CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER NO. R4-2015-XXXX
FILE NO. 11-087
CI NO. 10042

WASTE DISCHARGE REQUIREMENTS AND
WATER RECYCLING REQUIREMENTS
FOR
CITY OF MALIBU
(MALIBU CIVIC CENTER WASTEWATER TREATMENT FACILITY – PHASES I & II PROJECTS)

TENTATIVE

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

INTRODUCTION

1. Residences, businesses, and public facilities in the City of Malibu (City) use on-site wastewater disposal systems (OWDSs) to discharge sewage to the subsurface and underlying groundwater. In several areas of the City, high flows of wastewater from these OWDSs coupled with unfavorable hydrogeological conditions have raised concerns about reliance on OWDSs. The Malibu Civic Center Area alone (Figure 1) with relatively intensive land use activities by more than 400 dischargers, generates up to 119,000 gallons per day (GPD) of wastewater, which pollutes groundwater and surface water with nitrates, bacteria, and other waste constituents.

   A. Basin Plan Prohibition - To address the pollution caused by OWDSs in the Malibu Civic Center Area, the Regional Board on November 5, 2009, adopted an amendment to Chapter IV of the *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) to prohibit OWDSs in the Malibu Civic Center Area (and a small portion of unincorporated Los Angeles County) through Resolution No. R4-2009-007 (Basin Plan Amendment). On September 21, 2010, the State Water Resources Control Board (State Water Board) approved Resolution No. R4-2009-007. Subsequently, the Office of Administrative Law (OAL) approved Resolution No. R4-2009-007 on December 23, 2010. The Basin Plan Amendment became effective on December 23, 2010. The Basin Plan Amendment immediately prohibits all new OWDSs in the Malibu Civic Center Area, with the exception of certain specific projects identified in Table 4-zz, which were deemed by the Regional Board to be existing OWDSs. The Basin Plan Amendment prohibits all discharges from existing OWDSs, including those projects identified on Table 4-zz, in accordance with a phased schedule. Existing OWDSs in commercial areas must cease discharges by November 5, 2015 (Phase I); existing OWDSs in residential areas must cease discharges by November 5, 2019 (Phase II). The Basin Plan Amendment does not prevent repairs, maintenance, and upgrades to existing

OWDSs prior to November 5, 2019, provided that such repairs, maintenance, and upgrades do not expand the capacity of the OWDSs or increase flows of wastewaters. The Basin Plan Amendment explicitly states:

> "This prohibition does not preclude a publicly owned, community-based, solution that includes specific wastewater disposal sites subject to waste discharge requirements to be prescribed by the Regional Board."

B. Memorandum of Understanding (MOU) – To assist in the implementation of the Basin Plan Amendment, the Regional Board, the State Water Board, and the City entered into an MOU, regarding *"Phased Implementation of Basin Plan Amendment Prohibiting On-site Wastewater Disposal Systems in the Malibu Civic Center Area"*, which was revised on December 4, 2014. In the MOU, the City agreed to construct one or more centralized wastewater treatment facilities – the Malibu Civic Center Wastewater Treatment Facility (Civic Center Facility) - to provide sewer treatment for commercial and residential properties in the prohibition area. The MOU sets forth a three phase process: (1) facility construction and connection to commercial properties (Phase I); construction and connection to a portion of residential properties (Phase II), and construction and connection of the remaining residential properties (Phase III) if necessary after completion of a water quality sampling property to determine whether implementation of Phases I and II have resulted in a meaningful decrease in bacteria and nitrogen in Malibu Lagoon.

2. The Civic Center Facility, a Publicly-Owned Treatment Works (POTW), will eliminate discharges from OWDSs in the Malibu Civic Center Area via the following three (3) phases:

   A. Phase I – Connection of commercial properties, colored with yellow in Figure 2, to the Civic Center Facility by June 30, 2017;

   B. Phase II – Connection of residential properties, colored with coral in Figure 2, to the Civic Center Facility by November 5, 2022; and,

   C. Phase III – Connection of remaining residential properties and HRL, colored with fuchsia in Figure 2, to the Civic Center Facility by November 5, 2025.

PURPOSE OF ORDER

3. Pursuant to California Water Code (CWC) sections 13260 and 13522.5, the City submitted a Report of Waste Discharge (ROWD) to the Regional Board on April 3, 2014 to apply for Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) authorizing the City to discharge tertiary-treated wastewater for Phase I and Phase II from the Civic Center Facility to groundwater through injection, irrigation, percolation, and/or other non-potable recycled water applications that comply with California Code of Regulations (CCR), title 22, division 4, chapter 3 (hereafter "Title 22").

4. The City is responsible for the discharge of waste and the production, distribution and application of recycled water under WDRs/WRRs pursuant to CWC sections 13263 and 13523.1 (Master Reclamation Permit) for the Civic Center Facility – Phases I & II Projects. The City is responsible for processing individual end-use application, inspecting point-of-

use facilities, and ensuring end-users' compliance with the water recycling requirements contained in this Order. The City is responsible for compliance with the requirements in this Order.

5. The Regional Board staff conducted an inspection of the Civic Center Facility site on September 17, 2014. The purpose of this inspection was to verify the information provided in the ROWD, the surface and groundwater monitoring workplan, and the Phase I Title 22 Engineering Report submitted to the Regional Board on April 3, 2014, May 30, 2014, and August 18, 2014, respectively. Regional Board staff visited the sites of the Civic Center Facility, injection wells, groundwater monitoring wells, Malibu Lagoon and near-shore ocean surface water monitoring stations, and Winter Canyon and its drain to the ocean outfall.

6. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the City.

CIVIC CENTER FACILITY – PHASES I & II PROJECTS

7. Description of Civic Center Facility Vicinity

A. The Civic Center Facility (34° 2' 9.35" N, 118° 41' 55.50" W) is sited on a 4.1 acre parcel at 24000 Civic Center Way, the intersection of Civic Center Way and East Pacific Coast Highway (the west side of the Malibu Civic Center Area) and approximately 1,700 feet southwest of the Malibu City Hall (Figure 1). The Civic Center Facility will serve business, residential, and public properties within the Malibu Civic Center Area.

B. The Malibu Civic Center Area is generally defined as follows:

a. Westerly to the City boundary along Malibu Canyon Road;

b. Northerly to the ridgeline including the City and a small portion of the County of Los Angeles;

c. Easterly to Sweetwater Mesa; and,

d. Southerly to Santa Monica Bay.

The Malibu Civic Center Area has a residential population estimated at 1,300. The area also serves as the core of the City's business, cultural and commercial activities.

C. The area is not defined according to municipal borders or parcel lines. Rather, the area subject to the prohibition is delineated according to hydrogeological parameters and drainage patterns; as groundwater flow roughly mimics surface drainage, the prohibition boundary follows a topographic high surrounding both the Winter Canyon and lower Malibu Creek (also known as Malibu Valley) watersheds. All properties extending seaward of this boundary to the ocean are subject to the prohibition, including the coastal strips along the Pacific Coast Highway stretching from Amarillo Beach to Surfrider Beach. This entire area, which is referred to as the "Malibu Civic

TENTATIVE

Center Area," totals 2.2 square miles of which 1.5 square miles and 0.7 square miles are within the City and the unincorporated area of County of Los Angeles, respectively.

D. The Malibu Civic Center Area is categorized in the Basin Plan Hydrologic Unit 404.21 including Amarillo Beach, Malibu Beach, and Malibu Lagoon.

GROUNDWATER BASIN CHARACTERISTICS

8. The Malibu Valley Groundwater Basin beneath the Malibu Civic Center Area is a small alluvial basin and located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south, and by the Santa Monica Mountains, composed of non-water-bearing Tertiary age rocks, on all remaining sides. The valley is typified by steep canyons that generally run north to south, and is flanked on both sides by canyons - Sweetwater Canyon to the east, and Winter Canyon to the west. The basin drains to Malibu Creek and Santa Monica Bay.

   Water-bearing formations in the Malibu Valley Groundwater Basin can be generally subdivided into four categories or strata (layers) as follows:

   A. Shallow Alluvium – a shallow zone of permeable alluvial sediments consisting of silts and sands;

   B. Low Permeability Zone – a fine-grained estuarine deposits consisting of clay and silt layers;

   C. Civic Center Gravels – a lower/deeper aquifer with coarse-grained stratum consisting of sands, gravel, and cobbles; and,

   D. Bedrock – zones of unconsolidated materials containing permeable sand and gravel deposits.

9. **Reports and Technical Memorandums**

   The City submitted the following reports for the design of the Civic Center Facility project:

   A. *Ocean Dilution Analysis,* dated March 18, 2014 – The City evaluated the potential impacts from injecting treated wastewater into the Malibu Valley Groundwater Basin.

   B. *Malibu Groundwater Injection Feasibility Project,* dated March 24, 2014 – The City collected site-specific data necessary to design an injection well system.

   C. *Sea Water Rise Analysis,* dated March 24, 2014 – The City identified areas within the City that may be flooded due to impacts associated with climate change.

   D. *Groundwater Modeling Analysis of Proposed Wastewater Dispersal – City of Malibu,* dated April 3, 2014 – The City evaluated the possible impacts on groundwater levels and groundwater flow resulting from the proposed subsurface injection of treated disinfected wastewater into deep coarse-grained alluvial deposits in the Malibu Civic Center Area. The model concluded that almost all injected wastewater will flow toward the Santa Monica Bay. The approximate model-estimated injection capacities

TENTATIVE

for each of the two (2) proposed phases of development are as follows:

Phase 1 -- 311,000 GPD

Phase 2 -- 498,000 GPD

E. *Assimilative Capacity and Antidegradation Analysis for Proposed Injection Dispersal,* dated May 15, 2014 – The City evaluated the potential groundwater quality impacts resulting from injecting treated wastewater into the Malibu Valley Groundwater Basin. The concentration of nitrate in groundwater at the lower aquifer where injection will occur is 3.6 mg/L. The model indicated that the injection of 100% of the wastewater with a nitrate concentration of 8 mg/L for 30 years will increase the nitrate concentration in the groundwater to 4.1 mg/L, which will be a smaller increase than without injection. Without injection, the nitrate concentration will increase to 4.9 mg/L after 30 years due to the accumulation of nitrate from the discharges from the existing OWDSs.

F. *Review of Nitrogen Limit Implications for Wastewater Treatment Facility,* May 27, 2014 – The City reviewed and compared treatment process, costs, and operation and maintenance efforts needed to achieve the nitrate as nitrogen effluent limit of 8 mg/L as compared to an effluent limit of 5 mg/L.

G. *City of Malibu Engineer's Report for the Production, Distribution and Use of Recycled Water Phase 1 (Phase I Title 22 Engineering Report)*, August 20, 2014 – The City described the characteristics of treated wastewater generated from the Civic Center Facility, and the processes of treatment, distribution, disposal and reuse.

H. *Simulation of Anticipated Injections in Groundwater Flow Model,* dated August 25, 2014 – The City indicated that the maximum volumes of 311,000 and 498,000 GPD can be effectively disposed via injection for Phases I and II, respectively.

10. **Civic Center Facility**

A. The Civic Center Facility is owned and operated by the City.

B. The Civic Center Facility is a tertiary-treated wastewater treatment plant, treating domestic and commercial wastewater generated within the Malibu Civic Center Area.

C. The wastewater treatment processes of the Civic Center Facility include coarse and fine mechanical screening and grit removal for preliminary treatment of the influent wastewater. The effluent after the preliminary treatment flows to an equalization basin. The effluent of an equalization basin will flow to a Membrane Bioreactor (MBR) consisting of biological reactors and membrane-based solids removal. The MBR will provide carbonaceous oxidation, nitrification/denitrification and solids removal to meet the limits of the WDRs/WRRs. Disinfection of the treated effluent will be achieved by Ultraviolet (UV) disinfection. Disinfection will be followed by the addition of chlorine to maintain a chlorine residual in the distribution system to minimize microorganisms re-growth and bio-fouling in the pipelines and injection wells. Treated, disinfected effluent will be recycled within the community via a

recycled water distribution system. Effluent not used for landscape irrigation and/or injection via land disposal will be discharged at three percolation ponds (Figure 3 for the layout of treatment devices).

a. **Coarse Screen** – Coarse screen used in the wastewater treatment plant removes solids, including typically wood, plastic materials, and rags.

b. **Grit Removal** – Grit removal is used to remove as much sand and silt as possible to prevent wear on pumps, accumulations in bioreactor and membrane reactor, and clogging of sludge piping.

c. **Fine Screen** – Fine screen with 2 millimeter openings removes inert solids before entering the bioreactor.

d. **Flow Equalization** – Flow equalization basin provides a relatively constant flow rate to the subsequent treatment operations and processes.

e. **Bioreactor** – The bacteria species *Nitrosomonas* and *Nitrobacter* in the bioreactor provide nitrification. *Nitrosomonas* and *Nitrobacter* convert ammonia to nitrite and nitrite to nitrate, respectively. *Psudomonas* bacteria convert nitrite and nitrate to nitrogen.

f. **Membrane Reactor** – Membrane reactor provides further carbonaceous oxidation and suspended solids removal.

g. **UV Disinfection** – UV radiation penetrates an organism's cell wall, and destroys/retards the cell's ability to reproduce.

h. **Chlorination** – Chlorination with sodium hypochlorite is used to minimize re-growth and bio-fouling of bacteria, pathogens, and viruses in the pipelines and injection wells.

Table 1 lists additional treatment devices used in Phases I and II.

Table 1 – Treatment Devices of the Civic Center Facility at Phases I and II

Treatment Device	Dimension/Spec	Volume per Treatment Device (Gallons)	Retention time (Hours)
Equalization Basin (1X)	• 30 feet (Wide) 40 feet (Length) 11 feet (Depth)	• 99,000	• 12.4 (Phase I) • 6.6 (Phase II)
Bioreactor (2X)	• 20 feet (Wide) 50 feet (Length) 16 ~ 17.6 feet (Depth)	• Pre-Anoxic Basin: 24,500 • Aeration Basin: 65,000 • De-Oxygenation Basin: 11,000 • Post-Anoxic Basin: 21,100	• 33.0 (Phase I) • 17.5 (Phase II)
Membrane Reactor (2X)	• Avg: 8.3 gpd/sf[1] • Max: 9.7 gpd/sf • 17,760 sf[2] membrane minimum	• Tank volumes vary by manufacturer.	Varies by manufacturer.
Ultra Violet	• 8 lamps per reactor	• 0.1 Million per Day	Varies by

TENTATIVE

Table 1 – Treatment Devices of the Civic Center Facility at Phases I and II			
Treatment Device	**Dimension/Spec**	**Volume per Treatment Device (Gallons)**	**Retention time (Hours)**
Reactor (3X)	minimum		manufacturer and lamp intensity and validation.

[1]. gpd/sf: Gallons per day per square foot.
[2]. sf: square foot

Sludge will be hauled to the Sanitation Districts of Los Angeles County Joint Water Pollution Control Plant, or other similar permitted facilities.

D. Design Capacities of the Civic Center Facility are specified in Table 2.

Table 2 – Design Capacities of the Civic Center Facility at Phases I and II	
Phase	**Design Capacity (GPD)**
I	191,000
II	361,000

E. Nitrate-N Reduction

Nitrate-N loading from OWDSs is approximately 20 mg/L. Effluent less than 8 mg/L of nitrate-N will be discharged from the Civic Center Facility after treatment. The proposed Project will reduce by approximately 60% the existing nitrate-N loading to the groundwater basin.

F. Treated Effluent Applications

The treated effluent of 191,000 GPD for Phase I and 361,000 GPD for Phase II from the Civic Center Facility is to be discharged through the following applications:

a. Landscape Irrigation – Treated wastewater after disinfection will be recycled for landscape irrigation.

b. Disposal via Groundwater Injection – Treated wastewater after disinfection will be injected to the Civic Center Gravels via three (3) injection wells W-1, W-2, and W-3, located approximately 1,000 to 1,500 feet southeast to the Civic Center Facility.

c. Disposal via Percolation – The Winter Canyon Groundwater Basin beneath the Civic Center Facility will be used for percolation of the treated wastewater, if the treated wastewater is not recycled or injected into the lower aquifer of the Civic Center Gravels of the Malibu Valley Groundwater Basin. This method of disposal will serve as a backup and will only be used if needed (see Finding No. 13 for additional information).

11. Wastewater Collection and Recycled Water Distribution Systems

A. Pipeline Transmission – Figure 4 shows the extent and locations of the wastewater collection and recycled water distribution systems. Pipelines are designed in accordance with acceptable seismic safety standards so as to protect against the possibility of rupture.

B. Wastewater and Recycled Water Pump Systems – Wastewater pump stations are located along pipeline alignments, below ground and on public rights-of-way and/or easements (Figure 4). Each wastewater pump station has odor controls. Two (2) recycled water pump stations are located at the Civic Center Facility site.

12. Injection Wells

Treated wastewater from the Civic Center Facility is to be disposed through three (3) injection wells W-1, W-2, and W-3 located at the southern boundary of the Malibu Colony Plaza and the northern side of Malibu Road (Figure 4). These wells are approximately 400 feet from each other and are in close proximity to the recycled water distribution system pipeline. Each injection well is 14 inches in diameter and is connected via subsurface and surface piping with the recycled water distribution line. Table 3 shows specifications of three (3) injection wells.

Table 3 – Specifications of Injection Wells

	W-1, W-2, and W-3
Depth below Ground Surface (Feet)	170
Screen Intervals below Ground Surface (Feet)	55 - 134
Aquifer	Civic Center Gravels
Total Injection Rate [1] (GPM[2])	130 (Phase I) and 250 (Phase II)

[1]. The total daily injection rate at three injection wells is up to 130 GPM for Phase I and 250 GPM for Phase II. The actual injection rate at any well location will vary, depending on the flow rate of unused recycled water (which will be dependent on factors such as landscape irrigation demand, wastewater generation, and water discharge at percolation ponds).

[2]. GPM: Gallons per minute.

13. Percolation Ponds

A. Three (3) percolation ponds (Figure 2) in the Winter Canyon area are to be constructed at the site of the Civic Center Facility as a back-up method for disposal of recycled water into the Winter Canyon groundwater basin. Water that cannot be either reused through irrigation or disposed through injection wells will be pumped to percolation ponds then percolate into Winter Canyon groundwater basin, typically during periods when other facilities are unavailable because of an emergency or due to scheduled maintenance. Disposal to the percolation ponds will be alternated from pond to pond.

B. The upper Winter Canyon is a separate groundwater system from the Malibu Valley Groundwater Basin underlying the majority of the Civic Center area, as determined

based on hydrogeological studies. It is estimated that the Winter Canyon groundwater basin can provide a percolation capacity of up to 100,000 GPD.

C. Each percolation pond is approximately 120 feet long and 3 to 5 feet deep. Two of rectangular percolation ponds are approximately 20 feet wide and 2,700 square foot. The third percolation pond is approximately an irregular polygon, 20 to 40 feet wide, and 3,860 square foot. The percolation rate of soil beneath the percolation ponds is 1.5 feet per day.

14. **Groundwater Monitoring Wells**

A. Groundwater monitoring wells are used to ensure that the injection does not cause mounding of groundwater or cause the groundwater to exceed groundwater quality objectives set forth in Table 10 in the Malibu Civic Center Area.

B. The groundwater monitoring well network consists of a total of nine (9) wells within the southern part of the Malibu Civic Center Area. Two (2) wells (TY-MW-1 and LAMW-5S) are in Winter Canyon, and provide water quality data downgradient and upgradient, respectively, of the Civic Center Facility. Four (4) wells (SMBRP-9, MCWP-MW04S, MCWP-MW07S, and SMBRP-12,) are screened in the shallow unconfined alluvial aquifer. Three (3) wells (MCWP-MW04D, MCWP-MW07D, and MCWP-MW09) are screened in the deeper Civic Center Gravels aquifer (Figure 5). More information of these groundwater monitoring wells is available in Table 4, Section IV. 3.A. of the accompanying Monitoring and Reporting Program CI No. 10042 (MRP).

15. **Surface Water Monitoring Stations**

A surface water monitoring program (Malibu Lagoon and near-shore ocean) evaluates the quality of surface waters and any improvement resulting from the implementation of Phases I and II. Six (6) stations are located at Malibu Lagoon, and four (4) stations are located at the near-shore ocean area along Malibu Road (Figure 6). The three (3) lagoon sampling locations will be evenly distributed along Malibu Creek north of Pacific Coast Highway (PCH), and the other three (3) sampling locations will be located across from Malibu Lagoon, south of PCH. The ocean samples will be collected along the beach adjacent to the southern edge of Malibu Bluffs Park to the mouth of Malibu Lagoon.

16. **Contingency Plan** – For the Phase I Project, the City has developed an Operation, Maintenance, and Monitoring Plan (OMM Plan) that incorporates specific procedures to be followed by operating staff for all potential emergencies or conditions. The OMM plan for the Phase I Project will ensure that equipment and facilities for treatment and injection operate at peak performance levels. The OMM Plan contained in the *Phase I Title 22 Engineering Report* was provided to the State Water Board's Division of Drinking Water (DDW) (formerly the State Department of Public Health) on August 21, 2014. The DDW approved it on September 18, 2014.

17. Regional Board staff consulted with following agencies regarding the Civic Center Facility project:

TENTATIVE

A. The United State Environmental Protection Agency (USEPA) on April 21, 2014 and July 16, 2014 – Updated and discussed groundwater modeling results and the system design of the Civic Center Facility.

B. The DDW on December 18, 2012, July 23, 2013, September 5, 2013, and February 12, 2014 – Discussed the method of disposing of the treated effluent via injection wells.

18. On September 12, 2011, August 6, 2013, December 12, 2013, February 20, 2014, and January 7, 2015, the City conducted five (5) Technical Advisory Committee (TAC) meetings to receive input regarding the Civic Center Facility project. Attendees included college professors, environmental group, resource agencies, City's Consultants and interested persons. The City provided the layout of the Civic Center Facility, the reuse of treated effluent, and the groundwater injection locations. The City also presented the results of special studies, including the model for injected wastewater flow and possible impacts to Malibu Creek and Lagoon.

APPLICABLE PLANS, POLICIES AND REGULATIONS

The following plans, policies and regulations apply to the discharges authorized by this Order to protect the waters of the state.

19. **Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan)** – On June 13, 1994, the Regional Board adopted a revised Basin Plan. The Basin Plan: (i) designates beneficial uses for surface and groundwater, (ii) establishes narrative and numeric water quality objectives that must be attained or maintained to protect the designated beneficial uses, and (iii) sets forth implementation programs to protect the beneficial uses of the waters of the state. The Basin Plan also incorporates State Water Board Resolution 68-16, Anti-degradation Policy (see Finding No. 24 below for detail). In addition, the Basin Plan incorporates by reference applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. The Regional Board prepared the 1994 update of the Basin Plan to be consistent with previously adopted State and Regional Board plans and policies. This Order implements the plans, policies and provisions of the Regional Board's Basin Plan. The Basin Plan has been amended occasionally since 1994.

The Basin Plan (Chapter 3) incorporates Title 22 CCR primary maximum contaminant levels (MCLs) by reference (see Finding No. 22 below for detail) as water quality objectives. This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect. The Title 22 CCR primary MCLs are applicable water quality objectives for a receiving water to protect beneficial uses when that receiving water is designated as municipal and domestic supply. Also, the Basin Plan specifies that "Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses." Therefore the Title 22 CCR secondary MCLs, which are limits based on aesthetic, organoleptic standards, are applicable water quality objectives for a receiving water to protect beneficial uses when that receiving water is designated as municipal and domestic supply. These water quality objectives are implemented in this Order to protect groundwater quality.

TENTATIVE

In addition, the Basin Plan identifies beneficial uses based on State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the coastal areas in Table 4 and groundwater in Table 5 are as follows:

Table 4 – Basin Plan Beneficial Uses of Coastal Features

Receiving Water	Beneficial Use(s)
Amarillo Beach (Hydro. Unit No. 404.21)	Existing: Navigation; water contact and non-contact recreation; commercial and sport fishing; marine habitat; wildlife habitat; and shellfish harvesting. Potential: Spawning, reproduction, and/or early development of fish.
Malibu Beach (Hydro. Unit No. 404.21)	Existing: Navigation; water contact and non-contact recreation; commercial and sport fishing; marine habitat; wildlife habitat; migration of aquatic organisms; spawning, reproduction, and/or early development of fish [1]; and shellfish harvesting [2].
Malibu Lagoon (Hydro. Unit No. 404.21)	Existing: Navigation; water contact and non-contact recreation; estuarine habitat; marine habitat; wildlife habitat; rare and endangered species [3]; migration of aquatic organisms [4]; spawning, reproduction, and/or early development of fish [4]; and wetland habitat.

[1]. Most frequently used grunion spawning beaches. Other beaches may be used as well.
[2]. Areas exhibiting large shellfish populations include Malibu, Point Dume, Point Fermin, White Point and Zuma Beach.
[3]. One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.
[4]. Aquatic organisms utilize all bays, estuaries, lagoons and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas, which are heavily influenced by freshwater inputs..

Table 5 – Basin Plan Beneficial Uses of Groundwater

Receiving Water	Beneficial Use(s)
Malibu Valley Groundwater (DWR Basin No. 4-22)	Existing: Agricultural supply. Potential: Municipal and domestic water supply; and industrial process supply.

Total Maximum Daily Loads (TMDLs). To restore water quality and impaired beneficial uses, USEPA and/or the Regional Board have adopted the following TMDLs, specified in Table 6:

Table 6 – TMDLs of Malibu Areas and Santa Monica Bay Beaches

	Malibu Creek Watershed[1] Nutrient TMDLs	Malibu Creek and Lagoon Bacteria TMDLs	Santa Monica Bay Beaches Wet and Dry Bacteria TMDLs
Total Nitrogen[2] (04/15	1.0 mg/L	---	---

Table 6 – TMDLs of Malibu Areas and Santa Monica Bay Beaches			
	Malibu Creek Watershed[1] Nutrient TMDLs	Malibu Creek and Lagoon Bacteria TMDLs	Santa Monica Bay Beaches Wet and Dry Bacteria TMDLs
to 11/15)			
Total Nitrogen (11/16 to 04/14)	8.0 mg/L	---	---
Geometric Mean[3] Bacteria (04/01 to 10/31)	---	0-day exceedance	0-day exceedance
Geometric Mean Bacteria (11/01 to 03/31)	---	0-day exceedance	0-day exceedance
Single Sample[3] Bacteria (04/01 to 10/31)	---	0-day exceedance	0-day exceedance
Single Sample Dry Weather Bacteria (11/01 to 03/31)	---	≤ 3-day exceedances	≤ 3-day exceedances
Single Sample Wet Weather[4] Bacteria (11/01 to 03/31)	---	≤ 17-day exceedances	≤ 17-day exceedances

[1]. Malibu Creek Watershed includes Malibu Lagoon.

[2]. Total Nitrogen is the sum of nitrate (NO_3), nitrite (NO_2), organic nitrogen, and ammonia (all expressed as N).

[3]. Basin Plan bacteria water quality limits are following:

In Marine Waters Designated for Water Contact Recreation (REC-1)

1. Geometric Mean Limits
   a. Total coliform density shall not exceed 1,000/100 ml.
   b. Fecal coliform density shall not exceed 200/100 ml.
   c. *Enterococcus* density shall not exceed 35/100 ml.
2. Single Sample Limits
   a. Total coliform density shall not exceed 10,000/100 ml.
   b. Fecal coliform density shall not exceed 400/100 ml.
   c. *Enterococcus* density shall not exceed 104/100 ml.
   d. Total coliform density shall not exceed 1,000/100 ml, if the ratio of fecal-to-total coliform exceeds 0.1.

In Fresh Waters Designated for Water Contact Recreation (REC-1) (not applicable to Santa Monica Bay Beaches Wet and Dry Bacteria TMDLs)

1. Geometric Mean Limits
   a. *E. coli* density shall not exceed 126/100 ml.
2. Single Sample Limits
   a. *E. coli* density shall not exceed 235/100 ml.

[4]. Wet weather is defined as days with rainfall >=0.1 inch and the three (3) days following the rain event.

Based on the model assimilating the migration of wastewater after a period of 20 years, the injected wastewater will not reach Malibu Creek and Malibu Lagoon. Therefore, water quality limits prescribed in the Malibu Creek Watershed Nutrient TMDLs and Malibu Creek

TENTATIVE

and Lagoon Bacteria TMDLs are not incorporated as water quality objectives since there is no discharge.

20. Clean Water Act section **303(d) List** – In the 2006 Clean Water Act Section 303(d) list, approved by the United States Environmental Protection Agency (USEPA) on June 28, 2007, impairments to beneficial uses are formally identified for the following water resources:

    a. Malibu Lagoon: impaired by Coliform Bacteria, Eutrophication.

    b. Malibu Creek: impaired by Coliform Bacteria, Nutrients (Algae).

    c. Malibu Beach: impaired by Indicator Bacteria.

    d. Malibu Lagoon Beach (Surfrider Beach): impaired by Coliform Bacteria.

    e. Carbon Beach: impaired by Indicator Bacteria.

21. **Ocean Plan** – The State Water Board adopted the *Water Quality Control Plan for Ocean Water of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, and 2012. The State Water Board adopted the latest amendment on October 16, 2010 and it became effective on July 1, 2013. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan does not directly apply to the discharge authorized by this Order, but is included herein as the basis for determining whether the discharge will result in improvements to ocean water quality. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in Table 7 below:

Table 7 – Ocean Plan Beneficial Uses

Receiving Water	Beneficial Use(s)
Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Area of Special Biological Significance [1] (ASBS); rare and endangered species; marine habitat; fish migration; fish spawning and shellfish harvesting.

[1]. There are no any ASBSs in the vicinity of the Malibu Valley.

22. **Title 22 CCR** –Title 22 CCR contains primary and secondary MCLs for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22 CCR. Title 22 primary MCLs (see Attachments A1 to A5) have been incorporated into the Basin Plan as water quality objectives. MCLs are used as the bases for effluent limits for discharges of recycled water in WDRs and WRRs to protect the designated beneficial uses of municipal and domestic supply.

23. **Recycled Water Policy** – State Water Board Resolution No. 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy), is intended to support the State Water Board's Strategic Plan to promote sustainable local water supplies. Increasing the acceptance and promoting the use of recycled water is a means towards achieving sustainable local water supplies and can result in reduction in

TENTATIVE

greenhouse gases, a significant driver of climate change. The Recycled Water Policy is also intended to encourage beneficial use of, rather than solely disposal of, recycled water generated from municipal wastewater sources in a manner that fully implements state and federal water quality laws.

24. **State Water Board Resolution No. 68-16** "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (also called the "Anti-degradation Policy") requires the Regional Board, in regulating the discharge of waste, to maintain the high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the State Water Board's policies (e.g., quality that exceeds water quality objectives). Further, any activity that produces waste must meet waste discharge requirements that will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

    The discharge of waste authorized by this Order will cause some degradation of groundwater in the Civic Center Gravels. The current concentration of nitrate as nitrogen in groundwater in the area to be used for injection is 3.6 mg/L. The City prepared a study entitled *"Assimilative Capacity and Antidegradation Analysis for proposed injection"*, which concluded that the nitrate concentration in groundwater will continue to increase to 4.9 mg/L after 30 years due to the continuous discharge from existing OWDSs if the Civic Center Facility is not available to treat wastes now being discharged from the OWDSs. The study also concluded that the discharge of treated wastewater with a nitrate concentration of 8 mg/L through injection wells, percolation, and infiltration of irrigation water will cause an increase in concentrations of nitrate in groundwater to 4.1 mg/L after 30 years. By eliminating the use of OWDSs in the Malibu Civic Center Area and instead treating the wastewater using advanced tertiary treatment and discharging the treated wastewater to the groundwater using injection wells, percolation ponds, and irrigation, the nitrate concentration will increase to 4.1 mg/L from 3.6 mg/L after 30 years rather than to 4.9 mg/L after 30 years.

    The Malibu Valley shallow groundwater basin is impaired by nitrate and bacteria. The operation of the Civic Center Facility will eliminate the nitrate loading to the shallow aquifer. The Civic Center Facility will use best practicable treatment or control in compliance with this Order. The Order requires the wastewater to be treated to, at a minimum, comply with water quality objectives set forth in the Basin Plan and the requirements of Title 22 Water Recycling Criteria to protect public health. The use of best practicable treatment or control required by this Order will result in compliance with the Basin Plan water quality objectives, including objectives for nitrate, other nitrogen-related compounds, and bacteria including total coliform and fecal coliform. This will assure that neither pollution nor nuisance will occur and that the highest water quality will be maintained.

    The Civic Center Facility is designed to remove nitrogen-related compounds and bacteria, but not total dissolved solids, sulfate, chloride, and boron (collectively salts). Wastewater discharged either from the existing OWDSs, if the Civic Center Facility is not available, or from the Civic Center Facility, will result in the same impacts on the salt concentrations at the groundwater in the Malibu Valley Groundwater Basin.

The discharge authorized by this Order is consistent with the maximum benefit of the people of the State. The Civic Center Facility will produce better quality effluent than that generated by the existing OWDSs because it will have significantly improved treatment of bacteria using ultraviolet disinfection and the nitrate loading to shallow aquifer is expected to be reduced by as much as 60%. The use of treated effluent for irrigation will result in conservation of potable water of up to approximately 43,000 GPD in Phase I and 97,000 GPD in Phase II. The use of OWDSs has resulted in impaired water quality in Malibu Creek and Malibu Lagoon and the aquifers underlying the Malibu Civic Center Area. The Civic Center Facility will replace the use of OWDSs with a much greater level of treatment and control, which will eliminate the impacts of those discharges on Malibu Creek, Malibu Lagoon, Santa Monica Bay and the groundwater.

25. **AB 685 – CWC Section 106 –** It is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This order promotes that policy by requiring discharges to meet maximum contaminant levels developed to protect human health and ensure that water is safe for domestic use.

26. These WDRs/WRRs are established pursuant to CWC section 13263 because this project has the potential to affect the quality of the waters of the State, to impact the beneficial uses of those waters, or to cause a nuisance. These WDRs/WRRs conform to CWC section 13523 and State Water Board Resolution 2009-011, the Recycled Water Policy, because they meet the need for recycled water use.

27. Section 13523 of the CWC provides that a Regional Board, after consulting with and receiving recommendations from DDW or its delegated local health agency, and after any necessary hearing, shall, if it determines such action to be necessary to protect the health, safety, or welfare of the public, prescribe water recycling requirements for water that is used or proposed to be used as recycled water. Section 13523 further provides at a minimum that the recycling requirements shall include, or be in conformance with, the statewide water recycling criteria established by DDW pursuant to Water Code Section 13521. DDW adopted revised Water Recycling Criteria (Chapter 3, Division 4, Title 22, CCR) that became effective on June 18, 2014. Criteria applicable to this recycling project are prescribed in this Order.

28. These WRRs are established pursuant to CWC section 13523. The WRRs prescribe the limits for recycled water and the City's responsibilities for the production and monitoring of recycled water. The City is also responsible for inspecting point-of-use facilities, and ensuring compliance with the WRRs contained in this Order.

    The City prepared the *Phase I Title 22 Engineering Report*, dated August 2014, on its proposed production, distribution, and use of recycled water for irrigation as required by section 60323 of Title 22, CCR. On September 18, 2014, Engineering Report was approved by DDW with additional requirements, specified in Section VII.10. of this Order. All additional requirements had been incorporated with this Order and the accompanying MRP.

29. The requirements contained in this Order are in conformance with the goals and objectives of the Basin Plan and the Ocean Plan and implement the requirements of the CWC and Title 22.

TENTATIVE

30. **Publicly Owned Treatment Works (POTW) –** The term POTW means a treatment works as defined by section 212 of the federal Clean Water Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment facility. The term also means the municipality as defined in section 502(4) of the Clean Water Act, which has jurisdiction over the indirect discharges to and the discharges from such treatment works. (40 CFR 403.3(q)).

CEQA AND NOTIFICATION

31. The City is the lead agency for purposes of the California Environmental Quality Act (CEQA) (Pub. Res. Code §§21000 et seq). In accordance with CEQA, the City released a Notice of Preparation (NOP) on November 21, 2013. The NOP provided notice to the public and public agencies that an Environmental Impact Report (EIR) would be prepared for the construction of the Civic Center Facility Project and its discharge to groundwater. The Draft EIR and a Recirculated Draft EIR were released for public comment on May 30, 2014 and June 12, 2014, respectively, with notices published in the Malibu Times, notices mailed interested parties and circulation to response agencies through the State Clearinghouse (SCH No. 2013111075). On July 21, 2014, the City conducted a Planning Commission public hearing to accept verbal comments on the Draft EIR. Through this period, written and oral comments were received from a total of 32 agencies, organizations and individuals. The City has incorporated responses to all written and oral comments into the Final EIR. On December 15, 2014, the City Council held a public hearing and certified the Final EIR.

32. The Regional Water Board is a responsible agency for purposes of CEQA and has considered the EIR prepared by the City as required by the CEQA Guidelines (Title 14 CCR, Chap. 3, Section 15096). Because the EIR did not identify significant environmental effects with respect to water quality, this Order does not include specific mitigation measures for purposes of CEQA. The Regional Board has incorporated requirements into this Order to protect the quality of the waters of the state consistent with the applicable plans and policies that apply to the discharges regulated by this Order and has established a monitoring and reporting program to determine compliance with the terms of the Order and to assure protection of water quality.

33. *Public Notice* – On December 23, 2014, the Regional Board notified the City and interested agencies and persons via Lyris mailing system, regular mails, and electronic mails on December 30, 2014 of its intent to issue WDRs/WRRs Order No. R4-2015-XXXX for the discharge to groundwater, distribution and use of secondary treated and disinfected effluent as recycled water, and has provided an opportunity to submit written comments.

TENTATIVE

The Regional Board, in a public meeting, heard and considered all comments pertaining to these WDRS/WRRs.

IT IS HEREBY ORDERED that the City shall comply with the following:

I. INFLUENT LIMITS AND REQUIREMENTS

Influent wastewater shall be limited to wastewater only from the Malibu Civic Center Area.

II. TERTIARY-TREATED EFFLUENT/RECYCLED WATER LIMITS

1. The maximum quantities of the tertiary-treated effluent shall not exceed the design capacity of the Civic Center Facility, 191,000 GPD for Phase I and 361,000 GPD for Phase II.

2. The Title 22 recycled water for irrigation and groundwater disposal via injection shall not exceed the design capacities of the Civic Center Facility, specified in Table 8. Discharge of treated wastewater to groundwater through percolation shall not exceed the quantities specified in Table 8.

Table 8 – Maximum Discharge Quantities of Effluent and Maximum Quantities of Recycled Water Applications at Phase I and Phase II

Phase	Maximum Volume Discharge from Civic Center Facility for Groundwater Injection and Recycled Water Used for Irrigation (GPD)	Groundwater Percolation as Backup (GPD)
I	191,000	50,000
II	361,000	100,000

3. The DDW has approved the use of recycle water for landscape irrigation for the Phase I project. If the City plans to use the recycled water for other purposes, the City must submit the request letter and the Title 22 Engineering Report to DDW and the Regional Board for review and approval.

4. Recycled water applications for Phase II is subject to DDW's approval. The City must furnish the Title 22 Engineering Report for Phase II recycled water use for DDW's approval prior to the application of recycled water produced by Phase II.

5. The effluent/recycled water shall not contain constituents with concentrations exceeding limits listed in Table 9.

Table 9 – Effluent/Recycled Water Limits

Constituents	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Minimum [1]	Instantaneous Minimum [2]
Oil and grease	mg/L	10 [3]	---	15 [3]	---	---
Total suspended solids	mg/L	15 [3]	40 [3]	45 [3]	---	---
	% removal	≥ 85 [4]	---	---	---	---

TENTATIVE

Table 9 – Effluent/Recycled Water Limits						
Constituents	**Units**	**Monthly Average**	**Weekly Average**	**Daily Maximum**	**Instantaneous Minimum [1]**	**Instantaneous Minimum [2]**
$BOD_{5@20^{o}C}$	mg/L	20 [3]	30 [3]	45 [3]	---	---
	% removal	≥ 85 [4]	---	---	---	---
pH	pH units	---	---	---	6.5 [3, 5]	8.5 [3, 5]
MBAS	mg/L	0.5 [6]	---	---	---	---
Nitrate + Nitrite as Nitrogen	mg/L	8 [7]	---	---	---	---
Nitrate as Nitrogen	mg/L	8 [7]	---	---	---	---
Nitrite as Nitrogen	mg/L	1 [8]	---	---	---	---
Total Dissolved Solids	mg/L	2,000 [8]	---	---	---	---
Sulfate	mg/L	500 [8]	---	---	---	---
Chloride	mg/L	500 [8]	---	---	---	---
Boron	mg/L	2.0 [8]	---	---	---	---

[1]. Instantaneous Minimum Effluent Limit: The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limit).
[2]. Instantaneous Maximum Effluent Limit: The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limit).
[3]. Limits are based on best professional judgment. Limits adopted by this Regional Board exist in the permits for tertiary-treated wastewater treatment plants.
[4]. Limits are based on secondary treatment requirements, 40 CFR section 133.102.
[5]. Excursion from this range shall not be considered a violation provided the duration is not more than 10 minutes in a 24-hour period, and pH shall at all times be within 6 to 9.
[6]. Basin Plan Title 22 Drinking Water Standard for methylene blue activated substances (MBAS.
[7]. Limits are determined based on the model results, and to be consistent with State Water Board Resolution No. 68-16.
[8]. Basin Plan Groundwater Quality Objective.

6. Recycled water used for irrigation and waste disposal via aquifer injection and groundwater percolation shall be limited to tertiary-treated and disinfected effluent only, as proposed. The tertiary-treated and disinfected effluent used as recycled water is wastewater that has been filtered and subsequently disinfected with UV that meets the following criteria:

   A. UV disinfection shall comply with the "Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse" (August 2012) published by the National Water Research Institute, which specifies for permeability of membrane filtration that:

      a. The design UV dose shall be at least 80 millijoules per square centimeter (mJ/cm^2) under maximum daily flow; and,

TENTATIVE

b. The filtered effluent UV transmittance shall be 65% or greater at 254 nanometer.

The City shall submit a performance testing protocol for the UV system prior to operation and submit results of the performance testing to the Executive Officer of the Regional Board and DDW as they become available.

B. Effluent shall be, at all times, adequately disinfected and oxidized. In the event that the effluent exceeds any of the following, based on daily grab samples, the City shall suspend recycled water applications until such time that the cause of the failure has been identified and corrected. Any failure to meet the total coliform limits shall be reported to the DDW and the Regional Board in the next quarterly report.

a. A 7-day median of 2.2 most probable number (MPN) per 100 milliliters for two (2) consecutive days;

b. 23 MPN per 100 milliliters in more than one sample in any 30-day period; and,

c. 240 MPN per 100 milliliters in any sample.

C. A filtered wastewater shall be an oxidized wastewater that has been passed through membrane so that the turbidity of the filtered wastewater does not exceed any of the following:

a. 0.2 Nephelometric Turbidity Unit (NTU) more than 5 percent of the time within a 24-hour period; and,

b. 0.5 NTU at any time.

7. Maximum Contaminant Limits: The effluent shall not contain trace, toxic and other constituents in concentrations exceeding the applicable maximum contaminant levels (Attachment A) for drinking water established by the DDW in sections 64431 (Attachment A1), 64443 (Attachment A2), 64444 (Attachment A3), 64533 (Attachment A4), and 64449 (Attachment A5), Article 5, Chapter 15, Title 22 of the CCR, or subsequent revisions or at levels that adversely affect the beneficial uses of receiving groundwater. Concentrations of contaminants in the effluent shall, at all times, not exceed the following MCLs. In case of a violation of any primary or secondary MCL, the City shall notify and submit a report according to Provision IX.6. of this Order.

A. Primary MCLs specified in Chapter 15, Domestic Water Quality and Monitoring, Title 22, CCR:

a. Inorganic chemicals in Section 64431, Table 64431-A, except for nitrogen compounds, Attachment A1 of this Order;

b. Radionuclides in Section 64443, Table 4, Attachment A2 of this Order; and,

TENTATIVE

c. Regulated organic chemicals in Section 64444, Table 64444-A, Attachment A3 of this Order.

B. Primary MCLs for disinfection byproducts specified in Chapter 15.5, Article 2, Section 64533, Table 64533-A, Attachment A4 of this Order.

C. Secondary MCLs in Chapter 15, Domestic Water Quality and Monitoring, Title 22, CCR, Table 64449-A, Attachment A5 of this Order.

TENTATIVE

III. GROUNDWATER LIMITS

1. Groundwater at Well Nos. SMBRP-9, SMBRP-12, LAMW-5S, TY-MW-1, MCWP-MW04D, MCWP-MW04S, MCWP-MW07S, and MCWP-MW09 shall not contain constituents with concentrations exceeding limits listed in Table 10.

Table 10 – Groundwater Limits

Constituents	Units	Monthly Average	7-Day Average	Single Sample Maximum
Nitrate + Nitrite as Nitrogen (for Civic Center Gravels)	mg/L	5 [1]	---	---
Nitrate + Nitrite as Nitrogen (for Shallow Alluvium)	mg/L	10 [2]	---	---
Total Dissolved Solids	mg/L	2,000 [3]	---	---
Sulfate	mg/L	500 [3]	---	---
Chloride	mg/L	500 [3]	---	---
Boron	mg/L	2.0 [3]	---	---
Total coliform	MPN/100mL	---	1.1[3]	---
Fecal coliform	MPN/100mL	---	1.1[3]	---

[1]. Limit for deep Well Nos. MCWP-MW09 and MCWP-MW04D is based on the anti-degradation analysis summarized in the report titled "*Assimilative Capacity and Antidegradation Analysis for Proposed Injection Dispersal*", dated May 15, 2014

[2]. Limit for shallow Well Nos. SMBRP-9, TY-MW-1, MCWP-MW04S, MCWP-MW07S, SMBRP-12, and LAMW-5S is based on Basin Plan Groundwater Quality Objectives.

[3]. Basin Plan Groundwater Quality Objectives.

2. The City shall monitor groundwater in both the Shallow Alluvium and Civic Center Gravels for a minimum of two years prior to operation of the Civic Center Facility to establish ambient groundwater quality in both aquifers. The City shall demonstrate that the discharges from the Civic Center Facility do not contribute to the degradation of groundwater quality above either the limits specified in Table 10 or ambient groundwater quality as established by monitoring. This shall be accomplished by compliance with the effluent limits on Table 9.

IV. SPECIFICATIONS FOR USE OF RECYCLED WATER

1. The City is the distributor of the recycled water and responsible for recycled water uses for landscape irrigation, specified in Table 8. The City shall submit a revised Title 22 Engineering Report to DDW and the Regional Board for review and approval, if additional recycled water use is proposed.

2. Recycled water shall not be used for direct human consumption or for the processing of food or drink intended for human consumption.

3. The delivery of recycled water to end-users shall be subject to DDW approval and/or its delegated local agency.

4 The Executive Officer of the Regional Board is delegated with authority to approve the new recycled water application(s), including quantity, upon the DDW's approval recommendation letter on a revised Title 22 Engineering Report received by this Regional Board.

V. USE AREA REQUIREMENTS

"Use area" means an area with defined boundaries, which may contain one or more facilities where recycled water is used. The City shall be responsible to ensure that all users of recycled water comply with the following:

1. No irrigation with, or impoundment of, disinfected secondary-treated recycled water shall take place within 900 feet of any domestic water supply well.

2. Recycled water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles and over-watering, and minimize the production of runoff. Pipelines shall be maintained so as to prevent leakage.

3. Any incidental runoff from recycled water projects shall be handled as follows:

   A. The discharge of recycled water to surface water is prohibited.

   B. Discharges of recycled water to surface waters may only occur where regulated under a separate NPDES permit issued by the Regional Board.

   Incidental runoff is defined as unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area. Irrigation system maintenance shall be consistent with the requirements found in the State Board's Recycled Water Policy.

4. Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities, and shall not contact any drinking water fountain.

5. Recycled water shall not be used for irrigation during periods of rainfall and/or runoff.

6. Recycled water shall be retained on the designated area and shall not be allowed to escape as surface flow.

TENTATIVE

7. All recycled water use areas that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER – DO NOT DRINK" as shown in Figure 7. Each sign shall display an international symbol similar to that shown in Figure 7. An alternative signage and wording may be used upon approval by the Executive Officer of the Regional Board.

8. No physical connection shall be made or allowed to exist between any recycled water piping and any piping conveying potable water, except as allowed under Section 7604 of Title 17, CCR.

9. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs (a faucet or similar device to which a common garden hose can be readily attached). Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.

10. Recycled water use shall not result in earth movement in geologically unstable areas.

VI. REQUIREMENTS FOR DUAL-PLUMBED SYSTEM

1. "Dual plumbed" means a system that utilizes separated piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

   A. To serve plumbing outlets (excluding fire suppression systems) within a building; or,

   B. Outdoor landscape irrigation at individual residences.

2. The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless the connection between the two (2) systems is protected by an air gap separation which complies with the requirements of Section 7602 (a) and 7603 (a) of Title 17, CCR, and that such connection has been approved by the DDW and/or its delegated local agency.

3. The City shall not deliver recycled water to a facility using a dual-plumbed system unless the report required pursuant to Section 13522.5 of the CWC, and which meets the requirements set forth in sections VI.4. and/or VI.5. of this Order, has been submitted, and approved by, DDW or its delegated local agency and the Regional Board. The Regional Board shall be furnished with a copy of the DDW approval within 30 days following the approval.

4. Prior to the initial operation of the dual-plumbed recycled water system and annually thereafter, the dual-plumbed system within each facility and use site shall be inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four (4) years. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the

American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection and testing for the prior year shall be submitted to the DDW within 30 days following completion of the inspection or testing.

5. The City shall notify DDW of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of discovery of the incident.

6. Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with Section 7605 of Title 17, CCR.

VII. GENERAL REQUIREMENTS

1. Bypass, discharge, or delivery to the use area of inadequately treated recycled water, at any time, is prohibited.

2. The recycling facility and areas where any potential pollutants are stored shall be adequately protected from inundation and damage by storm flows and runoff.

3. Adequate freeboard and/or protection shall be maintained in the recycled water storage tanks and process tanks to ensure that direct rainfall will not cause overtopping.

4. The wastewater treatment and use of recycled water shall not result in nuisance conditions caused by breeding of mosquitoes, gnats, midges, or other pests.

5. Odors of sewage origin shall not be perceivable any time outside the boundary of the treatment facility.

6. The City shall, at all times, properly operate and maintain all treatment facilities and control systems (and related appurtenances), which are installed or used by the City to achieve compliance with the conditions of this Order. Proper operation and maintenance includes: effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls (including appropriate quality assurance procedures).

7. Any wastes that do not meet the foregoing requirements shall be held in impervious containers and discharged at a legal point of disposal.

8. A copy of these requirements shall be maintained at the wastewater treatment facility so as to be available at all times to operating personnel.

9. Based on DDW's conditional approval letter, dated September 18, 2014 to the Regional Board, the City shall fulfill the following requirements:

   A. The *Phase I Title 22 Engineering Report* is acceptable for the intended use of the recycled water generated by the Civic Center Facility for landscape irrigation only. If the City plans to pursue additional recycled water uses, the

TENTATIVE

City must submit an engineering report to DDW and the Regional Board for review and approval.

B. The City shall establish an ordinance to regulate any new wells proposed in the Civic Center Area. The ordinance shall protect the beneficial uses of groundwater and human health. Such an ordinance must be established prior to the initiation of the Civic Center Facility operation.

C. Backflow devices are required to prevent cross contamination, as the Civic Center Facility will be able to access potable water should recycled water deliveries not be available. A swing tee or removable pipe section will be included at the Civic Center Facility site, and appropriate backflow prevention measures will be taken as part of the connection process. In accordance with Section 7604 of the Title 17, Table 1(c)(1), air-gap devices shall be provided at premises where the public water system is used to supplement the recycled water supply. An air-gap separation shall be at least double the diameter of the supply pipe and in no case shall this separation be less than one inch pursuant to Section 7602. The location of an-air-gap separation shall be located as close as practical to the user's connection pursuant to Section 7603. The DDW recommends the City to obtain certified cross connection control specialist(s) to inspect and test for potential cross connections.

D. The City shall provide uninterrupted chlorine feed pursuant to Section 60353 of Title 22.

E. The off-spec (inadequately treated) water shall be diverted to an equalization basin. Off-spec water must either be directed back to the head of the Civic Center Facility for another treatment. The City must consult with the Regional Board for the requirements of disposing treated or inadequately treated recycled water.

F. In accordance with Section 60321(a) of Title 22, disinfected tertiary recycled water shall be sampled at least once daily for total coliform bacteria. The coliform samples must be taken when the Civic Center Facility is in operation. The samples shall be taken from the disinfected effluent and analyzed by an approval laboratory. The results of total coliform bacteria shall be reported quarterly to the regulatory agencies.

G. In accordance with Section 60321(b) of Title 22, turbidity must be sampled continuously using a continuous turbidity meter and recorder. The turbidity samples must be taken at intervals of no more than 1.2 hours over a 24-hour period to determine compliance for turbidity. If the continuous turbidity meter and recorder failed, grab sampling may be substituted for a period of up to 24-hours. The results of t shall be reported quarterly to the regulatory agencies.

H. In accordance with Section 64572(d) of Title 22, crossing of potable and non-potable water pipeline shall be constructed no less than 45-degrees and potable water pipeline shall be at least one foot above that pipeline. No connection joints shall be made in the water main within four horizontal feet of the non-potable pipeline.

10. Ponds will be maintained to ensure that percolation rate at the pond bottom will not decrease over time. The City shall submit the as-built dimensions of three percolation ponds to the Regional Board, when they built with the Civic Center Facility.

11. The distribution and irrigation systems shall be maintained by the City.

12. The quality of treated wastewater shall continue to improve after being injected and migrating through aquifer that is defined as part of the treatment zone in the subsurface.

VIII. PROHIBITIONS

1. Wastes discharged and recycled water applications shall not contain tastes, odors, color, foaming, any materials, or other objectionable characteristics in concentrations that would:

   A. Affect human, animal, and plant life;

   B. Cause nuisance or adversely affect the beneficial uses and quality of the receiving groundwater; and,

   C. Impact ocean water that may be in hydraulic connection with groundwater.

2. Discharge of waste classified as 'hazardous', as defined in Section 2521(a) of Title 23, CCR, Section 2510 et seq., is prohibited. Discharge of waste classified as 'designated,' as defined in CWC Section 13173, in a manner that causes violation of receiving water limits, is prohibited.

3. The recycled water storage basin and storage tank shall not contain floating materials, including solids, foams or scum in concentrations that cause nuisance, adversely affect beneficial uses, or serve as a substrate for undesirable bacterial or algae growth or insect vectors.

4. There shall be no onsite disposal of sludge. Sludge-drying activities are allowed, but only as an intermediate treatment prior to offsite disposal. Any offsite disposal of wastewater or sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a California Regional Board or comparable regulatory entity, and which is in full compliance therewith. Any wastewater or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.

5. Odors originating at this facility shall not be perceivable beyond the limits of the facility property owned by the City.

6. No new connections may be made without notification to the Regional Board.

7. The discharge of waste shall not create a condition of pollution, contamination, or nuisance.

8. Bypass, discharge or overflow of untreated wastes, except as allowed by Section VIII.9. of this Order, is prohibited.

9. Bypass (the intentional diversion of waste stream from any portion of a treatment facility) is prohibited. The Regional Board may take enforcement action against the City for bypass unless:

   A. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that cause them to become inoperable, or substantial and permanent loss in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.)

   B. There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment shall have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance.

   C. The City must submit written notice at least 24 hours in advance of the need for a bypass to the Regional Board Executive Officer.

10. Any discharge of wastewater from the treatment system (including the wastewater collection system) at any point other than specifically described in this Order and except as provided for in Section VIII.9 of this Order, is prohibited.

11. Any injection of treated wastewater at any point(s) other than three (3) injection wells defined in this Order is prohibited.

12. The discharge of effluent, including runoff, spray or droplets from the irrigation system, shall not occur outside the boundaries of the land application area.

IX. PROVISIONS

1. The City shall submit plans for any change of the recycled water project to and obtain approval from DDW and the Regional Board. The American Water Works Association Guidelines for the Distribution of Non-Potable Water shall be followed, including installation of purple pipe, adequate signs, etc. As-built drawings shall show the final locations of the potable water, sewer, and recycled water pipelines; and indicate adequate separation between the recycled water and potable domestic water lines, which shall also be marked clearly or labeled using separate colors for identification. In addition, a copy of each application to DDW for a recycled water project shall be delivered to the Regional Board for inclusion in the administrative file.

2. If the recycled water system lateral pipelines are located on an easement contiguous to a homeowners private property and where there is a reasonable probability that an illegal or accidental connection to the recycled water line could be made, the City shall provide a buffer zone or other necessary measures between the recycled water lines and the easement to prevent any illegal or accidental connection to the recycled water lines. The City shall notify such homeowners about the recycled water lateral and restrictions on usage of recycled water.

3. The City shall inspect the recycled water use areas on a periodic basis. A report of findings of the inspection shall be submitted to DDW and the Regional Board.

4. The City shall submit to the Regional Board, under penalty of perjury, technical self-monitoring reports according to the specifications contained in the Monitoring and Reporting Program as directed by the Executive Officer.

5. The City shall notify DDW and this Regional Board by telephone or electronic means within 24 hours of knowledge of any violations of recycled water use conditions, any adverse conditions as a result of the use of recycled water and any discharge exceeding the effluent limits prescribed in this Order from the Civic Center Facility or/and the recycled water storage basin; written confirmation shall follow within 5 working days from date of notification, unless otherwise specified in this Order. The report shall include, but not limited to, the following information, as appropriate:

   A. Nature and extent of the violation;

   B. Date and time: when the violation started, when compliance was achieved; and, when injection was suspended and restored, as applicable;

   C. Duration of violation;

   D. Cause(s) of violation;

   E. Corrective and/or remedial actions taken and/or will be taken with time schedule for implementation to prevent future violations; and

   F. Impact of the violation.

6. The direct use of disinfected recycled water for irrigation and unpaved roadway dust control could affect the public health, safety, or welfare; requirements for such uses are therefore necessary in accordance with Section 13523 of the CWC.

7. The 50,000-gallon recycled water storage tank shall comply with the following provisions:

   A. The recycled water storage tank is designed not to spill during wet months. Under this circumstance, spills that occur under extreme weather conditions or emergencies should not be considered for enforcement.

   B. The recycled water storage tank can be drained and refilled with potable water or flushed with potable water prior to the onset of the wet season. Flushing will not displace all of the recycled water but the water quality threat is minimal.

TENTATIVE

8. This Order does not exempt the City from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize the recycling and use facilities; and they leave unaffected any further constraint on the use of recycled water at certain site(s) that may be contained in other statutes or required by other agencies.

9. This Order does not alleviate the responsibility of the City to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of the recycled water distribution facility shall be contingent upon issuance of all necessary requirements and permits, including a conditional use permit.

10. After notice and opportunity for a hearing, this Order may be modified, revoked and reissued, or terminated for cause, that include, but is not limited to: failure to comply with any condition in this Order, endangerment of human health or environment resulting from the permitted activities in this Order, obtaining this Order by misrepresentation or failure to disclose all relevant facts, and acquisition of new information which could have justified the application of different conditions if known at the time of Order adoption.

    The filing of a request by the City for modification, revocation and reissuance, or termination of the Order; or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

11. The City shall furnish, within a reasonable time, any information that the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The City shall also furnish the Regional Board, upon request, with copies of records required to be kept under this Order for at least three (3) years.

12. In an enforcement action, it shall not be a defense for the City that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the City shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost.

13. This Order includes "Standard Provisions Applicable to Waste Discharge Requirements" (Attachment B – Standard Provisions). In the event of conflict between provisions stated herein and the Standard Provisions, the provisions stated herein prevail.

14. This Order includes the WDRs/WRRs and the attached MRP (CI No. 10042). If there is any conflict among provisions stated in the MRP and these WDRs/WRRs, those provisions stated herein before prevail.

15. After a year of injecting treated wastewater into the aquifers, the City shall update the OMM Plan and submit it to the Regional Board for review and approval, if there is

TENTATIVE

any change to the original OMM Plan. The Civic Center Facility shall be operated in accordance with the approved OMM Plan.

The OMM Plan shall cover critical operational parameters to include routine testing procedures for optimization of the UV dose for disinfection and reduction of light-sensitive contaminants, and all treatment processes, maintenance and calibration schedules for all monitoring equipment, process alarm set points, and response procedures for all alarms in each treatment process of the Civic Center Facility, including criteria for diverting recycled water if water quality requirements are not met, start-up, emergency response and contingency plans. During the first year of operation of the Civic Center Facility, all treatment processes shall be optimized to reduce contaminant levels. The results of these initial optimization efforts shall be incorporated into the updated OMM Plan. The OMM Plan shall include staffing levels with applicable certification levels for the Civic Center Facility operations personnel. Significant changes in the operation of any of the treatment processes shall be reported to the DDW and the Regional Board. Changes in the approved OMM Plan must be approved by the DDW and the Regional Board prior to instituting changes.

Six (6) months prior to initiating Phase II Project planning, the City shall submit the Phase II Title 22 Engineering Report, with necessary updates, to DDW and the Regional Board for approval. The City shall furnish a copy of DDW's approval letter of the Phase II Title 22 Engineering Report to the Regional Board. The City is not allowed to use any recycled water prior to receiving the DDW's approval letter.

16. For any material change or proposed change in character, location or volume of recycled water, or its uses, the City shall submit at least 120 days prior to the proposed change an engineering report or addendum to the existing engineering report to the Regional Board and DDW [pursuant to CWC, section 13522.5 and CCR, Title 22, Section 60320.080] for approval. The Title 22 Engineering Report shall be prepared by a qualified engineer and geologist, registered or certified in the State of California. However, replacement of injection wells will not require a report of material change, or filing of a new Report of Waste Discharge.

17. The City shall provide an Annual Report described in the MRP to this Regional Board.

18. In order to limit the presence of constituents of concerns specified in Section II in the effluent and the recycled water including regulated and unregulated contaminants identified in Attachments A1 to A5 and Attachments C to E of the accompanying MRP, the City shall, for the purposes of protecting public health, ensure that its equipment and facilities for treatment and disposal operate at levels of peak performance.

19. Spill Clean-Up Contingency Plan (SCP) Requirements – Within ninety (90) days, the City is required to submit a SCP, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the City's collection system or treatment facilities. At a minimum, this SCP shall include sections on spill clean-up and containment measures, public notification, and monitoring. The City shall review and amend this SCP as

TENTATIVE

appropriate after each spill from the Civic Center Facility or in the service area of the Civic Center Facility. The City shall include a discussion in the annual summary report of any modifications to the SCP and the application of the SCP to all spills during the year.

20. Construction, Operation, and Maintenance Requirements

    A. The Civic Center Facility subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR, Title 23, division 3, chapter 26 (Section 13625 - 13633).

    B. The City shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the City shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

    C. The City shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

21. Sludge Disposal Requirements

    A. All sludge generated at the wastewater treatment plant will be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 CFR part 503. These requirements are enforceable by USEPA.

    B. The City shall ensure compliance with the requirements in State Water Board Order No. 2004-10-DWQ, *"General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities"* for those sites receiving the City's biosolids which a Regional Water Quality Control Board has placed under this general order, and with the requirements in individual Waste Discharge Requirements (WDRs) issued by a Regional Board for sites receiving the City's biosolids.

    C. The City shall comply, if applicable, with WDRs issued by other Regional Boards to which jurisdiction the biosolids are transported and applied.

    D. The City shall furnish this Regional Board with a copy of any report submitted to USEPA, the State Water Board or other Regional Board, with respect to municipal sludge or biosolids.

22. Collection System Requirements

    The State Water Board adopted General WDRs for Sanitary Sewer Systems, (WQ Order No. 2006-0003) on May 2, 2006, to provide a consistent, statewide regulatory

TENTATIVE

approach to address SSO. The SSO WDRs require public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database. The City's collection system is part of the system that is subject to the WQ Order No. 2006-0003. As such, the City must properly operate and maintain its collection system (40 CFR part 122.41(e)). The City must report any non-compliance (40 CFR part 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR part 122.41(d)).

23. Spill Reporting Requirements

A. **Initial Notification** – Although State and Regional Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the City shall make notifications as required below:

a. In accordance with the requirements of Health and Safety Code section 5411.5, the City shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than two (2) hours after becoming aware of the release.

b. In accordance with the requirements of CWC section 13271, the City shall provide notification to the California Emergency Management Agency (Cal EMA) of the release of reportable quantities of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. CCR, Title 23, section 2250, established 1,000 gallons or more as a reportable quantity of sewage. The phone number for reporting these releases to the Cal EMA is (800) 852-7550.

c. The City shall notify the Regional Board of any unauthorized release of sewage from the Civic Center Facility that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. This initial notification does not need to be made if the City has notified Cal EMA and the local health officer or the director of environmental health with jurisdiction over the affected waterbody. The phone number for reporting these releases of sewage to the Regional Board is (213) 576-6683. The phone numbers for after hours and weekend reporting of releases of sewage to the Regional Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Regional Board:

TENTATIVE

i. The location, date, and time of the release;

ii. The water body that may be impacted by the discharge;

iii. An estimate of the amount of sewage or other waste released and the amount that reached the receiving water at the time of notification;

iv. If ongoing, the estimated flow rate of the release at the time of the notification;

v. The name, organization, phone number and email address of the reporting representative; and,

vi. A certification that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the possibly affected water bodies have been notified of the discharge.

B. **Monitoring** – For spills, overflows and bypasses reported under Section IX.23.A., the City shall monitor as required below:

To define the geographical extent of spill's impact, the City shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the State (including surface and ground waters). The City shall analyze the samples for total and fecal coliforms, E. coli (if fecal coliform test shows positive), enterococcus, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible and safe). This monitoring shall be done on a daily basis from time the spill is known until the results of two (2) consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

C. **Reporting** – The initial notification required under Section IX.23.A. shall be followed by:

a. As soon as possible, but not later than twenty-four (24) hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the City shall submit a statement to Regional Board staff via email. If the discharge is 1,000 gallons or more, this statement shall certify that Cal EMA has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

i. Agency, Order No., and MRP CI No.;

ii. The location, date, and time of the discharge;

iii. The water body that received the discharge;

iv. A description of the level of treatment of the sewage or other waste discharged;

v. An initial estimate of the amount of sewage or other waste released and the amount that reached the impacted water body;

vi. The Cal EMA control number and the date and time that notification of the incident was provided to Cal EMA; and,

vii. The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

b. A written preliminary report shall be submitted to the Regional Board within five (5) working days after disclosure of the incident via the State Board GeoTracker database under Global ID WDR100000359. The final written report shall be included in the next quarterly monitoring report submitted to the GeoTracker database above. The written report shall document the information required in paragraph Section IX.23.D. below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.

c. The City shall include a certification in the annual summary report (due according to the schedule in the accompanying MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the City's preventive maintenance plan. Any deviations from or modifications to the Plan shall be discussed.

D. **Records** – The City shall prepare and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or Civic Center Facility. This record shall be made available to the Regional Board upon request and a spill summary shall be included in the annual report, as required in the MRP CI No. 10042. The record shall contain:

a. The date and time of each spill, overflow, or bypass;

b. The location of each spill, overflow, or bypass;

c. The estimated volume of each spill, overflow, or bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by Section IX.23.B.;

d. The cause of each spill, overflow, or bypass;

TENTATIVE

e. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;

f. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and

g. The mandatory information included in Sanitary Sewer Overflows (SSO) online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSO WDR.

E. **Activities Coordination** – The Regional Board expects that the City will coordinate their compliance activities for consistency and efficiency with other entitles that have responsibilities to implement: (i) this WDRs/WRRs permit, and (ii) the SSO WDRs.

F. **Consistency with SSO WDRs** – The requirements contained in this Order in Sections IX.19. (SCP Requirements), IX.20. (Construction, Operation, and Maintenance Requirements), and IX.23. (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDRs. The Regional Board recognizes that there may be some overlap between the WDRs/WRRs permit provisions and SSO WDRs requirements. The requirements of the SSO WDRs are considered the minimum thresholds (see Finding 11 of WQ Order No. 2006-0003). To encourage efficiency, the Regional Board will accept the documentation prepared by the City under the SSO WDRs for compliance purposes, as satisfying the requirements in Sections IX.19., IX.20., and IX.23. provided the more stringent provisions enumerated in this Order, have also been addressed.

24. Constituents of Emerging Concerns (CEC) Requirements

A. In recent years, the Regional Board has incorporated monitoring of a select group of anthropogenic chemicals, particularly pesticides, pharmaceuticals and personal care products, known collectively as CECs, into permits to better understand the propensity, persistence and effects of CECs in our environment. Recently adopted permits in this region contain requirements for CEC effluent monitoring, including identification of the CECs to be monitored in the effluent, sample type, sampling frequency, and sampling methodology.

B. The City shall monitor the CECs in the effluent discharge as listed in Attachment C. Monitoring results shall be reported as part of the annual report. Analysis under this section is for monitoring purposes only. Analytical results will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

X. REOPENER

This Order may be reopened any time at the Regional Board's discretion to include the most scientifically relevant, and appropriate limits or other requirements for the Civic

Center Facility and may specifically be reopened to make revisions consistent with an approved salt and nutrient management plan.

XI. EFFECTIVE DATE OF THE ORDER

This Order takes effect upon its adoption.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on March 12, 2015.

TENTATIVE

_____
Samuel Unger, P.E.
Executive Officer

/DTSAI/

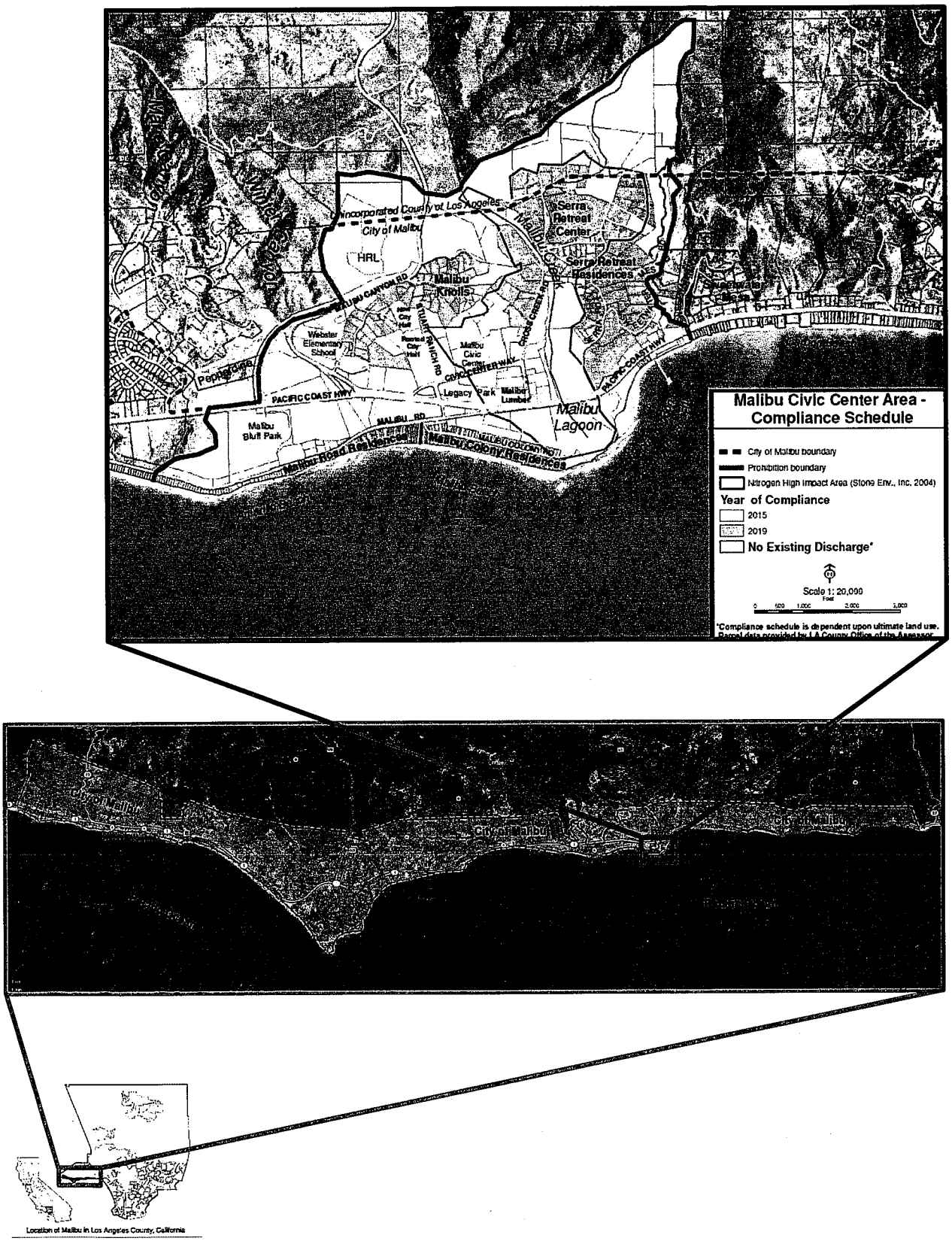

Figure 1 – Malibu Civic Center Area

TENTATIVE

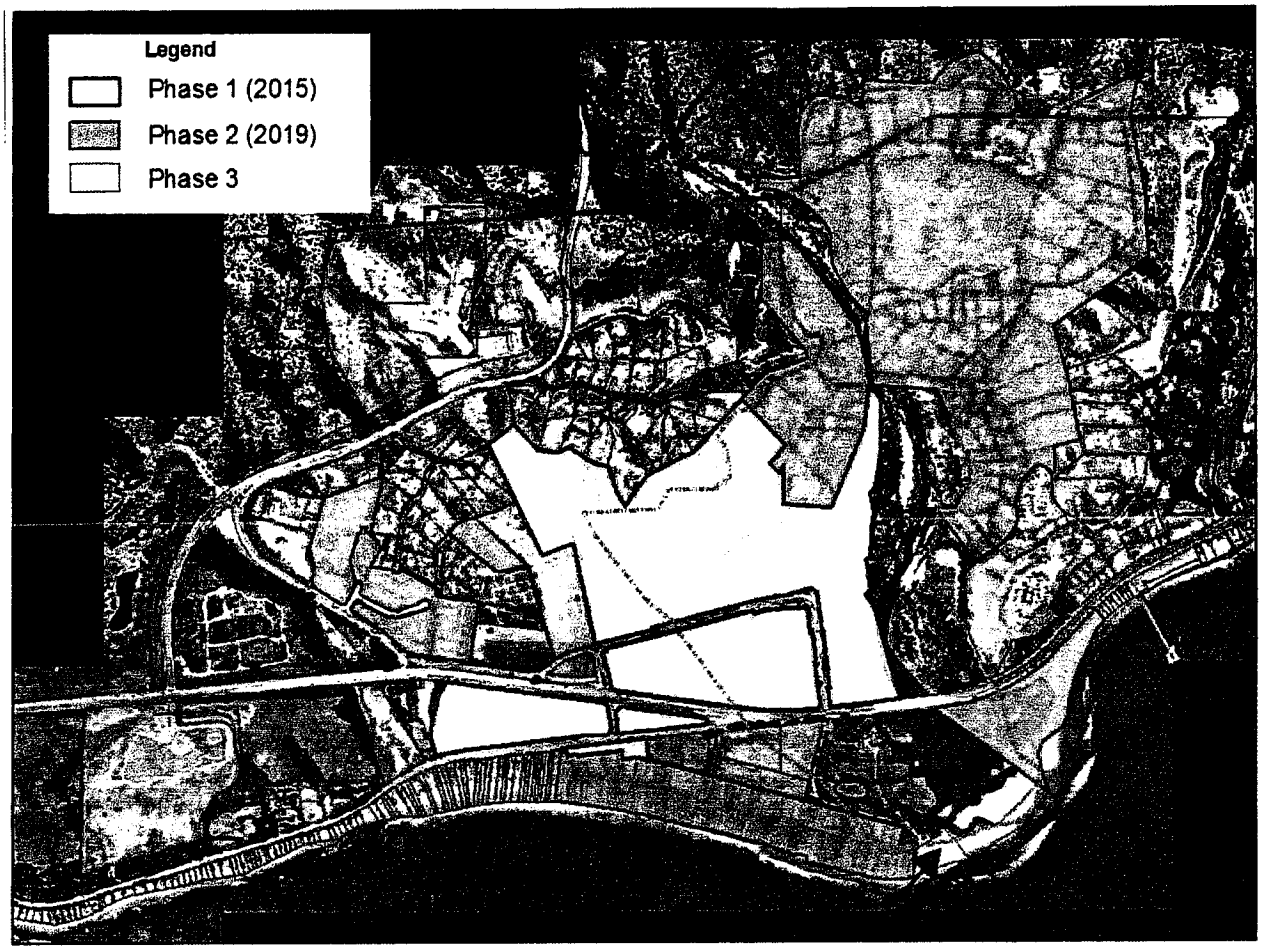

Figure 2 – Civic Center Wastewater Treatment Facility Phasing Options

TENTATIVE

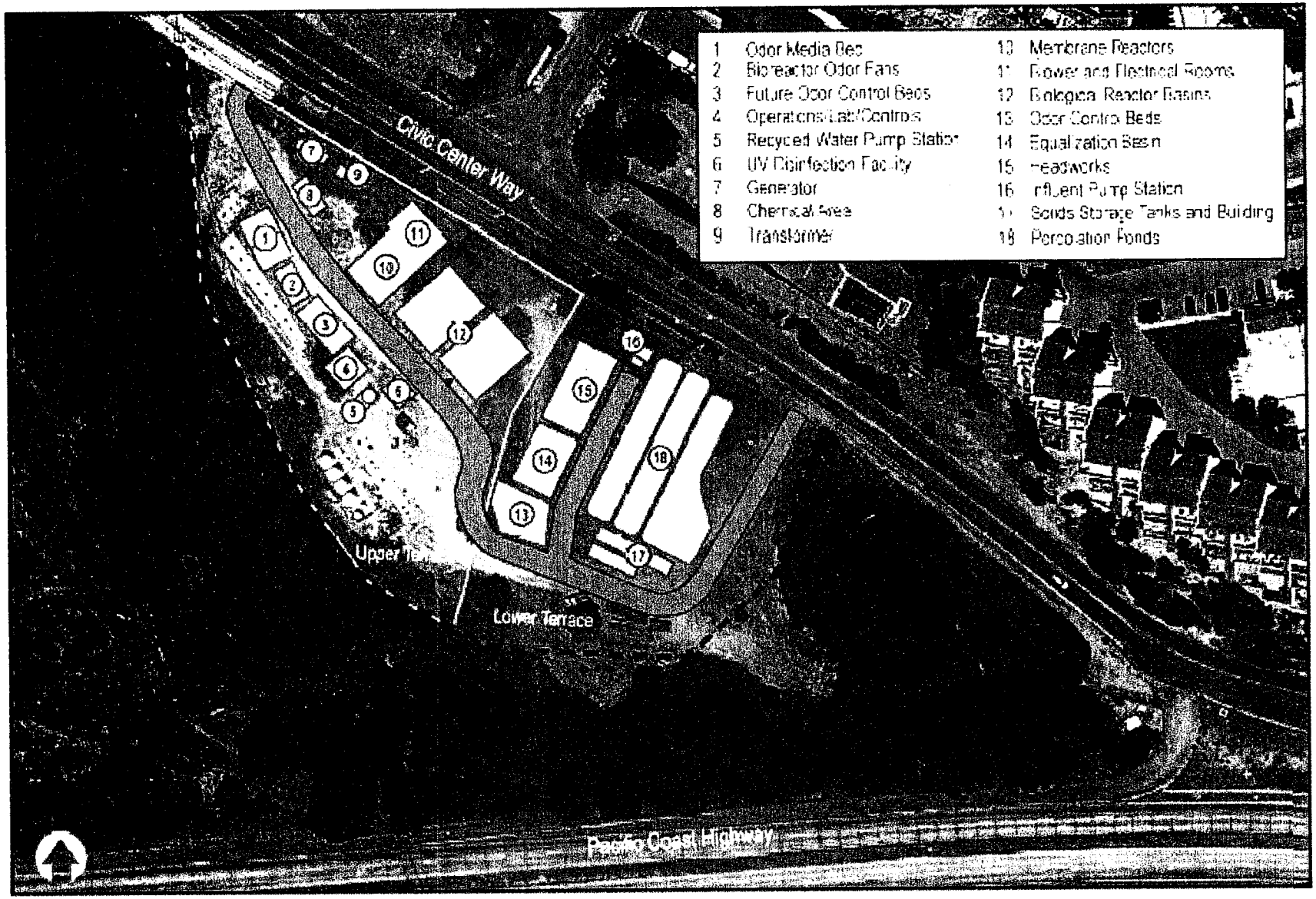

Figure 3 – Layouts of Malibu Civic Center Wastewater Treatment Facility

TENTATIVE

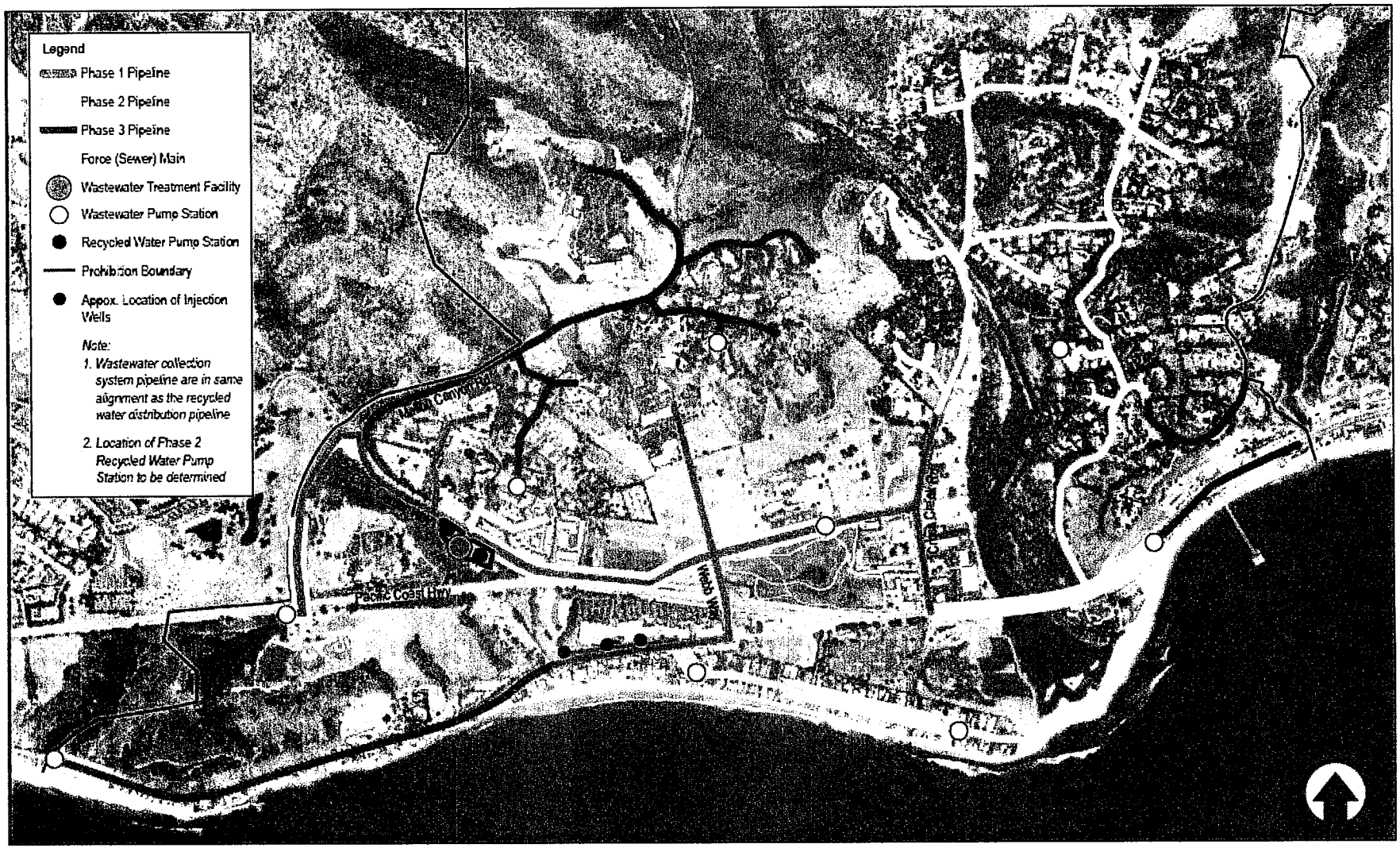

Figure 4 – Locations of Malibu Civic Center Wastewater Treatment Facility, Wastewater Collection and Recycled Water Pipelines, Wastewater and Recycled Water Pump Stations, and Injection Wells

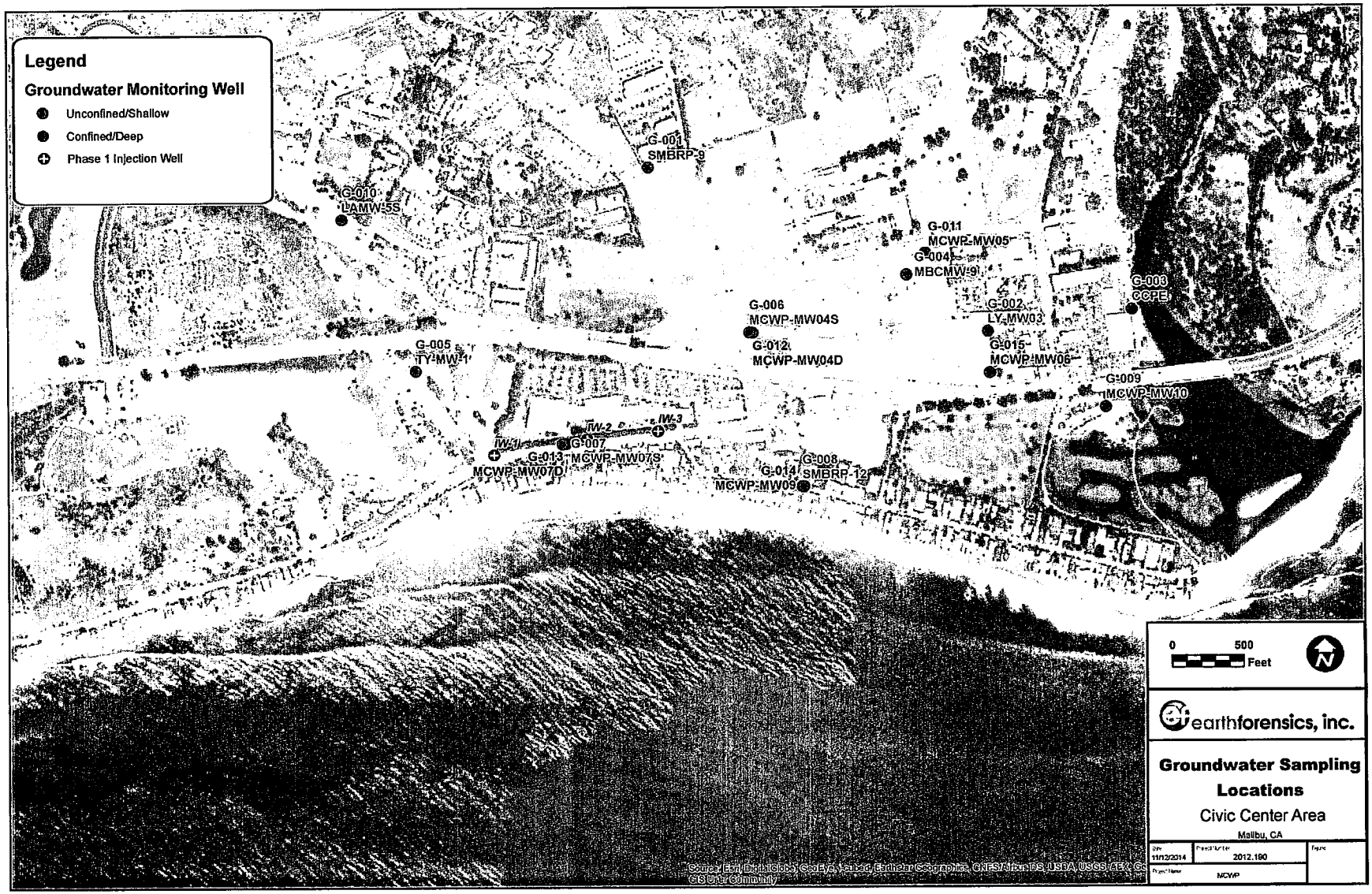

Figure 5 – Locations of Groundwater Monitoring Wells and Injection Wells

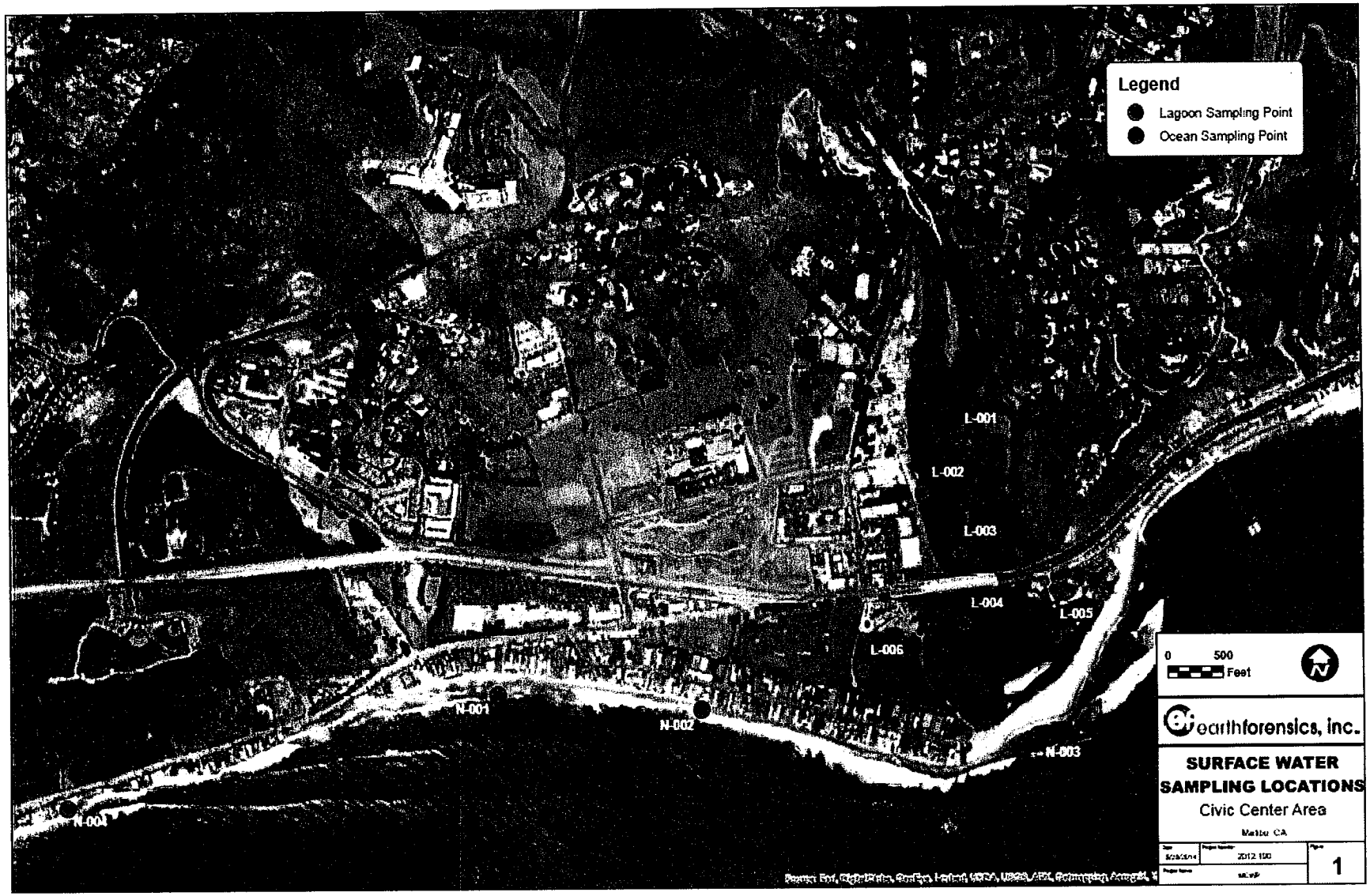

Figure 6 – Locations of Surface Water Monitoring Stations

TENTATIVE

Figure 7 – Exhibition of "Recycled Water – Do Not Drink"

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

320 West 4th Street, Suite 200, Los Angeles, California 90013
(213) 576-6660 • Fax (213) 576-6640
http://www.waterboards.ca.gov/losangeles/

MONITORING AND REPORTING PROGRAM CI. NO. 10042
FOR
CITY OF MALIBU
(MALIBU CIVIC CENTER WASTEWATER TREATMENT PLANT – PHASES I & II PROJECTS)
(File No. 11-087)

TENTATIVE

This Monitoring and Reporting Program (MRP) No. CI 10042 is issued pursuant to California Water Code section 13267, which authorizes the Regional Water Quality Control Board, Los Angeles Region, (Regional Board) to require the City of Malibu (City) who discharges the tertiary-treated wastewater generated from the Malibu Civic Center Wastewater Treatment Facility (Civic Center Facility) into aquifers and/or recycles it for landscape irrigation to furnish technical or monitoring reports. The reports required herein are necessary to assure compliance with Waste Discharge Requirements (WDRs) and Water Recycling Requirements (WRRs) Order No. R4-2015-XXXX and to protect the waters of the state and their beneficial uses. The evidence that supports the need for the reports is set forth in the WDRs/WRRs and the Regional Board record.

I. SUBMITTAL OF REPORTS

1. The City shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all reports required under the MRP, including electronic data format (EDF) groundwater and surface water monitoring data, injection location data, and monitoring reports. These reports shall be received by the Regional Board via the State Water Resources Control Board (State Water Board) GeoTracker database under Global ID WDR100000359 on the dates indicated as follows:

   A. **Quarterly Monitoring Reports** shall be received by the Regional Board by the 30th day of the month following the end of each quarterly monitoring period according to Table 1. The first Quarterly Monitoring Report under this program must be received by the Regional Board by July 30, 2015.

Table 1 – Reporting Period and Due	
Reporting Period	**Report Due**
January ~ March	April 30
April ~ June	July 30
July ~ September	October 30
October ~ December	January 30

   B. **Annual Summary Report** shall be received by the Regional Board by March 1 of each year. The first Annual Summary Report under this program must be received by the Regional Board no later than March 1, 2016.

2. If there is no discharge and/or water recycled during any reporting period, the report shall so state. Data collected during installation of injection wells or monitoring wells shall be included in the quarterly and annual report.

3. The data shall include the well specifications, ordinances, well heads elevation to mean sea level (MSL) and the method to develop the well. The construction of wells shall follow *California Well Standards* of the California Department of Water Resources.

4. All report shall be prepared by or under the direction of a licensed engineer in the State of California or a certified hydrogeologist in the State of California. All monitoring reports must include, at minimum, the following:

   A. Well and surface water station identification, date and time of sampling;

   B. Sampler identification, and laboratory identification; and,

   C. Quarterly observation of groundwater levels, recorded to 0.01 feet MSL, and flow direction.

II. MONITORING REQUIREMENTS

1. Monitoring shall be used to determine compliance with the requirements of the Order No. R4-2015-XXXX and shall include, but not limited to, implementation and documentation of the following:

   A. Locations of each groundwater and surface water monitoring station where representative samples can be obtained and the rationale for the selection. The City must include a map, at a scale of 1 inch equals 1,200 feet or less, that clearly identifies the locations of the Civic Center Facility, all groundwater monitoring wells, injection wells, and surface water monitoring stations.

   B. Sampling protocols (specified in 40 CFR Part 136 or American Water Works Association standards where appropriate) and chain of custody procedures.

   C. For groundwater monitoring, outline the methods and procedures to be used for measuring water levels; purging wells; collecting samples; decontaminating equipment; containing, preserving, and shipping samples; and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of purge and decontamination waters generated from the sampling events.

   D. For surface water monitoring, outline the methods and procedures to be used for collecting samples; decontaminating equipment; containing, preserving, and shipping samples; and maintaining appropriate documentation. Also include the procedures for handling, storing, testing, and disposing of decontamination waters generated from the sampling events.

   E. Laboratory or laboratories, which conducted the analyses. Include copy or copies of laboratory certifications by the Environmental Laboratory

TENTATIVE

Accreditation Program (ELAP) of the State Water Board's Division of Drinking Water (DDW) every year or when the City changes their contract laboratory.

F. Analytical test methods used and the corresponding Detection Limits for Purposes of Reporting (DLR) for unregulated and regulated chemicals. Please see the DDW's website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/EDT.shtml for unregulated and regulated chemicals.

F. Quality assurance and control measures.

2. The samples shall be analyzed using analytical methods described in 40 CFR Part 136; or where no methods are specified for a given pollutant, by commercially available methods approved by the United State Environmental Protection Agency (USEPA) or DDW, Regional Board and/or State Board. The City shall select the analytical methods that provide reporting detection limits (RDLs) lower than the limits prescribed in the accompanying Order No. R4-2015-XXXX.

3. The City shall instruct its laboratories to establish calibration standards so that the RDLs (or its equivalent if there is a different treatment of samples relative to calibration standards) are the lowest calibration standard. At no time shall the City use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

4. Upon request by the City, the Regional Board, in consultation with the USEPA or DDW and the State Board Quality Assurance Program, may establish RDLs, in any of the following situations:

   A. When the pollutant has no established method under 40 CFR 136 (revised May14, 1999, or subsequent revision);

   B. When the method under 40 CFR 136 for the pollutant has a RDL higher than the limit specified in this Order; or,

   C. When the City agree to use a test method that is more sensitive than those specified in 40 CFR Part 136 and is commercially available.

5. Samples of disinfected effluent must be analyzed within allowable holding time limits as specified in 40 CFR Part 136.3. All QA/QC analyses must be run on the same dates when samples were actually analyzed. The City shall make available for inspection and/or submit the QA/QC documentation upon request by Regional Board staff. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the quarterly report.

6. For unregulated chemical analyses, the City shall select methods according to the following approach:

   A. Use drinking water methods, if available;

   B. Use DDW-recommended methods for unregulated chemicals, if available;

TENTATIVE

C. If there is no DDW-recommended drinking water method for a chemical, and more than a single USEPA-approved method is available, use the most sensitive USEPA-approved method;

D. If there is no USEPA-approved method for a chemical, and more than one method is available from the scientific literature and commercial laboratory, after consultation with DDW, use the most sensitive method;

E. If no approved method is available for a specific chemical, the City's laboratory may develop or use its own methods and should provide the analytical methods to DDW or the Regional Board for review. Those methods may be used until DDW recommended or USEPA-approved methods are available.

F. If the only method available for a chemical is for wastewater analysis (e.g., a chemical listed as a priority pollutant only), sample and analyze for that chemical in the treated and disinfected effluent.. Use this approach until the City's laboratory develops a method for the chemical in drinking water, or until a DDW-recommended or USEPA-approved drinking water method is available.

G. The City is required to inform the Regional Board, in event that D, E, F is occurring.

7. For constituents of emerging concerns (CECs) analyses:

CECs (see Attachment C2) are being collected for information purposes. There are currently no standards for the constituents listed in attachment C2. The attached reporting limits shall be used for these constituents.

TENTATIVE

III. REPORTING REQUIREMENTS

The City shall submit all reports to the Regional Board by the dates indicated in Section I. All quarterly, and annual monitoring reports shall contain a separate section titled "Summary of Non-Compliance", which discusses the compliance records and corrective actions taken or planned that may be needed to bring the reuse into full compliance with water recycling requirements. All quarterly and annual reports shall clearly list all non-compliance with WDRs/WRRs, as well as all excursions of effluent limits.

1. Quarterly reports

A. These reports shall include, at a minimum, the following information:

a. The volume of the effluent and the volume of treated wastewater used for injection via land disposal, landscape irrigation, and/or percolation. If no recycled water is used during the quarter, the report shall so state.

b. The date and time of sampling and analyses on the effluent, groundwater, and surface water.

c. All analytical results of samples collected during the monitoring period of the effluent, groundwater, and surface water.

d. Documentation of all QA/QC procedures that were followed during sampling and laboratory analyses

e. Records of any operational problems, plant upset and equipment breakdowns or malfunctions, and any discharge(s) used for injection via land disposal, landscape irrigation, and/or percolation.

f. Discussion of compliance, noncompliance, or violation of requirements.

f. All corrective or preventive action(s) taken or planned with schedule of implementation, if any violation occurs.

B. For the purpose of reporting compliance with numerical limitations, analytical data shall be reported using the following reporting protocols:

a. Sample results greater than or equal to the RDL must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample);

b. Sample results less than the RDL, but greater than or equal to the laboratory's method detection limit (MDL), must be reported as "Detected, but Not Quantified", or DNQ. The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to Est. Conc.); or

c. Sample results less than the laboratory's MDL must be reported as "None-Detected", or ND.

C. If the City samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any sample more frequently than required in this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be included in the calculation of the average used in demonstrating compliance with average effluent, receiving groundwater water, etc., limitations.

D. The Regional Board may request supporting documentation, such as daily logs of operations.

2. Annual Reports

A. Tabular and graphical summaries of the monitoring data (quality of tertiary treated effluent, groundwater, and surface water; quantity of injected water) obtained during the previous calendar year. A comparison of laboratory results against effluent limits contained in these WDR/WRRs and notations of any exceedences of limits or other requirements shall be summarized and submitted at the beginning of the report.

B. Discussion of the compliance record and corrective or preventive action(s) taken or planned that may be needed to bring the treated effluent, including the

TENTATIVE

treated effluent used for recycled water, into full compliance with the requirements in the accompanying Order No. R4-2015-XXXX.

C. An in-depth discussion of the results of the final effluent monitoring, groundwater monitoring, and surface water monitoring programs conducted during the previous year includes:

   a. Any change of receiving groundwater and surface water quality resulting from injection and use of recycled water for landscape irrigation; and,

   b. Any change of groundwater flow pattern resulting from injection.

   Temporal and spatial trends in the data shall be analyzed, with particular reference to comparisons between stations with respect to distances from the monitoring wells and comparisons to data collected during previous years. Appropriate statistical tests and indices, subject to approval by the Executive Officer, shall be calculated and included in the annual report.

D. The description of any changes and anticipated changes including any impacts in operation of any unit processes or facilities shall be provided.

E. A list of the analytical methods employed for each test and associated laboratory quality assurance/quality control procedures shall be included. The report shall restate the laboratories used by the City to monitor compliance with the accompanying Order, their status of certification, and provide a summary of analyses.

F. The report shall confirm operator certification and provide a list of current operating personnel, their responsibilities, and their corresponding grade of certification.

G. The report shall also summarize any change of the **Operation, Maintenance, and Monitoring Plan (OMM Plan)** due to the optimization of the existing Civic Center Facility operation. The summary shall discuss conformance with the Civic Center Facility's OMM Plan for operations, maintenance, and monitoring of the Civic Center Facility, and whether the OMM Plan requires revision for the current facilities.

H. Each annual report shall summarize the groundwater flow and transport and summary of the injection operations for the project. This report shall also use the most current data for the evaluation of the transport of injected water including concerns of emerging constituents; such evaluations must include, at a minimum, the following information:

   a. Total quantity of water injected into each major aquifer;

   b. Estimates of the rate and path of flow of the injected water; and,

c. Data used as parameters to calculate the rates of groundwater flow and volume of injected water reaching Santa Monica Bay, Malibu Creek and Lagoon.

IV. WATER QUALITY MONITORING REQUIREMENTS

1. Influent Monitoring

A. Influent monitoring is required to:

a. Determine compliance with WDRs/WRRs permit conditions.

b. Assess Civic Center Facility performance.

B. The City shall monitor influent to the Civic Center Facility at Influent Pump Station located in the main stream of the influent channel prior to the headworks as specified in Table 2.

Table 2 – Influent Monitoring

Constituents	Units [1]	Type of Sample	Minimum Frequency of Analysis
Total waste flow	gpd	Recorder	Continuous [2]
Total suspended solids	mg/L	24-hour comp.	Weekly
$BOD_{5@20^{\circ}C}$	mg/L	24-hour comp.	Weekly

[1]. gpd: gallons per day;
mg/L: milligram/liter;
[2]. The City shall report the daily minimum, maximum, and average values.

2. Effluent Monitoring

A. Effluent monitoring is required to:

a. Determine compliance with WDRs/WRRs permit conditions and water quality standards.

b. Assess Civic Center Facility performance, identify operational problems and improve Facility performance.

B. The City shall monitor the discharge of tertiary-treated effluent at downstream of all treated effluent passing through this station, including the final disinfection process. If more than one analytical test method is listed for a given parameter, the City must select from the listed methods and corresponding Minimum Level.

C. The following shall constitute the effluent monitoring program, specified in Table 3:

TENTATIVE

Table 3 – Effluent/Recycled Water Monitoring			
Constituent	**Unit [1]**	**Type of Sample [2]**	**Minimum Frequency of Analysis**
Total Flow	gpd	Recorder	Continuous [3]
pH	pH units	Grab	Daily
$BOD_{5@20^{\circ}C}$	mg/L	24-hour composite	Weekly
Turbidity	NTU	Recorder	1.2 Hours [4]
Total Coliform	MPN/100mL	Grab	Daily
Fecal Coliform	MPN/100mL	Grab	Daily
Total Suspended Solids	mg/L	Grab	Weekly
Residual Chlorine	mg/L	Grab	Daily
Oil and Grease	mg/L	Grab	Monthly
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Weekly
Nitrate as Nitrogen	mg/L	Grab	Weekly
Nitrite as Nitrogen	mg/L	Grab	Weekly
Ammonia Nitrogen	mg/L	Grab	Weekly
Organic Nitrogen	mg/L	Grab	Weekly
Total Nitrogen[5]	mg/L	Grab	Weekly
Total Phosphorus	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
Sulfate	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Boron	mg/L	Grab	Monthly
MBAS[6]	mg/L	Grab	Monthly
Constituents listed in Attachments A1 to A5	various	Grab/24-hour composite	Quarterly
CECs[7] in Attachment C	various	Grab	Annually
Priority Pollutants in Attachment D	µg/L	Grab	Annually

[1]. NTU: nephelometric turbidity unit;
MPN/100mL: Most Probable Number/100 milliliter

[2]. Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. When an automatic composite sampler is not used, composite sampling shall be done as follows: If the duration of the discharge is equal to or less than 24 hours but greater than eight (8) hours, at least eight (8) flow-weighted samples shall be obtained during the discharge period and composited. For discharge duration of less than eight (8) hours, individual 'grab' sample may.

TENTATIVE

be substituted. 24-hour composite is for semi-volatile and volatile chemicals.

[3]. The City shall report the daily minimum, maximum, and average values. The City shall report the estimated daily volume of wastewater used for irrigation and for spray disposal.

[4]. The turbidity samples must be taken at intervals of no more than 1.2 hours over a 24-hour period to determine compliance for turbidity. If the continuous turbidity meter and recorder failed, grab sampling may be substituted for a period of up to 24-hours.

[5]. Total nitrogen: Sum of nitrate, nitrite, organic nitrogen and ammonia (all expressed as nitrogen).

[6] MBAS: Methylene Blue Active Substances

[7]. CECs: Constituents of Emerging Concerns. The City shall monitor the CECs in the effluent discharge. The City shall follow the requirements as discussed in the accompanying Permit Section IX.24.B. Analysis under this section is for monitoring purposes only. Analytical results obtained will not be used for compliance determination purposes, since the methods have not been incorporated into 40 CFR part 136.

D. CECs: CECs, listed in Attachment D, shall be monitored annually. The Executive Officer may add or delete chemicals from this list as new analytical methods become available and may also make revisions to approved analytical methods as needed. A revised CECs list will be made available to the City when changes occur. The City shall request (and submit a justification for) any deviation from the attached list for EO approval, if a change is required, before collecting samples.

3. **Groundwater Monitoring**

A. Groundwater Monitoring Well Specifications: Table 4 shows specifications of groundwater monitoring wells for baseline and long-term groundwater monitoring programs.

Table 4 – Specifications of Groundwater Monitoring Wells

ID	Monitoring Well Location	Well Depth (BGS[1])	Purpose of Monitoring Location
SMBRP-9	34°2'16.46" N; 118°41'34.90" W	45 feet	Upgradient water quality in the shallow alluvium
TY-MW-1	34°2'4.91" N; 118°41'51.03" W	41 feet	Downgradient water quality in Winter Canyon
MCWP-MW04S	34°2'7.08" N; 118°41'28.07" W	20 feet	Upgradient shallow alluvial water quality of the Malibu Colony Plaza
MCWP-MW07S	34°2'0.73" N; 118°41'40.97" W	20 feet	Downgradient shallow alluvial water quality of the Malibu Colony Plaza; adjacent to injection zone
SMBRP-12	34°1'58.25" N; 118°41'24.49" W	25 feet	Cross-gradient deep water quality
LAMW-5S	34°2'13.48" N; 118°41'56.09" W	20 feet	Upgradient water quality in Winter Canyon
MCWP-MW04D	34°02'7.00" N; 118°41'27.90" W	148 feet	Upgradient deep Civic Center Gravels water quality of injection wells

TENTATIVE

Table 4 – Specifications of Groundwater Monitoring Wells			
ID	**Monitoring Well Location**	**Well Depth (BGS[1])**	**Purpose of Monitoring Location**
MCWP-MW07D	34°2'0.70" N; 118°41'40.70" W	134 feet	Deep Civic Center Gravels water quality adjacent to injection wells W-1 and w-2
MCWP-MW09	34°1'58.26" N; 118°41'24.32" W	95 feet	Cross-gradient deep Civic Center Gravels water quality of injection wells

BGS: Below ground surface.

B. Baseline groundwater monitoring:

a. Baseline groundwater monitoring is required to:

i. Establish groundwater water quality database prior to injection via land disposal for deep aquifer (Civic Center Gravels) and landscape irrigation for shallow aquifer (Shallow Alluvium); and,

ii. Determine the responsibility of possible non-compliances in the future.

b. The City shall conduct the baseline groundwater quality monitor to collect data by June 1, 2015 and shall continue to do so prior to the injection via land disposal. Representative samples of groundwater shall be collected at nine (9) monitoring wells of SMBRP-9, TY-MW-1, MCWP-MW04S, MCWP-MW07S, SMBRP-12, LAMW-5S, MCWP-MW04D; MCWP-MW07D, and MCWP-MW09, from major aquifers, including the aquifers of Shallow Alluvium, Civic Center Gravels, and Winter Canyon Alluvium specified in Table 4.

c. Table 5 sets forth the minimum constituents and parameters for monitoring baseline groundwater quality.

Table 5 – Baseline Groundwater Monitoring			
Constituents	**Units**	**Type of Sample**	**Minimum Frequency of Analysis[2]**
Water level elevation [1]	Feet	Recorder	Annually
pH	pH units	Grab	Annually
BOD_5 20°C	mg/L	Grab	Annually
Turbidity	NTU	Grab	Annually
Total Coliform	MPN/100mL	Grab	Annually
Fecal Coliform	MPN/100mL	Grab	Annually
Total Suspended Solids	mg/L	Grab	Annually

TENTATIVE

Table 5 – Baseline Groundwater Monitoring			
Constituents	**Units**	**Type of Sample**	**Minimum Frequency of Analysis[2]**
Residual Chlorine	mg/L	Grab	Annually
Total Organic Carbon	mg/L	Grab	Annually
Oil and grease	mg/L	Grab	Annually
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Annually
Nitrate as nitrogen	mg/L	Grab	Annually
Nitrite as nitrogen	mg/L	Grab	Annually
Ammonia nitrogen	mg/L	Grab	Annually
Organic Nitrogen	mg/L	Grab	Annually
Total Nitrogen	mg/L	Grab	Annually
Total Phosphorus	mg/L	Grab	Annually
Total Dissolved Solids	mg/L	Grab	Annually
Sulfate	mg/L	Grab	Annually
Chloride	mg/L	Grab	Annually
Boron	mg/L	Grab	Annually
MBAS	mg/L	Grab	Annually
Constituents listed in Attachments A1 to A5	Various	Grab	Annually
CECs in Attachment C	Various	Grab	Annually
Priority Pollutants in Attachment D	µg/L	Grab	Annually

[1]. Water level elevations must be measured to the nearest 0.01 feet, and referenced to mean sea level.
[2]. Semi-annually shall include sample collected from wet and dry season.

C. Long-Term Groundwater Monitoring after Discharge:

a. Long-term groundwater monitoring is used to monitor any possible impact of injection via land disposal and landscape irrigation or percolation on the receiving water quality of groundwater aquifers, Santa Monica Bay, Malibu Creek and Lagoon.

b. Long-term groundwater monitoring after discharge shall be collected the minimum constituents and parameters, specified in Table 6, for monitoring groundwater quality at monitoring wells of SMBRP-9, MCWP-MW04S, MCWP-MW07S, SMBRP-12, MCWP-MW04D, MCWP-MW07D, and MCWP-MW09 from major aquifers, including the aquifers of Shallow Alluvium, Civic Center Gravels, and Winter Canyon Alluvium.

TENTATIVE

Table 6 – Long-Term Groundwater Monitoring			
Constituents	**Units**	**Type of Sample**	**Minimum Frequency of Analysis[2]**
Water level elevation [1]	Feet	Recorder	Quarterly
pH	pH units	Grab	Quarterly
$BOD_5 20^0 C$	mg/L	Grab	Quarterly
Turbidity	NTU	Grab	Quarterly
Total Coliform	MPN/100mL	Grab	Quarterly
Fecal Coliform	MPN/100mL	Grab	Quarterly
Total Suspended Solids	mg/L	Grab	Quarterly
Residual Chlorine	mg/L	Grab	Quarterly
Total Organic Carbon	mg/L	Grab	Quarterly
Oil and grease	mg/L	Grab	Quarterly
Nitrate + Nitrite as Nitrogen	mg/L	Grab	Quarterly
Nitrate as nitrogen	mg/L	Grab	Quarterly
Nitrite as nitrogen	mg/L	Grab	Quarterly
Ammonia nitrogen	mg/L	Grab	Quarterly
Organic Nitrogen	mg/L	Grab	Quarterly
Total Nitrogen	mg/L	Grab	Quarterly
Total Phosphorus	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Sulfate	mg/L	Grab	Quarterly
Chloride	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
MBAS	mg/L	Grab	Quarterly
Constituents listed in Attachments A1 to A5	Various	Grab	Annually
CECs in Attachment C	µg/L	Grab	Annually.
Priority Pollutants in Attachment D	µg/L	Grab	Annually

[1]. Water level elevations must be measured to the nearest 0.01 feet, and referenced to mean sea level.

[2]. Annually shall include sample collected from wet season.

c. If more than 10% of the permitted quarterly flow, specified in WDRs Table 8, is diverted to and discharged via the percolation ponds, the City shall collect groundwater samples at TY-MW-1 and LAMW-5S on a quarterly and annually basis as shown in MRP Table 6. If the 10% threshold is not

TENTATIVE

exceeded, the monitoring frequency shall be adjusted to either an annual monitoring or the quarterly that the 10% was exceeded.

4. **Injection Well Monitoring**

A. Injection Well Specifications: Table 7 shows specifications of injection wells.

Table 7 – Specifications of Injection Wells

ID	Location	Screen Intervals (BGS)	Well Depth (BGS)
W-1	34°1'59.97" N; 118°41'45.59" W	55 feet to 134 feet	170 feet
W-2	34°2'0.83" N; 118°41'40.09" W	55 feet to 134 feet	170 feet
W-3	34°2'1.34" N; 118°41'34.75" W	55 feet to 134 feet	170 feet

B. The City shall record the volume and injection rate in gallons per day of treated wastewater injected through W-1 to W-3.

5. **Surface Water Monitoring**

A surface water monitoring program is implemented to evaluate the quality of surface waters at near-shore ocean and the Malibu Lagoon, and any changes in quality that might result from the injection.

A. Surface Water Monitoring Stations

Table 8 specifies locations and monitoring depths of four (4) near shore and six (6) Malibu Lagoon and Creek surface water monitoring stations.

Table 8 – Specifications of Surface Water Monitoring Stations

ID	Location	Monitoring Depth
Near shore		
N-001	34°1'56.22" N; 118°41'38.75" W	Ankle depth
N-002	34°1'55.21" N; 118°41'21.13" W	Ankle depth
N-003	34°1'54.58" N; 118°40'47.30" W	Ankle depth
N-004	34°1'47.34" N; 118°42'17.10" W	Ankle depth
Malibu Lagoon and Creek		
L-001	3402'14.27" N; 118040'59.31" W	1 foot below surface water

TENTATIVE

Table 8 – Specifications of Surface Water Monitoring Stations		
ID	**Location**	**Monitoring Depth**
L-002	3402'11.97" N; 118041'1.51" W	1 foot below surface water
L-003	3402'6.66" N; 118040'58.52" W	1 foot below surface water
L-004	3402'1.81" N; 118040'58.55" W	1 foot below surface water
L-005	3402'0.65" N; 118040'49.29" W	1 foot below surface water
L-006	3401'58.44" N; 118041'7.10" W	1 foot below surface water

B. Surface Water Monitoring Constituents and Frequency

The City shall collect the minimum constituents, specified in Table 9, for monitoring surface water quality at ten (10) stations, specified in Table 8.

Table 9 – Specifications of Surface Water Monitoring			
Constituents	**Units**	**Type of Sample**	**Minimum Frequency of Analysis**
Total Coliform	MPN/100mL	Grab	Quarterly
Fecal Coliform	MPN/100mL	Grab	Quarterly
Nitrate as nitrogen	mg/L	Grab	Quarterly
Nitrite as nitrogen	mg/L	Grab	Quarterly
Ammonia nitrogen	mg/L	Grab	Quarterly
Organic Nitrogen	mg/L	Grab	Quarterly
Total Phosphorus	mg/L	Grab	Quarterly

During wet-weather event, stormwater runoff will impact surface water monitoring stations. The surface water monitoring shall be conducted no earlier than three days, since rain (0.1 inch and greater) ceases.

VI. GENERAL MONITORING AND REPORTING REQUIREMENTS

1. The City shall comply with all Standard Provisions (Attachment B) related to monitoring, reporting, and recordkeeping.

2. For every item where the requirements are not met, the City shall submit a statement of the actions undertaken or proposed which will bring the treated effluent and/or treated effluent used for the recycled water program into full compliance with

requirements at the earliest possible time, and submit a timetable for implementation of the corrective measures.

3. Monitoring reports shall be signed by either the principal Executive Officer or ranking elected official. A duly authorized representative of the aforementioned signatories may sign documents if:

   A. The authorization is made in writing by the signatory;

   B. The authorization specifies the representative as either an individual or position having responsibility for the overall operation of the regulated facility or activity; and,

   The written authorization is submitted to the Executive Officer of this Regional Board.

4. The monitoring report shall contain the following completed declaration:

   "I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

   Executed on the ___ day of _____ at _____
   _____ Signature
   _____ Title

5. The City shall retain records of all monitoring information, including all calibration and maintenance, monitoring instrumentation, and copies of all reports required by this Order, for a period of at least three (3) years from the date of sampling measurement, or report. This period may be extended by request of the Regional Board at any time and shall be extended during the course of any unresolved litigation regarding the regulated activity.

6. Records of monitoring information shall include:

   A. The date, exact place, and time of sampling or measurements;

   B. The individual(s) who performed the sampling or measurements;

   C. The date(s) analyses were performed;

   D. The individual(s) who performed the analysis;

   E. The analytical techniques or methods used; and

   F. The results of such analyses.

TENTATIVE

7. The City shall submit to the Regional Board, together with the first monitoring report required by this Order, a list of all chemicals and proprietary additives which could affect the quality of the treated effluent and the treated effluent used for recycled water, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly. An annual summary of the quantities of all chemicals, listed by both trade and chemical names, which are used in the treatment process shall be included in the annual report.

VII. WASTE HAULING REPORTING

In the event that waste sludge, septage, or other wastes are hauled offsite, the name and address of the hauler shall be reported, along with types and quantities hauled during the reporting period and the location of final point of disposal. In the event that no wastes are hauled during the reporting period, a statement to that effect shall be submitted in the quarterly monitoring report.

VIII. MONITORING FREQUENCIES

Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the City makes a request (with justification) and the Executive Officer determines that the request is adequately supported by statistical trends in the monitoring data submitted. The City cannot make any adjustments until written approval is received from the Executive Officer.

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region.

Ordered by:

_____
Samuel Unger, P.E.
Executive Officer
Date: March 12, 2015

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TENTATIVE

TENTATIVE

Attachment A – Maximum Contaminant Levels

Attachment A1

Attachment A1 **Table 64431-A – Inorganic Chemicals**[1]	
Chemical	**Maximum Contaminant Levels (mg/L)**
Aluminum	1
Antimony	0.006
Arsenic	0.01
Asbestos	7 MFL[2]
Barium	1
Beryllium	0.004
Cadmium	0.005
Chromium	0.05
Cyanide	0.15
Mercury	0.002
Nickel	0.1
Selenium	0.05
Thallium	0.002
Perchlorate	0.006
Fluoride	2

[1]. California Code of Regulation (CCR) Title 22, Section 64431.

[2]. MFL = million fibers per liter; MCL for fibers exceeding 10μm in length.

TENTATIVE

Attachment A2

Table 4 – Radioactivity[1]	
Chemical	**Maximum Contaminant Levels (pCi/L)**
Combined Radium-226 and Radium-228	5
Gross Alpha Particle Activity (Including Radium-226 but Excluding Radon and Uranium)	15
Tritium	20,000
Strontium-90	8
Gross Beta Particle Activity	50
Uranium	20

[1]. CCR Title 22, Section 64443.

Attachment A3

Table 64444-A – Organic Chemicals[1]	
Chemical	**Maximum Contaminant Levels (mg/L)**
(a) Volatile Organic Chemicals	
Benzene	0.001
Carbon Tetrachloride (CTC)	0.0005
1,2-Dichlorobenzene	0.6
1,4-Dichlorobenzene	0.005
1,1-Dichloroethane	0.005
1,2-Dichloroethane (1,2-DCA)	0.0005
1,1-Dichloroethene (1,1-DCE)	0.006
Cis-1,2-Dichloroethylene	0.006
Trans-1,2-Dichloroethylene	0.01
Dichloromethane	0.005
1,2-Dichloropropane	0.005
1,3-Dichloropropene	0.0005
Ethylbenzene	0.3
Methyl-tert-butyl-ether (MTBE)	0.013
Monochlorobenzene	0.07
Styrene	0.1
1,1,2,2-Tetrachloroethane	0.001
Tetrachloroethylene (PCE)	0.005
Toluene	0.15
1,2,4-Trichlorobenzene	0.005
1,1,1-Trichloroethane	0.2
1,1,2-Trichloroethane	0.005
Trichloroethylene (TCE)	0.005
Trichlorofluoromethane	0.15

TENTATIVE

Table 64444-A – Organic Chemicals[1]	
Chemical	**Maximum Contaminant Levels (mg/L)**
1,1,2-Trichloro-1,2,2-Trifluoroethane	1.2
Vinyl Chloride	0.0005
Xylenes (m,p)	1.75
(b) Non-Volatile synthetic Organic Chemicals	
Alachlor	0.002
Atrazine	0.001
Bentazon	0.018
Benzo(a)pyrene	0.0002
Carbofuran	0.018
Chlordane	0.0001
2,4-D	0.07
Dalapon	0.2
1,2-Dibromo-3-chloropropane (DBCP)	0.0002
Di(2-ethylhexyl)adipate	0.4
Di(2-ethylhexyl)phthalate	0.004
Dinoseb	0.007
Diquat	0.02
Endothall	0.1
Endrin	0.002
Ethylene Dibromide (EDB)	0.00005
Glyphosate	0.7
Heptachlor	0.00001
Heptachlor Epoxide	0.00001
Hexachlorobenzene	0.001
Hexachlorocyclopentadiene	0.05
Lindane	0.0002

TENTATIVE

Table 64444-A – Organic Chemicals[1]	
Chemical	**Maximum Contaminant Levels (mg/L)**
Methoxychlor	0.03
Molinate	0.02
Oxamyl	0.05
Pentachlorophenol	0.001
Picloram	0.5
Polychlorinated Biphenyls	0.0005
Simazine	0.004
Thiobencarb	0.07
Toxaphene	0.003
2,3,7,8-TCDD (Dioxin)	3×10^{-8}
2,4,5-TP (Silvex)	0.05

[1]. CCR Title 22, Section 64444.

TENTATIVE

Attachment A4

Table 64533-A – Disinfection Byproducts[1]	
Constituent	**Units**
Total Trihalomethanes (TTHM)	0.08 ppb
Bromodichloromethane	
Bromoform	
Chloroform	
Dibromochloromethane	
Haloacetic acid (five) (HAA5)	0.06 ppb
Monochloroacetic acid	
Dichloroacetic acid	
Trichloroacetic acid	
Monobromoacetic acid	
Dibromoacetic acid	
Bromate[2]	0.01ppb
Chlorite[3]	1 ppb

[1]. CCR Title 22, Section 64533, Chapter 15.5

[2]. Bromate is listed for plant using ozone disinfection only.

[3]. Chlorite is listed for plant using chlorine dioxide only.

TENTATIVE

Attachment A5

Table 64449-A –Secondary Maximum Contaminant Levels[1]	
Chemical	**Units**
Aluminum	0.2 mg/L
Color	150 Units
Copper	1.0 mg/L
Corrosivity	Non corrosive
Foam Agents (MBAS)	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Methyl-tert-butyl-ether (MTBE)	0.005 mg/L
Odor – Threshold	3 units
Silver	0.1 mg/L
Thiobencarb	0.001 mg/L
Zinc	5 mg/L

[1]. CCR Title 22, Section 64449.

TENTATIVE

Attachment B – Standard Provisions Applicable to Waste Discharge Requirements

1. DUTY TO COMPLY

The discharger must comply with all conditions of these waste discharge requirements. A responsible party has been designated in the Order for this project, and is legally bound to maintain the monitoring program and permit. Violations may result in enforcement actions, including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board. [CWC Section 13261, 13263, 13265, 13268, 13300, 13301, 13304, 13340, 13350]

2. GENERAL PROHIBITION

Neither the treatment nor the discharge of waste shall create a pollution, contamination or nuisance, as defined by Section 13050 of the California Water Code (CWC). [H&SC Section 5411, CWC Section 13263]

3. AVAILABILITY

A copy of these waste discharge requirements shall be maintained at the discharge facility and be available at all times to operating personnel. [CWC Section 13263]

4. CHANGE IN OWNERSHIP

The discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger containing a specific date for the transfer of this Order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgement that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]

5. CHANGE IN DISCHARGE

In the event of a material change in the character, location, or volume of a discharge, the discharger shall file with this Regional Board a new Report of Waste Discharge. [CWC Section 13260(c)]. A material change includes, but is not limited to, the following:

(a) Addition of a major industrial waste discharge to a discharge of essentially domestic sewage, or the addition of a new process or product by an industrial facility resulting in a change in the character of the Waste.

TENTATIVE

(b) Significant change in disposal method, e.g., change from a land disposal to a direct discharge to water, or change in the method of treatment which would significantly alter the characteristics of the waste.

(c) Significant change in the disposal area, e.g., moving the discharge to another drainage area, to a different water body, or to a disposal area significantly removed from the original area potentially causing different water quality or nuisance problems.

(d) Increase in flow beyond that specified in the waste discharge requirements.

(e) Increase in the area or depth to be used for solid waste disposal beyond that specified in the waste discharge requirements. [CCR Title 23 Section 2210]

6. REVISION

These waste discharge requirements are subject to review and revision by the Regional Board. [CCR Section 13263]

7. TERMINATION

Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Regional Board, it shall promptly submit such facts or information. [CWC Sections 13260 and 13267]

8. VESTED RIGHTS

This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the discharger from his liability under Federal, State or local laws, nor do they create a vested right for the discharger to continue the waste discharge. [CWC Section 13263(g)]

9. SEVERABILITY

Provisions of these waste discharge requirements are severable. If any provision of these requirements are found invalid, the remainder of the requirements shall not be affected. [CWC Section 921]

10. OPERATION AND MAINTENANCE

The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality

TENTATIVE

assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Order. [CWC Section 13263(f)]

11. HAZARDOUS RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the appropriate Regional Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section 13271 of the Water Code unless the discharger is in violation of a prohibition in the applicable Water Quality Control plan. [CWC Section 1327(a)]

12. PETROLEUM RELEASES

Except for a discharge which is in compliance with these waste discharge requirements, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Article 3.5 (commencing with Section 8574.1) of Chapter 7 of Division 1 of Title 2 of the Government Code. This provision does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Section 311 of the Clean Water Act or the discharge is in violation of a prohibition in the applicable Water Quality Control Plan. [CWC Section 13272] Standard Provisions Applicable to Waste Discharge Requirements

13. ENTRY AND INSPECTION

The discharger shall allow the Regional Board, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:

TENTATIVE

(a) Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

(d) Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order, or as otherwise authorized by the California Water Code, any substances or parameters at any location. [CWC Section 13267]

14. MONITORING PROGRAM AND DEVICES

The discharger shall furnish, under penalty of perjury, technical monitoring program reports; such reports shall be submitted in accordance with specifications prepared by the Executive Officer, which specifications are subject to periodic revisions as may be warranted. [CWC Section 13267]

All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year, or more frequently, to ensure continued accuracy of the devices. Annually, the discharger shall submit to the Executive Office a written statement, signed by a registered professional engineer, certifying that all flow measurement devices have been calibrated and will reliably achieve the accuracy required.

Unless otherwise permitted by the Regional Board Executive officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The Regional Board Executive Officer may allow use of an uncertified laboratory under exceptional circumstances, such as when the closest laboratory to the monitoring location is outside the State boundaries and therefore not subject to certification. All analyses shall be required to be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" [40CFR Part 136] promulgated by the U.S. Environmental Protection Agency. [CCR Title 23, Section 2230]

15. TREATMENT FAILURE

In an enforcement action, it shall not be a defense for the discharger that it would have been necessary to halt or to reduce the permitted activity in order to maintain compliance with this Order. Upon reduction, loss, or failure of the treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is

provided. This provision applies, for example, when the primary source of power of the treatment facility fails, is reduced, or is lost. [CWC Section 13263(f)]

16. DISCHARGE TO NAVIGABLE WATERS

Any person discharging or proposing to discharge to navigable waters from a point source (except for discharge of dredged or fill material subject to Section 404 fo the Clean Water Act and discharge subject to a general NPDES permit) must file an NPDES permit application with the Regional Board. [CCR Title 2 Section 22357]

17. ENDANGERMENT TO HEALTH AND ENVIRONMENT

The discharger shall report any noncompliance which may endanger health or the environment. Any such information shall be provided verbally to the Executive Officer within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. The following occurrence(s) must be reported to the Executive Office within 24 hours:

(a) Any bypass from any portion of the treatment facility.

(b) Any discharge of treated or untreated wastewater resulting from sewer line breaks, obstruction, surcharge or any other circumstances.

(c) Any treatment plan upset which causes the effluent limitation of this Order to be exceeded. [CWC Sections 13263 and 13267]

18. MAINTENANCE OF RECORDS

The discharger shall retain records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies off all reports required by this Order, and record of all data used Standard Provisions Applicable to complete the application for this Order. Records shall be maintained for a minimum of three (3) years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board Executive Officer.

Records of monitoring information shall include:

(a) The date, exact place, and time of sampling or measurement;

(b) The individual(s) who performed the sampling or measurement;

(c) The date(s) analyses were performed;

(d) The individual(s) who performed the analyses;

(e) The analytical techniques or method used; and

(f) The results of such analyses.

19. (a) All application reports or information to be submitted to the Executive Office shall be signed and certified as follows:

(1) For a corporation – by a principal executive officer or at least the level of vice president.

(2) For a partnership or sole proprietorship – by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency – by either a principal executive officer or ranking elected official.

(b) A duly authorized representative of a person designated in paragraph (a) of this provision may sign documents if:

(1) The authorization is made in writing by a person described in paragraph (a) of this provision.

(2) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity; and

(3) The written authorization is submitted to the Executive Officer.

Any person signing a document under this Section shall make the following certification:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. [CWC Sections 13263, 13267, and 13268]"

TENTATIVE

20. OPERATOR CERTIFICATION

Supervisors and operators of municipal wastewater treatment plants and privately owned facilities regulated by the PUC, used in the treatment or reclamation of sewage and industrial waste shall possess a certificate of appropriate grade in accordance with Title 23, California Code of Regulations Section 3680. State Boards may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment plant operator, the State Board may approve use of a water treatment plan operator of appropriate grade certified by the State Department of Health Services where reclamation is involved.

Each plan shall be operated and maintained in accordance with the operation and maintenance manual prepared by the municipality through the Clean Water Grant Program [CWC Title 23, Section 2233(d)]

ADDITIONAL PROVISIONS APPLICABLE TO
PUBLICLY OWNED TREATEMENT WORKS' ADEQUATE CAPACITY

21. Whenever a publicly owned wastewater treatment plant will reach capacity within four (4) years the discharger shall notify the Regional Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies and the press. The discharger must demonstrate that adequate steps are being taken to address the capacity problem. The discharger shall submit a technical report to the Regional Board showing flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Board, or within 120 days after receipt of notification from the Regional Board, of a finding that the treatment plant will reach capacity within four (4) years. The time for filing the required technical report may be extended by the Regional Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Board itself. [CCR Title 23, Section 2232]

TENTATIVE

Attachment C – Monitoring for Constituents of Emerging Concerns (CECs) [1]

Constituent	Reporting Limit (µg/L)
17β-Estradiol	0.001
Caffeine	0.05
NDMA	0.002
Triclosan	0.05
DEET	0.05
Sucralose	0.1

[1]: CECs are based on Table 1 Groundwater Recharge Reuse – Subsurface Application of State Water Board Resolution 2013-003

Attachment D – Monitoring for Priority Pollutants Listed in California Toxics Rule

Antimony	Trichloroethylene	Fluoranthene
Arsenic	Vinyl Chloride	Fluorene
Beryllium	2-Chlorophenol	Hexachlorobenzene
Cadmium	2,4-Dichlorophenol	Hexachlorobutadiene
Chromium (III)	2,4-Dimethylphenol	Hexachlorocyclopentadiene
Chromium (VI)	4,6-Dinitro-2-Methylphenol	Hexachloroethane
Copper	2,4-Dinitrophenol	Indeno[1,2,3-cd]pyrene
Lead	2-Nitrophenol	Isophorone
Mercury	4-Nitrophenol	Naphthalene
Nickel	4-Chloro-3-Methylphenol	Nitrobenzene
Selenium	Pentachlorophenol	N-nitrosodimethylamine
Silver	Phenol	N-Nitrosodi-N-propylamine
Thallium	2,4,6-Trichlorophenol	N-Nitrosodiphenylamine
Zinc	Acenaphthene	Phenanthrene
Cyanide	Acenaphthylene	Pyrene
Asbestos	Anthracene	1,2,4-Trichlorobenzene
2,3,7,8-TCDD	Benzidine	Aldrin
Acrolein	Benzo[a]anthracene	alpha-BHC
Acrylonitrile	Benzo[a]pyrene	beta-BHC
Benzene	Benzo[b]fluoranthene	gamma-BHC
Bromoform	Benzo[ghi]perylene	delta-BHC
Carbon tetrachloride	Benzo[k]fluoranthene	Chlordane
Chlorobenzene	Bis(2-chloroethoxy) Methane	4,4'-DDT
Chlorodibromomethane	Bis(2-chloroethyl) Ether	4,4'-DDE
Chloroethane	Bis(2-chloroisopropyl) Ether	4,4'-DDD
2-Chloroethylvinyl Ether	Bis(2-ethylhexyl) Phthalate	Dieldrin
Chloroform	4-Bromophenyl Phenyl Ether	alpha-Endosulfan

TENTATIVE

Dichlorobromomethane	Butylbenzyl Phthalate	beta-Endosulfan
1,1-Dichloroethane	2-Chloronaphthalene	Endosulfan Sulfate
1,2-Dichloroethane	4-Chlorophenyl Phenyl Ether	Endrin
1,1-Dichloroethylene	Chrysene	Endrin Aldehyde
1,2-Dichloropropane	Dibenzo[ah]anthracene	Heptachlor
1,3-dichloropropylene	1,2-Dichlorobenzene	Heptachlor Epoxide
Ethylbenzene	1,3-Dichlorobenzene	PCB (Aroclor-1016)
Methyl Bromide	1,4-Dichlorobenzene	PCB (Aroclor-1221)
Methyl Chloride	3,3'-Dichlorobenzidine	PCB (Aroclor-1232)
Methylene Chloride	Diethyl Phthalate	PCB (Aroclor-1242)
1,1,2,2-Tetrachloroethane	Dimethyl Phthalate	PCB (Aroclor-1248)
Tetrachloroethylene	Di-n-butyl Phthalate	PCB (Aroclor-1254)
Toluene	2,4-Dinitrotoluene	PCB (Aroclor-1260)
1,2-Trans-Dichloroethylene	2,6-Dinitrotoluene	Toxaphene
1,1,1-Trichloroethane	Di-n-octyl Phthalate	---
1,1,2-Trichloroethane	1,2-Diphenylhydrazine	---

TENTATIVE