline are locating within existing street rights-of-way, or within City-owned property.

    - *Recycled Water Distribution Pipeline*. This component of the Project would be located primarily within the Pacific Grove Municipal Golf Course. The area is previously disturbed for golf recreation and landscape irrigation. The recycled water distribution pipeline would cross Asilomar Road south of the intersection with Del Monte Boulevard. The pipeline trenches as a result of Project installation that are located within the Golf Course would be returned to their existing conditions for golf play. No increase impervious surface areas within the site would occur after pipeline installation is complete.

    - *Point Pinos Satellite Recycled Water Treatment Plant.* The SRWTP components would result in a total of approximately 6,100 square feet of new impervious surfaces at the site.

These new impervious surfaces include a new concrete pad that is 6,000 square feet for treatment components, a 64 square foot concrete pad for the waste pump station, and another 64 square foot pad for the recycled water pump station. This area represents about 10 percent of the overall former Point Pinos WWTP area. Given the relatively minor area of disturbance, impacts related to generating additional stormwater runoff and subsequent increased downstream erosion due to this new amount of impervious surfaces would not result in significant impacts to existing drainage patterns or flows.

The proposed Project involves redevelopment of existing infrastructure within previously disturbed sites within the City. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for downstream increased erosion. Impacts would be **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site. The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for downstream increased erosion. Impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-4: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Project-Level Impact Analysis

The proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The proposed Project component sites are already mostly developed with water conveyance or treatment infrastructure. The proposed Project would involve rehabilitation or refurbishment of already developed sites the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery. New sewer diversion pipelines, sewer pump station, sewer force mains, recycled water pipeline are locating within existing street rights-of-way, or within City owned property.

Recycled Water Distribution. This component of the Project would be located primarily within the

Pacific Grove Municipal Golf Course. The area is previously disturbed for golf recreation and landscape irrigation. The recycled water distribution pipeline would cross Asilomar Road south of the intersection with Del Monte Boulevard. The new pipeline trenches located within the Golf Course would be returned to their existing conditions for golf play, and would not increase the impervious surfaces.

Point Pinos Satellite Recycled Water Treatment Plant. There would be some additional impervious surface added at the SRWTP site where treatment components would occupy ground that is currently permeable. The SRWTP components would result in a total of approximately 6,100 square feet of new impervious surfaces at the site. These new impervious surfaces include a new concrete pad that is 6,000 square feet for treatment components, a 64 square foot concrete pad for the waste pump station, and another 64-square foot pad for the recycled water pump station. This area represents about 10 percent of the overall former Point Pinos WWTP area. Given the relatively minor area of disturbance, impacts related to generating additional stormwater runoff and subsequent increased downstream erosion due to impervious surfaces would be less than significant.

The proposed Project involves redevelopment of existing infrastructure within previously disturbed sites within the City. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for downstream flooding. Impacts would be **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial flooding on- or off-site. The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for downstream flooding. Impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-5: Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Project-Level Impact Analysis

The proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of

polluted runoff. The proposed Project would involve rehabilitation or refurbishment of already developed sites at the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery. New sewer diversion pipelines, sewer pump station, sewer force mains, recycled water pipeline are locating within existing street rights-of-way, or within City owned property.

Recycled Water Distribution. This component of the Project would be located primarily within the Pacific Grove Municipal Golf Course. The area is previously disturbed for golf recreation and landscape irrigation. The recycled water distribution pipeline would cross Asilomar Road south of the intersection with Del Monte Boulevard. The new pipelines located within the Golf Course would be returned to their existing conditions for golf play, and would not increase the impervious surfaces.

Point Pinos Satellite Recycled Water Treatment Plant. There would be some additional impervious surface added at the SRWTP site where treatment components would occupy ground that is currently permeable. The SRWTP components would result in a total of approximately 6,100 square feet of new impervious surfaces at the site. These new impervious surfaces include a new concrete pad that is 6,000 square feet for treatment components, a 64 square foot concrete pad for the waste pump station, and another 64-square foot pad for the recycled water pump station. This area represents about 10 percent of the overall former Point Pinos WWTP area. Given the relatively minor area of disturbance, impacts related to generating additional stormwater runoff and subsequent increased downstream erosion due to impervious surfaces would be less than significant.

The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for polluted runoff. Impacts would be **less than significant**.

The effect of the Project on capacity of the existing MRWPCA RTP is discussed in Section 14, Public Services and Utilities.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for downstream flooding. Impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-6: Otherwise substantially degrade water quality?

Project-Level Impact Analysis

The proposed Project would not otherwise substantially degrade water quality.

The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for degradation of water quality. Impacts would be **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not otherwise substantially degrade water quality.

The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for degradation of water quality. Impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-7: Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Project-Level Impact Analysis

The proposed Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Therefore, there would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. Therefore, there would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-8: Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Project-Level Impact Analysis

The proposed Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. Therefore, there would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not place within a 100-year flood hazard area structures that would impede or redirect flood flows. Therefore, there would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-9: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Project-Level Impact Analysis

The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. The Point Pinos site does not lie within a flood zone or floodplain. There would be no risk of flooding from the failure of (add name here) Dam. Therefore, there would be **No impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. The Point Pinos site does not lie within a flood zone or floodplain. There would be no risk of flooding from the failure of (add name here) Dam. Therefore, there would be **No impact.**

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 11-10: Be subject to inundation by seiche, tsunami, or mudflow?

Project-Level Impact Analysis

The proposed Project would involve construction of wastewater treatment and recycled water distribution facilities in an area subject to inundation by a tsunami and may be subject to shoreline retreat associated with sea level rise. The coastline within the cities of Monterey and Pacific Grove is subject to flooding during large storm events and in the event of a tsunami, and may be subject to increased flooding and shoreline retreat associated with sea level rise. Figure 11-2 shows tsunami hazard areas. As described in Section 11.2.2 (Flood Hazards), the California Climate Adaptation Strategy (December 2009) estimates a sea level rise of up to 55 inches by the end of this century; however, most Project components would not be subject to substantial effects from sea level rise, according to maps generated by the Pacific Institute (2009).

A critical facility is defined by the Monterey County Multi-Jurisdictional Hazard Mitigation Plan as a facility in either the public or private sector that provides essential products and services to the general public, such as preserving the quality of life in Monterey County and fulfilling important public safety, emergency response, and disaster recovery functions (Monterey County, 2007). The Multi-Jurisdictional Hazard Mitigation Plan (Monterey County, 2007) does not identify any water conveyance, wastewater conveyance, recycled water conveyance, or stormwater conveyance utilities as critical facilities. In addition, the proposed Project would not increase vulnerability to a tsunami hazard or the effects of sea level rise.

Recycled Water Distribution. As shown on Figure 11-2, the recycled water distribution component of the Project would be located within a moderate tsunami run-up area. In addition, this component may install improvements within the projected sea level rise coastal flood scenario (Pacific Institute, 2009). This component of the Project would be mostly subterranean, buried beneath the Ocean Avenue right of way. However, the pump stations would have an above ground electrical component that would be more susceptible to damage in the event of a tsunami, or over time as the result of sea level rise.

In addition to flooding, sea level rise can create an increased potential for erosion and shoreline retreat as a result of beaches and coastal bluffs being exposed to increased and more frequent wave attacks. Such erosion, as a result of climate change-induced sea level rise, could adversely greenhouse gas (GHG) emissions. As such, the specific effects of climate change-induced sea level rise on the Pacific Grove shoreline are uncertain. However, as noted above, water conveyance, wastewater conveyance, recycled water conveyance, and stormwater conveyance utilities are not identified as critical facilities (Monterey County, 2007).

Point Pinos Satellite Recycled Water Treatment Plant. As shown on Figure 11-2, the SRWTP is located within a moderate tsunami run-up area. In addition, this component may involve installation of improvements within the projected sea level rise coastal flood scenario (Pacific Institute, 2009). This portion of the Project would involve the installation of above-ground MBR treatment infrastructure, which could be susceptible to damage in the event of a tsunami or increased flooding or erosion resulting from sea level rise. However, as noted above, water conveyance, wastewater conveyance, recycled water conveyance and stormwater conveyance utilities are not identified as critical facilities (Monterey County, 2007).

In addition, the proposed SRWTP improvements would not exacerbate vulnerability to a tsunami hazard or the effects of sea level rise. Therefore, the impact is considered **less than significant.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would involve construction of recycled water distribution facilities in an area that is subject to inundation by a tsunami and may be subject to shoreline retreat associated with sea level rise. Impacts would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

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SECTION 12.0 LAND USE AND PLANNING

12.1 INTRODUCTION

This chapter provides a summary of the plans and policies of the Cities of Pacific Grove and Monterey, Monterey County and state and federal agencies that have policy and regulatory control over the Project and Program sites. The proposed Project would re-use the existing Point Pinos WWTP facilities and all pipelines would be installed on City property, within existing rights-of-way and below grade. No effects analyzed in this section were found to exceed significance criteria, thus no mitigation measures are contained within this Section.

12.2 ENVIRONMENTAL SETTING

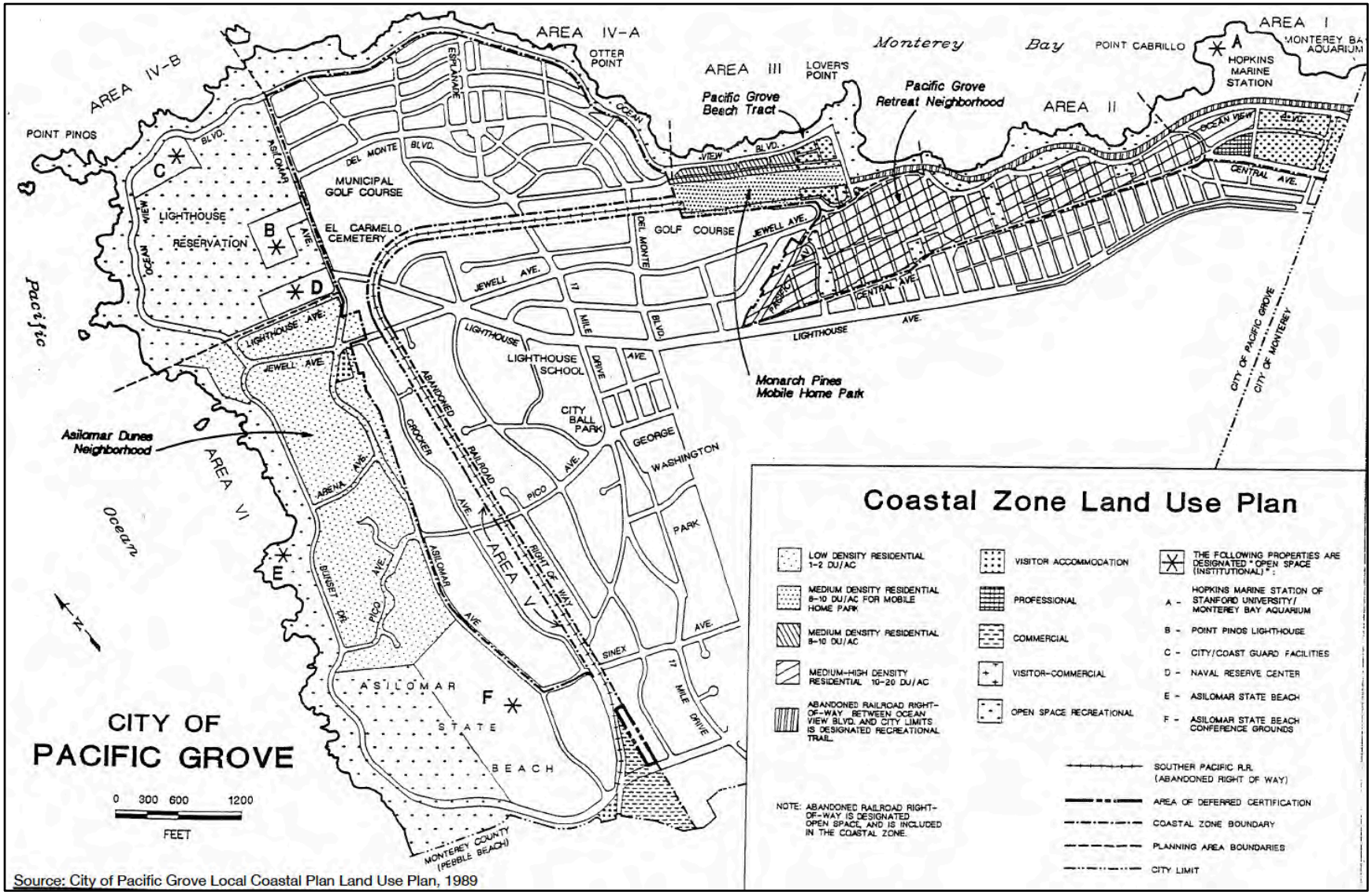
The City of Pacific Grove is located on the tip of the Monterey Peninsula between the City of Monterey to the east and Pebble Beach, to the south. It is approximately three square miles in area and is bounded by the Monterey Bay on the north, the City of Monterey on the east, Del Monte Forest on the south, and the Pacific Ocean on the west. The predominant land use in the City is residential, and most of that is single-family (see Figure 12-1, Coastal Zone Land Use Map and Figure 12-2, City of Pacific Grove Zoning Map). Commercial uses are largely related to goods and services, with almost no land available for industrial uses. A generous amount of land is devoted to parks and natural areas. However, Pacific Grove is almost fully built-out, and there is very little buildable vacant land in the city.

As shown in Figure 12-2, the City of Pacific Grove General Plan land use designations for the Project area include: High Density Residential (HDR), Low Density Residential (LDR), Open Space (O), Commercial (C), Public (P), Professional Office or High Density Residential (PO/HDR), and Open Space – Institutional (OSI).

Satellite Recycled Water Treatment Plant (SRWTP) Site. As shown in Figures 12-1 and 12-2, the retired WWTP is surrounded by open space, pedestrian trails, and the Monterey Bay to the north, dune habitat restoration to the west, and the Pacific Grove Golf Links to the south and east. These areas are designated by the Pacific Grove General Plan as Open Space (O) and Open Space – Institutional (OSI).

12.3 REGULATORY SETTING

Local plans, regulations, and policies relevant to the implementation of the proposed Project are described below. The Regulatory Section is based on information from the Monterey-Pacific Grove ASBS Stormwater Management Project EIR, City of Pacific Grove 1994 General Plan (including the Local Coastal Program), the 2010 Monterey County General Plan, and the City of Monterey General Plan. Specific policies are listed and analyzed in Section 11.5 (Impacts and Mitigation Measures).



Source: City of Pacific Grove Local Coastal Plan Land Use Plan, 1989

Figure 12-1: Coastal Zone Land Use Map

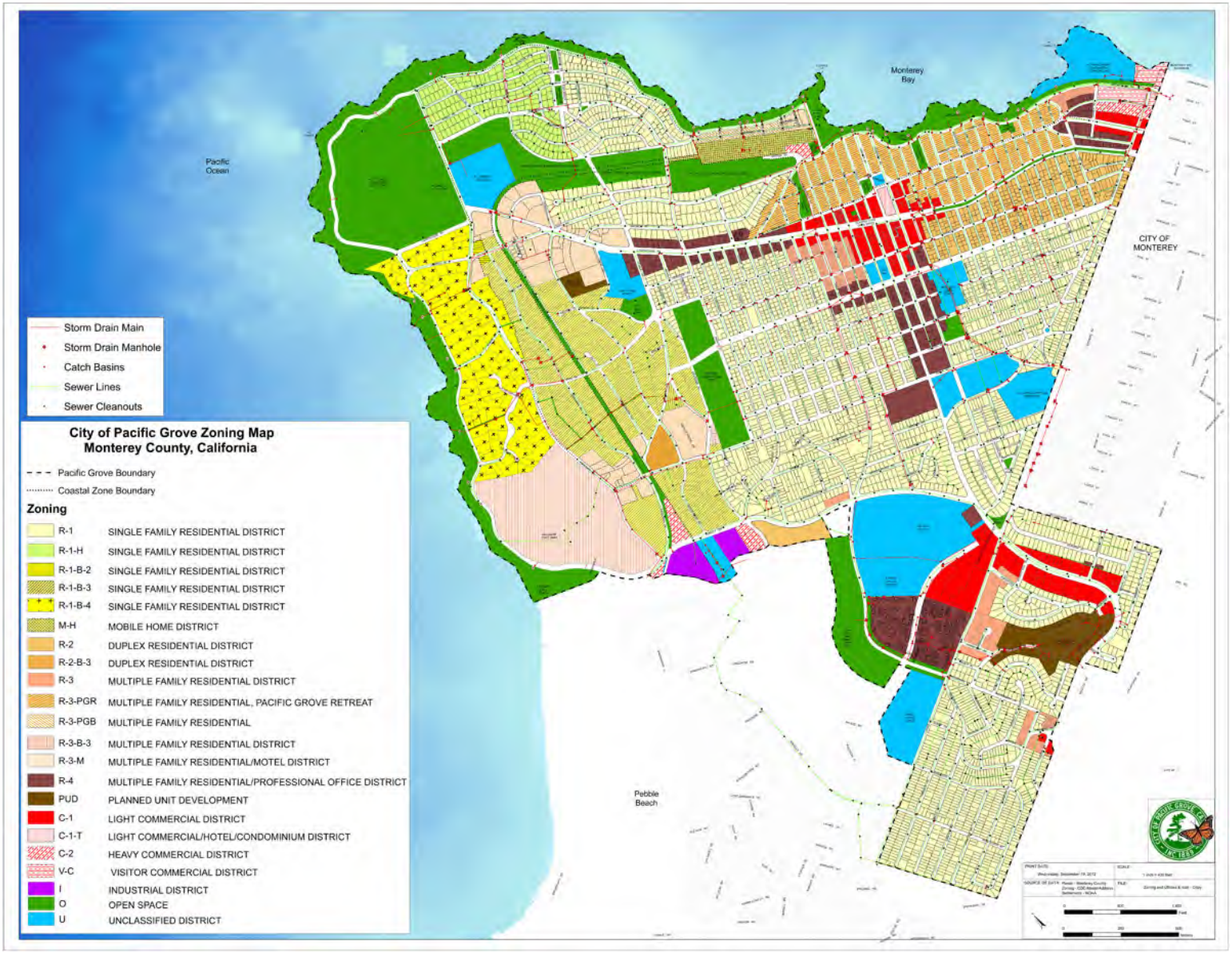


Figure 12-2: City of Pacific Grove Zoning Map

12.3.1 Federal

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) is a federal statute, passed into law by the U.S. Congress in 1972 (16 U.S.C. 1451, et seq.). The CZMA encourages federal, regional and local agencies to cooperate when implementing their coastal zone programs. The Coastal Zone Management Program (CZMP), also called the National Coastal Zone Management Program, was established under the CZMA and is administered by National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean and Coastal Resource Management (OCRM). This program is designed to set up a basis for protecting, restoring, and establishing a responsibility in preserving and developing the nation's coastal communities and resources, where they are under the highest pressure. The vision of the CZMP is to ensure that "the nation's coast and oceans, including the Great Lakes and island territories, are healthy and thriving for this and future generation". Their mission is "to ensure the conservation and responsible use of our nation's coastal and ocean resources".

The key goals of the CZMA program include "protecting natural resources, managing development in high hazard areas, giving development priority to coastal-dependent uses, providing public access for recreation, coordinating state and federal actions". Ultimately the outcomes from the CZMP are for "healthy and productive coastal ecosystems, and to have environmentally, economically, and socially vibrant and resilient coastal communities" (NOAA website, undated).

12.3.2 State

California Environmental Quality Act

Section 15125(d) of the CEQA Guidelines, as amended, requires that an EIR assess potential land use impacts, including Project consistency with local land use policies and plans. As stated above, conflicts with relevant policies, programs and ordinances do not, in and of themselves, indicate a significant environmental effect within the meaning of CEQA, in that the intent of CEQA is to determine physical effects associated with a project or program. Consistency with local land use plans and policies is one of several criteria that can be used to assess whether a project could have significant environmental impacts under the provisions of CEQA. A discussion of local land use policies and plans is provided below in Table 12-1 Standards of significance for all land use impacts are described in Section 11.4.

California Coastal Act

The California Coastal Act implements the Goals and Policies of the CZMA. The California Coastal Act was enacted by voter initiative in 1972, and made permanent by the California State Legislature in 1976. This Act authorizes a Commission, appointed by the state Governor that, in partnership with coastal cities and counties, "plans and regulates the use of land and water in the coastal zone. Development activities, which are broadly defined by the Coastal Act to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a coastal permit from either the Coastal Commission or the local government."

One of the most significant provisions of the federal CZMA gives state coastal management agencies regulatory control (federal consistency review authority) over all federal activities and federally licensed, permitted or assisted activities, wherever they may occur (i.e., landward or

seaward of the respective coastal zone boundaries fixed under state law) if the activity affects coastal resources. Examples of such federal activities include: outer continental shelf oil and gas leasing, exploration and development; designation of dredge material disposal sites in the ocean; military projects at coastal locations; U.S. Army Corps of Engineers fill permits; certain U.S. Fish and Wildlife Service permits; national park projects; highway improvement projects assisted with federal funds; and commercial space launch projects on federal lands. Federal consistency is an important coastal management tool because it is often the only review authority over federal activities affecting coastal resources given to any state agency.

One of the most significant provisions of the federal CZMA gives state coastal management agencies regulatory control (federal consistency review authority) over all federal activities and federally licensed, permitted or assisted activities, wherever they may occur (i.e., landward or seaward of the respective coastal zone boundaries fixed under state law) if the activity affects coastal resources. Examples of such federal activities include: outer continental shelf oil and gas leasing, exploration and development; designation of dredge material disposal sites in the ocean; military projects at coastal locations; U.S. Army Corps of Engineers fill permits; certain U.S. Fish and Wildlife Service permits; national park projects; highway improvement projects assisted with federal funds; and commercial space launch projects on federal lands. Federal consistency is an important coastal management tool because it is often the only review authority over federal activities affecting coastal resources given to any state agency.

The passages of Proposition 20 in 1972 and the State Coastal Conservancy Act in 1976 represented major legislative acts that established strong coastal resource access policies and programs. The California Coastal Commission (CCC) implements these policies through its requirement providing public shoreline access as a condition of certain coastal development permits. Local governments are required to include provisions in their Local Coastal Programs (LCP) for acquiring, improving, and managing access areas. Further, in jurisdictions that do not have a certified LCP, the CCC implements these policies through coastal development permits. In addition, the Coastal Conservancy provides funding and technical assistance to local governments and citizens groups to acquire, develop, operate, and manage new access ways (CCC 1991). In 1979, additional legislation was enacted that directed the CCC and State Coastal Conservancy to establish a comprehensive program to maximize public coastal access and coordinate all local, State, and Federal efforts to implement the program. As part of the program, the CCC was mandated to prepare a Coastal Access Guide for the public.

12.3.3 County

2010 Monterey County General Plan

The 2010 Monterey County General Plan (Monterey County 2010) is a comprehensive, long-term plan for the physical development of the non-coastal unincorporated areas of Monterey County, including the Pebble Beach area that would be served by Demand Group III. The General Plangeneral plan has been called the local land use "constitution" and Monterey County's General Plangeneral plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, both public and private. The Monterey County General Plan includes various elements, including land use, circulation (i.e., traffic), conservation/open space, safety, public services, agriculture, and economic development. However, the Public Services Element of the Monterey County General Plan is the only element of the General Plan with policies relevant to the proposed Project, as summarized below.

Public Services Element. The Public Services Element addresses critical infrastructure and service issues, including water supply and conservation, water quality, parks, wastewater collection and disposal, solid waste management, and key social services such as schools, libraries and medical care. Police and fire protection services are addressed in the Safety Element.

12.3.4 Local

City of Pacific Grove General Plan

The City of Pacific Grove's 1994 General Plan supersedes the City's 1973 General Plan and any and all elements of the 1973 General Plan subsequently adopted, except for the Local Coastal Program Land Use Plan (LUP,) which was adopted by the City on June 7, 1989. The LUP, while adopted and published as a separate document, is an element of the 1994 General Plan.

The General Plan is a comprehensive, integrated, and internally consistent statement of Pacific Grove's development policies for the City and its Sphere of Influence. In preparing background material for the General Plan, the City considered existing conditions and trends within a larger "Planning Area" that includes unincorporated areas south of the city and portions of the City of Monterey. All Planning Area lands outside of the city limits, including those within the Sphere of Influence, are regulated by either the Monterey County General Plan and Zoning Ordinance or the City of Monterey General Plan and Zoning Ordinance.

In addition to the LUP, the General Plan contains the following nine elements: land use, housing, transportation, parks and recreation, natural resources, historic and archaeological resources, urban structure and design, public facilities, and health and safety. Of these nine elements, Housing and Parks and Recreation Elements are not pertinent to the proposed Project, as none of the policies contain Goals and Objectives relevant to the Project.

Land Use. The Land Use Element is intended to preserve and enhance the character of Pacific Grove while accommodating suitable new development; maintain the City's residential character and the scale of its neighborhoods; enhance the attractiveness and viability of existing commercial areas; and upgrade the appearance of Downtown, and other commercial areas, retaining and emphasizing the historical styles.

Transportation. The Transportation Element is intended to provide safe and efficient transportation facilities for moving people and goods within Pacific Grove; reduce negative impacts of local and regional traffic on Pacific Grove and its neighborhoods; provide safe, paved, bicycle and pedestrian paths to schools, shopping areas, recreation facilities, and open space areas; and improve traffic safety for motorists, bicyclists, and pedestrians.

Natural Resources. The Natural Resources Element is intended to comprehensively manage Pacific Grove's natural vegetation, tree canopy, and wildlife habitat; promote tree planting; protect the City's coastal and biological resources; preserve and enhance public visual access to the ocean; protect the area's groundwater; and protect endangered species.

Historic and Archaeological Resources. The intent of the Historic and Archaeological Resources Element is to nurture a greater awareness of and sensitivity toward Pacific Grove's historic and archaeological heritage; to identify, protect, and preserve the structures of Pacific Grove's cultural and architectural history, including its many buildings of Victorian styles and other late nineteenth and early twentieth century architecture; and to protect archaeological sites consistent with State and federal regulations.

Urban Structure and Design. The Urban Structure and Design Element is intended to preserve, enhance, and strengthen Pacific Grove's livable and attractive environment, its community identity, and its special "sense of place;" enhance the relationship between the City, the Pacific Ocean and the Monterey Bay; develop, maintain, and enhance the City's landscape, streetscape, and identifiable community characteristics; and improve the visual environment by improving signing and continuing undergrounding of overhead wires.

Public Facilities. The intent of the Public Facilities Element is to provide water to meet the needs of existing and future development, assuring adequate fire-flow rates; promote water conservation; maintain adequate sewage collection and disposal services; accommodate storm water runoff and protect property from flooding; and promote the recovery of reusable water from the storm drainage system.

Health and Safety. The Health and Safety Element is intended to protect the community from injury, loss of life, and property damage resulting from natural disasters and hazardous conditions; increase public awareness of potential danger from flooding, seismic activity, landslide, fire, and other natural hazards, and of methods to avoid or mitigate their effects; protect Pacific Grove from accidental exposure to hazardous materials; provide aid in the event of natural or man-made disasters; and protect people and property from fire, crime, and noise.

Local Coastal Program

A central feature of the California Coastal Act is the transfer of most of the authority vested in the Coastal Commission by the Coastal Act to the local governments through adoption and certification of "Local Coastal Program." The Local Coastal Program (LCP) consists of a local government's land use plans, zoning ordinance, zoning district maps and other ordinances, which when taken together, meet the requirements of, and implement the provisions and policies of the Coastal Act at the local level. Each LCP reflects the coastal issues and concerns of the local jurisdiction and must be consistent with the statewide policies of the Coastal Act.

The Local Coastal Program is divided into two major parts: the LUP and the Implementation Plan. The LUP is defined in the Public Resources Code as the " . . . relevant portions of a local government's general plan, or local coastal element which are sufficiently detailed to indicate the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and, where necessary, a listing of implementing actions." The Implementation Plan includes zoning and ordinance revisions and proposes other programs needed to carry out the goals, policies, and land use designations of the LUP.

The City's LUP is divided into four major sections, each of which focuses on a major group of Coastal Act Policies: Resource Management, Land Use and Development, Public Facilities, and Public Shoreline Access. Each section includes background information, a summary of applicable Coastal Act policies, a discussion of existing local policies and LUP policies. The LUP was adopted by the City Council on June 7, 1989, but was never certified by the CCC. Therefore, it acts as an Element of the City's General Plan, rather than a certified LUP document. Since the LCP has not been adopted, any land use change must go through discretionary review by the CCC. Land use designations within the City's coastal zone are shown in Figure 13-1, Coastal Zone Land Use Plan.

City of Pacific Grove Zoning Ordinance

The purpose of the Zoning Ordinance (Title 23 of the City of Pacific Grove Municipal Code (PGMC)) is to promote and protect the public health, safety, peace, comfort, and general welfare; promote the growth and redevelopment of the city of Pacific Grove in an orderly manner; and implement the Pacific Grove General Plan and LCP. Given the nature of the Project (infrastructure utilizing existing facilities and/or roadway rights-of-way), specific zoning ordinance regulations do not directly apply to the Project, and are not analyzed further in Section 11.5 (Impacts and Mitigation Measures).

Urban Forestry Tree Ordinance

The Pacific Grove City Council adopted an Amended Urban Forestry Tree Ordinance on October 17, 2012. The purpose of the ordinance is to facilitate the protection, preservation, and restoration of Pacific Grove's urban forest; and enhance the visual and aesthetic uniqueness of Pacific Grove. The ordinance defines categories of protected trees, provides regulations relating to the removal and pruning of trees in public and private areas, and outlines requirements related to the replacement of protected trees. Consistency of the Project with the Urban Forestry Tree Ordinance is discussed in Section 6.0, Biological Resources.

City of Monterey General Plan

The City of Monterey General Plan is a comprehensive, long-term plan for physical development of the City for the next 20 years, including the Presidio of Monterey, which would be served as a part of Demand Group III. The California Supreme Court has declared a general plan to be the "constitution for all future developments." The General Plan would act as a guide to future development by defining the location, intensity, and conditions under which future development is to take place. As a blueprint for development, the general plan plays a major role in defining the character of the City. The City of Monterey General Plan contains the following elements: Urban Design, Land Use, Circulation, Housing, Conservation, Open Space, Safety, Noise, Economic, Social, Historic Preservation, and Public Facilities. However, the Noise, Circulation, and Public Facilities Elements of the City of Monterey General Plan are the only elements of the General Plan with policies relevant to the proposed Project. The primary objectives of the Noise, Circulation, and Public Facilities Elements are summarized below.

Noise Element.

The Noise Element provides a basis for local governments to control and abate noise exposure. The fundamental goals of the Noise Element are: 1) to provide sufficient information concerning the City so that noise may be effectively considered in the land use planning process, 2) to develop strategies for abating excessive noise exposure through cost-effective mitigating measures in combination with zoning, as appropriate, to avoid incompatible land uses, 3) to protect those existing areas where the noise environment is deemed acceptable and also those locations throughout the community deemed ""noise sensitive",", 4) to utilize the definition of the community noise environment in the form of CNEL or Ldn noise contours to help determine local compliance with the State Noise Insulation Standards, and 5) to protect the quality of life in neighborhoods by limiting intrusive noise.

Circulation Element.

The primary role of the Circulation Element is to provide policy guidance for planning and implementing the transportation system needed to serve proposed development as defined in the

land-use element of the General Plan. The transportation system affects the growth patterns, environment, and quality of life of Monterey's residents and workers.

Public Facilities Element.

The purpose of the Public Facilities Element is to describe the general location, levels of service, and adequacy of existing and proposed public facilities which comprise about 45% of the City's land area. This element provides a bridge between long-range planning for public facilities and the short- and intermediate-range area plans and capital improvement programs that allocate resources for their construction, operation, maintenance, and eventual expansion or replacement.

12.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would result in potentially significant land use impacts if it would:

1) Physically divide an established community;

2) Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or

3) Conflict with any applicable habitat conservation plan or natural community conservation plan.

Due to the nature of the proposed Project components to re-use existing facilities and locate improvements below grade wherever feasible, the proposed Project would not physically divide an established community. The proposed Project is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation agreement. Therefore, Item 3 is not discussed further in this section. Items 1 and 2 are discussed below.

12.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the proposed Project are addressed in the project-level analysis.

Impact 12-1: Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Project-Level Impact Analysis

The ultimate determination of whether the proposed Project is consistent with the relevant General Plan policies lies with the decision-making body (the City Council). Only policies relevant and applicable to the proposed Project are included in this discussion. Policies that are redundant between elements are omitted, as well as policies that are City directives or that are not pertinent to the proposed Project.

Table 12-1 contains a discussion of the proposed Project's (i.e., Demand Group I, II, and III) consistency with applicable policies of the California Coastal Act, the 2010 Monterey County General Plan, the City of Pacific Grove General Plan (including the LCPProgram), and the City of Monterey General Plan. The Policy Consistency Table is based on information from the Monterey-Pacific Grove ASBS Stormwater Management Project EIR (Rincon Consultants, Inc. 2014) and the abovementioned General Plans. In all cases, the proposed Project conforms to all applicable plans, policies and ordinances. The proposed Project would not need any General Plan or Zoning Plan amendment.

As shown in Table 12-1, the proposed Project would be consistent with policies included in the City's General Plan, Zoning Ordinance, and LCP. Though minor inconsistencies with aspects of some policies could occur, all feasible mitigation measures to address these impacts have been required and are detailed in Sections 4.0 to 15.0 of this EIR.

Project-Level Mitigation Measures

Mitigation measures outlined in Sections 4.0 to 15.0 would achieve consistency with applicable policies included in the adopted General Plan, including the Local Coastal Program. No further mitigation measures would be required.

Significance after mitigation: N/A

Program-Level Impact Analysis

As shown in Table 12-1, the proposed Project (i.e., Demand Groups II and III) would be generally consistent with policies included in the City's General Plan, Zoning Ordinance, and LCP. Though minor inconsistencies with aspects of some policies could occur, all feasible mitigation measures to address these impacts have been required and are detailed in Sections 4.0 to 15.0 of this EIR.

Program-Level Mitigation Measures

Program-Level Mitigation Measures outlined in Sections 4.0 to 15.0 would achieve consistency with applicable policies included in the adopted General Plan, including the LCP. No further mitigation measures would be required.

Significance after mitigation: Less than significant.

Table 12-1: Policy Consistency

City of Pacific Grove General Plan	
Land Use Element	
LU-2: Ensure that new development is compatible with adjacent existing development.	***Consistent.*** Components of the proposed Project would involve the re-use of existing facilities and/or be located below grade in public roadways, thereby not introducing new development which could be incompatible with existing development. Specific land use compatibility issues are addressed in Sections 4.0, Aesthetics, 5.0, Air Quality, and 13.0, Noise. As described therein, all impacts would be either less than significant or less than significant with mitigation incorporated. In the case of noise, potentially significant impacts would be temporary and related to construction only; the project would not result in substantial long-term noise.
LU-4: Continue to preserve Pacific Grove's character and regulate development so as not to overburden the City's infrastructure.	***Consistent.*** Implementation of the proposed Project would supply recycled water to offset the use of potable water and would not result in new residential or commercial development that would overburden existing infrastructure. Impacts related to visual character are discussed in Section 4.0, Aesthetics, and would be less than significant.
LU-9: Strive to preserve significant public view corridors.	***Consistent.*** As described in Section 4.0, Aesthetics, the proposed Project would not result in significant impacts to public viewsheds. All of the project components would utilize existing facilities and/or be located below grade of public roadways, thereby not impacting public viewsheds. In addition, existing vegetation at the SRWTP site would be maintained to preserve view corridors.
Transportation Element	
TR-2: Strive to maintain a level of service no worse than C during peak periods on arterials and collector streets within the City. Accept level of service D during weekday peak-periods at intersections at the limits of LOS D on arterial routes outside the Downtown area.	***Consistent.*** As discussed in Section 13.0, *Transportation/Traffic*, potential impacts to traffic and circulation would be limited to temporary construction activities. No long-term impacts to levels of service would result.
Natural Resources Element	
NR-3: Actively promote tree planting to maintain and renew the urban forest.	***Consistent.*** As discussed in Section 6.0, *Biological Resources*, the Project would not result in significant tree loss. In the event of tree removal, compliance with the City's 2013 Amended Urban Forestry Tree Ordinance would ensure that impacts remain less than significant.
NR-4 [and HA-8]: Mitigate development in environmentally sensitive areas.	***Consistent.*** As described throughout this EIR, the proposed Project's potentially significant impacts on the environment would be reduced to less than significant levels with compliance with existing regulations and/or the application of mitigation measures.
NR-5: Manage the use of publically-owned environmentally sensitive areas.	***Consistent.*** Refer to the discussion of project consistency with Policy NR-4 above. Although the Project would be located primarily within publically-owned areas, these areas are comprised of already disturbed sites and are not considered environmentally sensitive. Environmentally sensitive areas adjacent to Project component sites would not be impacted by the Project (refer to Section 6.0, *Biological Resources*).
NR-8: When reimbursement is available, cooperate with State and federal agencies in reducing impacts	***Consistent.*** The proposed Project would not create or contribute runoff water which would exceed the capacity of

from urban runoff.	existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, in accordance with SWRCB requirements. Refer to Section 11.0, *Hydrology and Water Quality*.
NR-12: Develop methods to maintain endangered species within the Asilomar Dunes neighborhood, Asilomar State Beach and Conference Grounds, the U.S. Coast Guard Reservation, the Pacific Grove shoreline, and other appropriate areas.	***Consistent*.** As discussed in Section 6.0, *Biological Resources*, impacts to endangered species, including California red-legged frog and Western pond turtle, would be less than significant after implementation of required mitigation measures, including pre-construction surveys, construction worker training, and entrapment avoidance.
Historic and Archaeological Resources Element	
HA-2: Regulate demolition of buildings of architectural or historical importance.	***Consistent*.** No buildings would be demolished with the implementation of Project components. Existing structures at the retired SRWTP site would not be altered as a result of the Project.
HA-8: Incorporate the protection of historic resources in the immediate and long range planning process.	***Consistent*.** As discussed in Section 7.0 Cultural Resources; no significant impacts to historic resources would result from construction or implementation of the proposed Project.
HA-20: Support the enforcement of existing State and federal laws pertaining to pilfering of archaeological sites.	***Consistent*.** As discussed in Section 7.0, *Cultural Resources*, potential impacts to archaeological sites would be significant but mitigable. The Project would not be in conflict with or otherwise prevent compliance with or enforcement of state and federal laws pertaining to pilfering of archaeological sites.
HA-21: Ensure the protection and preservation of artifacts in those areas already identified as containing archaeological remains.	***Consistent*.** As discussed in Section 7.0, *Cultural Resources,* the SRWTP site is located in an area containing already identified archaeological resources. The remaining Project components would not be located in areas containing previously identified resources. Mitigation identified in Section 7.0, including the requirement for an archaeological construction monitor, would reduce this impact to a less than significant level, thus protecting and preserving identified artifacts.
HA-23: Refer development proposals that may adversely affect archaeological sites to the California Archaeological Inventory.	***Consistent*.** The SRWTP site would be located in an area containing identified archaeological resources (refer to the discussion for Policy HA-21 above). When the final design for this component of the Project is completed and the Project is proposed for construction, it would be referred to the California Archaeological Inventory, in accordance with this policy.
Urban Structure and Design Element	
USD-1: Develop a cohesive and aesthetically pleasing urban structure for Pacific Grove.	***Consistent*.** The proposed Project would involve the re-use of existing facilities, and would locate many of the in-road improvements below grade, thus minimizing the construction of new urban features.
USD-2: Continue to require citywide architectural review for all new structures and for exterior changes to existing structures.	***Consistent*.** The proposed Project does not include new structures or exterior changes to existing structures.
USD-8: Endeavor to protect the tree canopy created by mature trees by planting replacement trees.	***Consistent*.** As discussed in Section 6.0, *Biological Resources*, the Project would not result in significant tree loss, such that an existing tree canopy would be impacted. However, some trees may be trimmed or removed as a result of the Project, including mature trees. In the event of tree removal, required compliance with the City's 2013 Amended Urban Forestry Tree Ordinance would ensure that impacts remain less than significant.

Public Facilities Element	
PF-1: Endeavor to ensure an adequate water supply for the city's future needs.	***Consistent.*** The proposed Project would result in the City's use of recycled water being used for irrigation purposes at the Pacific Grove Golf Links, El Carmelo Cemetery, and other feasible non-potable water demands. This would offset existing potable water demands, ultimately improving water supply.
PF-2: Prioritize available water allocation to best serve the city's needs, and to accommodate coastal priority uses designated in the Local Coastal Program Land Use Plan.	***Consistent.*** Refer to the discussion for Policy PF-1.
PF 8: Promote the reclamation of wastewater for irrigation purposes (specifically the golf course and cemetery).	***Consistent.*** The proposed Project would capture and treat wastewater for irrigation at the Pacific Grove Golf Links and El Carmelo Cemetery, thereby directly implementing this policy.
PF-25: Encourage the use of building and landscaping materials that would make public facilities compatible with neighboring properties.	**Consistent.** Components of the proposed Project would involve the re-use of existing facilities and/or would be located below grade in public roadways. Thus, landscaping would not be appropriate for most project components. In addition, as described in Section 4.0, *Aesthetics*, the proposed Project would not degrade existing visual character. Therefore, the project would not be incompatible with neighboring properties. Any vegetation removed for construction would be replaced, and removed trees would be replanted at a 1:1 ratio in accordance with the City's 2013 Amended Urban Forestry Tree Ordinance.
Health and Safety Element	
HS-1: Design underground utilities, including water and natural gas mains, to withstand seismic forces.	***Consistent***. As described in Section 8.0, *Geology/Soils*, impacts related to seismic stability would be less than significant with implementation of required mitigation, including a design-level geotechnical study, compliance with recommendations of the design-level geotechnical study.
HS-11: Use the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of development.	***Consistent.*** As described in Section 5.0, *Air Quality*, construction and implementation of the proposed Project would result in less than significant impacts to air quality.
HS-15: Require all construction to meet the applicable current City codes for fire and life safety.	***Consistent.*** All construction activities associated with proposed Project components would be subject to City codes for fire and life safety.
HS-28: Review possible noise-producing uses and mitigate as necessary.	***Consistent.*** Noise impacts are analyzed and mitigated in Section 4.10, *Noise*. Although the Project would result in potentially significant construction-related noise impacts, mitigation measures have been identified to reduce noise impacts to acceptable levels. Long-term uses of the Project component sites would not be noise-producing.
Local Coastal Program	
2.2.4.1: The City would continue to work with the State Department of Fish and Game and other agencies in developing and maintaining a coordinated approach for enforcing both State and local regulations protecting the Pacific Grove Marine Gardens.	***Consistent.*** The proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, in accordance with SWRCB requirements. In addition, the proposed Project may share facilities with the ASBS Project, which would serve to protect the Pacific Grove Marine Gardens.
2.2.4.2: The City shall assist, where possible, the appropriate institutions or agencies to undertake long-term ecological studies monitoring the marine resources and water quality of the Pacific Grove Marine Gardens	***Consistent.*** Refer to the discussion for Policy 2.2.4.1.

and ASBS.	
2.2.4.4: No diking, filling, dredging, or other uses inconsistent with the terms of the grant from the State of California shall be allowed in the City's tidelands. No significant alteration of freshwater wetlands -- Crespi Pond and Majella Slough -- shall be allowed, except for maintenance dredging and similar activities essential for restoration of natural habitats.	***Consistent*.** The proposed Project does not include: diking, filling, dredging, or other uses inconsistent with the terms of the grant from the State of California shall be allowed in the City's tidelands.
2.2.5.2: To reduce the potential for degradation of the ASBS/Marine Gardens, the City shall require, where necessary, drainage plans and erosion, sediment and pollution control measures, as conditions of approval of every application for new development.	***Consistent*.** Refer to the discussion for Policy 2.2.4.1 and Section 11.0, *Hydrology and Water Quality.* The Project would not affect water entering the ASBS, and erosion and sedimentation impacts would be less than significant.
2.2.5.3: The City shall investigate specific measures for reduction of pollution potential in storm water runoff, including regulations to control the disposal of chemicals and hazardous materials, and maintenance of the existing storm water capture program at the Golf Course, Greenwood Park, and Chase Park.	***Consistent*.** Refer to the discussion for Policy 2.2.4.1, Section 10.0, *Hazards and Hazardous Materials,* and Section 11.0, *Hydrology and Water Quality.* The Project would not affect water entering the ASBS, and would not generate chemicals or hazardous materials.
2.3.5.2: The following recommendations shall be incorporated in the Coastal Parks Plan described in General Policy 2.3.4.3. a) A botanical survey shall be required prior to development, which impacts habitats identified as A-1, B-2, or B-3 on the Habitat Sensitivity Map, with the survey being conducted by a qualified botanical specialist on the entire area during the flowering season.	***Consistent.*** The proposed Project would not place any project components within habitat areas identified as A-1, B-2, or B-3 on the Habitat Sensitivity Map. Therefore, a botanical survey is not required.
2.3.5.3 In the Lighthouse Reservation and Golf Course area, areas of extreme sensitivity (A-1 on the Habitat Sensitivity Map) should be protected from further trampling by a low mesh fence. Do not allow machinery in the dune area. Apply irrigation only on turf, not on the sand. Continue to eliminate exotics and restore native dune plants on the Lighthouse Grounds. In suitable areas, plant species, which would enhance the overwintering habitat of the Monarch butterfly, by providing additional nectaring and feeding sources. Protect Crespi Pond from any polluted runoff or other disturbances to its waterfowl habitat. Allow carefully controlled dredging of Crespi Pond in order to prevent loss of this important wetland through eutrophication and sedimentation as approved by the City Council upon a recommendation from the Crespi Pond Technical Advisory Committee.	***Consistent.*** Although the proposed Project would include improvements within the retired PGWTP site, which is located near sensitive dune habitat surrounding the Pacific Grove Golf Links, no improvements would occur within these areas. All improvements would be confined to the former PGWTP area, which is previously disturbed.
2.4.4.1: The City shall ensure the protection, preservation, and proper disposition of archaeological resources within the coastal zone.	***Consistent*.** As discussed in Section 7.0, *Cultural Resources*, no significant impacts to archaeological resources would occur as a result of the proposed Project, including to those within the coastal zone.
2.4.4.2: The City shall assist developers and landowners by providing early identification of sensitive sites so that archaeological resources can be considered and protected during the early phases of project design.	***Consistent*.** As identified in Section 7.0, *Cultural Resources*, no significant impacts to archaeological resources would occur as a result of the proposed Project.

2.5.4.1: It is the policy of the City of Pacific Grove to consider and protect the visual quality of scenic areas as a resource of public importance. The portion of Pacific Grove's coastal zone designated scenic includes: All areas seaward of Ocean View boulevard and Sunset Drive, Lighthouse Reservation lands, Asilomar Conference Ground dune lands visible from Sunset Drive, lands fronting on the east side of Sunset Drive; and the forest front zone between Asilomar Avenue and the crest of the high dune (from the north side of the Pico Avenue intersection to Sinex Avenue).	***Consistent*.** As identified in Section 4.0, *Aesthetics*, no significant impacts to visual character of sites or scenic views would occur as a result of the proposed Project.
2.5.4.2: Within these scenic areas, permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the open space character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.	***Consistent*.** As discussed in Section 4.0, *Aesthetics*, no significant impacts to visual character of sites or scenic views would occur as a result of the proposed Project.
2.5.4.3: Development standards for scenic areas shall minimize land coverage, grading, and structure height, and provide for maximum setbacks from adjacent public open space areas.	***Consistent*.** As identified in Section 4.0, *Aesthetics*, no significant impacts to visual character of sites or scenic views would occur as a result of the proposed Project. The Project would not increase land coverage or build structures.
2.5.4.4: New development on parcels fronting on Sunset Drive shall compliment the open space character of the area. Design review of all new development shall be required. The following standards shall apply; a) Minimum building setbacks of 75 feet from Sunset Drive shall be maintained. Larger setbacks are encouraged if consistent with habitat protection shall maintain a low profile complimenting natural dune topography. In no case shall the maximum height exceed 18 ft. above natural grade within the foundation perimeter prior to grading. c) Structures shall be sited to minimize alteration of natural dune topography. Restoration of disturbed dunes is mandatory as an element in the siting, design and construction of a proposed structure. d) Earth tone color schemes shall be utilized, and other design features incorporated that assist in subordinating the structure to the natural setting.	***Consistent*.** As discussed in Section 4.0, *Aesthetics*, all improvements within the retired PGWTP area would be screened from Sunset Drive by an existing fence and vegetation.
2.5.4.5: Landscape approval shall be required for any Project affecting landforms and landscaping. A landscaping plan, which indicates locations and types of proposed plantings, shall be approved by the Architectural Review Board. Planting which would block significant public views shall not be approved.	***Consistent*.** The Project components would be located in already disturbed areas, and would not significantly affect existing landscaping. Where vegetation or tree removal is required, a landscaping plan would be required in accordance with this policy.
2.5.4.7: It is the City's special objective to retain the maximum amount of open space possible on lands seaward of viewing areas, the City shall seek assistance in securing scenic conservation easements, and a reduction of development potential through public acquisition of vacant private parcels.	***Consistent*.** The proposed Project includes minimal improvements seaward of identified viewing areas. As described in Section 4.0, *Aesthetics,* impacts related to scenic views would be less than significant.

Monterey County General Plan	
Public Services Element	
PS-3.12 The County shall maximize the use of recycled water as a potable water offset to manage water demands and meet regulatory requirements for wastewater discharge, by employing strategies including, but not limited to, the following: a. Increase the use of treated water where the quality of recycled water is maintained, meets all applicable regulatory standards, is appropriate for the intended use, and re-use would not significantly impact beneficial uses of other water resources. c. Work with urban water providers to emphasize use of tertiary recycled water for irrigation of parks, playfields, schools, golf courses, and other landscape areas to reduce potable water demand. d. Work with urban water providers to convert existing potable water customers to tertiary recycled water as infrastructure and water supply become available.	***Consistent.*** The proposed Project would capture and treat wastewater for irrigation at the Pacific Grove Golf Links and El Carmelo Cemetery, thereby directly implementing this policy. **Note:** The Public Services Element of the Monterey County General Plan is the only element of the General Plan with policies relevant to the proposed Project.
City of Monterey General Plan	
Noise Element	
Goal d. Allow new construction only where existing or projected noise levels are acceptable or can mitigated. **Policy d.1.** The City can require noise mitigations to reduce interior noise levels to an acceptable level. Table 8 establishes the land use compatibility standards for new development. **Policy d.2.** Limit hours of noise generating construction activities. Include this requirement as a condition of project approval.	***Consistent.*** Noise impacts are analyzed and mitigated in Section 4.10, *Noise*. Although the project would result in potentially significant construction-related noise impacts, mitigation measures have been identified, including limits to the hours for construction activities, to reduce noise impacts to acceptable levels.
Circulation Element	
Policy c.8. Minimize traffic impacts in residential neighborhoods by routing truck and through traffic onto highways and arterial streets, even where such routing is not the shortest distance between two points. **Policy j.2.** Require an analysis of the effects on the transportation network for projects that may cause significant traffic impacts, as defined by the established multi-modal LOS and automobile LOS and identify appropriate mitigation measures. **Program j.2.2.** Define a project's traffic impact as significant if the project is expected to reduce a roadway segment to an unacceptable level or further degrade an already unacceptable LOS under cumulative traffic conditions during typical (i.e., non-summer) weekday traffic conditions.	***Consistent.*** Mitigation measures identified in Section 13.5 would reduce construction related transportation impacts to less than significant. In addition, as discussed in Section 13.0, *Transportation/Traffic*, potential impacts to traffic and circulation would be limited to temporary construction activities. No long-term impacts to levels of service would result.

Public Facilities Element	
Goal m. Develop long-term water supplies and conservation methods so that there is sufficient water to implement General Plan goals. **Policy m.1.** Develop alternatives for long-term water supply both within and outside the framework of the Water Management District and the California American Water Company. **Program m.1.5.** Develop and continue conservation programs to reduce water consumption, including but not limited to retrofit, stormwater reuse, water reclamation programs for golf course and other uses, greywater reclamation programs for both new and existing developments. Encourage conservation and reclamation of water at military and educational institutions. **Program m.1.6.** Encourage property owners to achieve full or partial independence from the existing water system (e.g. wells, cisterns). The City should work with other government agencies to eliminate rules that would impede these solutions.	***Consistent.*** The proposed Project would capture and treat wastewater for irrigation at the Presidio of Monterey, thereby directly implementing this policy.

Impact 12-2: Would the project physically divide an established community or conflict with any applicable habitat conservation plan or natural community conservation plan?

Project-Level Impact Analysis

Due to the nature of the proposed Project (i.e., Demand Group I) components to re-use the existing Point Pinos WWTP facilities and locate improvements below grade wherever feasible, the proposed Project would not physically divide an established community. In addition, the proposed Project to provide recycled water to the large landscaped open spaces adjacent to the SRWTP (namely the Pacific Grove Municipal Golf Links and El Carmelo Cemetery). Since there are no other land uses with Demand Group I, there is no possibility that the proposed Project, as serving Demand Group I could divide any community. The proposed Project is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation agreement. There would be no impact.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Due to the nature of the proposed Project (i.e., Demand Groups II and III) components to upgrade existing facilities and locate improvements below grade wherever feasible, the proposed Project would not physically divide any of the established communities, either within the proposed pipeline alignments or in the locations of Program-related appurtenances. The Program would use existing pipeline alignments/rights of way; therefore, there is no possibility that the new pipelines and appurtenances would divide any community. In addition, the proposed pipeline alignments would not be located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation agreement. Thus, there would be no impact.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

SECTION 13.0 NOISE

13.1 INTRODUCTION

Construction noise at the at the Point Pinos WWTP may exceed the City's noise standards as listed in the General Plan; however, proposed mitigation measures would reduce noise to less than significant levels. Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant impacts to less than significant levels. The noise levels generated by the operation of the proposed Project would not exceed the City's noise standards, given that the majority of infrastructure provided as part of the Project would be underground in pipelines either within the City's Municipal Golf Course, El Carmelo Cemetery or within other linear open space areas. The reuse of the existing WWTP facility at Point Pinos would be located a sufficient distance from sensitive receptors.

Demand Groups II and III would include additional trenching during the construction phases. The exact trenching locations are not yet known. Short-term construction noise exceeding either Noise Standards of the City of Pacific Grove, the City of Monterey or Monterey County could also occur in these subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, as well as adherence to existing laws and regulations related to construction noise would avoid or reduce significant noise impacts to less than significant levels.

13.2 ENVIRONMENTAL SETTING

13.2.1 Overview of Noise Terminology

Analysis of noise impacts makes use of "sensitivity scales" for noise measurement. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The sound pressure level in decibels is measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high- frequency components of sound similar to the frequency response of the human ear. Therefore, the A-weighting filter correlates well with subjective reactions to noise providing the necessary adjustment to the actual sound pressure levels to be consistent with that of human hearing response, most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that humans can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in

the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as industrial machinery). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed (approximately 30 years old or older) generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units and office buildings, with better insulation and double-paned windows, is generally 30 dBA or more (Harris Miller Miller & Hanson Inc., 2006).

In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the Equivalent Continuous Noise Level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period. Lmax is the highest root mean squared (RMS) sound pressure level within the measuring period, and Lmin is the lowest RMS sound pressure level within the measuring period.

The time period that noise occurs is also important, since noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (Ldn), which is the 24-hour average noise level with a 10-dBA penalty for noise occurring during nighttime (10 p.m. to 7 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a 5 dBA penalty for noise occurring from 7 p.m. to 10 p.m. and a 10 dBA penalty for noise occurring from 10 p.m. to 7 a.m. Noise levels described by Ldn and CNEL usually do not differ by more than 1 dB.

13.2.2 Sensitive Receptors and Existing Noise Levels

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with each of these uses. The City of Pacific Grove General Plan Health and Safety Element (1994) provides existing and projected noise contours that provide a visualization of estimates of sound level, as well as Recommended Allowable Noise Exposure levels for sensitive receptors. Based on the 1994 General Plan, the proposed Project is not within any of the identified noise contours, indicating that ambient noise levels on the project component sites are generally below 60 dBA (fewer than 1994 conditions). According to the General Plan's community noise survey, noise levels within the City are generally typical of a quiet suburban community with estimated Ldn values of 39 to 61 dB. Land forms and man-made structures have very complex effects on sound transmission and on noise contours. Generally, barriers between a source and receiver absorb or reflect noise resulting in a quieter environment. Where barriers or land forms do not interrupt the noise transmission path from source to receiver, the contours prove to be good estimates of the average noise level from roadway traffic. In areas where barriers or land forms interrupt the sound transmission, the noise contours overestimate the extent to which a source

intrudes into the community. Therefore, although the noise contours are outdated, the distances shown thereon represent worst-case conditions because they do not account for any obstructions to the noise path, such as walls, berms, vegetation, or buildings.

The closest sensitive receptors to the proposed Project (i.e. Demand Group I) are the residences located along the Waste Activated Sludge (WAS) pipeline alignment on Del Monte Boulevard. Potential sensitive receptors in the area of Demand Groups II and III would likely include residences, motels, and hotels. Typical noise sources in these areas are associated primarily with vehicle traffic. These receptors and the existing ambient noise levels are described below in more detail for the proposed Project.

Satellite Recycled Water Treatment Plant (SRWTP) Site. Sensitive receptors near the SRWTP site include single-family residences, approximately 0.18 miles east of the site. The existing noise environment at the SRWTP site and vicinity is characterized by open space, golf course, residential, and coastal uses (e.g., public access, recreation, fishing, and historic or cultural preservation), with low ambient noise levels during the evening and nighttime hours. The primary ambient sources of noise at this Project component and in the surrounding area include traffic along Ocean View Boulevard, visitors to the beach and recreational noise from the adjacent golf course. In coastal regions such as Point Pinos, wind is generally pervasive and creates up to 10 dBA of ambient noise above other areas within the City not as close to the coast. The ambient noise levels at the SRWTP site are between 50-60 dBA, depending upon the wind velocity and exact location of the receptor in relation to the coast.

13.2.3 Fundamentals of Groundborne Vibration

Groundborne vibration consists of rapidly fluctuating motion within the ground that has an average motion of zero. Groundborne vibrations typically cause only a nuisance to people, although damage may also occur at extreme vibration levels. While groundborne vibration can be felt outdoors, it is generally only an annoyance to people indoors where the associated effects of the shaking of the building is notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude, including the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the RMS amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as LV and is based on the RMS velocity amplitude. A commonly used abbreviation is VdB, vibration decibels, which is when vibration level (LV) is based on the reference quantity of 1 microinch per second.

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to people, since human threshold of perception is generally around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads. Smooth, well-maintained roads rarely produce perceptible groundborne noise or vibration. Acceptable vibration levels for an office environment are 84 VdB, while acceptable levels for residential uses are 78 VdB. California Department of Transportation (Caltrans) guidelines recommend a standard of 0.2 in/sec PPV not be exceeded for the protection of normal residential buildings

and 0.08 in/sec PPV not be exceeded for the protection of old or historically significant structures.

The propagation of groundborne vibration is not as simple to model as airborne noise, primarily because noise travels through the relatively uniform median of air, while groundborne vibration travels through the earth, which may contain significant geological differences. There are three main types of vibration propagation: (1) surface, (2) compression, (3) and shear waves. Surface waves, or Rayleigh waves, travel along the ground surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a body of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature, with vibration levels typically decreasing by 6 VdB per doubling of the distance from the vibration source.

13.3 REGULATORY SETTING

13.3.1 Federal

Under the federal Occupational Safety and Health Act of 1970 (OSHA) (29 U.S.C. §651 et seq.), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) adopted regulations (29 CFR §1910.95) designed to protect workers against the effects of occupational noise exposure. These regulations list limits on noise exposure levels as a function of the amount of time during which the worker is exposed, as shown in Table 13-1. The regulations further specify requirements for a hearing conservation program (§1910.95(c)), a monitoring program (§1910.95(d)), an audiometric testing (i.e., test of hearing ability) program (§1910.95(g)), and hearing protection (§1910.95(i)). There are no federal laws governing community noise.

13.3.2 State

California Government Code §65302 encourages each local jurisdiction to implement a noise element as part of its general plan. In addition, the California Governor's Office of Planning and Research (OPR) has developed guidelines for preparing noise elements, which include recommendations for evaluating the compatibility of various land uses as a function of community noise exposure. Title 24 of the California Health and Safety Code establishes an interior noise standard of 45 dBA for residential units.

Table 13-1: OSHA Permissible Noise Exposure Standards

Duration of Noise (Hours/Day)	A-Weighted Noise Level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

Source: U.S. Department of Labor.

13.3.3 Local

A discussion of the Noise Goal, Policies, and Programs within the City's General Plan is located within the Health and Safety Element. The City has three policies to meet the Element's goal of "Protect[ing] Pacific Grove residents from the harmful effects of excessive noise." Policy # 28 is to review possible noise-producing uses and mitigate as necessary; Policy #29 would prevent encroachment of noise-sensitive land uses on existing industrial facilities or other stationary sources; and Policy #30 would prevent the expansion or intensification of existing noise-producing commercial/utility uses on adjacent residential properties.

The Health and Safety Element also includes maximum allowable noise exposures from stationary noise sources for daytime (7AM to 10PM) and nighttime (10PM to 7AM) hours as shown in Table 13-2.

Table 13-2: Maximum Allowable Noise Exposure, Stationary Noise Sources*

	Daytime (7AM to 10PM)	Nighttime (10PM to 7AM)
Maximum Level, dB	70	65

** As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line mitigation measures.*

Source: City of Pacific Grove General Plan, 1994.

In addition, the Health and Safety Element provides recommended allowable noise exposures for noise sensitive land uses from transportation noise sources, as shown in Table 13-3.

Table 13-3: Allowable Transportation Noise Exposure by Land Use Type

Land Use Type	Outdoor Activity[1] Areas (Ldn/CNEL, dB)	Interior Spaces (Ldn/CNEL, dB)	Interior Spaces (Leq, dB[2])
Residential	60[3]	45	--
Transient Lodging	60[3]	45	--
Hospitals, Nursing Homes	60[3]	45	--
Theaters, Auditoriums, Music Halls	--	--	35
Churches, Meeting Halls	60[3]	--	40
Office Buildings	60[3]	--	45
Schools, Libraries, Museums	--	--	45
Playgrounds, Neighborhood Parks	70	--	--

Source: City of Pacific Grove General Plan, 1994.

[1] Where the location of outdoor activity is unknown, the exterior noise standard is applied to the property line of the receiving land use.

[2] As determined for a typical worst-case hour during periods of use.

[3] Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed, provided that available exterior noise level reduction measures have been implemented and interior noise levels comply with this table.

Finally, the City of Pacific Grove Municipal Code (PGMC) regulates unlawful noises through the provisions of Title 11.96.010, which prohibits any person from willfully making any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.

13.4 STANDARDS OF SIGNIFICANCE

The analysis of noise impacts considers the effects of temporary construction-related noise and long-term operational related noise associated with the proposed Project. Construction noise

estimates are based upon equipment noise levels reported by the Federal Transit Administration, Office of Planning and Environment (Hanson, Towers, and Meister, May 2006), and the distance to nearby sensitive receptors. Reference noise levels from that document were used to estimate noise levels at nearby sensitive receptors based on a standard noise attenuation rate of 6 dB per doubling of distance (line-of-sight method of sound attenuation for point sources of noise). Construction noise level estimates do not account for the presence of intervening structures or topography that could reduce noise levels at receptor locations. Therefore, the noise levels presented herein represent a conservative, reasonable worst-case estimate of actual construction noise.

The SRWTP at Point Pinos would be a potential source of operational noise. The facility would be equipped with pumps and blowers, as well as portable emergency generator for the waste sewage pump station. The highest operational sound emitting from the SRWTP facility is the emergency generator. The generator would be operated intermittently for maintenance or emergency situations at the SRWTP. The estimated sound emitted from the generator is estimated to be approximately 87 dB. Mitigation for these sources are fairly standard practice. Mitigation includes placing the sources in acoustically insulated enclosures, selecting equipment sized to match the operating requirements (and thereby avoiding stressing the pumps and blowers because that increases the frequency of the noise) and limiting the time that the noisier equipment is running.

SRWTP operational noise would be generated by employee vehicle trips and SRWTP pumps. The SRWTP is anticipated to employ three workers; therefore an increase of approximately six one-way trips per day would occur, with two additional trips assumed for vendors and visitors. In general it takes an increase of 200 new trips per day to increase the ambient noise level three decibels (dBA) (three dBA is the threshold of audible perception). Therefore, traffic would not increase the ambient noise level at the SRWTP site.

According to the Federal Transit Administration (FTA), groundborne vibration impact criteria for residential receptors are 72 vibration decibels (VdB) for frequent events, 75 VdB for occasional events, and 80 VdB for infrequent events (FTA, 2006).[1] For institutional land uses with primarily daytime use, the criteria are 75 VdB for frequent events, 78 Vdb for occasional events, and 83 Vdb for infrequent events (*ibid*). As construction activities would be temporary and infrequent, a threshold of 80 VdB is used for residential uses and 83 VdB for all other uses.

Pursuant to Appendix G of the CEQA Guidelines, potentially significant impacts would occur if the Project would result in any of the following conditions:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;

[1]"Frequent events" is defined as more than 70 vibration events of the same source per day; "occasional events" is defined as between 30 and 70 vibration events per day, and "infrequent events" is defined as less than 30 vibration events per day (FTA, 2006).

- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project expose people residing or working in the project area to excessive noise levels; and/or
- For a project within the vicinity of a private airstrip, if the project expose people residing or working in the project area to excessive noise levels.

The maximum noise exposure levels shown in Table 4.10-2 as well as the recommended allowable noise exposure shown in Table 4.10-3 were used to determine whether noise generated during the proposed Project construction would result in a significant impact on nearby sensitive receptors.

The operation of the proposed Project would have minimal impacts on the noise levels in the surrounding areas, given that the majority of infrastructure provided as part of the Project would be underground and would be located a sufficient distance from sensitive receptors. In addition, the Project site is located outside of any airport noise impact contours and does not involve the construction of residences or office buildings, and would therefore not expose residents or workers to excessive noise levels from airport or private air strip operations as identified in Section 4.13, *Effects Found not to be Significant.* No further discussion of Items 3, 5, or 6 is included in this section. Items 1, 2, and 4 are discussed below.

13.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the Proposed Project are addressed in the project-level analysis contained herein. The program-level analysis is prepared for Demand Group II and III projects. This program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects would be conducted as part of future site-specific CEQA review.

Impact 13-1: The project could result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, or project could result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Project-Level Impact Analysis

Project construction activities would involve the use of a variety of construction equipment throughout the various phases of construction, including transport of personnel and materials to the site, heavy machinery used in grading and clearing the site, as well as equipment used during construction of the proposed SRWTP and related facilities (i.e., sewer diversion structure, waste pump station and force main, and recycled water pump station) and pipelines. Construction equipment would include: an excavator, bulldozer, front loader, dump truck, water truck, vibrating plate soil compactor, roller compactor, cement truck, and delivery truck for materials.

Construction of the proposed Project would not require pile driving. The primary source of construction noise would be generated during excavation.

For all Project components, noise levels would diminish at approximately 6 dB per doubling of distance (refer to Section 4.10.1[a] [Overview of Noise]). Table 13-4 shows typical maximum construction noise levels from various types of construction equipment.

Table 13-4: Typical Construction Noise Levels

Equipment	Acoustical Usage Factor (%)[1]	Measured Lmax (dB at 25 feet)
Augur Drill Rig	20	90
Backhoe	40	84
Compactor (ground)	20	89
Dozer	40	88
Dump Truck	40	82
Excavator	40	87
Flat Bed Truck	40	80
Front End Loader	40	85
Generator	50	87
Grader	40	89
Pickup Truck	40	81
Pneumatic Tools	50	91
Roller	20	86
Scraper	40	90
Warning Horn	5	89
Welder/Torch	40	80

1. The average fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: FHWA, 2006.

Table 13-5 shows typical maximum construction noise levels at various distances from construction activity, based on a standard noise attenuation rate of 6 dB per doubling of distance for point sources of noise.

Table 13-5: Typical Maximum Construction Noise Levels at Various Distances from Project Construction (dB)

Distance from Construction	Maximum Noise Level at Receptor (no Pile-Driving)
25 feet	91
50 feet	85
75 feet	82
100 feet	79
250 feet	71
500 feet	65
700 feet	62
1,000 feet	59
2,500 feet	51

The nearest permanent sensitive receptor to SRWTP site is a single-family residence approximately 950 feet east of the site. At this distance, this sensitive receptor would be exposed to maximum noise levels of approximately 59 dB during contraction (please refer to Table 13-5). This does not exceed the threshold of 70 dB; therefore, impacts would be **less than significant** for this component of the Project.

The operation of the recycled water pump station, located at the SRWTP site, would generate minimal new levels of noise. This pump would be enclosed to minimize noise transmission. Sound-minimizing acoustic treatments would be located within the pump room to contain noise and eliminate noise impacts. Treatments to reduce noise may include constructing enclosures around pumps and generators, locating equipment away from noise-sensitive uses, and employing exhaust-muffling devices. Therefore, it is not expected that operational noises would increase more than 5-10 dB, depending upon prevailing winds. More noise could be heard by sensitive receptors when wind levels are low, such as during onshore flows in the fall. However, noise levels would not exceed the threshold of 70 dB, thus the projected noise levels from the operations of the SWRTP and appurtenances to sensitive receptors would be **less than significant**.

Other sensitive receptors to the proposed Demand Group I facilities (i.e., diversion structure, recycled and potable water pipelines, and sanitary sewer force main) are golf course users other recreationalists. Because of the site features, these receptors would be at least over 50 feet from

construction activities. During construction, these receptors could be exposed to maximum noise levels of 85 dB (refer to Table 13-5). During the construction of these facilities temporary noise levels would likely exceed the threshold of 70 dB for these sensitive receptors, impacts would be **potentially significant** and mitigation is required.

Project-Level Mitigation Measures

Noise Mitigation Measure 1: Hours of construction for the proposed Project would be limited to between 7:00 AM and 5:00 PM on weekdays. No construction work would be allowed to occur on Sundays or other federal, state or local holidays.

Noise Mitigation Measure 2: Stationary construction equipment generating noise that exceeds 70 dB at the boundaries of adjacent sensitive receptors would be baffled to reduce noise and vibration levels. All construction equipment powered by internal combustion engines would be properly muffled and maintained. Unnecessary idling of internal combustion engines would be prohibited.

Noise Mitigation Measure 3: The construction contractor shall provide a Noise Mitigation and Monitoring Program that consists of the following:

- Construction contracts that specify that all construction equipment, fixed or mobile, be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
  All property owners and occupants located within 300 feet of Project components would be sent a notice, at least 15 days prior to commencement of construction, regarding the construction schedule of the Project. All notices would be reviewed and approved by the City's Planning Division prior to the mailing or posting and would indicate the dates and duration of construction activities, as well as provide a contact name and telephone number where residents can inquire about the construction process and register complaints.
- Prior to issuance of any grading or building permit, the construction contractor shall demonstrate to the satisfaction of the City Planning Division how construction noise reduction methods such as shutting off idling equipment and vehicles, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging and parking areas and occupied residential areas, and electric air compressors and similar power tools, rather than diesel equipment, be used where feasible.
- During construction, stationary construction equipment would be placed such that emitted noise is directed away from sensitive noise receptors.
- For all noise-generating construction activity on each component site, additional noise attenuation techniques would be employed to reduce noise levels to the maximum extent feasible. Such techniques may include, but are not limited to: the use of sound blankets on noise generating equipment and the construction of temporary sound barriers between the construction site and nearby sensitive receptors.

Noise Mitigation Measure 4: The construction contractor shall provide staging areas on-site to minimize off-site transportation of heavy construction equipment. These areas would be located to maximize the distance between activity and sensitive receptors (neighboring residences). This would reduce noise levels associated with most types of idling construction equipment.

Noise Mitigation Measure 5: Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

Construction of facilities could generate noise at several local sensitive receptors (e.g., schools, hotels, motels, day care centers, residential areas) in the area that exceed established criteria or local regulations and codes. The construction-related noise levels would be from, but not necessarily limited to, the use of heavy equipment at the site or vehicles transporting material to or from the construction site.

Pipeline construction would cause localized, temporary short-term increases in noise levels. Actual noise levels resulting from construction activities would vary depending on the type of equipment used, the number of concurrent activities, and the distance to a particular receiver. Nighttime noise levels would not be affected because work would be limited to daylight hours. No new sources of noise are expected during the operational phase of the Project, as the pipelines would be installed underground and any aboveground appurtenances such as pumps would be enclosed in noise-cancelling boxes.

Residences or sensitive receptors in the Project area would experience elevated noise levels during construction hours. During the construction of these facilities temporary noise levels would likely exceed the threshold of 70 dB for these sensitive receptors, impacts would be **potentially significant** and mitigation would be required.

Program-Level Mitigation Measures

Implement Noise Mitigation Measure 1-5.

Significance after mitigation: Less than significant.

Impact 13-2: The project could result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Project-Level Impact Analysis

With respect to groundborne vibration, the proposed Project would involve standard construction activities such as asphalt removal and excavation activities. Each of these is anticipated to result in some vibration that may be felt in the immediate vicinity of the Project component sites, as commonly occurs with construction projects. Table 13-6 identifies various vibration velocity levels for the types of construction equipment that would operate at the project component sites during construction, and the associated VdB at various distances from the source.

Table 13-6: Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB			
	25 Feet	50 Feet	75 Feet	100 Feet
Loaded Trucks	86	77	71	68
Jackhammer	79	70	65	61
Small Bulldozer	58	48	43	36

Source: Federal Railroad Administration, 2005.

Note: Construction would not include the use of a pile driver; therefore, pile driving equipment was not included in this analysis.

As noted in Section 12.4 (Methodology and Standards of Significance), a threshold of 80 VdB is used for residential receptors and a threshold of 83 VdB is used for all other sensitive receptors.

Based on the information presented in Table 13-6, specific impacts related to construction traffic noise for each of the proposed Project components are discussed below.

The nearest sensitive receptor to the SRWTP site is a single-family residence approximately 950 feet east of the site. At this distance, this sensitive receptor would not be exposed to measurable vibration from construction. Impacts would therefore be less than significant.

The nearest sensitive receptors to the proposed Demand Group I facilities (i.e., diversion structure, recycled and potable water pipelines, and sanitary sewer force main) would be located over 50 feet from construction activities. During construction, receptors within 25 feet of the site may be exposed to maximum vibration levels of 77 VdB; the receptors located over 500 feet from the site would not be exposed to measurable vibration from construction (refer to Table 4.10-6). Therefore, potential temporary impacts related to vibration would be less than significant because the maximum vibration exposure would be less than 80 VdB.

As stated above, the operation of the recycled water pump station, located at the SRWTP site, would generate minimal vibration.

This pump would be enclosed to minimize noise transmission and vibration. Sound minimizing acoustic treatments would be located within the pump room to contain noise and eliminate noise impacts. Treatments to reduce noise may include constructing enclosures around pumps and generators, locating equipment away from noise-sensitive uses, and employing exhaust-muffling devices. Vibration dampening treatments would be used, as needed. Treatments to reduce vibration may include: placing heavy equipment (e.g., pumps) on concrete housekeeping pads, as close as possible to stiff elements (beams and columns); placing flow carrying pipe and ducts near connected equipment supported using spring hangers; using flexible connectors to equipment, to accommodate relative motions and vibration isolation; equipping major pumps and fans with accelerometers; and when Variable Frequency Drives (VFD) are used, programming them to avoid resonance. Therefore, potential operational impacts related to vibration would be **less than significant** because the maximum vibration exposure would be less than 80 VdB.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would develop recycled water pipelines to service Demand Group II and III Projects. The primary and most intensive vibration source associated with the development of these projects would be the use of jack hammers during construction. This type of equipment can create short term intense noise that is disturbing and can result in ground vibrations. The results from vibration can range from no perceptible effects at the lowest vibration levels to low rumbling sounds and perceptible vibrations at moderate levels, and to slight structural damage at the highest levels. Ground vibrations from construction activities rarely reach the levels that can damage structures, but they can achieve the audible and perceptible ranges in buildings close to the construction site. As a result, temporary vibration impacts would result during the construction activities. However, the pipelines would be located within the street rights of way, groundborne vibration would not result in increases beyond several tens of feet therefore impacts would be **less than significant** on nearby receptors.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 13-3: The project could result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Project-Level Impact Analysis

The facility would be equipped with pumps and blowers, as well as portable emergency generator for the waste sewage pump station. The highest operational sound emitting from the SRWTP facility is the emergency generator. The generator would be operated intermittently for maintenance or emergency situations at the SRWTP. The estimated sound emitted from the generator is estimated to be approximately 87 dB.

As stated above, SRWTP pump noise attenuates similar to construction equipment noise. Given the distance to the nearest sensitive receptor, operation of the SRWTP pumps would not result in a significant noise level increase at the nearest sensitive receptor location. Furthermore, treatments to reduce and contain noise impacts would include constructing enclosures around equipment, addition of exhaust and blower muffling devices, and acoustical design of structures that house pumps, blowers and generators.

SRWTP operational noise would be generated by employee vehicle trips and SRWTP pumps. The SRWTP is anticipated to employ three workers; therefore an increase of approximately six one-way trips per day would occur, with two additional trips assumed for vendors and visitors. In general, it takes an increase of 200 new trips per day to increase the ambient noise level 3 decibels (dBA) (3 dBA is the threshold of audible perception). Therefore, traffic would not

increase the ambient noise level at the SRWTP site. Impacts from the operation of the plant are **less than significant**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

Future phases of the proposed Project (i.e., Demand Groups II and III) would require expansion of both the SRWTP and the distribution system to provide recycled water to other non-potable demands throughout Pacific Grove and other locations. As stated above, given the distance to the nearest sensitive receptor, operation of the SRWTP pumps would not result in a significant noise level increase at the nearest sensitive receptor location. Furthermore, treatments to reduce and contain noise impacts would include constructing enclosures around equipment, addition of exhaust and blower muffling devices, and acoustical design of structures that house pumps, blowers and generators. Therefore, the effect would be **less than significant**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 13-4: Would the proposed project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would expose people residing or working in the project area to excessive noise levels, or be located within the vicinity of a private airstrip, would expose people residing or working in the project area to excessive noise levels.

Project-Level Impact Analysis

There is no airport located within two miles of the proposed SRWTP site. As a result, there would be no airport noise impact to people residing or working at the Project site. The closest airport to the Project site is the Monterey Regional Airport, which is over 5.0-miles southeast of the Project site. There would be **No Impact**.

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

There is no airport located within two miles of the facilities proposed as part of Demand Group II and III. As a result, there would be no airport noise impact to people residing or working at the Project site. The closest airport to the Project site is the Monterey Regional Airport, which is

approximately 3.0-miles southeast of the closest Demand Group 3 proposed pipeline alignment. There would be **No Impact**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

SECTION 14.0 TRANSPORTATION/TRAFFIC

14.1 INTRODUCTION

Information contained in this section is derived from the following sources: the Monterey-Pacific Grove ASBS Stormwater Management Project Final EIR, the Pacific Grove Municipal Golf Course Clubhouse Mitigated Negative Declaration, the City of Pacific Grove General Plan, and the *Traffic Operations Analysis* prepared by Hexagon Transportation Consultants (2013) for the Monterey-Pacific Grove ASBS Stormwater Management Project (Rincon 2014).

Construction of proposed Project facilities would temporarily close portions of Ocean View Boulevard and Asilomar Avenue to traffic. This could increase traffic levels on roadways due to transporting equipment, materials, and personnel to construction areas. Construction traffic trips, including deliveries, would not exceed 62 (31 one way, with both ways counted). This amount assumes workers would be driving their own vehicles. While these numbers are not high, this area of Point Pinos is a major tourist attraction and thus any new traffic, especially large vehicles, could result in a "significant impact."

Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant construction traffic impacts to less than significant levels. Projected traffic generated by operation of the SWRTP could result in a total generation of 16 new daily trips (8 one way, with both ways counted). This is considered a Less than Significant impact.

14.2 ENVIRONMENTAL SETTING

Existing Roadway Network. The proposed Project is comprised of three Demand Groups primarily in the City of Pacific Grove, with parts of Demand Group III located in the City of Monterey and Pebble Beach. All three components are located on the Monterey Peninsula, located approximately 30 miles southwest of Salinas and approximately 120 miles south of San Francisco (refer to Figures 2-1 and 2-2 in Section 2.0, Project Description).

The City's roadway network consists of a street system that is laid out in a basic grid pattern. Variations to the grid occur due to topography and in those areas developed with the more contemporary subdivision pattern of cul-de-sac and closed loop local streets tying into collector streets. A wide range of street widths are represented from the 30-foot right-of-ways to 100-feet for Pine Avenue. The standard width for new streets is a 50-foot wide right-of-way according to the City of Pacific Grove General Plan (1994). Traffic volumes are generally lower on weekends than weekdays except for streets to visitor attractions including Ocean View Boulevard, Central Avenue, Asilomar Avenue, and Sunset Drive. The streets generally accommodate traffic within their design capacity (City of Pacific Grove, 1994). However, portions of Central, Forest, David, and Congress Avenues and, on weekends, Ocean View Boulevard, are at or near their design capacity. Some problem areas include congestion in the vicinity near the Monterey Bay Aquarium, through traffic on Patterson Lane to access Highway 68, and through traffic to and from Monterey accessing Highway 68 via Prescott Lane (*ibid*).

Constrained by the Pacific Ocean to the north and the Monterey Bay to the east, access from outside the City is generally by State Route (SR) 68 from the south and Lighthouse and Central Avenues from the east. A total of four intersections on Forest Avenue are controlled by traffic signals at Pine Avenue, Sinex Avenue, David Avenue, and Prescott Lane. SR 68 enters the south portion of Pacific Grove as Forest Avenue, bears west after David Avenue as a portion of Sunset Drive, bears north as a portion of Asilomar Avenue, and terminates at the entrance to the Asilomar State Beach and Conference grounds.

Bicycle trails have been constructed primarily along the coastline and join a regional bike trail system running from Castroville to Pebble Beach with future plans for expansion to Point Lobos.

Specific characteristics of the roadway system in the vicinity of the proposed Project (Demand Group I) are discussed in greater detail below.

SRWTP and Pipeline Alignments for Demand Group I. The SRWTP would be located at the retired Wastewater Treatment Plant (WWTP) site, which is adjacent to Ocean View Boulevard near Asilomar Avenue. Ocean View Boulevard and Asilomar Avenues are both two lane roadways (one lane either direction). Ocean View Boulevard runs along the coast, with numerous adjacent beach parking lots. Other local and collector streets that would primarily be affected by the Demand Group I project components are Lighthouse Avenue, 17 Mile Drive, Sunset Drive and Highway 68, which connect this area to State Route 1.

Typically, each travel lane on an urban street has a capacity of at least 1,200 vehicles per hour when no traffic control devices (such as stop signs, roundabouts, or traffic signals) are present (Hexagon 2013). Sunset Drive currently has no control devices on the relevant segments of road (i.e., from the SRWTP site to the intersection of Sunset Drive and Asilomar Avenue). Short daytime lane closures (for a period of ten working days or less) may be necessary to support this component of the Project (Hexagon 2013).

Generally, both Ocean View Boulevard and Sunset Drive have between 2,500 and 700 daily trips (both directions). During the peak hours, it experiences peak hour traffic flows of between 110 trips and 250 trips per day. Ocean View Boulevard currently has no traffic control devices on the relevant segments of road.

14.3 REGULATORY SETTING

14.3.1 Local

The City of Pacific Grove General Plan Transportation Element (1994) includes goals and policies regarding the transportation network and acceptable levels of service (LOS) for City roadways. According to this Element, the LOS on arterial and collector streets within the City should be no worse than LOS C, but LOS D is acceptable during weekday peak-periods at intersections that in 1994 are close to or at limits of LOS D on arterial routes outside the downtown area. (City of Pacific Grove, 1994). The roads most pertinent to the proposed Project are included in the City's list of either collector or arterial roads.

14.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

Consistent with Appendix G of the State CEQA Guidelines, Project implementation may result in a significant impact related to Transportation/Traffic if it would do any of the following:

1) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit;
2) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
3) Substantially increase hazards to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
4) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
5) Result in inadequate emergency access; or
6) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

14.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of Demand Group II and III projects would be conducted as part of future site-specific CEQA reviews. Detailed evaluations of the impacts of the proposed Project are addressed in the project-level analysis.

Impact 14-1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit, or could potentially conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Project-Level Impact Analysis

Traffic Interference During Construction of the SRWTP and Pipeline Installation

Construction of the proposed Project facilities (e.g., recycled, potable water and WAS pipelines, and upgrades to the treatment plant and pump stations) could result in increased traffic levels on roadways used to transport equipment, materials, and personnel to construction areas. As shown in Table 14-1, during facility construction, traffic increases would result from worker commute trips, delivery trucks, and haul trucks. The number of workers at any one site could vary substantially, from 5 to 31, depending upon the type of construction activity and project. In addition, the volume of excavated soil and import backfill, and the number of haul trucks spread over the construction workday would also vary. However, new daily trips would not exceed 62

(31 one way, with both ways counted). This amount assumes every worker is driving his or her own vehicle. While these numbers are not high, this area of Point Pinos is a major tourist attraction and thus any new traffic, especially large vehicles, could result in a **Significant impact**.

Traffic Increases During Operation of the SRWTP

As stated in Section 2, Project Description, it is projected that between one and three employees would be working at the facility at any 24-hour period during the operation of the SRWTP. In addition, material vendors for parts and chemicals during normal operations may produce approximately two trips per week. Additional trips to the plant by visitors and other administrative purposes are expected to be approximately three trips per week. Using a worst-case scenario of all employees present at the SWRTP at once, and having all deliveries as once could result in a total generation of 16 new daily trips (8 one way, with both ways counted). This is considered a **Less than Significant impact**.

Table 14-1: Trips and Vehicle Miles Traveled During Construction at the SRWTP Site and Surrounding Area (Demand Group I)

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Demolition	2	5.00	0.00	2.00	10.80	7.30	20.00
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00
Grading	3	8.00	0.00	250.00	10.80	7.30	20.00
Building Construction	7	31.00	12.00	0.00	10.80	7.30	20.00
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00

Project-Level Mitigation Measures

Traffic Mitigation Measure 1: Temporary Traffic Handling Plans. Temporary Traffic Handling Plans shall be prepared for proposed lane reductions on Ocean View Boulevard and Asilomar Avenue. The plans shall be prepared in accordance with the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) and Work Area Traffic Control Handbook (WATCH) manual requirements (where appropriate) and contain provisions for handling bike and pedestrian traffic, as well as ensuring access to neighboring facilities and residences during construction and ensuring emergency access to fire hydrants along all roadways. During construction, the City shall use detour signage for vehicles, bicycles, and pedestrians on alternate access streets when temporary full street closure is required. The plans shall be reviewed and approved by the City Public Works Department prior to construction. At each of the lane closure locations and at the intersection of Asilomar Avenue and Ocean View Boulevard, a traffic flagger shall be utilized to ensure that traffic can be safely accommodated through the closures during construction.

Traffic Mitigation Measure 2: Coordination with City. Coordinate with City staff regarding the duration and locations of short-term traffic diversions. Temporary traffic handling plans shall be prepared when necessary to detour traffic to appropriate locations. In addition, the daytime hours of traffic diversion shall be restricted to allow for adequate traffic flow at high traffic volume locations during peak commute hours.

Traffic Mitigation Measure 3: During construction, the City shall use detour signing for vehicles, bicycles, and pedestrians on alternate access streets when temporary full street closure is required.

Traffic Mitigation Measure 4: Return Roads to Pre-construction Condition. Following construction, the City shall ensure that road surfaces damaged during construction are returned to their pre-construction condition or better.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

Construction of the proposed Project facilities (e.g., recycled, potable water and WAS pipelines, and upgrades to the treatment plant and pump stations) could result in increased traffic levels on roadways used to transport equipment, materials, and personnel to construction areas. During facility construction, traffic increases would result from worker commute trips, delivery trucks, and haul trucks. The number of workers at any one site could vary substantially depending upon the type of construction activity and project. In addition, the volume of excavated soil and import backfill, and the number of haul trucks spread over the construction workday would also vary. Future project-level analysis would estimate these truck trips.

New recycled water pipelines would typically be located in existing streets; therefore, construction could temporarily disrupt traffic flows from lane closures, road closures, or lane blockage. Depending on the available street width, traffic flows may be restricted to one direction during construction. Significant traffic delays could result from such closures/restrictions as well as from increased truck traffic if construction and/or deliveries were to occur during peak traffic periods. In addition, there is a potential for short-term increases in safety hazards to motor vehicles, bicyclists, and pedestrians, and restriction of access to adjacent uses because of the nature of pipeline construction and operation of construction equipment. Pipeline construction could also disrupt or delay transit service if construction occurs along bus routes. Designated bikeways could also be affected if pipeline routes cross these routes. These potentially significant effects could be mitigated to **less than significant** through implementation of traffic control measures.

Program-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

Impact 14-2: Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Project-Level Impact Analysis

The proposed Project would not change the configuration (alignment) of Ocean View Boulevard and Asilomar Avenue, and would not introduce vehicle types that are not already traveling on these roads. However, heavy equipment operating adjacent to or within road right-of-way would increase the risk of accidents, as could the increased congestion resulting from lane and/or road closures. Potential conflicts could occur between construction traffic and bicyclists and

pedestrians and there is also potential for an increase in accidents resulting from limited lines of sight due to construction.

The contractor would prepare and implement a traffic control plan in accordance with professional engineering standards prior to construction, including compliance with roadside safety protocols, so as to reduce the risk of accident (Traffic Mitigation Measure 1). Implementation of the traffic control plan would ensure temporary increases in the potential for accidents would be less than significant. Traffic Mitigation Measure 4 ensures that roads are returned to their pre-construction condition or better. These potentially significant effects could be mitigated to **less than significant** through implementation of traffic control measures.

Project-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: N/A

Program-Level Impact Analysis

The proposed Project would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. However, heavy equipment operating adjacent to or within road right-of-way would increase the risk of accidents, as could the increased congestion resulting from lane and/or road closures. Potential conflicts also could occur between construction traffic and bicyclists and pedestrians and there is also potential for an increase in accidents resulting from limited lines of sight due to construction.

The contractor would prepare and implement a Temporary Traffic Handling Plan_in accordance with professional engineering standards prior to construction, including compliance with roadside safety protocols, so as to reduce the risk of accident (Traffic Mitigation Measure 1). Implementation of the traffic control plan would ensure temporary increases in the potential for accidents would be less than significant. Traffic Mitigation Measure 4 would ensure that roads are returned to their pre-construction condition or better. These potentially significant effects could be mitigated to **less than significant** through implementation of traffic control measures.

Program-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

Impact 14-3: Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Project-Level Impact Analysis

There is no airport located within two miles of the proposed SRWTP site. As a result, there would be no change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The closest airport to the Project site is the Monterey Regional Airport, which is over 5.0-miles southeast of the Project site. There would be **No Impact.**

Project-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Program-Level Impact Analysis

There is no airport located within two miles of the facilities proposed as part of Demand Groups II and III. As a result, there would be no change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. The closest airport to the Project site is the Monterey Regional Airport, which is approximately 3.0-miles southeast of the closest Demand Group III proposed pipeline alignment. There would be **No Impact**.

Program-Level Mitigation Measures

None required.

Significance after mitigation: N/A

Impact 14-4: Result in inadequate emergency access?

Project-Level Impact Analysis

During construction of the proposed Project (i.e., Demand Group I), portions or lanes of Ocean View Boulevard and Asilomar Avenue could be closed to traffic on a temporary basis for the installation of the new sanitary sewer forcemain on Ocean View Boulevard and potable and recycled water pipelines on Asilomar Ave. These closures could impede access by emergency response vehicles, including access to fire hydrants on Asilomar Avenue and Ocean View Boulevard. In addition, construction near the City of Pacific Grove Municipal Golf Course could temporarily obstruct the driveway to this facility. However, it is expected that just one lane in these two-lane roads would be closed at any one time, and construction within the roads is not expected to last more than 5 days. While these numbers are not high, this area of Point Pinos is a major tourist attraction and thus any new traffic, especially large vehicles, could result in a **significant impact**.

Implementation of Mitigation Measures Traffic 1 through Traffic 4 would avoid or reduce impacts to less than significant levels. The City-required traffic management plan would require traffic, parking, bicyclist, and pedestrian management techniques to mitigate anticipated disruptions resulting from project construction. This would include ensuring access to neighboring facilities and residences during construction and ensuring access to fire hydrants.

Operation of the SWRTP would result in a total generation of 16 new daily trips (8 one way, with both ways counted). This is considered a **Less than Significant impact**.

Project-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

The proposed Project would have temporary effects on traffic flow due to lane or road closures and added truck traffic during construction that could result in delays for emergency vehicle access in the vicinity of the proposed Project or restriction to adjacent land uses. Through the development of the traffic control plan and comprehensive strategies for maintaining emergency access (Traffic Mitigation Measure 1), the contractor would establish methods for maintaining traffic flow in the Project vicinity and minimizing disruption to emergency vehicle access along the construction route. If proper detours are not provided for streets that may require closure during construction activities, significant impacts could occur. Identification of detours (see Traffic Mitigation Measure 3), in addition to implementing a traffic control plan would ensure that traffic impacts are **less than significant**.

Program-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

Impact 14-5: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Project-Level Impact Analysis

During construction of the proposed Project (i.e., Demand Group I), portions of Ocean View Boulevard and Asilomar Avenue, there is a potential for short-term increases in safety hazards to bicyclists, and pedestrians, and restriction of access to adjacent uses because of the nature of pipeline construction and operation of construction equipment. Pipeline construction could also disrupt or delay transit service if construction occurs along bus routes. Designated bikeways could also be affected if pipeline alignments cross these routes. These **potentially significant** effects could be mitigated to less than significant levels through implementation of traffic control measures as listed in Traffic Mitigation Measures 1 through 4.

Operation of the SWRTP would result in a total generation of 16 new daily trips (8 one way, with both ways counted). This is considered a **Less than Significant impact**.

Project-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

Program-Level Impact Analysis

There is a potential for the proposed Project (i.e., Demand Groups II and III) to result in short-term increases in safety hazards to bicyclists, and pedestrians, and restriction of access to adjacent uses because of the nature of pipeline construction and operation of construction equipment. Pipeline construction could also disrupt or delay transit service if construction occurs along bus routes. Designated bikeways could also be affected if pipeline routes cross these routes. These

potentially significant effects could be mitigated to **less than significant** through implementation of traffic control measures.

Program-Level Mitigation Measures

Implement Traffic Mitigation Measures 1 through 4.

Significance after mitigation: Less than significant.

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SECTION 15.0 UTILITIES AND SERVICE SYSTEMS

15.1 INTRODUCTION

Public services in the Project area include fire and police protection services, emergency medical services, hospitals, and schools. Public utilities include solid waste disposal, water, wastewater, electricity, and natural gas. In general, implementation of the PGLWP would not have direct long-term effects on the demand for public services and utilities, with the exception of water service. The proposed Project would result in a beneficial effect of providing recycled water for landscaping and other uses to the City of Pacific Grove so that the need for potable water services within the City and region are reduced.

15.2 ENVIRONMENTAL SETTING

This section describes the public service and utility providers operating within the City. General plan documents and agency websites were used to obtain the information presented below.

Fire and emergency medical services

The Monterey Fire Department provides fire and emergency medical services for the cities of Monterey, Pacific Grove, Carmel-by-the-Sea, and Sand City, as well as the Presidio of Monterey, Naval Postgraduate School, La Mesa Village, and Monterey Regional Airport. The fire department operates 6 fire stations. Only Station No. 4 is located within City limits, approximately 1.5 miles from the SRWTP site at Point Pinos.

The Monterey County Emergency Medical Services Agency coordinates emergency medical services throughout Monterey County. It incorporates over 100 participating agencies into its jurisdiction, including fire departments, ambulance companies, hospitals, police departments, the American Red Cross, and the American Heart Association (MCHD, 2008).

Police

Police services are provided by the Pacific Grove Police Department. It maintains one police station, and employs 21 officers and 9 support professionals. The police station is located approximately 1.5 miles from the SRWTP.

Hospitals

Pacific Grove has no hospitals within its boundaries. The closest hospital is the Community Hospital of the Monterey Peninsula, located in Monterey, 4 miles from the SRWTP. It has 248 beds and employs 364 medical staff and 2,004 employees.

Schools

The Pacific Grove Unified School District (PGUSD) manages the City's public school system. There are six schools in total: Robert Down Elementary School, Forest Grove Elementary School, Pacific Grove Middle School, Pacific Grove High School, Pacific Grove Community High School, and Pacific Grove Adult Education (PGUSD, 2014). In addition, the Monterey Bay Charter School for grades 1-8 is located at 1004 David Avenue. The nearest school to the SRWTP site is Pacific Grove Adult Education, 0.75 miles away.

Solid waste services

Waste Management, Inc. currently provides solid waste pickup services for the City. Monterey Regional Waste Management District (MRWMD) manages the Monterey coastal area's solid waste collection/disposal and recycling system. MRWMD owns and operates the Monterey Peninsula Landfill (MPL) and Materials Recovery Facility (MRF). The MPL and MRF receive most of Monterey County's sewage sludge from the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Treatment Plant (RTP). The MPL and MRF are located in the City of Marina, approximately 11 miles from the PGLWP facilities. Table 14-1 presents the location, permitted capacity, and remaining capacity of the MPL and MRF.

Table 15-1: Solid Waste Facility Capacity

Facility Name	Location	Permitted Capacity (million cubic yards)	Remaining Capacity (million cubic yards)	Remaining Capacity (%)	Maximum Throughput (tons/day)
Monterey Peninsula Landfill and Materials Recovery Facility	Marina	48.7	48.6	98	3,500

Sources: California Department of Resources Recycling and Recovery (CalRecycle), Solid Waste Information System (SWIS). Accessed May 2014, available at: http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx.

Solid waste generated by construction and operation of the proposed Project would likely be deposited in the MPL or diverted for recycling or reuse at the MRF (MRWMD, 2014). The MPL and MRF are located approximately 11 miles from the SRWTP.

Water services

Potable water is supplied to the City by CAW. CAW delivers water to Pacific Grove through a 30-inch steel main in Congress Avenue that transports water to the CAW pumping facility at the former David Avenue Reservoir. CAW collects, treats and distributes water for public and private use and fire suppression within its service area. Through franchise agreements with the jurisdictions in its service area, the CAW Monterey District serves the six cities of Carmel-by-the-Sea, Pacific Grove, Monterey, Seaside, Sand City, Del Rey Oaks, the county areas of the Carmel Valley, Pebble Beach, Carmel Highlands, and the satellite systems of Garrapata, Chualar and the Highway 68 corridor. CAW is a private utility company that operates under the regulations of the California Public Utilities Commission (CPUC). The total population served by CAW's Monterey Main system was approximately 94,081 in 2010.

Supplies for the Monterey District are developed from surface water from the Carmel River, wouldow wells in the Carmel Valley, mid-depth and deep wells in the Seaside Groundwater Basin (SGWB). Water production from these sources is limited by various governmental regulations and annual rainfall amounts. Water supplies have been especially constrained since 1995, when the State Water Resources Control Board (SWRCB) determined that CAW was illegally diverting over 10,000 AFY from the Carmel River Basin in SWRCB Board Order 95-10. Most of the Carmel River withdrawal comes from wouldow wells positioned near the Carmel River. The order determined that withdrawal of water from the Carmel Valley is destructive to the habitat along the river and threatens endangered species. The order also determined that

the Carmel Valley are pumping river underflow and not withdrawing from an underground aquifer.

CAW is mandated to develop new water supplies for the Monterey District service area to decrease its reliance on the Carmel River and the SGWB. [1] Pursuant to Cease and Desist Order 2009-0060 issued on October 20, 2009 by the SWRCB, CAW is required to reduce its unpermitted diversions from the Carmel River and to terminate all diversions in excess of 3,376 AFY from the Carmel River. CAW must therefore find a replacement for approximately 70 percent of its water supply by December 31, 2016.

The CAW Monterey District currently has approximately 38,500 connections with an annual average daily production requirement of approximately 13.4 mgd. The annual average demand over the 5-year period between 2007 and 2011 was 13,291 AF. The total forecasted demand for the CAW service area is 15,296 AFY to be supplied by seawater desalination, Carmel River Wells, extraction from the SGWB, Aquifer Storage and Recovery (ASR), and the Sand City desalination plant (CAW, 2012).

Wastewater services

MRWPCA was established in 1972 and is the primary provider of wastewater treatment in Monterey County. MRWPCA currently serves a population of 250,000 in the communities of Pacific Grove, Monterey, Del Rey Oaks, Seaside, Sand City, Fort Ord, Marina, Castroville, Moss Landing, Boronda, Salinas and some unincorporated areas in northern Monterey County. Each member entity retains ownership and operating/maintenance responsibility for wastewater collection and transport systems up to the point of connection with interceptors and pump stations owned and operated by MRWPCA.

MRWPCA operates the RTP that includes a water recycling facility, maintains 25 pump stations connected to the treatment plant, and oversees secondary treatment and discharge into Monterey Bay. Figure 15-1 presents an overview of the MRWPCA wastewater collection system. Wastewater from residential, commercial and industrial sources is conveyed to the MRWPCA RTP. The RTP also accepts some dry weather urban runoff from the City of Pacific Grove. The RTP is located north of the City of Marina and south of the Salinas River in unincorporated Monterey County. The RTP has an average dry weather design capacity of 29.6 mgd and a peak wet weather design capacity of 75.6 mgd. The RTP currently receives and treats approximately 17 to 18 mgd of wastewater. There is currently capacity to treat additional wastewater flows.

Wastewater flows to the RTP are projected to continue to decrease to a minimum value in the year 2030. This decrease is predicted as the result of increased water conservation, raising water rates and regional economic factors. Wastewater flows to the RTP may then range between 17.1 and 19.2 mgd. The high RTP wastewater flow trends that may occur in 2055 due to projected population growth are 22.7 and 24.3 mgd. By 2055, the high trend values of average wastewater flows to the RTP are projected to range from 82% to 77% of design capacity, leaving 23% to 18% capacity availability at the RTP for treatment of additional wastewater, dry weather, or

[1] The Seaside Basin Adjudication in California American Water v. City of Seaside, et al. (Monterey Superior Court, Case No. M66343).

storm water flows (Brezack & Associates Planning, 2014). Figure 15-2 presents the historical and projected RTP flow projections.

Wastewater is treated to two different standards at the RTP: 1) secondary treated for discharge through the MRWPCA ocean outfall, and 2) Title 22 California Code of Regulations (CCR) standards (tertiary filtration and disinfection) for unrestricted agricultural irrigation use.

Tertiary treated wastewater from the RTP is recycled for irrigation of 12,000 acres of farmland in the northern Salinas Valley. The Salinas Valley Reclamation Project (SVRP) includes the tertiary treatment plant at the RTP and an 80 acre-foot storage pond that holds tertiary treated and Salinas River water prior to distribution to farmland by the Castroville Seawater Intrusion Project (CSIP) distribution system. SVRP has a production capacity of 33,200 AFY of recycled water. Actual delivery of recycled water has averaged 12,936 AFY (2001 to 2013). The use of recycled water for irrigation reduces regional dependence on and use of local groundwater that, in turn, reduces groundwater pumping related seawater intrusion into the Salinas Valley aquifers.

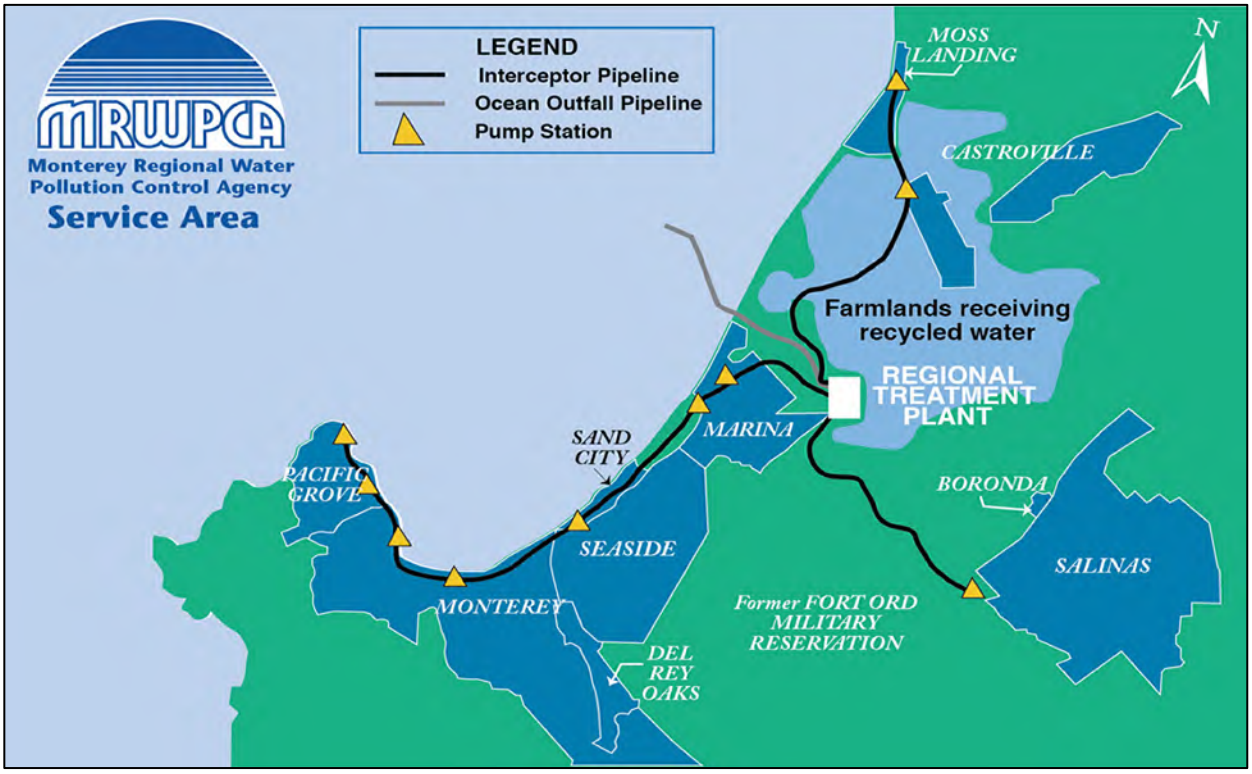

Figure 15-1: MRWPCA Collection System

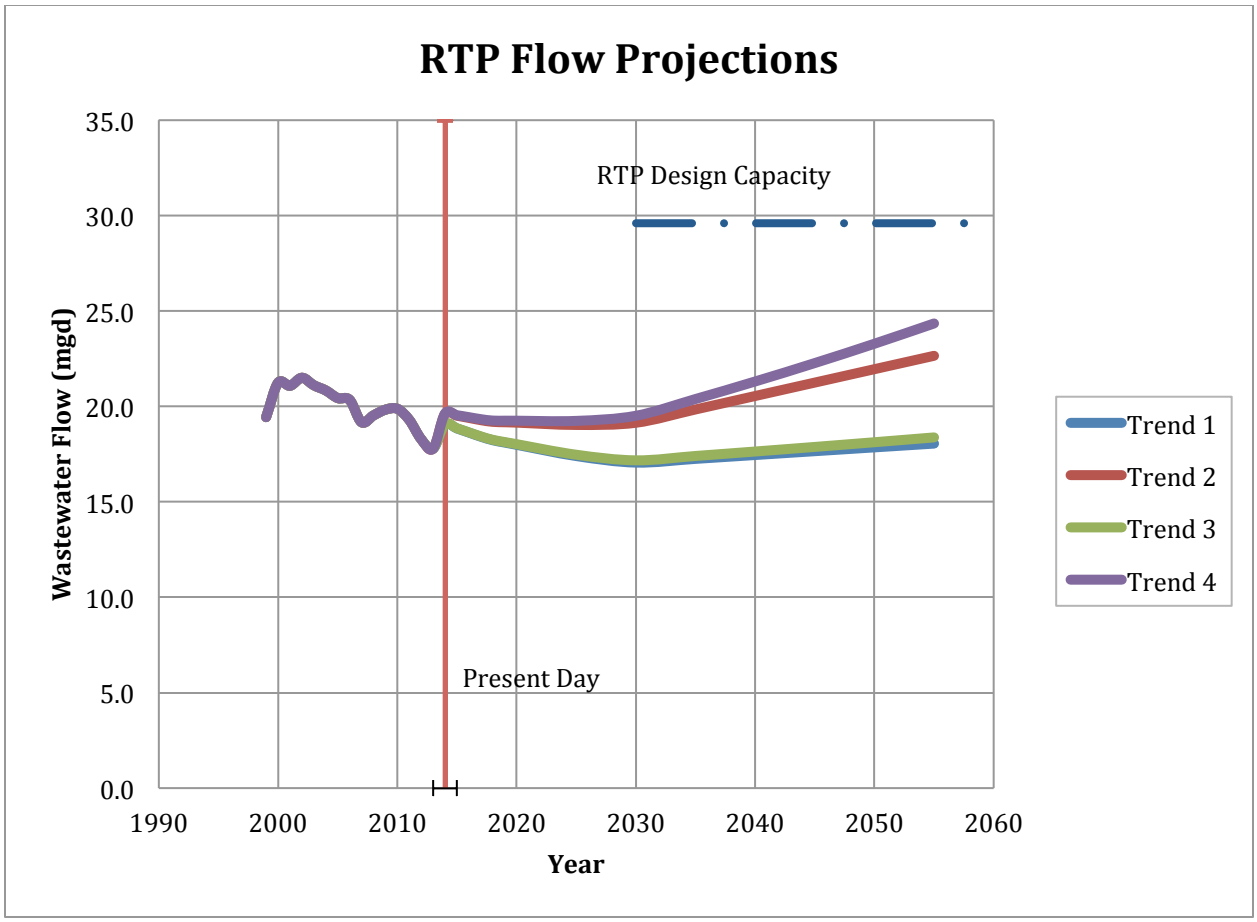

Figure 15-2 Historical and Projected Flows to MRWPCA RTP

The City of Pacific Grove owns, operates, and maintains the wastewater collection system located within its boundaries. The system consists of approximately 58 miles of pipelines, 900 manholes, and 5 pump stations. Two regional pump stations located at the end of Coral Street and Fountain Street are owned and operated by MRWPCA. Wastewater collected throughout the City is conveyed for treatment to the MRWPCA RTP. A regional interceptor pipeline is located along the coast of the Cities of Pacific Grove, Monterey, Seaside, and Marina. Based on MRWPCA data (Brezack & Associates, 2014), the Monterey Peninsula interceptor system operates below its design flows year round, and has operated at 15 to 20% of its design capacity for an average dry weather flow event and 42 to 50% of design capacity during peak wet weather flows.

The City completed a Sewer Collection System Master Plan (Wallace Group, 2013) that prioritized existing and future collection system needs of the City's wastewater collection system. The Sewer Collection System Master Plan identified ten Capital Improvement Projects (CIPs) required to improve existing deficiencies or to meet capacity requirement for future developments. None of the CIPs identified are within the PGLWP Project area.

Prior to construction of MRWPCA's RTP, City wastewater was treated at the Point Pinos Wastewater Treatment Plant (WWTP). The Point Pinos WWTP was built in 1952 with a

treatment capacity of 2 million gallons per day (mgd). The plant consisted of the following facilities:

- Headworks with bar screen, grit removal and comminutor,
- 210,000 gallon clarifier with disinfection,
- 430,000 gallon sludge digester.

Treated effluent and sludge was discharged through an outfall to the Pacific Ocean. The PPWTP was retired in 1980 with the City's connection to the RTP. The City maintains ownership of the land and facilities and currently uses the site as a maintenance and storage facility for its Golf Links and public works field operations.

Storm drain services

Storm drainage facilities within the City generally consist of piping within developed portions of the City limits that convey runoff to Monterey Bay. Some portions of dry weather runoff are conveyed to the MRWPCA RTP via a dry weather diversions system.

Each of the Monterey Peninsula cities and Monterey County operate and maintain Municipal Separate Storm Sewer Systems (MS4s) that are subject to the Statewide General NPDES Phase II Stormwater Permit. Through a Memorandum of Agreement with MRWPCA, first signed in 2002 and renewed in 2013, the Monterey Regional Stormwater Management Program serves as the regional program that jointly implements the Phase II NPDES permit. The primary purpose of this program is to reduce the amount of urban runoff discharged to the Monterey Bay (and in some locations, to Areas of Special Biological Significance (ASBS), and to implement best management practices to improve the water quality of urban runoff discharges. Further review of the City's storm drainage infrastructure and water quality is discussed in Section 10 Hydrology and Water Quality.

Electricity and natural gas services

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas services to the proposed Project service area. PG&E provides electricity service to all or part of 47 counties in California, including Monterey County, consisting of most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 5.2 million customers. In 2010, PG&E obtained 43 percent of electricity from its own generation sources and the remaining 57 percent from outside sources. PG&E-owned generating facilities include nuclear, fossil fuel, hydroelectric, and solar with a net generating capacity of more than 7,300 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 160,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico. In 2010, PG&E delivered 83,908 gigawatt-hours of electricity to its customers.

PG&E provides natural gas service to all or part of 39 counties in California, including Monterey County, consisting of most of the northern and central portions of the State. PG&E obtains more than 59 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,000 miles of transmission and distribution pipelines.

In 2010, PG&E delivered 842 billion cubic feet (bcf) of natural gas to its customers.

15.3 REGULATORY SETTING

15.3.1 Federal and State

California Public Utilities Commission

The CPUC is responsible for ensuring investor-owned (private) water, energy and telecommunications utilities deliver safe, clean and reliable services to their customers at reasonable rates. The CPUC regulates 140 investor-owned utilities including CAW, PG&E and 12 investor-owned sewer utilities. The CPUC adopts Rules of Practice and Procedure and issues General Orders to regulate various aspects of rates, services, facilities, and the safety and financial practices of utilities, including provisions regarding water quality.

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989 (Public Resources Code [PRC], Section 40050 et seq.), enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, requires all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by the year 2000 (PRC Section 41780). A jurisdiction's diversion rate is the percentage of its total waste that it diverts from disposal through reduction, reuse, and recycling programs. The state determines compliance with this mandate to divert 50 percent of generated waste (which includes both disposed and diverted waste) through formulas that requires cities and counties to conduct empirical studies to establish a "base year" waste generation rate against which future diversion is measured. The actual determination of the diversion rate in subsequent years is arrived at through deduction, not direct measurement: instead of counting the amount of material recycled and composted, the city or county tracks the amount of material disposed at landfills, and then subtracts the disposed amount from the base year amount. The difference is assumed to be diverted (PRC Section 41780.2). As of 2006, the most recent year for which jurisdiction summary information is available, Pacific Grove had a diversion rate of 64 percent California Integrated Waste Management Board (CIWMB) website (CIWMB, 2014), consistent with AB 939.

Utility Notification Requirements

California law (California Government Code Section 4216 et seq.) requires owners and operators of underground utilities to become members of and participate in a regional notification center. "Operators of subsurface installations who are member of, participate in, and share in, the costs of a regional notification center, including but not limited to ... Underground Service Alert (USA) -- Northern California... are in compliance with this section." (California Government Code Section 4216.1). The City is a current member of USA North (USAN). The purpose of USAN is to "receive planned excavation reports from public and private excavators and to transmit those planned excavation reports to all participating members of USA who may have underground facilities at the location of excavation. The USA Members would either mark or stake their facility, provide information or give clearance to dig" (USA, 2009).

15.3.2 Local

Pertinent General Plan public services and utilities goals, objectives, and policies of jurisdictions in the Project area are shown in 15-2.

Table 15-2: City of Pacific Grove General Plan Policies on Public Services and Utilities in Project Area

Goal 1: Maintain an adequate level of service in the City's water system to meet the needs of existing and future development.
Policy 1. Endeavor to ensure an adequate water supply for the city's future needs.
Policy 2. Prioritize available water allocation to best serve the city's needs, and to accommodate coastal priority uses designated in the Local Coastal Program Land Use Plan (LUP, 4.1.4.1).
Policy 3. Ensure the provision of adequate fire flow rates in all new development and remodelings.
Policy 4. Attempt to provide water for new plantings in designated restoration areas on public property until the plantings are established.
Policy 5. Promote the retrofitting of public buildings with water conservation features.
Policy 6. Encourage and assist hospitality-related businesses to actively promote water conservation.
Goal 2: Maintain a level of service in the City's sewage collection and disposal system adequate to meet the needs of existing and future development.
Policy 7. Require the provision of adequate sewer service to all new development in the city.
Policy 8. Promote the reclamation of wastewater for irrigation purposes (specifically, the golf course and cemetery).
Goal 5: Provide for the collection and disposal of solid waste, while accomplishing the mandated objectives of the California Integrated Waste Management Act.
Policy 17. Actively pursue methods of solid waste recycling and reuse, including source reduction, as identified in the waste management planning elements and as recommended by the Citizens' Recycling Advisory Committee as necessary to achieve the goals of the California Integrated Waste Management Act.

15.4 METHODOLOGY AND STANDARDS OF SIGNIFICANCE

Consistent with Appendix G of the State CEQA Guidelines, the Project implementation may results in a significant impact related to public services and utilities if it would do any of the following:

- Substantially interfere with or change the demand for utilities or public services;
- Interfere with or substantially change the demand for government services such as schools, hospitals, or police and fire protection, or require alteration of these services;

- Require or result in the construction of new water or wastewater treatment or storm water drainage facilities or expansion of such existing facilities, the construction of which could cause significant environmental effects;
- Exceed the capacity of the wastewater treatment provider in the area;
- Exceed the capacity of local landfills or violate federal, state, or local statutes and regulations related to solid waste; or
- Impair or prevent a city or county from complying with the waste diversion mandates of the California Integrated Waste Management Act of 1989.

15.5 IMPACTS AND MITIGATION MEASURES

This section identifies the potentially significant adverse project-level, program-level, and cumulative impacts and required mitigation measures for the proposed Project. This analysis focuses on the potential for Project construction and/or implementation to directly affect public services and utilities. The program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific Projects would be conducted as part of future site-specific CEQA review. Detailed evaluations of the impacts of the proposed Project are addressed in the Project-level analysis. In general, the potential for the Project to directly affect long-term demand for public services and utilities (except as discussed in the sections noted below) is limited to temporary construction-phase effects on emergency services, solid waste facilities, and existing utilities.

Impact 15-1: Substantially interfere with or change the demand for utilities or public services?

Project-Level Impact Analysis

Implementation of the PGLWP would reduce the demand for potable water service to the Pacific Grove Golf Links and El Carmelo Cemetery. Irrigation would be supplied by new recycled water produced at the SRWTP.

The PGLWP would reduce the total flows to MRWPCA and SVRP by 0.11 mgd. This is the annual average flow that would be used to irrigate the golf course and cemetery. This is equivalent to a reduced wastewater flow to the MRWPCA RTP of 0.59% (roughly less than six-tenths of one percent). Therefore the PGLWP would have no impact to recycled water supplies to CSIP.

When the ASBS Project is implemented; the ASBS Project would divert an average of 0.13 mgd to the MRWPCA RTP and SVRP. The RTP and CSIP would therefore receive an increase of wastewater flow and recycled water supply from the combined implementation of the ASBS and the PGLWP of 2%.

The proposed use of the retired wastewater treatment plant at Point Pinos would use electricity and gas service, but these services are currently provided onsite and no additional entitlements would be needed.

Construction activities for the PGLWP could result in damage to or interference with existing water, sewer, storm drain, natural gas, electric, and/or communication lines and, in some cases could require that existing lines be permanently relocated, potentially causing interruption of service. Utility lines of various sizes are likely to be located along or across proposed pipeline alignments. Trench construction is the project activity most likely to cause service disruption. Streets and roads typically serve as utility corridors, increasing the potential for interference with other existing utilities. If specific locations of underground utilities are not located prior to construction, the utility lines could be damaged and the associated services interrupted.

In most cases of pipeline construction, service disruptions are temporary and typically do not exceed one day. All utility lines and cables that would be disrupted during pipeline installation would be identified during final design. Existing utilities would be avoided to the greatest extent practical. As a condition of approval for either a utility excavation permit or an encroachment permit, the City would prepare a detailed engineering and construction plan that thoroughly describes construction techniques and protective measures for minimizing impacts to utilities.

The potentially significant impact associated with potential damage to or interference with public utilities would be **less than significant** with the implementation of Mitigation Measures Utilities and Service Systems through 15-1 through 15-x

Project-Level Mitigation Measures

Utilities and Service Systems Mitigation Measure 15-1: Prior to excavation, the City or its contractor would locate overhead and underground utility lines, such as natural gas, electricity, sewage, telephone, fuel, and water lines, that may reasonably be expected to be encountered during excavation work.

Utilities and Service Systems Mitigation Measure 15-2: The City or its contractors would find the exact locations of underground utilities by safe and acceptable means, including the use of hand excavation and modern potholing techniques as well as customary types of excavation equipment. Pursuant to state law the City or its contractor shall notify USAN. Information regarding the size, color, and location of existing utilities must be confirmed before construction activities begin. Detailed plans and specifications shall be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility service providers shall be notified of construction plans and schedule. Arrangements shall be made with these entities regarding protection, relocation, or temporary disconnection of services.

Utilities and Service Systems Mitigation Measure 15-3: The City shall comply with all conditions of its utility excavation or encroachment permits and shall include such conditions in construction contract specifications.

Utilities and Service Systems Mitigation Measure 15-4: The City or its contractors would confirm the specific location of all high priority utilities (i.e. pipelines carrying petroleum products, oxygen, chlorine, toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter, or with normal operating measures, greater than 60 pounds per square inch gauge; and underground electric supply lines, conductors, or cables that have a potential to ground more than 300 volts that do not have effectively grounded sheaths) and such locations would be highlighted on all construction drawings. In the contract specifications, the City would

require that the contractor provide weekly updates on planned excavation for the upcoming week and identify when construction would occur near a high priority utility. On days when this work would occur, the City's construction managers would attend tailgate meetings with contractor staff to review all measures regarding such excavations. The contractor's designated health and safety officer would specify a safe distance to work near high-pressure gas lines, and excavation closer to the pipeline would not be authorized until the designated health and safety officer confirms and documents in the construction records that: (1) the line was appropriately located in the field by the utility owner using as-built drawings and a pipeline-locating device, and (2) the location was verified by hand by the construction contractor. The designated health and safety officer would provide written confirmation to the City that the line has been adequately located, and excavation would not start until this confirmation has been received by the City.

Utilities and Service Systems Mitigation Measure 15-5: While any excavation is open, the City or its contractors would protect, support, or remove underground utilities as necessary to safeguard employees.

Utilities and Service Systems Mitigation Measure 15-6: The City or its contractors would notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.

Utilities and Service Systems Mitigation Measure 15-7: The City or its contractors shall contact the utility owner if any damage occurs as a result of the proposed Project and promptly reconnect disconnected cables and lines with approval of owner.

Utilities and Service Systems Mitigation Measure 15-8: The City shall observe California Department of Public Health (CDPH) standards, which require: (1) a 10-foot horizontal separation between parallel sewage and water mains (gravity or force mains); (2) a 1-foot vertical separation between perpendicular water and sewage line crossings; and (3) encasement of sewage mains in protective sleeves where a new water line crosses under or over an existing wastewater main; unless permitted mitigation measures are used per the latest CDPH Guidance Memo.

Utilities and Service Systems Mitigation Measure 15-9: The City or its contractors shall coordinate final construction plans and specifications with affected utilities, such as PG&E. If any interruption of service is required, the City or its contractors shall notify residents and businesses in the project corridor of any planned utility service disruption two to four days in advance, in conformance with county and State standards.

Significance after Mitigation: Less than significant.

Program-Level Impact Analysis

The PGLWP would reduce the total flows to MRWPCA and SVRP by 0.54 mgd. This is equivalent to a reduced wastewater flow to the MRWPCA RTP of 2.8%. Therefore the PGLWP would have **less than significant impact** to recycled water supplies to CSIP.

When the ASBS Project is implemented; the ASBS Project would divert an average of 0.13 mgd to the MRWPCA RTP and SVRP. The RTP and CSIP would receive a decreased of wastewater flow and recycled water supply from the combined implementation of the ASBS and the PGLWP of 0.8%.

Construction activities for the PGLWP could result in damage to or interference with existing water, sewer, storm drain, natural gas, electric, and/or communication lines and, in some cases could require that existing lines be permanently relocated, potentially causing interruption of service. In most cases of pipeline construction, service disruptions are temporary and typically do not exceed one day. All utility lines and cables that would be disrupted during pipeline installation would be identified during preliminary design. Existing utilities would be avoided to the greatest extent practical.

Implementation of the PGLWP would reduce the demand for potable water service to the sites throughout the City of Pacific Grove and regional areas. Irrigation would be supplied by new recycled water produced at the SRWTP.

The potentially significant impact associated with potential damage to or interference with public utilities would be **less than significant** with the implementation of Utilities and Service Systems Mitigation Measure 15-1 through 15-9.

Program-Level Mitigation Measures

Same as Project-Level Mitigation Measures.

Significance after Mitigation: Less than significant.

Impact 15-2: Interfere with or substantially change the demand for government services such as schools, hospitals, or police and fire protection, or require alteration of these services?

Project-Level Impact Analysis

Project construction would generate truck and employee traffic along haul routes and at the Project component sites, temporarily increasing the potential for accidents in these areas. This increased accident potential would result in a limited, short-term demand for additional police or fire services on an as-needed and emergency basis. Existing resources within the Project areas could accommodate this short-term increase in demand. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access. With implementation of the traffic safety and access measures identified in the Traffic section, the potential impact on the demand for police and fire services would be **less than significant**. To provide further protection, the City would implement Utilities and Service Systems Mitigation Measure 15-1 through 15-9.

There would be no long-term increases in demand for police or fire services associated with the PGLWP. Pursuant to Homeland Security requirements, security measures such as security fencing, alarms, and controlled access, would be implemented at the SRWTP as part of the proposed Project. Staff requirements at the new facilities would be minor: up to 3 full-time workers would be needed at any one time to operate and maintain the recycled water treatment plant and other maintenance procedures associated with the Project would require up to 3 additional workers. Plant operating procedures, including chemical storage and handling procedures required by the Uniform Fire Code would reduce the potential for the accidental

release of hazardous materials or for mixing incompatible materials that could result in releases or accidents that would increase demands on emergency services. Implementation of Mitigation Measure 15-2 would reduce the short-term impact to a **less than significant** level.

The proposed Project includes installation of a new recycled water treatment plant, sewer pipelines and recycled water distribution system. The proposed Project would therefore not generate an increase in population that would increase demand for fire or police protection. The provision of new or additional fire or police facilities would not be required. Additionally, the proposed Project would not generate students or otherwise increase demand for schools. The proposed Project would not generate additional population, and therefore would not increase citywide demand for parks. There would be no impact to the demand of these public services.

Construction activities throughout the Pacific Grove Golf Links would not be expected to interrupt course play, and the course would not be negatively impacted during operation of the Project. Therefore, this effect would be **less than significant.**

Project-Level Mitigation Measures

The City shall implement Utilities and Service Systems Mitigation Measure 15-1 through 15-9.

Significance after Mitigation: Less than significant.

Program-Level Impact Analysis

Construction of the proposed Project would generate truck and employee traffic along haul routes and at the project component sites, temporarily increasing the potential for accidents in these areas. This increased accident potential would result in a limited, short-term demand for additional police or fire services on an as-needed and emergency basis. Existing resources within the Project areas could accommodate this short-term increase in demand. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access. With implementation of the traffic safety and access measures identified in the Traffic section, the potential impact on the demand for police and fire services would be **less than significant**. To provide further protection, the City would implement Utilities and Service Systems Mitigation Measure 15-1 through 15-9.

The proposed Project would not generate an increase in population that would warrant the construction of new school facilities, or increase the use of parks or other public facilities. The potential impact on school facilities or other public facilities would be **less than significant.**

Program-Level Mitigation Measures

The City shall implement Utilities and Service Systems Mitigation Measure 15-1 through 15-9.

Significance after Mitigation: Less than significant.

Impact 15-3: Require or result in the construction of new water or wastewater treatment or storm water drainage facilities or expansion of such existing facilities, the construction of which could cause significant environmental effects?

Project-Level Impact Analysis

The PGLWP consist of the construction of a new wastewater recycling facility, new wastewater collection and conveyance facilities, and new potable water pipeline facilities.

Water, wastewater, and recycled water pipelines, treatment, and appurtenances would be designed consistent with applicable requirements and specifications of the City of Pacific Grove, the American Water Works Association (AWWA), and the CDPH. All pipelines would be placed underground and in the utilities right-of-way, located in City owned properties and right-of-way. Impacts would be **less than significant.**

The construction of the PGLWP could result in physical environmental impacts such as noise, traffic, air quality, hydrology, and potential biological impacts. Those impacts are discussed elsewhere and are not considered adverse.

Project-Level Mitigation Measures

NA

Significance after Mitigation: Less than Significant.

Program-Level Impact Analysis

Water, wastewater, and recycled water pipelines, treatment, and appurtenances shall be designed consistent with applicable requirements and specifications of the City, the AWWA, and the CDPH. All pipelines would be placed underground and in the utilities right of way, located in City owned properties and right-of-way. Impacts would be **less than significant.**

The construction of the PGLWP could result in physical environmental impacts such as noise, traffic, air quality, hydrology, and potential biological impacts. Those impacts are discussed elsewhere and are not considered adverse.

Program-Level Mitigation Measures

N/A

Significance after Mitigation: Less than Significant.

Impact 15-4: Exceed the capacity of the wastewater treatment provider in the area?

Project-Level Impact Analysis

The City currently conveys approximately 1.327 mgd (average daily flow) of wastewater to the MRWPCA RTP (Wallace Group, 2013; approximately 7.17% of the total regional influent to the RTP. More than 92% of the wastewater flows to the RTP are from sources other than the City of Pacific Grove.

The PGLWP would reduce the total flows to MRWPCA by 0.11 mgd. This is the annual average flow that would be used to irrigate the golf course and cemetery. This is equivalent to a reduced wastewater flow to the MRWPCA RTP of 0.59% (roughly less than six-tenths of one percent). The PGLWP would have **no impact** to exceeding the wastewater treatment capacity.

Project-Mitigation Measures

None required.

Significance after Mitigation: N/A

Program-Level Impact Analysis

The PGLWP would reduce the total flows to MRWPCA by 0.54 mgd. This is the annual average flow that would be used to irrigate the golf course and cemetery, and Demand Groups II and III. This is equivalent to a reduced wastewater flow to the MRWPCA RTP of 2.8%. The PGLWP would have **no impact** to exceeding the wastewater treatment capacity.

Program-Level Mitigation Measures

None required.

Significance after Mitigation:

N/A

Impact 15-5: Exceed the capacity of local landfills or violate federal, state, or local statutes and regulations related to solid waste?

Construction of the PGLWP facilities would generate construction and demolition (C&D) waste over the construction period. The C&D wastes would be delivered to the MRWMD MRF in Marina, for recycling and it is expected that most of the generated construction waste would be diverted for recycling and reuse, with only a small portion of the construction waste (which has not been quantified) being disposed at the landfill.

Residuals wastes would be generated from operation of the SRWTP. The MRWMD landfill is permitted to accept 3,500 tons per day and has an expected site live life of approximately 100 years. According to facility information posted at the CIWMB website (CIWMB, 2014), for the years 2005 through 2007, the MRWMD landfill accepted an average of approximately 231,880 tons per year. Assuming the landfill operates 306 days per year, this is about 760 tons per day. Based on these estimates the landfill could accept substantial loads for disposal without exceeding its permitted daily tonnage or depleting substantial long-term capacity. The proposed Project is estimated to generate 0.3 tons per day of solid waste to be disposed of at the MRWMP landfill.

The MRWMD landfill that would serve the site accepts construction waste. As shown in Table 4.11-1, the Monterey Peninsula Landfill and Recycling Facility has a remaining capacity of 48.56 million cubic yards, or 98 percent (CalRecycle, December 2013). Approximately 2,000 cubic yards of construction waste is expected from the proposed Project construction.

Implementation of Utilities and Service Systems Mitigation Measure 15-10 and 15-11 would reduce this impact to a **less than significant** level.

Project-Level Mitigation Measures

Utilities and Service Systems Mitigation Measure 15-10: The City would encourage Project facility design and construction methods that produce less waste, or that produce waste that could more readily be recycled or reused.

Utilities and Service Systems Mitigation Measure 15-11: The City would include in its construction specifications a requirement for the contractor to describe plans for recovering, reusing, and recycling wastes produced through construction, demolition, and excavation activities.

Significance after Mitigation: Less than Significant.

Program-Level Impact Analysis

Construction of the PGLWP facilities would generate construction and demolition (C&D) waste over the construction period. The C&D wastes would be delivered to the MRWMD MRF in Marina, for recycling and it is expected that most of the generated construction waste would be diverted for recycling and reuse, with approximately 2,000 cubic yards being disposed at the landfill. Implementation of Utilities and Service Systems Mitigation Measures 15-10 and 15-11 would reduce this impact to a **less than significant** level.

Program-Level Mitigation Measures

Same as Project-Level Mitigation Measures.

Significance after Mitigation: Less than Significant.

Impact 15-6: Impair or prevent a city or county from complying with the waste diversion mandates of the California Integrated Waste Management Act of 1989?

Construction of the PGLWP facilities would generate C&D waste over the construction period. The C&D wastes would be delivered to the MRWMD MRF in Marina, for recycling and it is expected that most of the generated construction waste would be diverted for recycling and reuse, with only a small portion of the construction waste (which has not been quantified) being disposed at the landfill.

The MRWMD landfill that would serve the site accepts construction waste. As shown in Table 4.11-1, the Monterey Peninsula Landfill and Recycling Facility has a remaining capacity of 48.56 million cubic yards, or 98 percent (CalRecycle, December 2013).

Implementation of Utilities and Service Systems Mitigation Measures 15-10 and 15-11 would reduce this impact to a **less than significant** level.

Project-Level Mitigation Measures

Utilities and Service Systems Mitigation Measure 15-10 and 15-11.

Significance after Mitigation: Less than significant.

Program-Level Impact Analysis

Construction of the PGLWP facilities would generate C&D waste over the construction period. The C&D wastes would be delivered to the MRWMD MRF in Marina, for recycling and it is expected that most of the generated construction waste would be diverted for recycling and reuse, with only approximately 2,000 cubic yards being disposed at the landfill. Implementation of Implementation of Utilities and Service Systems Mitigation Measure 15-10 and 15-11 would reduce this impact to a **less than significant** level.

Significance after Mitigation: Less than significant.

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SECTION 16.0 OTHER ENVIRONMENTAL CONSIDERATIONS

Sections 4 through 15 of the EIR present an assessment of potential adverse impacts to specific resources that could result from implementing the proposed Project and its constituent elements. Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15126, this section discusses the following additional environmental issues associated with the proposed Project:

- Significant Irreversible and Irretrievable Commitment of Resources;
- Growth Inducing Impacts;
- Cumulative Impacts;
- Effects Found Not to be Significant; and
- Unavoidable Adverse Impacts.

16.1 IRREVERSIBLE ENVIRONMENTAL CHANGE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

This section considers the effects of the proposed Project that would result in a commitment of resources and uses of the environment that could not be recovered if the Project were constructed. An irreversible or irretrievable commitment of resources would occur when resources are consumed, committed, or lost as a result of the proposed Project. The commitment of a resource would be "irreversible" if the Project started a process (chemical, biological, or physical) that could not be stopped. As a result, the productivity of the resource or its utility would be consumed, committed, or lost forever. Commitment of a resource would be considered "irretrievable" when the Project would directly eliminate the resource, its productivity, or its utility for the life of the Project.

Construction and maintenance of proposed Project components would consume building materials and energy, some of which are non-renewable resources. However, the primary objectives of the Pacific Grove Local Water Project (PGLWP) are: 1) to preserve available potable water supplies for domestic uses and to maximize the recycling and reuse of non-potable recycled municipal wastewater in a cost effective manner, and 2) to substitute the City's use of California American Water Company (CAW) potable water with recycled water for irrigation of the Pacific Grove Golf Links and the El Carmelo Cemetery. Therefore, the proposed Project would result in a new source of non-potable recycled water supply, thereby reducing demand for potable water. Resources consumed as a result of Project implementation include water, electricity, and fossil fuels during construction and operations; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. Compliance with all applicable building codes, as well as City policies, and the mitigation measures identified in this EIR would ensure that all natural resources are conserved to a feasible extent.

CEQA Guidelines also require decision makers to balance the benefits of a proposed Project against its unavoidable environmental risks in determining whether to approve a project. The

analysis contained in this EIR identifies that there are no significant and unavoidable impacts relative to the implementation of the proposed Project.

16.2 GROWTH INDUCING IMPACTS

The purpose of this section of the EIR is to evaluate the potential for growth-inducing effects of the proposed Project. The CEQA Guidelines require a discussion of the ways in which a project could potentially foster economic or population growth or the construction of additional housing in the surrounding environment. This discussion should include the characteristics of the proposed Project that may encourage or facilitate future growth that, either individually or cumulatively, could significantly affect the environment.

Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. The proposed Project's growth-inducing potential is therefore considered significant if it could result in significant physical effects in one or more environmental issue areas. The most commonly cited example of how an economic effect might create a physical change is where economic growth in one area could create blight conditions elsewhere by causing existing competitors to go out of business and buildings to be left vacant for extended periods.

The CEQA Guidelines require a discussion of growth inducement; but the CEQA Guidelines do not require speculation as to exactly when and where growth may or may not occur, and what form that growth may take. Speculation does not provide the reader with accurate or useful information about the proposed Project's potential effects.

16.2.1 Population and Economic Growth

The proposed Project does not propose construction of any new residences and would therefore not directly induce population growth. The proposed Project would directly generate up to 31 short-term jobs during construction of Project components. Construction of proposed Project (i.e., Demand Group I) components would occur over a maximum estimated 9-month construction period. Future expansion of the proposed SRWTP would be required to serve Demand Groups II and III. Timing and approval for the future expansion of the proposed Project from 125 AFY to 600 AFY would be determined by the City based upon the following considerations:

- Recycled water needs of the individual customers in Demand Groups II and III;
- Cost effectiveness of expanding the treatment capacity to produce 600 AFY of recycled water and to construct and operate additional recycled water distribution facilities from Point Pinos to the reuse customer sites in Demand Groups II and III; and
- Future coordination and the development of recycled water supply agreements with the customers that compose Demand Groups II and III. This would also include the execution of some form of agreement between the City and the potable water purveyors to Demand Groups II and III.

As stated above, the proposed Project would generate short-term employment opportunities during construction of Project components and a limited amount of long-term employment opportunities associated with the operation and maintenance of Project components. However,

both temporary and long-term employment opportunities would be expected to be filled from within the existing community and long-term employment would be limited to 1 to 3 people. Therefore, construction and operation of Project components would not be considered growth inducing and impacts related to direct or indirect population growth would be less than significant.

16.2.2 Removal of Obstacles to Growth

The proposed Project components would be located in an urbanized area, served by existing infrastructure. The proposed Project would not provide any capacity-increasing transportation and circulation improvements. No new roadways are proposed. The Project essentially constitutes refurbishment and upgrades to existing infrastructure at the retired Point Pinos Wastewater Treatment Plant (WWTP), which is within an urbanized area. The proposed Project would not expand services to provide additional opportunities for growth.

The proposed Project does not include changes in land use or zoning designations, nor does it include changes in housing density limits. Therefore, the proposed Project would not facilitate growth in the surrounding area by removing any land use, zoning, or density restrictions, which could currently be considered obstacles to such growth.

16.3 CUMULATIVE IMPACTS

16.3.1 CEQA Requirements

According to the CEQA Guidelines Section 15130(a)(1), "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." In addition, an EIR must discuss cumulative impacts if the incremental effect of a project, combined with the effects of other projects is "cumulatively considerable" [Section 15130(a)]. Such incremental effects are to be "viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" [Section 15164(b)(1)]. Together, these projects comprise the cumulative scenario that forms the basis of the cumulative impact analysis. A cumulative impact analysis should highlight past actions that are closely related (either in time or location) to the project being considered, catalogue past projects and discuss how past projects have harmed the environment, and discuss past actions, even if they were undertaken by another agency or another person.

Both the severity of impacts and the likelihood of their occurrence are to be reflected in the discussion, "but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion of cumulative impacts shall be guided by standards of practicality and reasonableness, and shall focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact" [Section 15130(b)]. However, the analysis must be in sufficient detail to be useful to decision makers in deciding whether, or how, to alter the program to lessen cumulative impacts. Most of the projects included in the cumulative projects list have, are, or would be required to undergo their own independent environmental review under CEQA. Significant adverse impacts of the cumulative projects would be required to be reduced, avoided, or minimized through the application and implementation of mitigation measures. The

net effect of these mitigation measures is assumed to be a general lessening of the potential for a contribution to cumulative impacts.

There are two commonly used approaches, or methodologies, for establishing the cumulative impact setting or scenario. One approach is to use a "list of past, present, and probable future projects producing related or cumulative impacts" [Section 15130(b)(1)(A)]. The other is to use a "summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" [Section 15130(b)(1)(B)]. This EIR uses the list approach to provide a tangible understanding and context for analyzing the potential cumulative effects of a project. General plans and other planning documents were used as additional reference points in establishing the cumulative scenario for the analysis.

16.3.2 Proposed Development in the Project Vicinity

Reasonably foreseeable projects that could contribute to the cumulative effects scenario are listed below. Collectively, these projects represent known and anticipated activities that may occur in the project vicinity that have the potential to contribute to a cumulative impact on the environment.

1) A stormdrain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue (from 12th to 14th Streets).
2) Lovers Point stormdrain retrofit (Pine Avenue and 19th Street to Lovers Point).
3) Monterey-Pacific Grove Area of Special Biological Significance (ASBS) Stormwater Management Project.

The above projects are all located within the City. The one component of the ASBS Project would be constructed at the same site as the proposed PGLWP, and is currently undergoing a separate environmental review. However, the ASBS Project is anticipated by the City of Pacific Grove to be constructed after the proposed PGLWP.

There are no reasonably foreseeable projects that could contribute to the cumulative effects scenario within the City of Monterey (City of Pacific Grove, 2014).

16.3.3 Aesthetics

Cumulative development in the Project area includes a storm drain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue, a Lovers Point storm drain retrofit, and the ASBS. It is feasible that several of these projects may potentially be developed concurrently with components of the Project. Construction of multiple projects within the same geographical area and within the same timeframe could create potentially significant cumulative aesthetic impacts. However, future projects in the City would be required to adhere to specific development standards in the City's Zoning Ordinance and General Plan, which are designed to protect and enhance the area's aesthetic and visual resources. In addition, the limited effects of the proposed Project, as described above, would limit the potential for a significant contribution to cumulative impacts. The Project's contribution to the overall visual effect of cumulative development in the area would, therefore, be less than significant.

16.3.4 Air Quality

The North Coast County Air Basin (NCCAB) is a non-attainment area for the state standards for ozone and PM10. Additional growth within the Monterey Bay area would contribute to existing exceedances of ambient air quality standards when taken as a whole with existing development. However, the proposed Project does not contain a residential component and would not increase the long-term residential population of the area (refer to Section 16.2, Growth Inducing Impacts). In addition, the Project would not result in any change in land use that would increase long-term criteria pollutant emissions in the NCCAB.

As described in Impact 5-1, the Project would not conflict with the adopted Air Quality Management Plan. As demonstrated in Table 4-4, the proposed Project would not generate emissions exceeding MBUAPCD thresholds. Therefore, because the Project would not increase the long-term residential population and does not exceed MBUAPCD's construction or operational thresholds, the proposed Project would not result in a cumulatively considerable contribution to air quality impacts.

16.3.5 Biological Resources

The proposed Project, in combination with other planned and pending development projects in the vicinity, would incrementally alter biological habitats in the area. However, because the City is almost entirely built out and thus consists primarily of biologically disturbed areas of urban development, cumulative biological resource impacts would not occur as a result of implementing this Project. Compliance with applicable federal, state, and local regulations relating to preservation of sensitive species and habitats in these areas would be expected to reduce cumulative biological impacts to less than significant levels. As described above, project-level impacts would be expected to be less than significant or less than significant with mitigation; thus, the Project's contribution to cumulative impacts would not be substantial.

16.3.6 Cultural Resources

The proposed Project, in conjunction with other cumulative projects in the City, would have the potential to adversely impact additional cultural resources. However, as noted previously, implementation of required mitigation measures as listed in Section 7.0 of this EIR would reduce project-specific impacts to a less than significant level. The proposed Project would not contribute to any significant cumulative impacts, and cumulative construction impacts related to known and unknown archaeological resources would be similar to that which is described for project-specific impacts and would be addressed on a project-by-project basis. Due to existing laws and regulations in place to protect historical and cultural resources and prevent significant impact to paleontological resources, the potential incremental effects of the proposed Project would not be cumulatively considerable.

16.3.7 Geology and Soils

There is no potential for cumulatively considerable effects from surface rupture as there are no faults within the City. Primary and secondary seismic impacts (groundshaking and earthquake-induced ground failure including liquefaction, settlement, landslides, lurch cracking and lateral spreading) from the numerous local and regional faults comprise an impact of the geologic environment on individual projects and would not introduce cumulatively considerable impacts.

Therefore, the seismic impacts would be site-specific, and not be cumulatively considerable. The PGLWP would be constructed at the same site as the proposed ASBS Stormwater Treatment Facility, and has undergone a separate environmental review. Any potential adverse effects related to infrastructure associated with that project would be reviewed and mitigated as appropriate. Thus, the potential for cumulatively considerable effects from primary and secondary seismic impacts would be less than significant.

Erosion and loss of topsoil associated with the construction projects above could contribute sediment to the storm drain system that is proposed for upgrade and treatment; however, compliance with Best Management Practices (BMPs) imposed by the City and associated with Storm Water Pollution Prevention Plan (SWPPP) as appropriate would assure that substantial amounts of sediment are not contributed to the storm drain system as a result of these cumulative projects. Thus cumulative impacts related to erosion and sedimentation would be less than significant.

16.3.8 Greenhouse Gases

As discussed in Section 9.0, the proposed Project would not result in substantial new greenhouse gas (GHG) emissions and would not conflict with applicable County and California regulations, policies and plans addressing the reduction of GHGs. Analyses of GHGs are cumulative in nature as they affect the accumulation of GHGs in the atmosphere. Since there is no significant Project impact, and taking into consideration the relatively small contribution to cumulative GHG emissions associated with the proposed Project, GHG emissions from the proposed Project would not be cumulatively considerable.

16.3.9 Hazards and Hazardous Materials

Additional development within the project area, including a storm drain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue, a Lovers Point storm drain retrofit, and the ASBS Project would cumulatively increase the potential for exposure of golf course users and other recreationalists (e.g., dog walkers) to hazards and hazardous materials. The proposed Project would incrementally contribute to this cumulative effect. However, all new development as listed above in this section would be subject to review by the City and subject to applicable regulations in place to minimize any potential hazards. Impacts associated with individual developments would be addressed on a case-by-case basis and appropriate mitigation would be designed to mitigate impacts resulting from individual projects, depending upon the type and severity of hazards present. Assuming that all hazards are adequately addressed for each individual development proposal, cumulative impacts related to hazards and hazardous materials would be less than significant.

16.3.10 Hydrology and Water Quality

The potential for cumulative effects from erosion and sedimentation would be less than significant due to implementation of construction BMPs, preparation of SWPPPs and compliance with applicable City requirements.

Construction or operation of the Project in association with the projects identified above would not violate water quality standards or waste discharge requirements and would not create additional runoff that would exceed the capacity of stormwater drainage systems or provide

substantial additional runoff. The combination of these projects would not deplete groundwater or interfere substantially with groundwater recharge. Instead, the combination of these projects would serve to improve water quality by diverting stormwater, providing treatment and allowing for re-use as irrigation water. Cumulative impacts would be less than significant and could even be considered as beneficial.

The proposed Project in association with the cumulative projects identified above would not introduce substantial additional impervious surfaces into an area that is currently undeveloped or increase the potential for downstream flooding or increased erosion. Cumulative impacts would therefore be less than significant.

16.3.11 Land Use and Planning

Land use impacts would be cumulatively considerable if the proposed Project, in conjunction with other existing or reasonably foreseeable projects, would either preclude a permitted land use or create a disturbance that would diminish the function of a particular land use. As stated above, cumulative development in the project area includes a storm drain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue, a Lovers Point storm drain retrofit, and the ASBS Project. It is feasible that several of these projects may potentially be developed concurrently with components of the project. While construction of multiple projects within the same geographical area and within the same timeframe could create a potentially significant cumulative land use compatibility impacts, the limited effects of the proposed Project, as described above, would limit the potential for land use compatibility conflicts.

As with the proposed Project, cumulative future projects in the City of Pacific Grove would be required to adhere to specific development standards in the City's Zoning Ordinance and General Plan. In the context of the thresholds of significance for land use impacts, the Project's contribution to cumulative impacts would not be considerable. The policy consistency of each project would be considered on a case-by-case basis. Therefore, the proposed Project would not result or contribute considerably to significant cumulative land use impacts.

16.3.12 Noise

Additional development with the project area, including a storm drain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue, a Lovers Point storm drain retrofit, and the ASBS Project, would cumulatively increase the potential for noise and vibration impacts to occur. However, there is little potential for cumulatively considerable effects with regards to noise as the majority of the noise from the proposed Project would be generated during construction. If any of the listed cumulative projects were to be constructed during the estimated 9 months of construction for the proposed Project, there could be a cumulative and temporary effect on ambient noise in the area. Construction of the ASBS Project would not coincide with construction of the proposed Project. In addition, the closest sensitive noise receptor is located 700 feet from the retired PGWTP site; therefore, exposure of sensitive receptors in the area to substantial construction noise levels from cumulative development is not anticipated to occur. In addition, potential adverse effects related to noise associated with the ASBS Project and other projects planned in the City would be reviewed and mitigated on a case-by-case basis. Thus, the potential for cumulatively considerable effects from temporary noise impacts would be less than significant.

Project-related impacts associated with groundborne vibration would be site-specific for all three of the above listed projects and would not combine with other projects. Therefore, cumulative stationary noise and vibration impacts would not be cumulatively considerable.

16.3.13 Transportation/Traffic

Additional development with the project area, including a storm drain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue, a Lovers Point storm drain retrofit, and the ASBS Project, would cumulatively increase the potential for traffic impacts to occur. The proposed Project's contribution to this impact would only occur during the construction phase of the project, and could incrementally contribute to this cumulative effect if the other projects in the vicinity were under construction during the same time period. This is unlikely to occur, especially for the ASBS Project, which is located at Point Pinos, on a site that coincides with the PGLWP. If the ASBS Project construction was started immediately following the construction of the proposed Project, the length of time during which traffic impacts would occur would be extended. However, impacts associated with individual development projects would be addressed on a case-by-case basis and appropriate mitigation would be applied where required. Assuming that all traffic impacts are adequately addressed for each individual development proposal, significant cumulative impacts related to traffic would not occur.

16.3.14 Utilities and Service Systems

Cumulative development in Pacific Grove would increase solid waste generation, thereby reducing the lifespan of solid waste landfills serving the region. As discussed in Section 15, the proposed Project's impacts to regional solid waste landfills would be less than significant during both construction and operation. With or without implementation of the proposed Project, solid waste facilities to serve the region would be required as the capacity of existing facilities is diminished. While the proposed Project would utilize a small portion of the available capacity in regional landfills over the long term, the waste disposal demand associated with the proposed Project itself would not trigger construction of new or expanded solid waste disposal facilities. Therefore, the Project's contribution to cumulative solid waste impacts would not be cumulatively considerable.

Development in Pacific Grove could also change the amount of stormwater runoff in the region; however, the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Treatment Plant (RTP) currently has a surplus capacity of 11.1 mgd. The proposed Project would utilize a small portion of that capacity. As listed above, the additional proposed projects in the City are wastewater and stormwater facilities. These projects would not contribute to stormwater runoff in the area. Cumulative impacts related to existing treatment capacity would be less than significant.

16.4 EFFECTS NOT FOUND TO BE SIGNIFICANT

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various potentially significant effects of a project were not discussed in detail in the EIR. This EIR contains an analysis of the potentially significant environmental effects associated with the proposed Project. The following issues have not been found to be significant, based on "No Impact" and/or "Less than Significant Impact" answers in the entire section of the

City of Pacific Grove Local Water Project CEQA Environmental Checklist (Appendix G of the CEQA Guidelines, as amended): 1) Agriculture and Forestry Resources, 2) Mineral Resources, 3) Population and Housing, and 4) Recreation.

16.5 UNAVOIDABLE ADVERSE IMPACTS

No unavoidable potentially significant adverse project-level impacts were identified for the proposed Project. The issues related to program-level effects will be analyzed in separate CEQA documents once details are known.

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SECTION 17.0 ALTERNATIVES

17.1 INTRODUCTION

As required by Section 15126(d) of the State California Environmental Quality Act (CEQA) Guidelines, this EIR examines a range of reasonable alternatives to the proposed PGLWP that would feasibly attain the objectives of the Project and would avoid or substantially lessen any of the significant effects of the Project. Included in this analysis are the CEQA-required "no project" alternative and three design alternatives.

17.2 PROJECT GOALS AND OBJECTIVES

As stated in Section 1.0, Introduction, the goals of the proposed Project are:

- To preserve available potable water supplies for domestic uses and to maximize the recycling and reuse of non-potable recycled municipal wastewater in a cost effective manner.
- To substitute the City's use of California American Water Company (CAW)CAW potable water with recycled water for non-potable water demands.
- To reduce discharges to Monterey Bay and the Pacific Grove Area of Special Biological Significance (ASBS).
- To maximize the use of existing wastewater collection, treatment, recycling and recycled water distribution infrastructure for the development of irrigation water and other non-potable demands.

17.3 ALTERNATIVES CONSIDERED

Four alternatives to the proposed Project were evaluated in the alternatives screening process. The alternatives were identified based on: 1) the Draft Facility Plan Report; 2) comments from the PGLWP public scoping meeting; and 3) written comments received on the PGLWP Notice of Preparation (NOP). These alternatives are:

- Alternative 1: No Project Alternative
- Alternative 2: Wastewater Reclamation and Storage at an Alternative Site
- Alternative 3: Alternative Treatment Technology
- Alternative 4: Regional Urban Recycled Water Project Extension

17.4 DESCRIPTIONS OF ALTERNATIVES

17.4.1 Alternative 1: No Project

Under the No Project Alternative, construction and operation of the proposed PGLWP would not occur, and current uses of project sites would continue. Specifically, no improvements to the Point Pinos Wastewater Treatment Plant (WWTP) would occur, and the site would continue to be used as a City maintenance facility for the Golf Links, secondary corporation yard, water storage area, and materials storage area. Similarly, recycled water conveyance facilities, pump stations, and equalization/storage facilities would not be constructed at the WWTP and through the City of Pacific Grove Golf Links. It

should be noted however, that the Monterey-Pacific Grove ASBS Stormwater Management Project might still move forward under this alternative; thus, some improvements to the PGLWP site, outside of those proposed as part of this alternative, might still occur. The City would continue to purchase potable water from CAW.

17.4.2 Alternative 2: Wastewater Reclamation and Storage at an Alternative Site

This alternative would divert wastewater flows from the existing City sanitary sewer manhole (MH801) located near the intersection of Asilomar Avenue and Del Monte Boulevard to a site outside of the designated Coastal Zone on the eastside of Asilomar Avenue. These wastewater flows would instead flow to an alternative Satellite Recycled Water Treatment Plant (SRWTP) site at the existing City of Pacific Grove Golf Links parking lot on the east side of Asilomar Avenue (Figure 16-1). To maintain use of the parking lot and to minimize visual and aesthetic impacts, the SRWTP would be constructed as an underground facility. The area of the Alternative 2 site is approximately 0.5 acres.

In addition to the components analyzed in the proposed Project description at the Point Pinos WWTP, this alternative would involve construction of a new recycled water storage tank located to the east of the existing parking on the existing golf course. This proposed storage tank would have a total tank depth of 36-feet and a diameter of 55-feet. To minimize aesthetic impacts, the proposed storage tank would be partially buried 18-feet. A recycled water distribution pump station and pipelines would be required to convey water from the storage tank to the reuse locations.

17.4.3 Alternative 3: Alternative Treatment Technology

This alternative would use Sequencing Batch Reactor (SBR) treatment technology for the treatment and recycling of wastewater. While a Membrane Batch Reactor (MBR) uses membrane separation, an SBR combines the multi-step processing of wastewater in a set sequence within a common reactor vessel. The use of SBR technology is posited as an alternative to MBR because of its potential to adequately recycle wastewater for reuse within the available space at the Point Pinos WWTP. As with Alternative 2, this alternative would divert sewage flows from the existing City of Pacific Grove sanitary sewer manhole (MH801) located near the intersection of Asilomar Avenue and Del Monte Boulevard, and, as with the proposed Project, would use the retired Point Pinos WWTP. Wastewater would be screened through a new headworks system for removal of solids and then would be conveyed through an SBR process.

The SBR process is an activated sludge process that minimizes space requirements by performing multiple steps within a single vessel. A process flow diagram is presented in Figure 17-2. The SBR operation encompasses four processing steps (and one idle state):

1. Fill
2. React
3. Settle
4. Decant

To achieve Title 22 compliance, the SBR treatment process would require the addition of a chemical polymer prior to tertiary filtration. To ensure effective removal of bacteria, increased operation of a disinfection system would also be required. Sludge from the SBR basins would be transferred to a holding tank and conveyed to the sanitary sewer system for processing and disposal.

An SBR facility would require a footprint of approximately 0.7 acres to treat the amount of effluent required by the demand for recycled water in Groups I, II and III. It is expected that an SBR facility would require two treatment basins and an influent equalization basin.

Figure 17-1: Alternative 2 Site

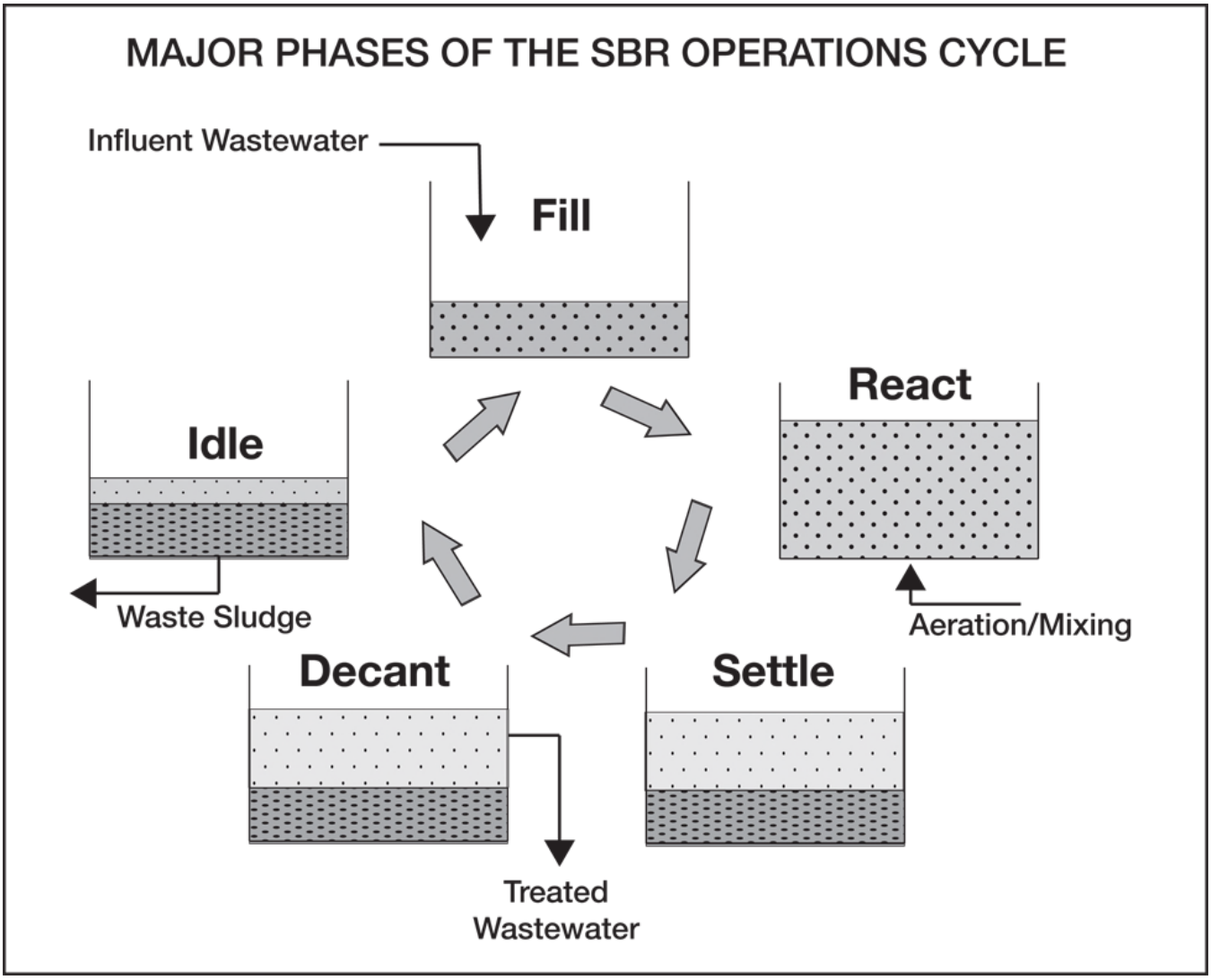

Figure 17-2: SBR Process

In addition to the components analyzed in the proposed Project description at the WWTP, this alternative would involve disturbance to the existing golf course for recycled water pipeline construction.

Additional pipelines would be required to convey recycled water from the treatment plant to storage at the existing tanks at the WWTP. The amount (length in lineal feet), type and size (e.g., 8-inch) of recycled water distribution pipelines would be the same as for the proposed Project.

17.4.4 Alternative 4: Regional Urban Recycled Water Project Extension

Marina Coast Water District (MCWD), in cooperation with the Monterey Regional Water Pollution Control Agency (MRWPCA), proposed the Regional Urban Recycled Water Project (RURWP), which entailed the construction of a distribution system to provide up to 1,727 AFY of recycled water from the existing MRWPCA's Reclamation Plant to urban users. Recycled water would be delivered initially to the former Fort Ord (Ord Community), which includes lands within the jurisdictions of the Cities of Marina, Seaside, and Del Rey Oaks; California State University, Monterey Bay (CSUMB); University of California, Monterey Bay Education, Science, and Technology Center; and the County of Monterey. Of the total 1,727 AFY, 300 AFY of recycled water would be provided to the Monterey Peninsula (outside of the former Fort Ord) once that portion of the distribution system is operational. An Environmental Assessment for the RURWP was completed in 2006 (BOR, 2006).

The RURWP would include the following facility components (Figure 16-3):

- Connection to the Reclamation Plant facility, including one pump station and pipelines at that site;
- A new distribution system consisting of approximately 127,000 linear feet of 4- to 20- inch diameter main and lateral pipelines, as well as pressure reducing valves and appurtenances throughout the region;
- One storage tank located at an existing MCWD water storage tank site near the intersection of Eucalyptus Road and Parker Flats Cutoff in the Ord Community; and
- One pump station located at 3rd Street and 5th Avenue in the City of Marina.

Although approved for over nine years, only minor portions of the RURWP pipeline distribution system have been constructed and the project is not operational.
This alternative would extend the proposed RURWP distribution pipeline to the Pacific Grove Golf Links and El Carmelo Cemetery. Approximately 3.25 miles of additional 8-inch pipeline would need to be constructed.

Additional agreements with MCWD and MRWPCA would be required.

17.4.5 Evaluation Criteria and Results

Pursuant to Section 15126.5(f)(2), the alternatives were evaluated based on the following criteria:

- **Criterion 1**: The alternative must avoid or substantially lessen an identified significant effect of the proposed Project; and
- **Criterion 2**: The alternative must feasibly attain most of the proposed Project's objectives. This second criterion focuses on identifying project alternatives capable of serving the same use as the proposed Project (i.e., meeting the objectives of the proposed

Project) in a feasible manner ("feasible" is defined by CEQA as "capable of being accomplished in a successful manner within
a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" [CEQA Guidelines Sec. 15364].

An alternative must meet both of the above criteria to be considered in the EIR evaluation. The results of the evaluation are presented in Table 17-1. The alternatives that did not meet both criteria were not evaluated in this EIR, and the rationale for removing them from consideration is provided.

17.4.6 Impact Analysis

With the implementation of the No Project Alternative, no new development would occur within the Project component areas. Since new development would not occur, potential impacts related to construction and long-term site disturbances would also not occur. This includes impacts to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gases, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Transportation/Traffic, and Utilities and Service Systems. In addition, since no construction-related vehicle trips would be added to local roadways, temporary impacts to the transportation network, including those resulting from temporary road closures, would not occur.

The City would continue to purchase potable water from CAW for irrigation of its golf course, cemetery and for toilet flushing of its public restrooms. However, CAW's rates have and are estimated to continue to increase. Currently, the City spends approximately $6,000 per acre-foot of water from CAW. It is therefore possible that the City may not be able to afford to continue to purchase potable water for golf course and cemetery irrigation. If the City chose not to irrigate the golf course and cemetery, the turf at both of these facilities would turn brown and die. It is estimated that golfers would not want to play on brown or dead grass, especially given the local options available at numerous local courses maintained green by their investments in recycled water treatment and irrigation systems. Fewer players would result in less fees and reduced City revenues. Dead turf roots would also not hold the soil as well as roots of living turf, which could result in water and windborne erosion at the golf course and cemetery sites. This erosion could cause increased soil runoff and turbidity discharges into the Point Pinos ASBS. Dead turf and soil erosion would negatively affect the existing visual quality of the sites. It has been posited that if the golf course turf were to go brown, pressure to change the land use of the golf course site could occur, resulting in more housing, increases in impervious surfaces and a permanent loss of recreation and open space.

17.4.7 Environmentally Superior Alternative

Neither the No Project Alternative or the alternatives that were considered or evaluated in this EIR offer any substantial benefit over the proposed Project. Based on the above discussion, the No Project Alternative could result in significant impacts. All of the impacts identified in this EIR would be avoided or reduced to less than significant levels after mitigation is applied. Therefore, the Proposed Project is considered the Environmentally Superior Alternative.

Table 17-1: Results of Alternatives Screening Process

Results of Alternatives Screening Process	
No Project Alternative	Discussion of the No-Project Alternative must examine the existing conditions and reasonably foreseeable future conditions that would exist if the project were not approved (CEQA §15126.6(e)). Under the No Project Alternative, construction and operation of the proposed PGLWP would not occur, and current uses of project sites would continue. The No Project Alternative would not meet the basic goals and objectives, stated above in Section 16.2 and is, therefore, not considered a reasonable or feasible alternative.
Wastewater Reclamation and Storage at an Alternative Site	This alternative is not evaluated in the EIR because it fails to meet Criterion 1. It would not avoid or substantially lessen an identified potentially significant effect of the proposed Project. This project alternative would result in several significant impacts as compared to the proposed Project. Alternative 2 would be located in close proximity to several sensitive receptors for aesthetics, visual, noise, vibration, and odors. Alternative 2 would require construction and siting of new facilities for recycled water storage. Alternative 2 would have greater construction and operational impacts than the proposed Project. It may not be feasible to implement Alternative 2 because of the need to construct additional features to mitigate the above impacts. Additionally, Alternative 2 would have greater impacts to the recreational community and require loss of play area at the Pacific Grove Golf Links for the siting and operation of the SRWTP.
Alternative Treatment Technology	This alternative is not evaluated in the EIR because it fails to meet Criterion 1. It would not avoid or substantially lessen an identified potentially significant effect of the Proposed Project. Construction of Alternative 3 would have greater impacts than the proposed Project. The additional site development would create additional construction related impacts to air, noise, and vibration. Also, operations would potentially interfere with the proposed ASBS Stormwater Management project. Additionally, the greater technical complexity could require additional site supervision, increasing the number of operational impacts to traffic and transportation.
Regional Urban Recycled Water Project Extension	This alternative is not evaluated in the EIR because it fails to meet Criterion 1. It would not avoid or substantially lessen an identified potentially significant effect of the Proposed Project. Construction of Alternative 4 would have significantly greater construction related environmental effects than the proposed Project for the additional pipelines, storage and pumping facilities. The RURWP would result in increased construction schedule, noise, vibration, air quality, traffic and transportation, and impacts to biological resources. While this alternative would result in the increased use of recycled water, it would not meet any of the other objectives of the proposed Project.

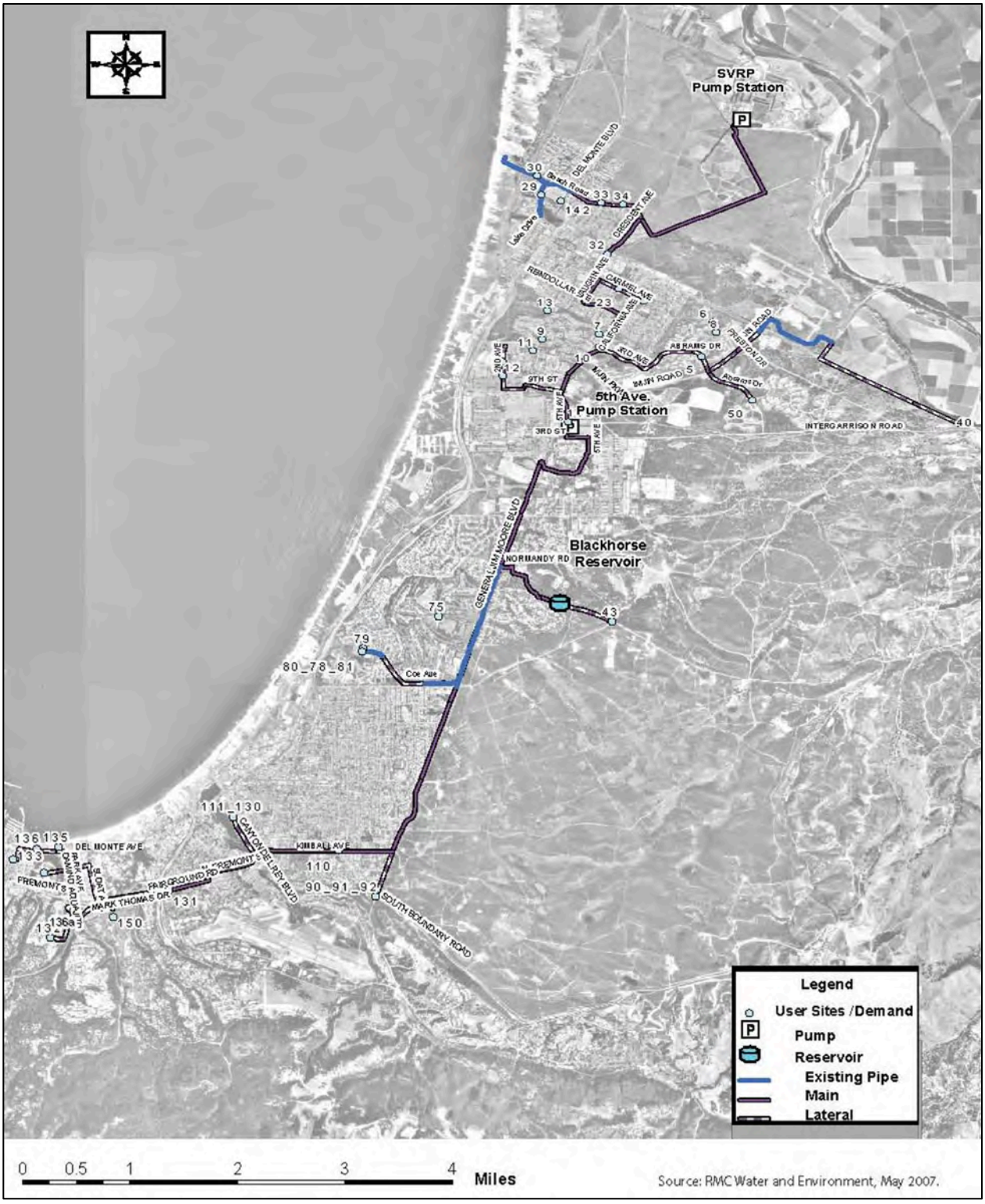

Figure 17-3: RURWP

SECTION 18.0 CEQA PLUS ELEMENTS

18.1 INTRODUCTION

This section contains the additional environmental information and analysis to comply with the environmental review requirements for the State Revolving Fund (SRF) Loan Program administered by the State Water Resources Control Board (SWRCB), Division of Clean Water Programs (Division) (SWRCB June 2000). Because the SRF Loan Program is partially funded by the U.S. Environmental Protection Agency (EPA), it is therefore subject to federal environmental regulations. To comply with applicable federal statutes and authorities, the EPA established specific "CEQA-Plus" requirements in the Operating Agreement with the SWRCB for administering the SRF Loan Program.

As stated on page 2-1 of this EIR, "The proposed Project is intended to serve approximately 125 acre-feet per year (AFY) of recycled water, primarily to the City of Pacific Grove Golf Links and El Carmelo Cemetery (Demand Group I). The predominant use of recycled water would be for landscape irrigation. Irrigation would occur primarily at night to maximize water management efficiency and minimize public contact. The proposed Project is the first phase of a multi-phase, long-term PGLWP that could provide up to 600 AFY of recycled water at sites within the cities of Pacific Grove, Monterey, and unincorporated areas of Pebble Beach, CA (Demand Groups II and III). This EIR considers the effects of implementing Demand Group I Project at the Project EIR level and bases this analysis on the project details as provided in the *City of Pacific Grove Draft Facility Plan Report* (Facility Plan Report) (Brezack &Associates May 23, 2014). This EIR also considers the proposed Demand Groups II and III Projects at a programmatic level. The exact components of these two projects are not yet detailed; when more detail is known Demand Groups II and III Projects would be subject to subsequent CEQA review."

18.2 PROJECT DESCRIPTION

Describe Project Objectives that Qualify the Project for SRF Funding

1) Correction of any water quality problems associated with wastewater treatment or disposal facilities

   a) Public health hazards
      N/A
   b) Pollution of impaired water bodies
      N/A

2) Compliance with water quality regulations

   a) Waste Discharge Requirements
      N/A
   b) NPDES permits
      N/A

c) Cease and Desist orders

As stated in Section 1.4, Project Goals, Page 1-2, the Project goals include substitution of the City's use of California American Water Company (CAW) potable water with recycled water for non-potable water demands; assisting CAW to meet the SWRCB requirements of Cease and Desist Order (CDO) 2009-0060 by reducing pumping of the Carmel River underdrain.

3) Preventative measures for impaired and unimpaired water bodies

As stated in Section 1.4, Project Goals, Page 1-2, the Project goals include reduction of discharges to Monterey Bay and the Pacific Grove Area of Special Biological Significance (ASBS).

4) Capacity increase

N/A

5) Wastewater recycling

As stated in Section 1.4, Project Goals, Page 1-2, the Project Goals include preservation of available potable water supplies for domestic uses and maximization of the recycling and reuse of non-potable municipal wastewater in a cost-effective manner.

Explain How Objectives will be Accomplished

1) New facilities

As stated in Section 2.4 Project Description, Page 2-6, the following new facilities will be required:

- New wastewater diversion pipeline and structure;
- New Satellite Recycle Water Treatment Plant (SRWTP) using a membrane bioreactor treatment technology and associated facilities to filter, treat, and disinfect the recycled water;
- New recycled water distribution facilities including a new pump station, distribution pipelines, and appurtenant facilities to convey recycled water to customers;
- New waste disposal facilities consisting of a new pump station and force main pipeline; and
- New potable water pipeline.

2) Upgrading existing facilities.

As stated in Section 2.4 Project Description Page 2-6, the following existing facilities will be upgraded:

- Retrofit of two existing concrete tanks at Point Pinos for recycled water storage.

3) Correction of inflow and infiltration problems.

N/A

Describe Any Existing Facilities

1) Facilities (give physical dimensions and area of existing site)

As stated in Section 2.4 Project Location and Site Description, the SRWTP will be located at the Point Pinos Wastewater Treatment Plant (WWTP) parcel. The Point Pinos WWTP parcel is approximately 2.23 acres in area (365 feet by 205 feet).

a) Treatment facilities

N/A

b) Collection and/or Conveyance systems

Wastewater flows to the Project site via an existing 15-inch pipeline located within Asilomar Road.

c) Storage

As stated in Section 2.8.1 Recycled Water Storage, Page 2-16, "the existing clarifier and sludge digestion tanks from the retired Point Pinos WWTP would be retrofitted to provide recycled water storage. The tanks have a diameter of 56.5 feet each and a total volume of 610,000 gallons."

d) Appurtenant structures

N/A

e) Effluent discharge facilities

N/A

f) Sludge disposal facilities

N/A

2) Condition of facilities

As stated in 2.7 "Description of the SRWTP Site at Point Pinos Page 2-11, the site has been heavily disturbed, fenced and continually used for municipal maintenance purposes. Previously excavated construction materials and spoils are currently stored around driveways and fill material is stockpiled at the site."

As stated in Section 2.8.1 Recycled Water Storage, Page 2-16, the following improvements are required for retrofit of the existing concrete tanks:

- Spot replacement of corroded exterior surfaces;
- Removal and replacement of roofing systems;
- Repainting of exposed piping and reinforcing steel;
- Cleaning and repair of exterior concreted surfaces;
- Repair of spot corrosion on interior concrete surfaces;

- Cleaning and recoating of interior steel appurtenances;
- Removal of debris; and
- Installation of Occupational Safety and Health Administration (OSHA) required handrails, ladders, and gates.

3) Level of treatment

   N/A

4) Present effluent quality

   N/A

5) Present capacity of facilities

   As stated in Section 2.6 Wastewater Diversion Facilities, Page 2-10, A Sewer Collection System Master Plan (Wallace Group, 2013) provides the ADWF and PWWF capacities of the existing 15-inch sewer pipeline in Asilomar Avenue.

   a) Average Dry Weather Flow (ADWF) capacity 1.3 mgd
   b) Peak Wet Weather Flow (PWWF) capacity 2.6 mgd

6) Present inflow of wastewater (ADWF and PWWF)

   According to the Sewer Collection System Master Plan (Wallace Group, 2013), the present inflow of wastewater to the existing 15-inch sewer pipeline on Asilomar Avenue is 0.606 mgd for ADWF and 1.065 for PWWF.

New Facilities (describe any facilities that will be constructed, removed or modified and facility operations)

1) Facilities (give physical dimensions and area of project site)

   New Project facilities are described in Section 2.7.1 Facilities, Page 2-11, and include treatment, collection, solids management, storage, and distribution facilities.

   a) Treatment facilities

      The following treatment facilities are proposed to be constructed:

      - Headworks facility, including flow metering, fine screens, and grit removal;
      - Combined Biological and Filtration treatment, likely using a Membrane Bioreactor (MBR) process;
      - Ultraviolet Disinfection (UV);
      - Solids management, odor control; and
      - Emergency power equipment.

   b) Collection and/or Conveyance systems

      Wastewater would be collected and conveyed to the satellite recycled water treatment plant by the following facilities:

- Wastewater diversion structure;
- 8-inch sewer pipeline.

c) Storage

Recycled water would be stored in the following facilities:

- Retrofit of the existing tanks to serve as recycled water storage reservoirs (610,000 gallons);

d) Appurtenant structures

N/A

e) Effluent discharge facilities

Recycled water would be conveyed to customers by the following facilities:

- Pump station to pressurize the recycled water distribution system;
- Recycled water distribution pipelines and appurtenances.

f) Sludge disposal facilities

Sludge solids from the satellite recycled water treatment plant will be returned to the wastewater collection system for conveyance to the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Treatment Plant (RTP). Solids would be conveyed to MRWPCA by waste sewage pipeline, pump station, and force main solids management facilities.

2) Proposed treatment level

As stated in Section 2.2 Project Goals and Objectives, Page 2-1, Recycled water produced at the SRWTP would be used as a replacement for potable water at non-potable water demands such as irrigation, toilet flushing, and industrial use. Therefore, as stated in Section 2.4 Project Description, Page 2-6, it must provide a level of treatment consistent with the requirements of the State of California pursuant to Recycling Criteria as specified in Title 22 of California Code of Regulations (CCR) Division 4; Environmental Health Chapter 3. The recycled water quality will meet the requirements for unrestricted use due to the proposed use of recycled water for irrigation of an unrestricted access golf course. This will require treatment level to disinfected tertiary recycled water.

3) Proposed effluent quality (describe qualitatively and quantitatively)

As stated in Section 2.7.1 Facilities, Page 2-11, "the proposed effluent quality will be that required to comply with Title 22 regulations for unrestricted recycled water. The Pacific Grove Local Water Project (PGLWP) will comply with these criteria as follows:

- The PGLWP will be designed to pass effluent through a membrane following which the turbidity does not exceed 0.2 NTU more than 5 percent of the time within a 25-hour period and 0.5 NTU at any time, and

- Disinfection will consist of ultraviolet disinfection equipment that can achieve 5-log

inactivation of virus; 99.999 percent of plaque forming unit F-specific bacteriophage MS2.

Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) effluent concentrations would be less than 5 mg/l."

4) Capacities (give in terms of ADWF and PWWF)

a) Design capacity (show how capacity was calculated)

As described on page 2-7 of this EIR, "sizing of the proposed facilities was based upon a recycled water market study. The market study identified the feasibility of providing recycled water to potential demand sites suitable for allowable use of recycled water. The market study recommended three Demand Groups with total average annual recycled water demands ranging from 125 AFY to 600 AFY.

The SRWTP would initially be designed for an average daily capacity of 0.11 mgd and a peak capacity of 0.25 mgd. The average daily capacity is based upon the average annual recycled water demand. Peak capacity is based upon the recycled water demand during the peak month."

Table 18-1 presents the design capacities of the proposed facilities.

Table 18-1: Demand Group I Proposed Project Facilities

Description	Quantity	Units
SRWTP (Average Capacity)	0.11	mgd
UV Disinfection System (Average Capacity)	0.11	mgd
Sanitary Sewer Pump Station	15	hp
6-inch diameter Sewer Force Main Pipeline from Sanitary Sewer Pump Station to existing wastewater collection system	1,000	LF
Recycled Water Pump Station	30	hp
Recycled Water Distribution Pipeline	2,800	LF
8-inch diameter Sewer Diversion Pipeline from Sewer Diversion Structure to SRWTP	1,370	LF
Pipeline Easement Across Pacific Grove Golf Links (Open Cut through Turf)	2,800	LF
1-inch diameter Potable Water pipeline to the El Carmelo Cemetery Maintenance Facility	1,100	LF

b) Any increase needed to serve existing development N/A

c) Population basis for capacity determination (include year)

- Current population

As stated in Section 2.3 Project Location and Site Description Page 2-2, the City of Pacific Grove has a current population of 15,295 residents (US Census Bureau, 2011).

As stated in Section 2.3 Project Location and Site Description Page 2-2, the City of Pacific Grove has a current population of 15,295 residents (US Census Bureau, 2011).

- Projected population N/A

Project Approvals (discuss the roles of planning and regulatory agencies which have permit or funding authority over the proposed project)
Approvals for this Project are listed in this EIR at Section 1.10, *Potential Permits and Approvals.* This section is copied here:

18.2.1 POTENTIAL PERMITS AND APPROVALS

The City would address permitting issues and stakeholder agency coordination during the design and construction process. Construction, operation, and environmental permits would be required for the construction and operation of the SRWTP. Permitting requirements would depend upon the project location, ownership, operations and environmental documentation that would be required prior to construction. The following sub-sections show the expected agreements, permits and approvals.

18.2.1.1 Institutional Agreements

Monterey Regional Water Pollution Control Agency
An agreement with the MRWPCA would be required for discharge of the SRWTP Waste Activated Sludge (WAS) to the sanitary sewer system. The City would be required to adhere to flow and quality requirements for WAS discharges to their system.

CAW
A review of the existing franchise agreement between the City and CAW would be required to determine any potential modifications to the agreement necessary to create and distribute recycled water for uses other than by the City of Pacific Grove.

Coastal Development Permit (CDP)
A CDP would be required because of the proposed Project's development facilities that would be constructed within the Coastal Zone. "Development" as defined within the Coastal Act means, on land, in or under water, the placement or erection of any solid material or structure. Further "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. Therefore, it is anticipated a CDP would be required for the construction of the wastewater pipeline diversion and the reclaimed water pipeline extension, and upgrades to the former Point Pinos WWTP. The City does not have a certified Local Coastal Plan (LCP) in place, and therefore the permit would be issued by the California Coastal Commission (CCC).

18.2.1.2 Construction Permits

The following permit approvals are anticipated to be required for the construction of the proposed Project:

- Authority to Construct from the Monterey Bay Air Quality Management District (MBAQMD);

- General Construction Storm Water NPDES Permit from the Regional Water Quality Control Board (RWQCB);
- Construction, Trenches, Excavation, and Demolition (California OSHA); and
- Sewer Discharge and Connection Permits (MRWPCA).

18.2.1.3 Operational Permits

The following permit approvals are anticipated to be required for the operations of the proposed Project:

Title 22 Engineering Report
The City would need to prepare a Title 22 Engineering Report for the proposed Project in accordance with CCR Title 22 and California Department of Public Health (CDPH) Guidelines for the Preparation of an Engineering Report for the Production, Distribution, and Use of Recycled Water (2001). The report is prepared for submittal to the Central Coast RWQCB, CDPH, and Monterey County Department of Health Services (MCDHS) as part of the project permitting process. The report typically includes significantly more detail on the recycled water production facilities, transmission and distribution facilities and recycled water use areas.

General Waste Discharge Requirements for Recycled Water Use
The City would need to submit a Notice of Intent (NOI) for coverage under the SWRCB Water Quality Order 2014-0090 General Waste Discharge Requirements for Recycled Water Use (General Order). The General Order authorizes the use of recycled water for all Title 22 approved uses except groundwater recharge. The General Order would require that the City establish a recycled water program. The recycled water program would include requirements for on-site design, installation, and operations of recycled water system at customer sites. The recycled water program would also outline the standards for on-site construction, inspection, and training for recycled water site supervisors at customer sites.

Other Operational Permits
Other operational permits that are required include:

- Permit to operate (MBAQMD),
- Permit for the storage of hazardous materials (Monterey County Environmental Health),
- Compliance with backflow prevention requirements (CAW).

Project Location (description of the precise location and boundaries, preferably topographic, and detail map)

The following project elements are contained in Section 2.0, Project Description of this EIR.

1. Existing facilities
2. New facilities
3. Storage sites
4. Staging Areas

5. Effluent discharge sites
6. Disposal sites
7. Affected service area
8. Reuse sites (for water recycling)

18.3 ENVIRONMENTAL SETTING

Relationship Of Project To Other Planning

1) Water quality control plans

The proposed Project would be consistent with the regional water quality control plans.

a) Basin Plan (include beneficial uses of the receiving waters as given in the applicable Basin Plan)

As stated in Section 1.10.3.2, General Waste Discharge Requirements for Recycled Water Use, Page 1-8, "the proposed Project would produce recycled water suitable for landscape irrigation and other allowable uses as permitted by the SWRCB General Order for Recycled Water Use. The California Recycled Water Policy requires the preparation of Salt and Nutrient Management Plans (SNMPs) to ensure that the water quality of surface or groundwater is protected from water quality degradation resulting from recycled water use. The Monterey Peninsula Water Management District (MPWMD) is preparing a SNMP for the Seaside Groundwater Basin (SGWB). The proposed Project will coordinate with the RWQCB and the MPWMD for compliance with the SNMP."

b) Watershed Management Plan

As stated in Section 11.2.1, page 11-3, "the City participated in the Monterey Regional Storm Water Management Program and the Monterey Bay National Marine Sanctuary Water Quality Protection Program. These programs monitor discharges to the Pacific Grove ASBS. The proposed Project would reduce discharges and improve water quality to the Pacific Grove ASBS."

c) Area-Wide Wastewater Treatment Plan

The proposed Project is in coordination with the MRWPCA in regards to maintaining a regional wastewater collection and treatment program.

2) General Plans

As stated in Section 12.0, Land Use and Planning, "the Project is subject to applicable plans, policies and ordinances of the General Plans of the Cities of Pacific Grove and Monterey, and the County of Monterey."

3) Regional Transportation Plan

As is stated on page 14-2 of this EIR, "The Monterey County Regional Transportation Plan is based on regional growth assumptions included in the 2014 AMBAG forecast. That forecast includes population, employment and housing unit projections over the 20-year planning horizon. Detailed information about the forecast can be found as an Appendix to the Regional Transportation Plan in *Monterey Bay 2035: Moving Forward*, which is the Metropolitan Transportation Plan prepared by AMBAG. Projections shown on Table 1-1 in the Regional Transportation Plan show that the Cities of Pacific Grove and Monterey are expected to increase in population by over 13% and 10%, respectively between years 2020 and 2035. Unincorporated Pebble Beach is not broken out in this table.

4) Regional Housing Allocation Plans

As the proposed Project would provide recycled water to the City's Municipal Golf Links, El Carmelo Cemetery, Golf Links restrooms and other municipal landscaping, it has been determined that the proposed Project is not growth inducing. Therefore, there is no direct connection of the proposed Project with any Regional Housing Allocation Plan.

5) Air Quality Management Plan

As shown in Table 5-2, the Project is within the North Central Coast Air Basin (NCCAB), which is an attainment area for all Federal criteria pollutant standards. The NCCAB is also no longer subject to the 2007 Federal Maintenance Plan for Maintaining the National Ozone Standard (Amy Clymo, Monterey Bay Unified Air Pollution Control District - Planning Department, personal communication, August 14, 2014). Due to the attainment status of the NCCAB, the Project is not subject to a State Implementation Plan (SIP) conformity determination.

a) Compare these emissions to the de minimis (applicability) levels specified for each nonattainment or maintenance area pollutant. See 40 C.F.R. Section 93.153(b) (Applicability).

N/A

b) If the Project's emissions are below the appropriate de minimis level, compare the emissions to the emissions inventory for the nonattainment or maintenance area to ensure the project's emissions are less than 10% of the inventory. See 40 C.F.R. Section 93.153(i) (Regional Significance). Emissions inventories can be obtained from the local air pollution control agency.

N/A

c) If emissions are below the de minimis levels and are less than 10% of the area's inventory the Project is not subject to any further general conformity analysis.

N/A

d) If emissions are above the de minimis levels or are greater than 10% of the area's inventory, a conformity determination will be needed for your project by following the requirements contained in 40 C.F.R. Section 93.158 and by consulting with the EPA.

N/A

6) Habitat Conservation Plans

The proposed Project (Demand Group I) is located within the City. As stated on page 13-7 of the EIR, "The proposed Project is not located within the boundaries of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation agreement." The proposed Project for Demand Groups II and III extends into the Monterey City Limits and also into unincorporated Pebble Beach. None of these areas are within the boundaries of a Habitat Conservation Plan, Natural Communities Conservation Plan or other approved conservation agreement."

7) Regional land use plans

a) Coastal zone

The proposed Project is consistent with applicable coastal development plans. As contained in the EIR at Section 1.10, the Project is located within the Coastal Zone and must therefore be consistent with the City's Local Coastal Program (LCP). As stated on page 13.5 of this EIR, "the LCP has not been formally adopted, thus the Project will apply for a Coastal Development Permit from the California Coastal Commission."

None of the other regional land use plans have relevancy.

Topography of the Region

1) Location of Project area with regard to major topographical features

As stated on page 8-1 of this EIR, "the topography of Pacific Grove peaks near the City boundary with the Presidio of Monterey and slopes gently north and west toward Monterey Bay and the Pacific Ocean. Only a relatively small portion of the City contains slopes over 30 percent: Calabrese Canyon, some coastal bluffs, Benito Avenue, Piedmont Avenue, Hillside Avenue, Adobe Lane, and Syida Drive. The project site at Point Pinos does not contain steep slopes, and the pipeline alignments within Demand Groups II and III would be in existing pipeline corridors and/or do not traverse steep slopes."

2) Elevations and slopes on project site (for grading and excavation activities)

As stated on page 8-1 of this EIR, "The elevation of the proposed Project site ranges from approximately 20 feet above mean sea level (amsl) to approximately 25 feet amsl. The Golf Course site is generally flat with minor undulations in the fairways, roughs and areas of native vegetation." Page 8-1 also states that "The topography of Pacific Grove peaks near the City boundary with the Presidio of Monterey at approximately 700 feet above mean sea level (amsl), and slopes gently north and west toward Monterey Bay and the Pacific Ocean. Only a relatively small portion of the City contains slopes over 30 percent: Calabrese Canyon, some coastal bluffs, Benito Avenue, Piedmont Avenue, Hillside Avenue, Adobe Lane, and Syida Drive." None of the pipeline alignments within Demand Groups II and III traverse steep slopes (exceeding 30 percent). Finally, page 8-1 of this EIR also states that "The exact location of the pipelines and appurtenances in Demand Groups II and III are not yet known, so mitigation is proposed that would include preparation of a Geotechnical Investigation by a licensed geotechnical engineer at the time of subsequent CEQA review. These pipeline would be installed in existing pipeline corridors and/or within existing rights of way."

b) Land Use and Zoning

At Project site:

As shown in Figure 12-1, Coastal Zone Land Use Plan Map and Figure 12-2, City of Pacific Grove Zoning Map, the land uses at the site are recreational (Pacific Grove Municipal Golf Links and El Carmelo Cemetery). The retired WWTP is surrounded by open space, pedestrian trails, and the Monterey Bay to the north, dune habitat restoration to the west, and the Pacific Grove Golf Links to the south and east.

The Point Pinos site is designated on General Plan maps as Open Space (OS) and designated in the Coastal Zone Land Use Map (Figure 12-1) as Open Space/Recreational. The El Carmelo Cemetery is zoned as "Unclassified" The Point Pinos Lighthouse and Naval Reserve Center are also on the site of the golf course. The Lighthouse is shown in Figure 13-1 as "B" and the Naval Reserve Center is shown as "D". Note that Item "C" as shown on this Figure was also under the jurisdictional authority of the United States Coast Guard until 2006; this area is now within the City's jurisdictional authority.

Adjacent to Project site:

The proposed Project under Demand Groups I-III contains pipelines that would be installed in existing pipeline alignments and rights-of-way. As shown in Figures 12-1 and 12-2, land uses adjacent to the Project site and pipeline alignments include open space (the front nine holes of the Pacific Grove Municipal Golf Course), Single, Family Residential, and Multiple Family Residential/Motel District.

At reclaimed water reuse sites:

The reclaimed water would be used primarily at the City's Municipal Golf Links, the El Carmelo Cemetery and also to provide nonpotable water for uses within other City facilities, such as restrooms. These sites are discussed in item #1 above as having the zoning and General Plan designations of Open Space/Recreational.

Geology of the Region

1) Seismic hazards

As stated on page 8-2 of this EIR, "A number of faults traverse the county near the Monterey Peninsula, including the San Andreas Fault, which runs north-south about 28 miles east of Pacific Grove. The San Andreas Fault is considered capable of producing an earthquake with a magnitude of up to 8.5 on the Richter scale (City of Pacific Grove, 1994). The U.S. Geological Survey in 1990 estimated that there is a 67 percent chance of a magnitude 7 or larger earthquake in the San Francisco Bay Area during the next 30 years with an epicenter somewhere between San Jose and Santa Rosa (*ibid*). Two other active fault zones affecting Pacific Grove are the Monterey Bay and the Palo Colorado-San Gregorio Fault Zones. These two areas, both of which have experienced movement along individual fault segments, are separated by the submerged Monterey Canyon. The Monterey Bay Fault Zone is located offshore in the northern and southern areas of the Monterey Bay. The maximum magnitude earthquake likely to be generated by this fault zone is about 6.5, which could generate

tsunamis on the Pacific Grove coastline (*ibid*). The Palo Colorado-San Gregorio Fault Zone is a northwest-trending zone located six miles west and south of Pacific Grove. This active fault zone connects the Palo Colorado Fault near Point Sur, south of Monterey, with the San Gregorio Fault near Point Año Nuevo, where it intersects the San Andreas Fault System."

2) Unstable substrate

As stated on page 8-3 of this EIR, "Most areas of Pacific Grove have an extremely low potential for landslides. No significant landslides have been recorded in the City, and with the exception of a few low bluff areas along the waterfront that are used as parks and are protected by retaining walls, no significant areas of landslide susceptibility have been identified. Only a relatively small portion of the city contains slopes over 30 percent: Calabrese Canyon, some coastal bluffs, Benito Avenue, Piedmont Avenue, Hillside Avenue, Adobe Lane, and Syida Drive."

None of the proposed Project facilities are located near these areas.

3) Erosion potentials

As stated on page 8-5 of this EIR, "Project component locations are relatively flat or within existing right-of-ways and covered with asphalt, thereby having a low potential for erosion."

4) Information directly relating to a water quality problem (e.g., fractured bedrock)

The Geotechnical Report prepared for the retired Wastewater Treatment Site (Pacific Geotechnical Engineering, August 2013) indicates that while the Point Pinos WWTP Site is underlain by bedrock about 10 feet from the surface, there is no indication that the bedrock is fractured. In addition, the pipelines as part of the proposed Project would be placed within existing underground pipeline rights of way and would not be placed in areas of bedrock.

Climate

1) Annual precipitation

As stated on page 11-1 of this EIR, "Average rainfall is 19.7 inches per year, with approximately 90% falling during November through April (www.weather.com)."

2) Seasonal weather patterns

As stated on page 11-1 of this EIR, "The weather of the PGLWP study area is influenced by a marine climate that is pronounced due to the upwelling of cold water from the Monterey submarine canyon. The warmest month is September, with an average daily high of 70°F. The average daily low temperatures are 44°F in January and 53°F in September."

Air Quality for construction related impacts

1) Air basin

As discussed in detail in Section 5.2 of this EIR, the NCCAB is comprised of Monterey, Santa Cruz and San Benito Counties. The basin lies along the central coast of California and covers an

area of 5,159 square miles. The Project area lies on Point Pinos within the Monterey Peninsula, which includes the cities of Pacific Grove, Monterey, and Pebble Beach.

2) State and Federal attainment status

Section 5.3.7 of this EIR provides a summary of the Attainment Status of the NCCAB. As shown in Table 5-2, the NCCAB is an attainment area for all Federal criteria pollutant standards.

Table 5-1 lists the California Air Resources Board's (ARB) Ambient Air Quality Standards (AAQS), and Table 5-2 summarizes the attainment status of the NCCAB in relation to these standards.

a) Ozone
   Prior to revision of the State AAQS for ozone, the NCCAB was close to attaining the State one-hour AAQS, which was reflected in the area's nonattainment-transitional designation. In November 2006, the ARB issued new designations to reflect the introduction of the stringent eight-hour requirement and the NCCAB, like several other areas in California, was redesignated from nonattainment-transitional to nonattainment for the State AAQS.
b) Nitrogen dioxide
   The NCCAB is designated an attainment area for the State Nitrogen Dioxide AAQS.
c) Sulfur dioxide
   The NCCAB is designated an attainment area for the State Sulfur Dioxide AAQS.
d) Particulates
   The NCCAB is designated a nonattainment area for the State PM10 AAQS and an attainment area for the State PM2.5 AAQS.
e) Carbon monoxide
   The NCCAB is designated an attainment area for the State Carbon Monoxide AAQS.

3) Status of local air quality plan

   As discussed in detail in Section 5.3.3 of this EIR, the MBUAPCD shares responsibility with the ARB for ensuring that State and national AAQS are achieved and maintained within the NCCAB. The current 2012 Triennial Plan Revision assesses and updates elements of the 2008 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs.

Major Botanical Features (plant communities or associations)
Important Fish and Wildlife (major species and economically or recreationally important species)

As is stated on page 6-1 of this EIR, "Two habitat types were observed during project site surveys—ruderal/developed and Monterey Cypress grove. Project pipelines traverse existing

rights-of-way/pipeline corridors within the City of Pacific Grove Municipal Golf Course, which is also considered a 'developed" habitat."

Threatened or Endangered Species (Listed, Proposed or Candidate)
As stated on page 6-6 of this EIR, "there are no threatened or endangered species (Listed, Proposed or Candidate) in either the proposed Project site or within the pipeline alignments (Demand Groups II and III). However, the surrounding area does contain restored dune habitat. None of this dune habitat would be affected by proposed irrigation and supply pipelines as part of this project."

1) U.S. Fish and Wildlife

As stated on page 6-2 of this EIR, "The following information is from the Annual Dune Restoration and Monitoring Report, City of Pacific Grove Golf Course at Point Pinos Pacific Grove, California (Rana Creek Restoration 2012). The Point Pinos Lighthouse Reservation has been owned by multiple entities since the mid-1800s. Until recently, the United States Coast Guard (USCG), which inherited the property from the disestablished U.S. Lighthouse Service in 1939, owned the property and maintained a licensing agreement with the City of Pacific Grove for the operation of the municipal golf course. The property was transferred from the USCG to the City of Pacific Grove on August 23, 2006 and involved approximately 66 acres of land and improvements. During several years proceeding and leading up to the property transfer, certain protective measures were initiated to ensure that golf course and lighthouse operations carried out by the City of Pacific Grove were designed to protect and enhance the dune habitat and the State and Federal listed species associated with the site. Such measures included preparation of the May 17, 2004 Biological Assessment (BA), which was prepared in connection with the formal consultation process conducted by the United States Fish and Wildlife Service (USFWS) in order to comply with Section 7 of the Endangered Species Act of 1973. The formal consultation resulted in preparation of the Biological Opinion (USFWS 2005), which referenced the 2004 BA and mandated restoration of the dune areas specifically described in that document."

"Restoration and monitoring activities at the site have been conducted in accordance with the site-specific Biological Assessment and Restoration of Dune Habitat Plan (May 17, 2004) and the Biological Opinion for Transfer of Surplus Property from Federal to City Ownership at Light Station Point Piños, dated June 2, 2005 (Biological Opinion). In addition, restoration activities have been also performed under California Department of Fish and Game (CDFG) Management Memorandum of Understanding (MOU) No. 2081(a)- 11-01-M."

"The original habitat at Point Pinos has been modified extensively over the past century as a result of construction of the historic Point Pinos Lighthouse, construction of roads, the former sewage treatment facility/regional water collection system, introduction of non-native iceplant and other exotic species, and grading associated with golf course construction. The nine golf course holes associated with the site were reportedly constructed between approximately 1957 and 1960 with various improvements and modifications occurring during subsequent years (Yadon and others, 1997)."

"Early descriptions of the Point Pinos area indicated the presence of a combination of foredunes and Monterey Pine forest in the area where the Point Pinos Lighthouse and golf course currently exist. Lesser quantities of Northern Foredune Grassland, Northern Dune

Scrub, and Northern Coastal Bluff Scrub were also reportedly present. Before initiation of the current dune restoration project, remnants of the original Northern Foredune habitat were reportedly evident amongst the extensive carpet of iceplant. The most dominant remaining native plants included mock heather (*Ericameria ericoides*), beach sagewort (*Artemesia pycnocephala*), pink sand verbena (*Abronia umbellata),* beach primrose (*Camissonia cheiranthifolia*), and seaside daisy (*Erigeron glaucus)* (Yadon and others, 1997)."

"Additionally, existing populations of listed plant species were surveyed and mapped during spring 2001. These included a substantial population of Tidestrom's lupine, six Monterey spineflower, and five Menzies' wallflower plants. In addition to being one of the State and Federal listed species at the site, the current presence of Menzies' wallflower at Point Pinos is notable because the plant was reportedly first collected at the site by Archibald Menzies during the Vancouver Expedition of the late 1700s, thereby earning Point Pinos the designation of type locality for the species (Yadon and others, 1997). Monterey spineflower has been reintroduced to the site as of 2011 from seed collected on a portion of the Point Pinos Lighthouse Reservation that lies west of Sunset Drive and outside of the area designated for restoration under the 2004 BA and 2005 Biological Opinion. Suitable habitat is also present for beach layia (*Layia carnosa*), although this species has never been observed at the site."

2) National Marine Fisheries Service

The site is not subject to oversight by the National Marine Fisheries Service.

3) California Department of Fish and Game (now California Department of Fish and Wildlife (CDFW))

Other than listed above, there is no regulatory oversight from the CDFW, as the site does not support State-listed special-status species.

4) Private Organization Listings (e.g., California Native Plant Society)

As stated on page 6-11 of this EIR, "the Project site contains Monterey cypress trees along its boundary. Native Monterey cypress is a CNPS List 1B.2 plant, which is treated as special-status species in accordance with CEQA Guidelines Section 15380. Only two native stands of Monterey cypress are found on the Monterey Peninsula, located at Point Lobos and Pebble Beach. All other stands of Monterey cypress, including those that were identified surrounding the Project site, are assumed to have been planted as landscape trees. Therefore, the Monterey cypress located at the Project site would not be classified as a special-status plant species." No other special-status plants as listed by CNPS are present at the Point Pinos Wastewater Treatment Plant site, and none are expected to occur in either the pipeline alignment within the City's Municipal Golf Links or within any of the other pipeline corridors to be used in this Project.

Critical Habitats listed by the U.S. Fish and Wildlife Service

There are no Critical Habitats listed by the U.S. Fish and Wildlife Service or defined by the Service (see http://www.fws.gov/endangered/esa-library/pdf/critical_habitat.pdf) in either the proposed Project site or within the pipeline alignments (Demand Groups II and III).

1) Plant Community Type

As stated above, two habitat types/plant communities exist on the Project site—ruderal/developed and Monterey Cypress Grove. Native foredune and coastal sage plants have been planted in restored areas of Point Pinos, none of the restored areas are within the Project site at the Point Pinos Wastewater Treatment Plant.

Wetlands delineated by Army Corps of Engineers

There are no delineated wetlands meeting Army Corps of Engineers' parameters in either the proposed Project site or within the pipeline alignments (Demand Groups II and III).

Designated Wild and Scenic Rivers (Include Map if Present)

There are no designated Wild and Scenic Rivers in either the proposed Project site or within the pipeline alignments (Demand Groups II and III).

Water Resources

1) Surface water features

There are no surface water features at the Project site or within the pipeline alignments/appurtenance areas for all Demand Groups (I-III). There is only one surface water feature at Point Pinos, which is Crespi Pond. Crespi Pond is not within the boundaries of the proposed Project.

As stated above, the only surface water feature within the area is Crespi Pond, which is not within the boundaries of the proposed Project.

2) Groundwater resources

As stated in Section 11.2.1, page 11-1, the Project does not directly overlie a groundwater basin.

3) Receiving water quality

The recycled water will be used for landscape irrigation and other allowable uses such as toilet flushing and industrial use. No receiving waters will be impacted.

4) Water supplies for the service area

a) List of water purveyors
California American Water Company (CAW)

b) Percentage of supply from each source
100%

Agricultural Land

There is no land used for agriculture purposes or designated as such in either the proposed Project site or within the pipeline alignments (Demand Groups II and III).

Cultural resources

1) Archaeological resources

As stated in this EIR on page 7-1, "Fourteen sites, including 12 prehistoric and two historic age sites, have been identified within a 0.50-mile radius of the Area of Potential Effect (APE). Two of the prehistoric sites are mapped in close proximity to the location of the proposed Project. The remainder of the APE does not contain surface evidence of significant historic resources."

2) Historic architecture, landscapes, features, structures or objects

No changes are proposed to the facade of the two existing structures at Point Pinos (clarifier and administration building/sludge digester). Repairs would be made consistent to incorporate these structures into the proposed project. As identified in the Appendix A-1, Condition Assessment of the Facility Plan, "remedial repair/recoating/repainting" would be completed to make the structures watertight, compliant with OSHA and ADA requirements. As stated in the Condition Assessment, the exterior surfaces were determined to be in "overall fair to good condition", and the roofing system in the administration building may need be removed and replaced. It would be replaced to match the existing style. "Cracks and spalls on the concrete surfaces should be thoroughly cleaned by brush-off blast cleaning, chipping, grinding, etc., and the area repaired with a cementitious material." Metal fittings and fixtures would be removed for offsite disposal. The interior concrete surfaces were found to be in good condition, and thus the remainder of the recommendations are for interior improvement necessary to ensure that the structures are watertight.

3) Traditional cultural properties

No traditional cultural properties exist at the Point Pinos site, nor do any exist along any of the pipeline alignments for Demand Groups II or III.

4) Paleontological resources

No paleontological resources exist at the Point Pinos site, nor do any exist long any of the pipeline alignments for Demand Groups II or III.

Coastal Zone Jurisdiction

As stated in this EIR on page 12-1, "The Point Pinos site is located within the Coastal Zone, and is therefore subject to the jurisdictional authority of the City's Local Coastal Plan (LCP) (1989). However, since the LCP has not been certified, any land use change must go through discretionary review by the California Coastal Commission."

Floodplain Delineated by the Federal Emergency Management Agency or Other Agency

As stated in this EIR on page 11-23, "The Point Pinos site does not lie within a flood zone or floodplain. None of the pipeline alignments of the Project under Demand Groups II and III lie within a flood zone or floodplain."

There are no delineated floodplains in either the proposed Project site or within the pipeline alignments (Demand Groups II and III).

18.4 PRIMARY AND SECONDARY IMPACTS

(For the following subjects, list and explain short and long term impacts from project construction and operation, and any proposed mitigation measures. Consider all facilities; conveyance lines; storage; discharge and disposal sites; staging areas; affected service area; and water recycling reuse sites as applicable. Include secondary impacts of other activities associated with or resulting from construction or operation of the project. Evaluate the significance of the impacts as required by CEQA).

Water Quantity

1) Change in point of discharge

   As stated on page 15-5 of this EIR, "Wastewater collected throughout the City is conveyed for treatment to the MRWPCA RTP. A regional interceptor pipeline is located along the coast of the Cities of Pacific Grove, Monterey, Seaside, and Marina."

   Page 15-9 of this EIR states "The PGLWP would reduce the total flows to MRWPCA and SVRP by 0.11 mgd. This is the annual average flow that would be used to irrigate the golf course and cemetery. This is equivalent to a reduced wastewater flow to the MRWPCA RTP of 0.59% (roughly less than six-tenths of one percent). Therefore the PGLWP would have no impact to recycled water supplies to CSIP."

2) Increase/decrease in stream discharge

   There are no existing or planned stream discharges.

3) Increase in water demands

   As stated on Page 15-9 of this EIR, "Implementation of the PGLWP would reduce the demand for potable water service to the Pacific Grove Golf Links and El Carmelo Cemetery. Irrigation would be supplied by new recycled water produced at the SRWTP."

Water Quality

Page 11-21 of this EIR states "The proposed Project involves the reuse of previously disturbed sites and the underground installation of pipelines, pumps, and related appurtenances related to recycled water conveyance. The Project would not introduce substantial additional impervious surfaces, and would not, therefore, increase the potential for degradation of water quality."

1) Surface water

   a) Contamination from construction materials

      Page 11-16 of this EIR states that the City Public Works Department would identify construction BMPs, and "These construction BMPs require that every construction Project have an erosion and sediment control plan to prevent soil and materials from

leaving the site. Construction activities must be scheduled so that soil is not exposed for long periods of time, and key sediment control practices must be installed."

Page 11-16 of this EIR further states "These BMPs would reduce the potential for stormwater pollution associated with construction activities, including on- and off-site sedimentation, deposition, and erosion. These BMPs would be administered by the City of Pacific Grove Public Works Department prior to start of construction."

b) Siltation from construction related erosion

As stated on Page 11-15 of this EIR, "Earth-moving activities including grading, trenching, excavation, and soil hauling associated with the Project components would have the potential to degrade water quality due to erosion and sedimentation."

Page 11-16 of this EIR states that the City Public Works Department would identify construction BMPs, and that "These construction BMPs require that every construction Project have an erosion and sediment control plan to prevent soil and materials from leaving the site. Construction activities must be scheduled so that soil is not exposed for long periods of time, and key sediment control practices must be installed."

Page 11-16 of this EIR further states "These BMPs would reduce the potential for stormwater pollution associated with construction activities, including on- and off-site sedimentation, deposition, and erosion. These BMPs would be administered by the City of Pacific Grove Public Works Department prior to start of construction."

c) Effluent discharge

As stated in Section 1.10.3.2 General Waste Discharge Requirements for Recycled Water Use, Page 1-8, "the proposed Project would produce recycled water suitable for landscape irrigation and other allowable uses as permitted by the SWRCB General Order for Recycled Water Use."

d) Storm runoff from site

As stated on page 11-20 of this EIR, "The proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. The proposed Project would involve rehabilitation or refurbishment of already developed sites at the retired Point Pinos WWTP site, Golf Links, and El Carmelo Cemetery. New sewer diversion pipelines, sewer pump station, sewer force mains, recycled water pipeline are locating within existing street rights-of-way, or within City owned property."

e) Reclaimed water runoff

As stated in Section 1.10.3.2 General Waste Discharge Requirements for Recycled Water Use, Page 1-8, "the proposed Project would produce recycled water suitable for landscape irrigation and other allowable uses as permitted by the SWRCB General Order for Recycled Water Use. The General Waste Discharge Requirements, as well as Titles 22 and 17 of the California Water Code, provide the requirements for the proposed Project to ensure that reclaimed water does not runoff the Project site."

2) Groundwater

As stated on Page 11-16 of this EIR, "there are no local groundwater supplies used for potable water within the Project area. Some groundwater from wells located at the retired Pacific Grove WWTP is used for construction, pipeline flushing, and street sweeping purposes. The PGLWP would produce recycled water that would replace the groundwater used for construction, pipeline flushing, and street sweeping." Therefore, the proposed Project would benefit the local groundwater qualities and qualities.

Air Quality

A detailed discussion of Project impacts for both construction and operational air contaminant emissions is presented in Section 5.4. As discussed above, and shown in Table 5-2, the Project is in an attainment area for all federal criteria pollutant standards and is not subject to a federal air quality maintenance plan.

1) Project construction emission estimates for non-attainment or maintenance pollutants

Construction emissions estimates are presented in Table 5-4. The Project is in an attainment area for all federal criteria pollutant standards.

2) Air basin emissions inventory for federal non-attainment or maintenance areas

The NCCAB is an attainment area for all federal criteria pollutant standards. Due to the attainment status of the NCCAB, the Project is not subject to a State Implementation Plan (SIP) conformity determination. An air basin emissions inventory was not presented as a part of this EIR.

3) Construction dust

Construction emissions estimates for particulate matter (dust) may result from construction activities, and to a lesser extent, from operation of the Project. Construction particulate matter emission estimates are presented in Table 5.4., and are below the MBUAPCD significance threshold.

4) Odors

Potential Project impacts resulting from odors are discussed in the Impact Analysis, Section 5.4.3, Impact 5-5. Under normal operating conditions, objectionable odors would not be detectable outside the fenced SRWTP facility.

Geology

1) Slope stability

As stated on page 8-1 of this EIR, "The elevation of the proposed Project site ranges from approximately 20 feet above mean sea level (amsl) to approximately 25 feet amsl. The Golf Course site is generally flat with minor undulations in the fairways, roughs and areas of native vegetation."

2) Seismic hazards

Page 8-8 of this EIR also states "All structures associated with the proposed Project would be designed and constructed in adherence with the seismic standards as set forth in the current California Building Code (CBC 2010) and the National Electrical Safety Code (American National Standards Institute [ANSI] C.2). Adherence to these standards would ensure that structures would be able to withstand anticipated seismic events, and that expected seismic activity would not result in significant damage or harm to the public."

Soils

1) Erosion

Page 8-3 of this EIR states "With the notable exception of rock outcrops, soils in Pacific Grove are all sand or sandy loam. The permeability of the soil varies, as does the runoff rate. Erosion hazard is high along the coastline's rock outcroppings. Beach and sand dune areas are particularly susceptible to disturbance. The Soil Survey Geographic Database (SSURGO) was used as the source for the identification of soil classifications. Soils at the proposed Project Site are mapped as Baywood Sand with 2 to 15 percent slopes and Dune Land (NRCS, 2014)."

Page 8-10 of this EIR states "Construction of the proposed Project (Demand Group I) could result in surface disturbances and removal of vegetation along the pipeline corridor leading to increased soil erosion. Sedimentation into streams and water bodies would likely increase if disturbed soils were left exposed during winter, early spring, and summer storm events (periods of high precipitation, runoff, and winds). Erosion potential is generally more severe on steep, sparsely vegetated slopes; fine sandy or silty soils; and in loose sandy soils where strong winds occur. Erosion potential is also elevated in recently burned areas if such areas remain largely unvegetated, especially in areas with previously existing high erosion potential. Soil erosion is expected to be minimal because a SWPPP and construction BMPs established by the City of Pacific Grove Public Works Department would be required. Compliance with these existing requirements would reduce construction-related erosion impacts to a less than significant level."

2) Contamination

As is stated on page 10-1 of this EIR, "The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. However, the retired Point Pinos Wastewater Treatment Plant was constructed when asbestos and lead-based paints were used in building construction (prior to 1978); without samples to show that no asbestos or lead-based paints are present this becomes a potentially significant impact. Thus, a mitigation measure is contained within this Section that would avoid or reduce this impact to less than significant levels."

3) Compaction

As is stated on page 8-10 of this EIR, "the project components at the retired Wastewater Treatment Site would be placed in either the exiting facility or skid-mounted within the 2.3-acre site. This site is relatively flat and underlain by bedrock, so there is no potential for compaction. The pipeline corridors/easements where the new pipelines will be installed have been disturbed and have been compacted to engineering specifications. These pipelines are

located within the Municipal Golf Course or at the El Carmelo Cemetery. The soils at the new pipelines would also be compacted to engineering specifications (typically between 80-90% compaction) thus impacts to native soils to compaction would not occur."

4) Stability

As stated on page 8-1 of this EIR, "the California Geologic Survey Seismic Hazard Zone Map for the project area indicates that the project site is not located within a landslide hazard zone. In addition, pursuant to the City of Pacific Grove General Plan, most areas of Pacific Grove have an extremely low potential for landslides. The Geotechnical Investigation that was prepared for this site indicated that the near surface soils are sands with a low percentage of fines and that these soils generally have a low potential for expansion (Pacific Geotechnical Engineering, August 2013). All structures associated with the proposed Project (Demand Group I) would be designed and constructed in adherence with the seismic standards as set forth in the current California Building Code (CBC 2010) and the National Electrical Safety Code (American National Standards Institute [ANSI] C.2). Adherence to these standards would ensure that structures would be able to withstand anticipated seismic events, and that expected seismic activity would not result in significant damage or harm to the public."

Vegetation

1) Grading and excavation impacts

No grading would occur as a result of reusing the retired WWTP. New facilities at the Plant would be mounted on skids and thus no excavation at the site would occur. The only excavation that would occur as a result of this Project would be for new pipelines. This excavation would be within existing pipeline corridors at the golf course or within other open space/ruderal or developed lands.

2) Trampling

The proposed Project at Point Pinos or related pipelines would not cause any trampling of native vegetation. As stated on page 6-1 of this EIR, "The site is heavily disturbed, fenced and has been continually used for municipal maintenance purposes for the past 65 years. The vegetation located within the SRWTP fence line is primarily planted Monterey cypress (*Cupressus macrocarpa*) interspersed with some nonnative Myoporum (*Myoporum laetum*) shrubs with no significant understory present. The cypress trees are overgrown and minimally maintained."

3) Effluent impacts on aquatic and riparian vegetation

No release of effluent would occur as a result of the proposed Project. In addition, there is no aquatic or riparian vegetation within either the proposed Project or pipeline corridors for all Demand Groups II and III.

4) Conflict with local policies and ordinances

As stated on page 12-1 of this EIR, "The Project is consistent with all applicable plans, policies and ordinances."

Fish and Wildlife

1) Construction noise and interference

   As stated on page 6-9 of this EIR, "Construction-related activities (e.g., trimming and removal of vegetation, and equipment noise, vibration, and lighting) could result in harm, injury, or death of individuals, or abandonment of an active nest within the Monterey cypress trees surrounding the site. These trees provide nesting habitat for protected avian species. If a raptor or other migratory birds, regardless of its federal or state status, were to nest on or adjacent to the site prior to or during proposed construction activities, such activities may result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws and thus are a potentially significant impact."

2) Habitat loss

   As stated on page 6-1 of this EIR, "Both ruderal/developed and Monterey Cypress habitat types are at the site. The Monterey Cypress were planted on the Project boundary to screen the Point Pinos Water Treatment Plant. No special-status plant species were observed within these habitat types or surrounding areas and none are expected to occur. No other sensitive habitats, including riparian habitat, were observed on the Project site or within adjacent areas." Therefore, the Project would not result in habitat loss.

3) Interference with movement/migration

   As stated on page 6-11 of this EIR, "the Project may result in a minor loss of Monterey cypress trees due to planned trimming. These trees provide habitat for avian species including song sparrow (*Melospiza melodia*), western scrub jay, American goldfinch (*Spinus tristis*), western tanager (*Piranga ludoviciana*), spotted towhee (*Pipilo maculatus*) and white crowned sparrow (*Zonotrichia leucophrys*). Additionally, raptors such as red-tailed hawks and red-shouldered hawks could use these trees for nesting. However, during site visits, these species were not identified as utilizing these trees as habitat. Therefore, trimming the trees is not expected to result in significant impacts on wildlife movements. In addition, the implementation of Biological Mitigation Measure 1, which requires preconstruction surveys to determine if avian and terrestrial species would be present, would avoid or reduce any negative effects from the tree trimming."

4) Waterfowl attraction to open ponds

   As stated on page 6-12 of this EIR, "There are no seasonal creeks, reservoirs, or downstream waters located in the Project site." In addition, the only freshwater feature in the area is Crespi Pond, which is outside of the project boundaries and is thus not a part of the Project. Therefore, there would be no effect of the Project on waterfowl attraction to open ponds.

5) Effluent impact on aquatic biota

   Please see question #4, above. Because there are no water bodies within the Project area, and because there would be no effluent from the Project, there would be no impacts on aquatic biota, including the biota within the adjacent Pacific Ocean.

Conflict with local policies

As stated in this EIR on page 6-10, "the Monterey cypress trees that surround the Project site are "protected trees", as defined by the Pacific Grove Municipal Code (PGMC) Chapter 12.20. Therefore, any large trimming affecting any one tree by more than 30%, or any removal of any cypress tree could result in a potentially significant impact."

Aesthetics

1) Temporary impacts from construction

   As stated on page 4-1 of this EIR, "Existing facilities at the retired WWTP site include two water storage tanks. The tanks and the overall Point Pinos site are mostly obscured from Ocean View Boulevard and the Pacific Grove Golf Links by large Monterey Cypresses (*Cupressus macrocarpa*) that were planted along the site boundary fence as a visual screen. The only places onsite where Monterey Cypresses are not planted along the fence are at the front entrance to the site, which is within views of passing motorists and recreational users on Ocean View Boulevard and the adjacent parking area, and a rear entrance to the site, that is visible by golfers from locations on the Pacific Grove Golf Links course. Therefore, project facilities would be screened by these existing Monterey Cypress trees and thus no visual impacts related to Project construction and operation would occur."

2) Visual disruption of new facilities

   As stated on page 4-8 of this EIR, "existing facilities at the retired WWTP site include two water storage tanks that are twelve feet tall. These tanks and the overall site itself are mostly obscured from Ocean View Boulevard and the Pacific Grove Golf Links by an existing chain link fence and large Monterey Cypresses that were planted along the site boundary fence as a visual screen. The only places where Monterey Cypresses are not planted along the fence are at the front entrance to the site, which is within views of passing motorists and recreational users on Ocean View Boulevard and the adjacent parking area, and the rear entrance to the site, and by golfers from locations on the Pacific Grove Golf Links course."

   "Development associated with this Project component would involve new above- and below-grade infrastructure both within the retired WWTP site. The existing tanks will be retrofitted, and new appurtenances would be installed at the site, mounted on skids. These new appurtenances are not to exceed fifteen feet in height. Ground disturbing activities associated with the proposed SRWTP facilities, the proposed new recycled and potable water distribution pipelines, and the proposed sanitary sewer diversion could temporarily impact scenic vistas or temporarily degrade the existing visual character or quality of the project sites and their surroundings. However, the majority of the Project facilities would be screened by the existing Monterey Cypress trees. Other Project facilities such as pipelines and appurtenances would be located underground and are not expected to impact visual aesthetics."

3) Creation of a new source of light or glare

   As stated on page 4-10 of this EIR, "Reuse of the retired WWTP as part of the proposed Project would introduce nighttime security lighting at the site. The site is currently used for storage and stockpiling of materials by the City of Pacific Grove and does not currently have

nighttime security lighting. However, provision of new lighting would not result in a substantial increase in lighting. The SRWTP would continue to be largely concealed by the existing vegetation. In addition, all lighting would be down-lit and directional in nature, consistent with City of Pacific Grove standards (i.e., City of Pacific Grove Architectural Review Guidelines) Therefore, Project lighting at the proposed site for the treatment facility be installed so as not to interfere or cause confusion with the beam of light from the Federal Aid-to Navigation Lighthouse. Thus, the visual impact from nighttime lighting would be less than significant."

Noise

1) Construction

As stated on page 13-1 of this EIR, "Construction noise at the WWTP at Point Pinos may exceed the City's noise standards as listed in the General Plan; however, proposed mitigation measures would mitigate these noise levels to less than significant levels. Implementation of the Mitigation Measures contained in this Section would avoid impacts or reduce all potentially significant impacts to less than significant levels. The noise levels generated by the operation of the proposed Project would not exceed the City's noise standards, given that the majority of infrastructure provided as part of the Project would be underground in pipelines either within the City's Municipal Golf Course and/or El Carmelo Cemetery or within other linear open space areas. The reuse of the existing WWTP facility at Point Pinos would be located a sufficient distance from sensitive receptors."

2) Operation

As stated on page 13-1 of this EIR, "Demand Groups II and III would include additional trenching during the construction phases. The exact trenching locations are not yet known. Short term construction noise exceeding either Noise Standards of the City of Pacific Grove, City of Monterey or Monterey County could also occur in these subsequent phases. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document, and well as adherence to existing laws and regulations related to construction noise would avoid or reduce significant noise impacts to less than significant levels."

Recreation

1) Disruptions
2) Closures

Page 16-8 of this EIR lists four environmental issues with effects not found to be significant, and one of these four issues is Recreation. The other three are Agriculture/Forestry Resources, Mineral Resources, and Population and Housing. Thus, there would be no impacts related to the disruption or closure of the pedestrian trails at the headlands, or the golf course during the construction or operational phases of the proposed Project. The construction phase could result in lane closures for Asilomar Avenue or Ocean View Drive, but implementation of Traffic Mitigation Measures 1-4 would ensure that tourists driving within the Point Pinos area would not be unreasonably inconvenienced.

Open Space

1) Loss of

   The Project is the upgrade and use of the former Point Pinos Wastewater Treatment Plant to provide recycled water to the City of Pacific Grove's Municipal Golf Course and El Carmelo Cemetery, and to provide recycled water in the future to other users within the area. The proposed Project for all Demand Groups would not result in the loss of open space.

2) Construction or operation related interference

   The project site at Point Pinos and the pipeline alignments are in an urbanized area of the Monterey Peninsula. No construction or operation related interferences to open space would occur.

3) Conflict with local policies

   As stated in Section 12, Land Use, and elsewhere in this Section, the proposed Project would not conflict with either local policies pertaining to open space, nor would it conflict with any local general plan policy, ordinance or plan.

Cultural Resources

4) Facilities construction impacts

   As stated on page 7-7 of this EIR, "Portions of the Project APE, which lie along the recorded southern boundaries of archaeological sites CA-MNT-125 and CA-MNT-127 and near the recorded northern boundary of site CA-MNT-128, contain sparse surface evidence of those cultural resources in largely disturbed contexts. Previous radiocarbon dating has placed two of these sites, CA-MNT-125 and CA-MNT-127, within the Late Period of Prehistoric Occupation. Site CA-MNT-128 has been subject to no testing or data recovery mitigation previously. The remainder of the APE does not contain surface evidence of significant historic resources. Excavations within those portions of the APE would have no effect on significant historic/cultural resources."

5) Pipeline alignment excavation impacts

   As stated on page 7-7 of this EIR, "the current paved environment precludes further examination of the APE under Ocean View Boulevard and the portions of the sewer treatment facility that would be subject to direct project impacts. Previous sewer trenching, sewer facility development, road grading and golf course development has caused significant previous disturbance in portions of the project APE nearest to the identified archaeological sites. Nevertheless, remnants of undisturbed archaeological soil associated with the archaeological sites may remain in and/or near the project APE. Therefore, installation of the SRWTP and appurtenances within the APE could result in a potentially significant impact."

6) Erosion impacts

   As stated on page 8-1 of this EIR, "The elevation of the proposed Project site ranges from approximately 20 feet above mean sea level (amsl) to approximately 25 feet amsl. The Golf

Course site is generally flat with minor undulations in the fairways, roughs and areas of native vegetation." Therefore, there is a less than significant potential for erosion impacts.

7) Inundation from ponds

There are no surface water features at the Project site or within the pipeline alignments/appurtenance areas for all Demand Groups (I-III). There is only one surface water feature at Point Pinos, which is Crespi Pond. Crespi Pond is not within the boundaries of the proposed Project.

8) Impacts from land application of effluent

No land application of effluent is proposed as part of this Project. Therefore, there is no impact.

Threatened or Endangered Species

1) Incidental taking of a species

As stated on page 6-11 of this EIR, "…Aside from Monterey cypress trees, which are a CNPS 1B.2 plant in their native (unplanted) habitat, no other special status plant species exist on the Project site or within the pipeline corridors which would be used to serve Demand Groups II and III." Note that the cypress trees at the Project site are not native to the site and have been commercially planted. In addition, no special status animal species, either terrestrial or aquatic, exist on the Project site or within the pipeline corridors which would be used to serve Demand Groups II and III.

2) Potential for jeopardizing the viability of the population

As there are no special-status plants or animal species that would be affected by the proposed Project, there is no potential for jeopardizing the viability of any native plant or animal population as a result of implementing the Project.

3) Loss of habitat

As stated on page 6-11 of this EIR, "No sensitive habitats were observed on the Project site or the adjacent areas." As such, there would be no impact to riparian and other sensitive habitat.

4) Harassment

As stated on page 6-11 of this EIR, "No sensitive habitats were observed on the Project site or the adjacent areas." As such, there would be no impact to plant or animal species from harassment.

5) Interference with movement/migration

As stated above and on page 6-11 of this EIR, "the Project may result in a minor loss of Monterey cypress trees due to planned trimming. These trees provide habitat for avian species including song sparrow (*Melospiza melodia*), western scrub jay, American goldfinch (*Spinus tristis*), western tanager (*Piranga ludoviciana*), spotted towhee (*Pipilo maculatus*) and white

crowned sparrow (*Zonotrichia leucophrys*). Additionally, raptors such as red-tailed hawks and red-shouldered hawks could use these trees for nesting. However, during site visits, these species were not identified as utilizing these trees as habitat. Therefore, trimming the trees is not expected to result in significant impacts on wildlife movements. In addition, the implementation of Biological Mitigation Measure 1, which requires preconstruction surveys to determine if avian and terrestrial species would be present, would avoid or reduce any negative effects from the tree trimming."

6) Disruption of reproductive activities

As stated on page 6-11 of this EIR, "No sensitive habitats were observed on the Project site or the adjacent areas." As such, there would be no impact to plant or animal species from disruption of reproductive activities.

Environmentally Sensitive Areas

1) Loss of environmentally significant agricultural land

As stated elsewhere in this CEQA-Plus Section, there is no environmentally significant agricultural lands within either the SRWTP at the Point Pinos Wastewater Plant, nor are there any agricultural lands within any of the pipeline corridors.

2) Incompatible activities within the coastal zone

Reusing the Point Pinos Wastewater Plant for the SRWTP would not be an incompatible use within the coastal zone.

3) Removal, filling, hydraulic interruption, or other means of affecting wetlands as defined by Section 404 of the Clean Water Act

As stated elsewhere in this CEQA-Plus Section, there are no federally-defined wetlands on either the proposed Project site nor within the Project's pipeline alignments.

4) Impacts to sensitive natural communities identified by DFG or FWS

As stated elsewhere in this CEQA-Plus Section, there are no sensitive natural communities identified by DFG/DFW or FWS on either the proposed Project site nor within the Project's pipeline alignments.

5) Impacts on wild & scenic rivers

As stated elsewhere in this CEQA-Plus Section, there are no wild and scenic rivers on either the proposed Project site nor within the Project's pipeline alignments.

6) Construction on floodplains that could impede floodwaters or expose structures to significant losses

As stated elsewhere in this CEQA-Plus Section, there are no floodplains on either the proposed Project site nor within the Project's pipeline alignments.

7) Loss of critical habitats

As stated elsewhere in this CEQA-Plus Section, there are no critical habitats on either the proposed Project site nor within the Project's pipeline alignments.

Energy

Use during construction

All equipment used during the construction phase would be diesel powered. As stated on page 2-19 of this EIR, "The SRWTP would be constructed such that the major underground and structural components are sized to meet the requirements of Demand Groups II and III and installed as a part of Demand Group I Project. SRWTP expansion requirements necessitate that structures would be designed and built with space for additional future equipment such as blowers, pumps, screens, UV galleries, and motor control centers required to accommodate the plant capacity expansion without major structural additions or expansion to accommodate Demand Group II and III facilities, if approved in the future. Subsurface structural elements, major pipelines, and electrical/communications duct banks would also be installed to accommodate the ultimate plant capacity of Demand Group III and would thereby minimize future site disturbances from excavation."

Use during operation

As stated on page 2-22 of this EIR, "The SRTWP facilities would be operated 24 hours per day during the irrigation season between April and October (10% offline for maintenance). Minimal operations would be required during the non-irrigation season (Oct 15-April 15) to maintain the biological integrity of the treatment facilities. Operations for Demand Group III service to PBCSD may include SRWTP operations during the wet season to supply seasonal storage at the Forest Lake Reservoir. The facility would be supplied operational power from the existing electric utility grid. The SRTWP is expected to use approximately 495 kWh/day during the irrigation season. The SRWTP would include a 50 kW portable emergency generator as required by Title 22 for the provision of backup power. In the event of a power loss at the SRWTP, the diversion structure would be closed; sewage would bypass the SRWTP and would be conveyed to the regional wastewater collection system, consistent with existing operations."

Transportation/Circulation

1) Traffic interference during construction

As stated on page 14-1 of this EIR, "the number of workers at any one site could vary substantially, from 5 to 31, depending upon the type of construction activity and project. In addition, the volume of excavated soil and import backfill, and the number of haul trucks spread over the construction workday would also vary. However, new daily trips would not exceed 62 (31 one way, with both ways counted). This amount assumes every worker driving his or her own vehicle. While these numbers are not high, this area of Point Pinos is a major tourist attraction and thus any new traffic, especially large vehicles, could result in a significant impact."

2) Traffic increases during operation

As stated on page 14-1 of this EIR, "Projected traffic generated by operation of the SWRTP could result in a total generation of 16 new daily trips (8 one way, with both ways counted). This is considered a Less than Significant impact."

"Demand Groups II and III would include additional trenching during the construction phases. The exact trenching locations are not yet known. Short term construction traffic impacts could occur within the City of Pacific Grove, City of Monterey or Monterey. The implementation of any component of the Demand Group II and III Projects would be subject to subsequent CEQA review. Compliance with the findings (if any) from any subsequent CEQA document would avoid or reduce significant noise impacts to less than significant levels."

3) Parking interference during construction and operation

Currently, there are 6 parking spaces at the retired Point Pinos Wastewater Plant. The City uses the WWTP as its corporation yard. There are no plans to increase parking at the site. With the implementation of Traffic Mitigation Measures 1 through 4 impacts related to workers using these parking spaces would be avoided or reduced to less than significant levels.

Public Services

1) Additional public services required for facilities operation

As stated on page 15-9 of this EIR, "The proposed use of the retired Wastewater Treatment Plant at Point Pinos would use electricity and gas service, but these services are currently provided onsite and no additional entitlements would be needed."

2) Additional public services required for service area expansion

The proposed Project is not part of a service area expansion; therefore, no additional public services would be required.

3) Construction and operation interferences on public utilities

As stated on page 15-9 of this EIR, "Construction activities for the PGLWP could result in damage to or interference with existing water, sewer, storm drain, natural gas, electric, and/or communication lines and, in some cases could require that existing lines be permanently relocated, potentially causing interruption of service. Utility lines of various sizes are likely to be located along or across proposed pipeline alignments. Trench construction is the project activity most likely to cause service disruption. Streets and roads typically serve as utility corridors, increasing the potential for interference with other existing utilities. If specific locations of underground utilities are not located prior to construction, the utility lines could be damaged and the associated services interrupted."

"In most cases of pipeline construction, service disruptions are temporary and typically do not exceed one day. All utility lines and cables that would be disrupted during pipeline installation would be identified during final design. Existing utilities would be avoided to the greatest extent practical. As a condition of approval for either a utility excavation permit or an encroachment permit, the City would prepare a detailed engineering and construction

plan that thoroughly describes construction techniques and protective measures for minimizing impacts to utilities. The potentially significant impact associated with potential damage to or interference with public utilities would be less than significant with the implementation of Mitigation Measures 15-1a through 15-1i."

Public Health and Safety

1) Use of reclaimed water

As stated elsewhere in this EIR, the reclaimed water would be used for irrigation purposes at the City's Municipal Golf Course and the adjacent El Carmelo Cemetery. The water would meet Title 22 recycled water requirements, thus there is no impact to public health and safety from the use of reclaimed water.

2) Excavation of contaminated soils

As stated on page 10-1 of this EIR, "The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. However, the retired Point Pinos Wastewater Treatment Plant was constructed when asbestos and lead-based paints were used in building construction (prior to 1978); without samples to show that no asbestos or lead-based paints are present this becomes a potentially significant impact. Thus, a mitigation measure to prepare risk assessment and clean up as necessary pursuant to CCR Title 8 section 5208 is contained within this Section that would avoid or reduce this impact to less than significant levels."

3) Mosquito attraction to open ponds

No new ponds would be constructed as part of this Project, either in relation to the site/area at Point Pinos (Demand Group I) or within the Demand Group II and III areas. Therefore, there is no impact from mosquito attraction to open ponds as a result of the proposed Project.

4) Interference with emergency operations

The Traffic Mitigation Measures 1-4 as contained in this EIR would ensure that no emergency operations related to Project traffic closures would exceed significance criteria. In addition, the Water Treatment Plant would use backup generators to ensure continuation of service during emergencies that could cause a loss of electricity.

As stated on pages 15-11 and 15-12 of this EIR, "Project construction would generate truck and employee traffic along haul routes and at the project component sites, temporarily increasing the potential for accidents in these areas. This increased accident potential would result in a limited, short-term demand for additional police or fire services on an as-needed and emergency basis. Existing resources within the project areas could accommodate this short-term increase in demand. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access. With implementation of the traffic safety and access measures identified in the Traffic section, the potential impact on the demand for

police and fire services would be less than significant. To provide further protection, the City would implement Measures 15-1a through 15-1i."

"There would be no long-term increases in demand for police or fire services associated with the PGLWP. Pursuant to Homeland Security requirements, security measures such as security fencing, alarms, and controlled access, would be implemented at the SRWTP as part of the proposed Project. Staff requirements at the new facilities would be minor: up to 3 full-time workers would be needed at any one time to operate and maintain the recycled water treatment plant and other maintenance procedures associated with the Project would require 1 or 2 additional workers. Plant operating procedures, including chemical storage and handling procedures required by the Uniform Fire Code would reduce the potential for the accidental release of hazardous materials or for mixing incompatible materials that could result in releases or accidents that would increase demands on emergency services. Implementation of Mitigation Measure 15-2 would reduce the short-term impact to a less than significant level."

"The proposed Project includes installation of a new recycled water treatment plant, sewer pipelines and recycled water distribution system. The proposed Project would therefore not generate an increase in population that would increase demand for fire or police protection. The provision of new or additional fire or police facilities would not be required. Additionally, the proposed Project would not generate students or otherwise increase demand for schools. The proposed Project would not generate additional population, and therefore would not increase citywide demand for parks. There would be no impact to the demand of these public services."

Pages 15-12 and 15-13 of this EIR also contain the following analysis in relation to Demand Groups II and III: "Construction of the proposed Project would generate truck and employee traffic along haul routes and at the project component sites, temporarily increasing the potential for accidents in these areas. This increased accident potential would result in a limited, short-term demand for additional police or fire services on an as-needed and emergency basis. Existing resources within the project areas could accommodate this short-term increase in demand. In addition, construction of pipelines in or adjacent to roadways could result in partial or complete road closure and would impair local fire, police, or other emergency access during this period. Disruption of roadway access and increased accident potential could also occur in the event of a pipeline rupture or other emergency upset condition. Such an event could also temporarily increase demand for police and fire services as well as impair emergency access. With implementation of the traffic safety and access measures identified in the Traffic section, the potential impact on the demand for police and fire services would be less than significant. To provide further protection, the City would implement Measures 15-1a through 15-1i."

5) Use, storage, and disposal of hazardous materials

As stated on page 10-16 of this EIR, "The environmental site assessment identified no evidence of hazardous material contamination in the PGLWP study area. As identified in the environmental setting, the retired Point Pinos Wastewater Treatment Plant was constructed when asbestos and lead-based paints were used in building construction (prior to 1978). Therefore, the possibility exists that the existing structures contain asbestos or lead-based

paint. However, without samples and test results from the buildings, this assumption cannot be confirmed. This is a potentially significant impact."

"Adjacent sites were identified through a search of public records to determine if any possessed the potential for hazardous material contamination. Of these sites, only the Point Pinos Lighthouse was identified as having known hazardous material contamination requiring specific use restrictions. Other sites identified and discussed previously in this section, have undergone remediation and are not considered to be of continuing concern."

"The possibility that an underground gasoline storage tank may have existed at the Golf Links Clubhouse is unconfirmed, but if a tank existed at this location, it is likely that it was removed prior to 1988. In addition, no evidence of polychlorinated biphenyls (PCBs) was identified during the 2014 Phase I ESA; therefore, exposure to asbestos and lead-based paint or PCBs would be less than significant."

Population and Housing

1) Additional work force for construction and operation

As stated above, the Project would use the retired Point Pinos Wastewater Treatment Plant as a SWRTP. The Project Description at Section 2 of this EIR states that an average of 5 construction workers per day would be present at any given day, and that this number would never exceed 31 construction workers per day. The average number of workers during the operation of this Plant would not exceed 3. These numbers would not cause new amounts of population in the area, nor would there be a need for additional housing within the area.

2) Growth inducement

As stated on page 16-2 this EIR, "the proposed Project would generate short-term employment opportunities during construction of project components and a limited amount of long-term employment opportunities associated with the operation and maintenance of project components. However, both temporary and long-term employment opportunities would be expected to be filled from within the existing community and long-term employment would be 1 to 3 people. Therefore, construction and operation of project components would not be considered growth inducing and impacts related to direct or indirect population growth would be less than significant."

Land Use and Zoning

1) Incompatible use of project site

No aspect of the proposed Project would result in incompatible use of the project site.

2) Conflict with surrounding land use or a Williamson Act contract

There is no area of farmland within the proposed Project site or pipeline corridors, nor is there any lands under Williamson Act contract within these areas.

18.5 MITIGATION MEASURES

Commitment

1) Commitment is mandatory for mitigating significant impacts in a Mitigated Negative Declaration before it is circulated for review.

   N/A - this document is an EIR.

2) Commitment for mitigating significant impacts in an EIR is necessary to avoid making a "Statement of Overriding Considerations".

   Mitigation measures are contained in this EIR that would avoid or reduce all identified impacts to less than significant levels. Therefore, there is no need to adopt a Statement of Overriding Considerations.

Specificity

1) Proposed future studies must include examples of mitigation measures that can be recommended from the studies.

   Please see the Summary Section of this EIR to view all Project and Programmatic mitigation measures.

2) Monitoring must be accompanied by criteria that will trigger specific mitigation measures.

   Specific criteria are contained in this EIR and also in the Summary that would trigger these specific mitigation measures.

3) Preparation of plans (e.g., an erosion control plan) must include specific examples of mitigation that the plan may include.

   As stated on page 8-10 of this EIR, "The Point Pinos SWRTP and related pipelines would disturb approximately 0.77 acres. Thus, a SWPPP would not be required. Recommendations included in the Geotechnical Investigation for engineered fill, trench backfill and water tank foundations would also be followed, and the measures listed above in Geology and Soils Mitigation Measure 1 would be implemented. In addition, construction BMPs established by the City of Pacific Grove Public Works Department would be required. These construction BMPs require that every construction project have an erosion and sediment control plan to prevent soil and materials from leaving the site. Construction activities must be scheduled so that soil is not exposed for long periods of time, and key sediment control practices must be installed. These practices may include, but are not limited to: perimeter control (use of gravel bags, silt fences, and straw wattles); construction material storage (covered when not in use); dirt and grading measures (daily watering of dirt and travel mounds; covering during the rainy season [October 15 – April 15]); and storm drain measures (use of perimeter controls). Compliance with regulations must specify what regulations will do to mitigate the identified impacts."

4) Compliance with regulations must specify what regulations will do to mitigate the identified impacts.

All applicable regulations as listed in this EIR would be complied with.

Effects of a Mitigation Measure (If a mitigation measure could cause one or more significant effects, the effects of the mitigation measure should be discussed)
All of the mitigation measures as contained in this EIR would avoid impacts or reduce significant impacts to less than significant levels. None of the proposed mitigation measures would cause impacts.

18.6 PROJECT ALTERNATIVES

Alternatives for Each Major Phase or Component of the Project
Section 17 of this EIR presents details on the development and analysis of project alternatives. Four alternatives to the proposed Project were evaluated in the alternatives screening process. The alternatives were identified based on 1) the Draft Facility Plan Report; 2) comments from the PGLWP public scoping meeting; and 3) written comments received on the PGLWP NOP. These alternatives are:

- Alternative 1: No Project Alternative
- Alternative 2: Wastewater Reclamation and Storage at an Alternative Site
- Alternative 3: Alternative Treatment Technology
- Alternative 4: Regional Urban Recycled Water Project Extension

1) Treatment processes

This EIR presents an evaluation of an alternative treatment technology as Alternative 3. As stated on page 17-2 of this EIR, "This alternative would use Sequencing Batch Reactor (SBR) treatment technology for the treatment and recycling of wastewater. While an MBR uses membrane separation, an SBR combines the multi-step processing of wastewater in a set sequence within a common reactor vessel. The use of SBR technology is posited as an alternative to MBR because of its potential to adequately recycle wastewater for reuse within the available space at the Point Pinos WWTP. As with Alternative 2, this alternative would divert sewage flows from the existing City of Pacific Grove sanitary sewer manhole (MH801) located near the intersection of Asilomar Avenue and Del Monte Boulevard, and, as with the proposed Project, would use the retired Point Pinos WWTP. Wastewater would be screened through a new headworks system for removal of solids and then would be conveyed through an SBR process."

"The SBR process is an activated sludge process that minimizes space requirements by performing multiple steps within a single vessel. A process flow diagram is presented in Figure 17-2. The SBR operation encompasses four processing steps (and one idle state):

1. Fill
2. React
3. Settle
4. Decant

To achieve Title 22 compliance, the SBR treatment process would require the addition of a chemical polymer prior to tertiary filtration. To ensure effective removal of bacteria,

increased operation of a disinfection system would also be required. Sludge from the SBR basins would be transferred to a holding tank and conveyed to the sanitary sewer system for processing and disposal."

"An SBR facility would require a footprint of approximately 0.7 acres to treat the amount of effluent required by the demand for recycled water in Demand Groups I, II and III. It is expected that an SBR facility would require two treatment basins and an influent equalization basin."

"In addition to the components analyzed in the proposed Project description at the WWTP, this alternative would involve disturbance to the existing golf course for recycled water pipeline construction."

"Additional pipelines would be required to convey recycled water from the treatment plant to storage at the existing tanks at the WWTP. The amount (length in lineal feet), type and size (e.g., 8-inch) of recycled water distribution pipelines would be the same as for the proposed Project."

2) Disposal

There are no alternatives that contain different disposal procedures.

3) Conveyance

There are no alternatives that contain different conveyance procedures.

4) Discharges

There are no alternatives that contain different discharge procedures.

Alternative Siting Locations

This EIR presents an evaluation of an alternative siting location as Alternative 2. This alternative considers an alternative location for both the treatment facilities and for the operational storage of recycled water. Minor modifications to the WAS discharge pipeline and recycled water conveyance pipelines are also included to connect to this alternative treatment plant location.

As stated on page 17-2 of this EIR, "This alternative would divert wastewater flows from the existing City of Pacific Grove sanitary sewer manhole (MH801) located near the intersection of Asilomar Avenue and Del Monte Boulevard to a site outside of the designated Coastal Zone on the eastside of Asilomar Avenue. These wastewater flows would instead flow to an alternative Satellite Recycled Water Treatment Plant (SRWTP) site at the existing City of Pacific Grove Golf Links parking lot on the east side of Asilomar Avenue (Figure 16-1). To maintain use of the parking lot and to minimize visual and aesthetic impacts, the SRWTP would be constructed as an underground facility. The area of the Alternative 2 site is approximately 0.5 acres."

1) Treatment facilities

N/A

2) Storage sites

As stated on page 17-2 of this EIR, "In addition to the components analyzed in the proposed Project description at the Point Pinos WWTP, this alternative would involve construction of a new recycled water storage tank located to the east of the existing parking on the existing golf course. This proposed storage tank would have a total tank depth of 36-feet and a diameter of 55-feet. To minimize aesthetic impacts, the proposed storage tank would be partially buried 18-feet. A recycled water distribution pump station and pipelines would be required to convey water from the storage tank to the reuse locations."

3) Discharge sites

N/A

4) Disposal sites

N/A

5) Conveyance lines

N/A

Alternative Projects Which Could Accomplish the Project Objectives (Examples)

The Regional Urban Recycled Water Project (RURWP) could accomplish the Project objectives. This project, as described on page 17-5 of this EIR as Alternative 4, was initially proposed by the Marina Coast Water District (MCWD), in cooperation with the Monterey Regional Water Pollution Control Agency (MRWPCA). This project would construct a distribution system to provide up to 1,727 AFY of recycled water from the existing Pollution Control Agency's Reclamation Plant to urban users. As stated on this page of the EIR, "Recycled water would be delivered initially to the former Fort Ord (Ord Community), which includes lands within the jurisdictions of the Cities of Marina, Seaside, and Del Rey Oaks; California State University, Monterey Bay (CSUMB); University of California, Monterey Bay Education, Science, and Technology Center; and the County of Monterey. Of the total 1,727 AFY, 300 AFY of recycled water would be provided to the Monterey Peninsula (outside of the former Fort Ord) once that portion of the distribution system is operational. An Environmental Assessment for the RURWP was completed in 2006 (BOR, 2006)."

"The RURWP would include the following facility components (as shown as Figure 16-3):

- Connection to the Reclamation Plant facility, including one pump station and pipelines at that site;
- A new distribution system consisting of approximately 127,000 linear feet of 4- to 20- inch diameter main and lateral pipelines, as well as pressure reducing valves and appurtenances throughout the region;
- One storage tank located at an existing MCWD water storage tank site near the intersection of Eucalyptus Road and Parker Flats Cutoff in the Ord Community;
- One pump station located at 3rd Street and 5th Avenue in the City of Marina."

"This alternative would extend the proposed RURWP distribution pipeline to the Pacific Grove Golf Links and Cemetery. Approximately 3.25 miles of additional 8-inch pipeline would need to be constructed. Additional agreements with MCWD and MRWPCA would be required."

This alternative was not chosen because it is not operational, and only minor portions of the RURWP pipeline distribution system have been constructed and the project is not operational.

1) Inflow and infiltration correction

   N/A

2) Upgrade of existing facilities

   N/A

3) Other

   N/A

No Project Alternative

As stated on page 17-1 of this EIR, "Under the No Project Alternative, construction and operation of the proposed PGLWP would not occur, and current uses of project sites would continue. Specifically, no improvements to the Point would Wastewater Treatment Plant (WWTP) would occur, and the site would continue to be used as a City maintenance facility for the Golf Links, secondary corporation yard, water storage area, and materials storage area. Similarly, recycled water conveyance facilities, pump stations, and equalization/storage facilities would not be constructed at the WWTP and through the City of Pacific Grove Golf Links. It should be noted however, that the Monterey and Pacific Grove ASBS Project might still move forward under this alternative; thus, some improvements to the PGLWP site, outside of those proposed as part of this alternative, might still occur. The City would still continue to purchase potable water from CAW."

Identification of the Environmentally Superior Alternative

As stated on page 17-10 of this EIR, "the No Project Alternative would result in fewer environmental impacts when compared to the proposed Project. However, pursuant to CEQA Guidelines Section 15126.6 (e)(2), "If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives"

"Given the relative impacts and merits of the proposed Project and the No Project Alternative, and based on the discussion provided above, the proposed Project is considered to be the environmentally superior alternative. None of the alternatives that were considered or evaluated in this EIR offers any substantial benefit over the proposed Project, nor would any potentially significant Project-related impacts be avoided."

18.7 OTHER CEQA REQUIREMENTS

a) Cumulative Impacts.

A detailed analysis of cumulative impacts is found in Section 16 of this EIR. As stated on page 16-4 of this EIR, "Reasonably foreseeable projects that could contribute to the cumulative effects scenario are listed below. Collectively, these projects represent known and anticipated activities that may occur in the project vicinity that have the potential to contribute to a cumulative impact on the environment.

1) A stormdrain pipeline replacement and re-alignment from Sinex Avenue to Gibson Avenue (from 12th to 14th Streets).

2) Lovers Point stormdrain retrofit (Pine Avenue and 19th Street to Lovers Point).
3) Monterey-Pacific Grove Area of Special Biological Significance (ASBS) Stormwater Management Project."

"The above projects are all located within the City of Pacific Grove. The one component of the ASBS Project would be constructed at the same site as the proposed PGLWP, and is currently undergoing a separate environmental review. However, the ASBS Project is anticipated by the City of Pacific Grove to be constructed after the proposed PGLWP. "

"There are no reasonably foreseeable projects that could contribute to the cumulative effects scenario within the City of Monterey (City of Pacific Grove, 2014)."

a) Growth Inducing Impacts

As stated on page 16-2 of this EIR, "The proposed Project does not propose construction of any new residences and would therefore not directly induce substantial population growth. The proposed Project would directly generate up to 31 short-term jobs during construction of project components. Construction of proposed Project (i.e., Demand Group I) components would occur over a maximum estimated 9-month construction period. Future expansion of the proposed SRWTP would be required to serve Demand Groups II and III. Timing and approval for the future expansion of the proposed Project from 125 AFY to 600 AFY would be determined by the City of Pacific Grove based upon the following considerations:

- Recycled water needs of the individual customers in Demand Groups II and III,
- Cost effectiveness of expanding the treatment capacity to produce 600 AFY of recycled water and to construct and operate additional recycled water distribution facilities from Point Pinos to the reuse customer sites in Demand Groups II and III, and
- Future coordination and the development of recycled water supply agreements with the customers that compose Demand Groups II and III. This would also include the execution of some form of agreement between the City and the potable water purveyors to Demand Groups II and III."

"As stated above, the proposed Project would generate short-term employment opportunities during construction of project components and a limited amount of long-term employment opportunities associated with the operation and maintenance of project components. However, both temporary and long-term employment opportunities would be expected to be filled from within the existing community and long-term employment would be 1 to 3 people. Therefore, construction and operation of project components would not be considered growth inducing and impacts related to direct or indirect population growth would be less than significant."

b) Regional and Local Planning (including Air Quality Management Plans)

As discussed in detail in Section 5.3 and summarized here. MBUAPCD shares responsibility with the ARB for ensuring that State and national AAQS are achieved and maintained within the NCCAB. AMBAG is the designated Metropolitan Planning Organization for Monterey, Santa Cruz, and San Benito Counties and their respective cities. While AMBAG does not regulate air pollution, it prepares various transportation control measures and employment and population forecasts, which are used in the AQMP. AMBAG is responsible for ensuring that transportation plans, programs, and projects conform with the applicable SIP under the federal transportation

conformity rule, as applicable. AMBAG also develops planning assumptions that are used to determine conformity of general federal projects with the applicable SIP. The Project is in an attainment area for all Federal criteria pollutant standards. Due to the attainment status of the NCCAB, the project is not subject to a SIP conformity. The current 2012 Triennial Plan Revision represents a comprehensive strategy to reduce ozone precursor emissions from area and mobile sources. The AQMP includes specific measures that encourage cities and counties to develop and implement local plans, policies and programs to reduce auto use and improve air quality, including the air quality trends analysis, emission inventory, and mobile source programs.

18.8 UNAVOIDABLE SIGNIFICANT IMPACTS

The analysis contained in this EIR identifies that there are no significant and unavoidable impacts relative to the implementation of the proposed Project.

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