

Basin Plan Amendment to Establish a Total Maximum Daily Load and Implementation Plans for Bacteria at San Francisco Bay Beaches

The following text is to be inserted into Chapter 7.2.

7.2.5 San Francisco Bay Beaches Bacteria TMDL

The following sections establish the TMDL for San Francisco Bay beaches impaired by bacteria. The numeric targets, load and waste load allocations, and implementation plan are designed to support and protect the Bay's designated beneficial use of water contact recreation (e.g., swimming and wading).

7.2.5.1 Problem Statement

The waters adjacent to several San Francisco Bay beaches are impaired by indicator bacteria. Bacteriological water quality objectives are exceeded based on elevated indicator bacteria densities, and thus, there is impairment of the water contact recreation (REC-1) beneficial use in these water bodies. Recreating in waters with elevated indicator bacteria densities has long been associated with adverse health effects. Specifically, national epidemiological studies demonstrate a causal relationship between adverse health effects and recreational water quality, as measured by indicator bacteria densities.

This TMDL addresses bacteria impaired beaches in San Francisco Bay east of the Golden Gate Bridge. The impaired beaches include:

- ¾ Aquatic Park Beach, San Francisco
- ¾ Jackrabbit, Sunnyside Cove, and Windsurfer beaches in Candlestick Point State Recreation Area, San Francisco
- ¾ Crissy Field Beach, San Francisco
- ¾ Parkside Aquatic and Lakeshore beaches on Marina Lagoon, City of San Mateo
- ¾ China Camp Beach, Marin County
- ¾ McNears Beach, Marin County

China Camp Beach and McNears Beach are on the list of impaired water bodies because levels of only one bacterial indicator in waters at these beaches, total coliform, exceeds the Basin Plan's water quality objective. Waters at the other beaches exceed the bacterial indicator for Enterococcus and other bacterial indicators.

7.2.5.2 Sources

Bacteria sources are identified based on documentation of inadequately-treated human waste discharges, such as sanitary sewer overflow reports, and the scientific evidence linking land uses in the vicinity of the beaches to elevated bacteria concentrations in urban runoff to the beaches. If not properly managed, the following source categories have the potential to discharge bacteria to San Francisco Bay beaches at levels that cause or contribute to exceedances of water quality objectives: sanitary sewer collection systems, urban runoff, pets at the beaches, vessels, and wildlife. Wet weather discharges from the City of San Francisco's combined sewer system that

are authorized pursuant to U.S. EPA’s Combined Sewer Overflow (CSO) Control Policy (see Section 4.9 Wet Weather Overflows) are not considered a significant source of bacteria to these San Francisco beaches.

7.2.5.3 Numeric Targets

This TMDL establishes a desired, or target, condition for water contact recreation use at impaired San Francisco Bay beaches. The numeric targets are the Enterococcus water quality objectives established for water contact recreation uses in marine and estuarine waters (Table 3-1) and on the U.S. EPA’s 2012 recommended Enterococcus criteria for water contract recreation in marine and fresh water. The numeric targets for this TMDL are listed in Table 7.2.5-1.

Table 7.2.5-1 Numeric Targets for San Francisco Bay Beaches	
Enterococcus	
Geometric mean	< 35 MPN / 100 mL
Single sample maximum	No sample > 104 MPN / 100 mL

7.2.5.4 Total Maximum Daily Loads

The TMDL for San Francisco Bay beaches is equivalent to the Basin Plan’s water quality objectives and the numeric target for Enterococcus as shown in Table 7.2.5-1.

7.2.5.5 Load and Waste Load Allocations

Density-based pollutant allocations for bacteria source categories are the same as the numeric targets and the TMDL listed above. Table 7.2.5-2 summarizes the load and wasteload allocations for discharges of bacteria to impaired San Francisco Bay beaches.

Discharges of raw or inadequately-treated human waste are prohibited, and thus sanitary sewer collection systems and vessels have an allocation of zero.

All entities that discharge indicator bacteria or have jurisdiction over such discharges are responsible for meeting these allocations. Discharging entities will not be held responsible for uncontrollable discharges originating from wildlife. If non-nuisance wildlife contributions are found to be the cause of exceedances, the TMDL targets and allocation scheme will be revisited as part of adaptive implementation. Implementing parties shall demonstrate achievement of allocations in the receiving water bodies (i.e., at the beach shoreline water quality monitoring stations).

All implementing parties are required to attain their respective allocations by taking a phased approach in which additional or enhanced actions are required if initial implementation actions do not result in attainment of the TMDL within approximately five years.

Pollutant Source Category	Enterococcus Geometric Mean^a (MPN/100 mL)	Enterococcus Single Sample Maximum (MPN/100mL)
Sanitary Sewer Collection Systems ^b	0	0
Urban Runoff ^c	< 35	No sample > 104
Vessels (Anchor-outs, recreational, houseboats)	0	0
Wildlife ^d	< 35	No sample > 104

a. Based on a minimum of five consecutive samples equally spaced over a 30-day period.
 b. For the City of San Francisco, the wasteload allocation applies only to the collection system portion of the combined sewer system.
 c. Wasteload allocation for discharges from municipal separate storm sewer systems (NPDES No. CAS612008, CAS000004 and CAS000003).
 d. With the exception of nuisance wildlife, such as geese, wildlife is not a controllable source of bacteria. No management measures will be required for uncontrollable wildlife sources.

7.2.5.6 Implementation Plan

This Implementation Plan builds on management measures required by existing local, regional, and statewide regulations and orders to reduce or eliminate waste discharges from sanitary sewer collection systems, urban runoff, pets at beaches, and vessels. The plan requires actions consistent with existing regulations and orders, including the following:

- x Water Board Municipal Regional Stormwater Permit (NPDES No. CAS612008)
- x State Water Board NPDES Permit for Small Municipal Separate Storm Sewer Systems (MS4) (NPDES No. CAS000004)
- x State Water Board Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-0003-DWQ as revised by Order No. 2008-0002-EXEC)
- x State Water Board Stormwater Permit for California Department of Transportation (NPDES No. CAS000003)
- x Basin Plan Discharge Prohibition No. 15 (Table 4.1), which states: “It shall be prohibited to discharge raw sewage or any waste failing to meet waste discharge requirements to any waters of the Basin.”
- x Regional Water Board Cease and Desist Order for the City of San Mateo, Town of Hillsborough, and Crystal Springs County Sanitation District Sanitary Sewer Waste Discharges (Order No. R2-2009-0020)
- x Regional Water Board NPDES Permit for the City and County of San Francisco Southeast Water Pollution Control Plant, North Point Wet Weather Facility, Bayside Wet Weather Facilities, and Wastewater Collection System (Order No. R2-2013-0029).

The entities responsible for implementing this plan are stated below, as are the regulatory mechanisms by which the Water Board may require that the actions be taken.

Sanitary Sewer Collection Systems

Wasteload allocations for sanitary sewer collection systems will be implemented through the requirements and provisions of the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and, for Marina Lagoon beaches, Cease and Desist Order No. R2-2009-0020 issued by the Water Board to the City of San Mateo. In the case that further investigation or reduction of pathogen sources related to sanitary sewer collection systems is needed, such actions will be initiated through the Water Board's authorities under the California Water Code.

This TMDL requires no modifications to NPDES permitting of wet weather discharges from the City of San Francisco's combined sewer system, authorized pursuant to U.S. EPA's CSO Control Policy, as they are unnecessary to achieve the TMDL. The wasteload allocation in Table 7.2.5-2 only applies to the collection system portion of San Francisco's combined sewer system.

Urban Runoff

Wasteload allocations for urban runoff (i.e., municipal stormwater runoff and dry weather flows) shall be implemented through the Municipal Regional Stormwater Permit (NPDES No. CAS612008) and the State Water Board NPDES Permit for Small MS4s (NPDES No. CAS000004).

Urban runoff from the California Department of Transportation's (Caltrans') highways has not been found to be a significant source of indicator bacteria, largely because Caltrans' highways comprise a very small area within San Francisco Bay beach watersheds. If during the course of adaptive implementation, Caltrans' facilities are found to be sources of bacteria to San Francisco Bay beaches, wasteload allocations for such discharges will be implemented through the requirements of the State Water Board Stormwater Permit for Caltrans (NPDES No. CAS000003).

Municipal stormwater entities, including national, State, or regional park systems (hereinafter referred to as park authorities), that discharge stormwater to impaired beaches are required to submit a plan to the Water Board that describes current best management practices (BMPs), their current level of implementation, and additional BMPs and/or increased levels of implementation of existing BMPs to reduce discharges of bacteria from their storm drain systems that cause or contribute to exceedance of wasteload allocations. The plan shall include a schedule for implementation of the BMPs and enhanced BMPs.

Municipal stormwater entities and/or park authorities, as applicable, shall implement pet waste control measures to reduce discharges of bacteria at the beach and shall submit a plan to do so to the Water Board, as described above.

The Water Board will establish permit requirements to implement wasteload allocations based on implementation of BMPs. The Water Board will not include numeric limits in NPDES permits if the discharger demonstrates full implementation of technically feasible, effective, and cost efficient BMPs to control all controllable sources to, and discharges from, their storm drain systems.

Vessels

Vessels ranging in size from self-propelled row boats and kayaks to yachts operate in waters adjacent to beaches addressed by this TMDL. In addition to the Basin Plan prohibition on discharge of raw sewage, the California Health and Safety Code (§117475-117500) prohibits

Table 7.2.5-3 Implementation Plan Elements			
Source	Action	Implementing Party	Completion Timeframe
Sewer Collection System & Urban Runoff	Establish and implement a protocol to enhance efforts to identify and correct illicit connections to the storm drain system.	Sanitary sewer collection system authority, and Municipal stormwater entity(s)	6 months
Urban Runoff	1. Submit a plan that describes BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. Include control of nuisance wildlife if it represents a likely source of bacteria to the beach. The plan shall include a schedule and milestones for implementation.	Municipal stormwater entity(s)	6 months
	2. Determine effectiveness of urban runoff controls: Assess beach monitoring data to determine if targets are met at the beach.	Municipal stormwater entity(s)	5 years
	After five years, begin enhanced implementation if targets not met		
	3. If targets are not met, submit: (a) a plan describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. The plan shall include an implementation schedule and milestones. and (b) a supplemental monitoring plan (<i>supplemental to ongoing beach monitoring</i>) to investigate remaining bacteria sources to the beach. This plan may develop data and a quantitative rationale to support (i) locations and types of enhanced bacteria BMPs, and/or (ii) revision of the numeric targets to reflect bacteria contributions from non-controllable sources. Include an implementation schedule.	Municipal stormwater entity(s)	5.5 years
	4. Where pets at the beach may be a source of bacteria to a beach, establish and implement protocols to control pet waste through such measures as providing bags, trash receptacles, and signage.	Park authority or Municipal stormwater entity(s)	6 months
Vessels	Where vessels represent a potential source of bacteria to the beach, begin or boost “no dumping” education efforts; identify and implement other needed BMPs, such as improving pump outs and other infrastructure.	Port authority, or marina owner	6 months from discovery of source
Wildlife	Where nuisance wildlife represents a potential source of bacteria to the beach, and the beach is managed by a non-municipal park authority, establish and implement protocols to control this source of bacteria.	Park authority, or include in Urban Runoff enhanced BMPs plans	6 months from discovery of source

Table 7.2.5-4 Aquatic Park Beach Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
Sanitary Sewer Collection System	1. Comply with Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and Order No. R2-2013-0029.	Port of San Francisco and SFPUC	Ongoing
	2. Submit an enhanced Sewer System Management Plan and Operations and Maintenance Plan for the combined sewer system (O&M Plan), as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ¼ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	SFPUC, Port of San Francisco, and San Francisco Maritime National Historic Park	6 months 3 years
	3. Determine effectiveness of sewer system repairs: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	4. If targets are not met, submit an enhanced Sewer System Management Plan and O&M Plan as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ½ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	SFPUC, Port of San Francisco, and San Francisco Maritime National Historic Park	5.5 years 8 years
	5. If private laterals are a likely source of bacteria to the beach, establish and implement a private lateral replacement program or refocus existing lateral program efforts to address these sources.	SFPUC, Port of San Francisco, San Francisco Maritime National Historic Park, and City of San Francisco	5 years
Sewer Collection System & Urban Runoff	Establish and implement a protocol to enhance efforts to identify and correct illicit connections to the storm drain system.	SFPUC, Port of San Francisco, and San Francisco Maritime National Historic Park	6 months
Urban Runoff	1. Submit a plan acceptable to the Executive Officer describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. Include control of nuisance wildlife if it represents a likely source of bacteria to the beach. The plan shall include a schedule and	SFPUC, Port of San Francisco, San Francisco Maritime National Historic Park, and City of San	6 months

Table 7.2.5-4 Aquatic Park Beach Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
	milestones for implementation.	Francisco	
	2. Determine effectiveness of urban runoff controls: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	3. If targets are not met, submit, acceptable to the Executive Officer: (a) a plan describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. The plan shall include an implementation schedule and milestones. and (b) a supplemental monitoring plan (<i>supplemental to ongoing beach monitoring</i>) to investigate remaining bacteria sources to the beach. This plan may develop data and a quantitative rationale to support (i) locations and types of enhanced bacteria BMPs, and/or (ii) revision of the numeric targets to reflect bacteria contributions from non-controllable sources. Include an implementation schedule.	SFPUC, Port of San Francisco, San Francisco Maritime National Historic Park, and City of San Francisco	5.5 years
	4. Where pet waste may be a source of bacteria to a beach, establish and implement protocols to control pet waste through such measures as providing bags, trash receptacles, and signage.	San Francisco Maritime National Historic Park	6 months

^a Timeframe begins on the effective date of this Basin Plan amendment

Table 7.2.5-5 Candlestick Point Beaches Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
Sanitary Sewer Collection System	1. Comply with Statewide General Waste Discharge Requirements for sanitary sewer systems.	SFPUC and California State Parks	Ongoing
	2. Submit an enhanced Sewer System Management Plan and O&M Plan as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ¼ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	SFPUC and California State Parks	6 months 3 years
	3. Determine effectiveness of sewer system repairs: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	4. If targets are not met, submit an enhanced Sewer System Management Plan and O&M Plan as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ½ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	SFPUC and California State Parks	5.5 years 8 years
	5. If private laterals are a likely source of bacteria to the beach, establish and implement a private lateral replacement program or refocus existing lateral program efforts to address these sources.	SFPUC and City of San Francisco	5 years
Sewer Collection System & Urban Runoff	Establish and implement a protocol to enhance efforts to identify and correct illicit connections to the storm drain system.	SFPUC and California State Parks	6 months
Urban Runoff	1. Submit a plan acceptable to the Executive Officer that describes BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. Include control of nuisance wildlife if it represents a likely source of bacteria to the beach. The plan shall include a schedule and milestones for implementation.	SFPUC, California State Parks, and City of San Francisco	6 months
	2. Determine effectiveness of urban runoff controls: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	3. If targets are not met, submit, acceptable to the	SFPUC, California State	5.5 years

Table 7.2.5-5 Candlestick Point Beaches Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
	<p>Executive Officer:</p> <p>(a) a plan describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. The plan shall include an implementation schedule and milestones. and</p> <p>(b) a supplemental monitoring plan (<i>supplemental to ongoing beach monitoring</i>) to investigate remaining bacteria sources to the beach. This plan may develop data and a quantitative rationale to support (i) locations and types of enhanced bacteria BMPs, and/or (ii) revision of the numeric targets to reflect bacteria contributions from non-controllable sources. Include an implementation schedule.</p>	Parks, and City of San Francisco	
	<p>4. Where pet waste may be a source of bacteria to a beach, establish and implement protocols to control pet waste through such measures as providing bags, trash receptacles and signage.</p>	California State Parks	6 months

^a Timeframe begins on the effective date of this Basin Plan amendment

Table 7.2.5-6 Crissy Field Beach Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
Sanitary Sewer Collection System	1. Comply with Statewide General Waste Discharge Requirements for Sanitary Sewer Systems and Order No. R2-2013-0029.	Presidio Trust and SFPUC	Ongoing
	2a. Submit an enhanced Sewer System Management Plan and O&M Plan as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ¼ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	Presidio Trust and SFPUC	6 months 3 years
	2b. Inspect laterals and all other components connecting SF Rec & Parks facilities to the sanitary sewer system. Repair all leaks. Submit annual status reports until all system components are inspected and repaired.	San Francisco Rec & Parks	1 year 3 years
	3. Determine effectiveness of sewer system repairs: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	4. If targets are not met, submit an enhanced Sewer System Management Plan and O&M Plan as applicable, acceptable to the Executive Officer, that prioritizes sewer system inspections and repairs in areas within ½ mile of the beach or otherwise connected to the beach. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	Presidio Trust and SFPUC	5.5 years 8 years
	5. If private laterals are a likely source of bacteria to the beach, establish and implement a private lateral replacement program or refocus existing lateral program efforts to address these sources.	Presidio Trust and SFPUC	5 years
Sewer Collection System & Urban Runoff	Establish and implement a protocol to enhance efforts to identify and correct illicit connections to the storm drain system.	Presidio Trust and SFPUC	6 months
Urban Runoff	1. Submit a plan acceptable to the Executive Officer that describes BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. Include control of nuisance wildlife if it represents a likely source of bacteria to the beach. The plan shall include a schedule and milestones for	Presidio Trust, Golden Gate National Recreation Area, SFPUC, and San Francisco	6 months

Table 7.2.5-6 Crissy Field Beach Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
	implementation.	Rec & Parks	
	2. Determine effectiveness of urban runoff controls: Assess beach monitoring data to determine if targets are met at the beach.	SFPUC	5 years
	3. If targets are not met, submit, acceptable to the Executive Officer: (a) a plan describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. The plan shall include an implementation schedule and milestones. and (b) a supplemental monitoring plan (<i>supplemental to ongoing beach monitoring</i>) to investigate remaining bacteria sources to the beach. This plan may develop data and a quantitative rationale to support (i) locations and types of enhanced bacteria BMPs, and/or (ii) revision of the numeric targets to reflect bacteria contributions from non-controllable sources. Include an implementation schedule.	Presidio Trust, Golden Gate National Recreation Area, SFPUC, and San Francisco Rec & Parks	5.5 years
	4. Establish and implement protocols for enhancing efforts to control pet waste through such measures as providing bags, trash receptacles, signage at Crissy Beach, and increased rule enforcement during wet periods.	Golden Gate National Recreation Area	6 months

^a Timeframe begins on the effective date of this Basin Plan amendment

Source	Action	Implementing Party	Completion Timeframe^a
Sanitary Sewer Collection System	1. Comply with Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.	City of San Mateo	Ongoing
	2. Comply with Cease and Desist Order No. R2-2009-0020 (CDO) and any future amendments. In next annual CDO report, submit enhancements to the Infrastructure Renewal and Capacity Assurance Plans, acceptable to the Executive Officer, that prioritize sewer system inspections and repairs in areas within ¼ mile of the beach to the extent possible within the framework of the CDO. Include a diagram of prioritized infrastructure and time schedule. Complete inspections and repairs in prioritized area(s).	City of San Mateo	According to due dates in Cease and Desist Order
	3. Determine effectiveness of sewer system repairs: Assess beach monitoring data to determine if targets are met at the beach.	City of San Mateo	5 years
	4. If targets are not met, submit enhanced Infrastructure Renewal and Capacity Assurance Plans, acceptable to the Executive Officer, that prioritize sewer system inspections and repairs in areas within ½ mile of the beach or otherwise connected to the beaches. Include a diagram of prioritized infrastructure, a time schedule for implementing short- and long-term plans, and, as necessary, a schedule for developing the funds needed for the capital improvement plan. Complete inspections and repairs.	City of San Mateo	5.5 years 8 years
	5. If private laterals are a likely source of bacteria to the beach, establish and implement a private lateral replacement program or refocus existing lateral program efforts to address these sources.	City of San Mateo	2 years
Sewer Collection System & Urban Runoff	Establish and implement a protocol to enhance efforts to identify and correct illicit connections to the storm drain system.	City of San Mateo	6 months
Urban Runoff	1. Submit a plan acceptable to the Executive Officer that describes BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. Include control of nuisance wildlife. The plan shall include a schedule and milestones for implementation.	City of San Mateo	6 months
	2. Determine effectiveness of urban runoff controls: Assess beach monitoring data to determine if targets are met at the beach.	City of San Mateo	5 years

Table 7.2.5-7 Marina Lagoon Beaches (Parkside Aquatic and Lakeshore) Implementation Plan			
Source	Action	Implementing Party	Completion Timeframe^a
	<p>3. If targets are not met, submit, acceptable to the Executive Officer:</p> <p>(a) a plan describing BMPs being implemented and additional BMPs that will be implemented to reduce discharges of bacteria to the beach. The plan shall include an implementation schedule and milestones. and</p> <p>(b) a supplemental monitoring plan (<i>supplemental to ongoing beach monitoring</i>) to investigate remaining bacteria sources to the beach. This plan may develop data and a quantitative rationale to support (i) locations and types of enhanced bacteria BMPs, and/or (ii) revision of the numeric targets to reflect bacteria contributions from non-controllable sources. Include an implementation schedule.</p>	City of San Mateo	5.5 years

^a Timeframe begins on the effective date of this Basin Plan amendment

7.2.5.7 China Camp and McNears Beaches Implementation

Both China Camp and McNears beaches already meet the numeric targets for Enterococcus, and therefore no further implementation actions are necessary.

7.2.5.8 Water Quality Monitoring

Implementing parties are responsible for developing and implementing a monitoring plan sufficient to assess compliance with the numeric targets at the beaches. At a minimum, implementing parties shall continue monitoring the beaches as required under California Health and Safety Code section 115880 and provide a data evaluation report annually to the Water Board. It is recommended that the implementing parties select a lead entity to assess the monitoring data and compile the annual report.

If, after approximately five years, implementation actions do not result in achievement of numeric targets at a beach, supplemental monitoring (in addition to beach monitoring) is required to investigate and identify bacteria sources in the watershed that could be contributing to the bacteria impairment. This monitoring is intended to answer questions such as:

- x Could bacteria sources be reduced by placing enhanced urban runoff BMPs in a certain location?
- x Could bacteria sources be reduced by focusing sewer system investigations and repairs in a certain location?
- x Are natural sources of bacteria contributing to a significant degree to the impairment at the beach?

Implementing parties need not wait four years if they wish to begin supplemental monitoring earlier. At any time, implementing parties may present data indicating the presence of natural sources of bacteria to the beach, such as non-nuisance wildfowl, to the Executive Officer of the Water Board, and the Water Board may consider developing new allocations that could include a natural source exclusion. Until such action is taken by the Water Board, the implementation requirements and completion dates shall remain in effect.

Beach monitoring and supplemental monitoring requirements are included on Tables 7.2.5-4 through 7.2.5-7.

7.2.5.9 Adaptive Implementation

The Water Board will adapt the TMDL and Implementation Plans to incorporate new and relevant scientific information such that effective and efficient measures can be taken to achieve standards. At approximately six-year intervals, Water Board staff will evaluate new and relevant information from implementation actions, water quality monitoring results, and the scientific literature, including any local reference system studies, U.S. EPA's revised recommended bacteria criteria, or new or revised State bacteria water quality objectives, and assess progress toward attaining the TMDL. Water Board staff will present that information to the Water Board, and the Water Board will consider a Basin Plan amendment that reflects any necessary modifications to the targets, load and wasteload allocations, or implementation plan.