APPENDIX C

REGULATORY SETTING – WATER RESOURCES

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WATER QUALITY REGULATION

Regulatory authorities exist on both the state and federal levels for the control of water quality in California. The EPA is the federal agency, governed by the Clean Water Act, responsible for water quality management. A regional office (EPA Region IX) is located in San Francisco and delegates authority for waste discharge permitting to the State Water Resources Control Board (SWRCB).

The SWRCB, located in Sacramento, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. Much of the implementation of the SWRCB's responsibilities is delegated to nine regional boards.

REGIONAL WATER QUALITY CONTROL BOARD

The primary responsibility for the protection and enhancement of water quality in California has been assigned by the California legislature to the SWRCB, and the nine regional water quality control boards (RWQCBs). The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal laws and regulations. The regional water boards adopt and implement water quality control plans (basin plans) that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems.

RWQCB REGULATIONS, GOALS, AND POLICIES

The project area lies within the jurisdiction of the Central Coast RWQCB (Region 3), which is responsible for the protection of beneficial uses of water resources within the Central Coast region. The RWQCB uses planning, permitting, and enforcement authorities to meet this responsibility and has adopted the Water Quality Control Plan for the Central Coast region (Basin Plan) to implement plans, policies, and provisions for water quality management. Beneficial uses of surface waters are described in the Basin Plan and are designated for major surface waters and their tributaries. Treated water from the Watsonville Wastewater Treatment Facility (WWTF) is discharged through an outfall into Monterey Bay. The beneficial uses of coastal waters in the vicinity of the discharge include:

- Water Contact Recreation (REC-1)
- Noncontact Water Recreation (REC-2)
- Industrial Service Supply (IND)
- Navigation (NAV)
- Marine Habitat (MAR)
- Shellfish Harvesting (SHELL)
- Commercial and Sport Fishing (COMM)

- Rare, Threatened, or Endangered Species (RARE)
- Wildlife Habitat (WILD)

For this project, the RWQCB is responsible for construction activities and for permitting the discharge and reuse of treated water to ensure the protection of beneficial uses. Each of these permit responsibilities is described below.

NPDES PERMIT FOR DISCHARGE

The City of Watsonville, together with the Freedom County Sanitation District, the Pajaro County Sanitation District, and the Salsipuedes Sanitary District, is allowed to discharge water treated to secondary levels to the Pacific Ocean under the terms and conditions of a National Pollutant Discharge Elimination System (NPDES) permit (No. CA0048216) issued by the RWQCB. The permit conditions include discharge prohibitions, treated water limitations, receiving water limitations, pretreatment specifications, infiltration/inflow and spill prevention program requirements, and other provisions intended to protect the beneficial uses of the receiving water body. Monitoring and reporting requirements are also detailed for influent, effluent, receiving waters, pretreatment, and biosolids.

OCEAN PLAN

Water quality and discharges are also subject to regulation by the *Water Quality Control Plan, Ocean Waters of California* ("Ocean Plan") prepared by the SWRCB. The Ocean Plan regulates point-source discharges to the ocean, with the goal of protecting beneficial uses. The RWQCB takes the provisions of the Ocean Plan (as well as the Basin Plan) into account when establishing permit conditions for the WWTF.

CONSTRUCTION ACTIVITY PERMITTING

The RWQCB also administers the NPDES stormwater-permitting program in the Central Coast region. Construction activities on five acres or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan would include specifications for best management practices (BMPs) that would be implemented during project construction to control degradation of surface water through measures to prevent the potential erosion of sediments or discharge of pollutants from the construction area. Additionally, the plan would describe measures to prevent or control runoff after construction is complete and identify a plan to inspect and maintain these facilities or project elements.

RECYCLED WATER REGULATION

The major federal legislation governing the water quality aspects of the proposed action is the Clean Water Act, as amended by the Water Quality Act of 1987. The State of California's Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) provides

the basis for water quality regulation within California. The SWRCB administers water rights, water pollution control, and water quality functions throughout the state, while the RWQCB conducts planning, permitting, and enforcement activities. The Porter-Cologne Water Quality Control Act designates the SWRCB responsible for formulating and adopting state policy for water reclamation, while the California Department of Health Services (DHS) is responsible for establishing uniform statewide reclamation criteria to ensure that the use of recycled water would not be detrimental to public health.

There are no federal standards governing wastewater reclamation and reuse in the United States, although the EPA has sponsored the preparation of *Guidelines for Water Reuse*. Many states, including California, have developed wastewater reclamation regulations. In all cases, the regulations have been established with the objective of protecting public health and allowing for the safe use of recycled wastewater. The DHS established water quality criteria, treatment process requirements, and treatment reliability criteria for reclamation operations, which are set forth in Title 22, Division 4, Chapter 3, of the California Code of Regulations (CCR) Water Recycling Criteria. The RWQCB has responsibility for reviewing proposed recycled water projects and for issuing water recycling requirements through the waste discharge permit process. DHS has the responsibility for reviewing proposed water recycling projects and for providing comments and/or recommendations to the RWQCB.

The existing Water Recycling Criteria address treatment requirements for three main types of recycled water uses: landscape irrigation, recreational impoundments, and industrial uses. The treatment requirements are based on the expected degree of human contact with recycled wastewater under each type of use. Treatment requirements are expressed as treatment process requirements (e.g., bio-oxidation, coagulation) as well as performance standards (e.g., disinfection standards and contaminant reduction).

The existing Title 22 standards are among the most stringent standards for public health protection and can be more stringent than comparable standards established by the World Health Organization. Since the adoption of Title 22 in 1978, the use of recycled water for nonpotable uses has expanded throughout the state and is projected to continue to grow over the next several decades. Title 22 Water Recycling Criteria are shown in **Table C.1**. Under Title 22, the proposed use of recycled water for agricultural irrigation would fall under the guidelines for "landscape irrigation with high public contact." To be used as a supply source for this designation, the recycled water must be at all times adequately oxidized, coagulated, clarified, filtered, and disinfected wastewater; this process requirement constitutes the most stringent treatment practicable. To be considered adequately disinfected, the median number of coliform organisms in the wastewater may not exceed a most probable number (MPN) of 2.2 per 100 milliliters (mL) over a seven-day period.

The DHS has also produced *Guidelines for Use of Reclaimed Water*, which apply to recycled water use areas receiving water that meets Title 22 Water Recycling Criteria. The guidelines focus on application and management specifications for various recycled water uses, including

TABLE C.1
SUMMARY OF TITLE 22
TREATMENT REQUIREMENTS FOR RECYCLED WATER

Potential Uses	Title 22 Criteria
Landscape Irrigation	
With High Public Contact	Bio-oxidation, coagulation, clarification, filtration, disinfection to limit coliforms to 2.2 MPN/100 mL.
With Low Public Contact	Bio-oxidation, disinfection to limit coliforms to 23 MPN/100 mL.
Recreational Impoundments	
Nonrestricted	Bio-oxidation, coagulation, clarification, filtration, disinfection to limit coliforms to 2.2 MPN/100 mL.
Restricted	Bio-oxidation, disinfection to limit coliforms to 2.2 MPN/100 mL.
Landscape Impoundments	Bio-oxidation, disinfection to limit coliforms to 23 MPN/100 mL.
Industrial Uses	
Construction/Dust Control/Soil Compaction	Bio-oxidation, disinfection to limit coliforms to 23 MPN/100 mL.
Groundwater Recharge/Seawater Intrusion Barrier	This use shall be considered by DHS and RWQCB on an individual case basis where the use of recycled water involves a potential risk to public health; guidelines for this use have been proposed.
Cleaning, Dual Water System (Toilet Flushing and Landscape Irrigation), Firefighting, Wetlands Creation/Restoration	No criteria are listed for any of these uses in existing Title 22. Currently, each of these uses is considered as criteria set by the RWQCB and DHS on an individual case basis. Uses anticipated to be addressed in future revisions to Title 22, which have been circulated for public comment.

MPN = Most Probable Number

SOURCE: California Code of Regulations, Title 22, Division 4, 1978, amended 1998.

general use requirements, landscape irrigation requirements, impoundment requirements, and agricultural reuse area guidelines.[1] General requirements include:

- Posting signs to inform the public in areas where recycled water is in use;
- Confining recycled water to authorized use areas;

[1] State of California, Department of Health Services, Environmental Management Branch, *Guidelines for Use of Reclaimed Water*, June 10, 1988.

- Use of purple recycled water distribution and transmission system piping to indicate that it contains recycled water; and
- Other requirements designed to ensure that recycled water use does not adversely affect public health.

Specific requirements established by Title 22 that are applicable to the proposed action are contained in Article 4, Section 60310 – Use Area Requirements. This section restricts irrigation of disinfected tertiary recycled water within 50 feet of any domestic water supply well, unless specific technical analyses are conducted.

TOTAL MAXIMUM DAILY LOAD

SECTION 303D OF THE CLEAN WATER ACT

California has identified waters that are polluted and need further attention to support their beneficial uses. These water bodies are listed under the Clean Water Act Section 303(d) list, which requires States to identify these polluted waters. Specifically, Section 303d requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the state). Approximately 500 waterbodies or segments have been listed in California. Once the water body or segment is listed, the state is required to establish a "total maximum daily load" (TMDL) for the pollutant causing the conditions of impairment. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating water quality standards. The EPA estimates that within the next 15 years 40,000 TMDLs must be developed. At this time, the EPA has finalized only about 8 TMDLs and 4 have been approved. Listing of a water body as impaired does not necessarily suggest that the pollutants are at levels considered hazardous to humans or aquatic life or that the water body segment can not support the beneficial uses. The intent of the 303d list is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for continued water quality degradation.

In accordance with Section 303d of the Water Code, the Central Coast Regional Water Quality Control Board has identified impaired water bodies in its jurisdiction, the pollutant or stressor impairing water quality, and prioritized the urgency for developing a TMDL. Within the proposed action area, Monterey Bay South, Watsonville Slough, and the Pajaro River have been designated as impaired water bodies. **Table C.2** lists pollutants causing an impairment to water quality within these water bodies and associated TMDL priorities.

TABLE C.2
IMPAIRED WATER BODIES

Type[a]	Name	Hydrologic Unit[b]	Pollutant / Stressor	Source	Priority	Size Affected
C	Monterey Bay South	309.500	Metals	Surface Mining	Low	10 miles
			Pesticides	Agriculture		
E	Watsonville Slough	305.100	Metals	Agriculture Urban runoff/storm sewers	Medium	300 acres
			Oil and Grease	Urban runoff/storm sewers Nonpoint source	Medium	
			Pathogens	Urban runoff/storm sewers Source unknown Nonpoint source	Medium	
R	Pajaro River	305.000	Nutrients	Agriculture Irrigated crop production Agriculture-storm runoff Agriculture-subsurface drainage Agriculture-irrigation tailwater Agricultural return flows Urban runoff/storm sewers Wastewater-land disposal Channelization Removal of riparian vegetation Nonpoint source	High	49 miles
			Sedimentation and Siltation	Agriculture Irrigation crop production Range land Upland grazing Agriculture-storm runoff Hydromodification Channelization Dredging Habitat modification Removal of riparian vegetation Streambank modification/ destabilization Channel erosion Natural sources Erosion/siltation Nonpoint source	Medium	

[a] Water Body Type
C = Coastal Shorelines
E = Estuaries
R = Rivers/Streams

[b] Hydrologic Unit is the State Water Resources Control Board hydrologic subunit area.

SOURCE: Central Coast Regional Water Quality Control Board, 1999