

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

ORDER NO. R4-2010-[XXXX]
WASTE DISCHARGE REQUIREMENTS
FOR

WAVEBREAK LLC
(File No. 09-074)

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

PURPOSE OF ORDER

1. On January 28, 2008, Wavebreak LLC (hereinafter "Discharger") filed a Report of Waste Discharge ("RoWD") for the discharge of wastewater from a proposed restaurant to an advanced onsite wastewater treatment system (OWTS) located at 22706 Pacific Coast Highway, Malibu CA 90625 ("Site"). This Order establishes Waste Discharge Requirements ("WDR") for the operation and maintenance of the proposed advanced OWTS servicing the proposed restaurant.
2. The State Water Resource Control Board ("SWRCB") and the Los Angeles Regional Water Quality Control Board (Regional Board) designated Malibu Beach, Carbon Beach and La Costa Beach as impaired on the 2002 Clean Water Act 303(d) List of Water Quality Limited Segments ("2002 303(d) List"). On January 24, 2002 and on December 12, 2002, the Regional Board adopted a Total Maximum Daily Load ("TMDL") for bacteria during dry and wet weather, respectively, into Santa Monica Bay which was amended to the Basin Plan. This WDR considers the existing impairment of beneficial uses in these water bodies, which are adjacent to the Site.

SITE GEOLOGY AND HYDROLOGY

3. The Site is located south of Pacific Coast Highway ("PCH"), on a narrow beach strand at the base of the Santa Monica Mountains. The mountains rise abruptly north of PCH, about 300 feet north of the Site. The Site is underlain by thinly bedded siltstone and shale of the Miocene-age Monterey Formation. This bedrock unit extends southward, beneath PCH and the Site, forming the wave-cut platform that is now capped by Quaternary-age beach deposits. In November 2008, Earth Systems Southern California conducted a study to evaluate the geotechnical aspects of the Site. The soil borings ranged in depth from 32 to 60 feet, and encountered Monterey Formation at depths ranging from about 26 to 37 feet below the surface. The soils above the bedrock consisted primarily of coarse-grained beach deposits. Borings excavated for onsite monitoring wells encountered bedrock at depths of 30 and 26 feet, respectively. Beach deposits encountered in the borings consisted of friable, gray to brown, fine-to-medium grained sand, locally with variable amounts of coarse-grained sand and fine-to-coarse gravel.

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Beach deposits are capped by artificial fill in the northern and central part of the Site. The thickness is highly variable, but is typically in the range of about one to four feet. Two areas of deep fill (between 9 and 10 feet) were identified on the Site.

4. The Site is largely covered by paving and other hardscape. The majority of the Site is nearly flat, having a very minor slope towards the Pacific Ocean. The elevation is about 18 feet near PCH, sloping to about 12 feet at the rear of the existing building. South of the existing building, the ground surface slopes gently down to the high tide line.
5. Depth to groundwater in the vicinity of the Site has historically ranged from 7.25 feet to 17 feet below surface grade, with an average depth of 11 feet. The groundwater depths recorded by monitoring wells currently installed on the Site ranged from about 9 to 13 feet below surface grade. In near shore areas, groundwater is assumed to be mean high tide which is +1.9 feet above mean Sea Level (AMSL).
6. From the base of the Santa Monica Mountains, groundwater movement is towards the ocean. Beneath the Site, groundwater flow is also predominantly towards the ocean. However, due to the localized effects of tidal cycles on wells closest to the ocean, there are periods when the flow direction is slightly reversed or in transition. Estimated groundwater travel time from the proposed advanced onsite leachfield to the ocean is between 8 to 25 days.

PROPOSED FACILITY AND TREATMENT PROCESS DESCRIPTION

7. The Discharger is proposing to construct a new restaurant at 22706 Pacific Coast Highway, Malibu, CA 90625.¹ Located to the south of the Site is the Pacific Ocean. Located to the west of the proposed restaurant is another abandoned restaurant proposed for redevelopment by Malibu Cantina LLC and to the east is a condominium complex. Directly to the north, on the opposite side of PCH, is a McDonald's restaurant and accompanying parking lot (Figure 1).
8. The Discharger has an approved Standard Urban Storm Water Mitigation Plan/Water Quality Management Plan ("SUSMP/WQMP") and Stormwater Pollution Prevention Plan/Erosion Control Plan.
9. The Site is in an unsewered area of the City of Malibu ("City"). No public sewers have been scheduled for construction in the vicinity of the Site. The City currently does not provide wastewater collection and treatment utilities; rather, the City primarily relies upon onsite wastewater treatment systems for disposal of domestic, commercial, and industrial wastewater. The Site is not within the Malibu Civic Center area as defined in Resolution No. R4-2009-007 "Amendment to the Water Quality Control Plan for the

¹ Los Angeles County Assessor Parcel Number 4452-004-038/040/042, Latitude of 34° 02' 20"; Longitude of 118° 40' 10".

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Coastal Watershed of Los Angeles and Ventura Counties to Prohibit On-Site Wastewater Disposal Systems in the Malibu Civic Center Area.”

10. The Site is home to the former Windsail Restaurant, which closed in 2002. The original date of construction of Windsail Restaurant is unknown. The former restaurant occupied 7,585 square feet and had City of Malibu occupancy approval for 160 seats. It was served by a conventional septic system composed of a 3,100-square foot leachfield, a 1,500-gallon grease tank, and two septic tanks with capacity of 2,500 gallons and 4,000 gallons, respectively. The former septic system will be completely abandoned according to the requirements of the California Uniform Plumbing Code (UPC) and the City of Malibu. The proposed restaurant will be approximately 6,300 square feet and will be served by an advanced OWTS including tertiary treatment and California Department of Public Health approved ultraviolet disinfection (“System”).
11. The existing building on the Site will be demolished and a new restaurant facility, outdoor deck, and parking lot will be constructed. The advanced OWTS will be located beneath the parking lot on the north side of the Site between the new restaurant and PCH. Discharge through the advanced OWTS is anticipated to begin in July 2011.
12. The advanced OWTS will consist of a gravity flow collection system with a grease interceptor; a trash trap and primary clarifier, sludge storage tank and digester; an equalization tank with anoxic denitrification; a modified plug flow activated sludge process for aerobic treatment with suspended growth; a hollow-fiber membrane micro-filtration system; and ultraviolet disinfection system. The treated wastewater will be disposed through sub-surface drip dispersal into a leachfield. The advanced OWTS will utilize Xerxes Fiberglass traffic rated underground tanks, Siemens membrane bioreactor activated odor control, and a pressure distributed leachfield consisting of Mirafi® Soil Reinforcement Geogrid and Mirafi® Filter Fabric between compacted fill layers to provide load-bearing support above the field. The 1’3” compacted fill with geogrid and filter fabric will be installed above 1’6” of washed rock and dispersal piping. The leachfield will be actively ventilated, through the use of 4” perforated PVC piping and a vent fan, to promote biological activity in the leachfield. Active ventilation allows the use of impermeable paving over the entire leachfield reducing the potential for storm runoff infiltration into the leachfield. Total constructed field depth will be three feet, with the bottom of the field three feet below the finished paved surface of the parking lot. All existing fill and materials in the leachfield area will be excavated and removed down to native beach deposits and replaced with washed sand prior to installation of the new field.
13. The Discharger will utilize active ventilation for all the tanks, including the treatment vault. The vented air will pass through an activated carbon scrubber which shall remove odors resulting from aerobic decomposition of the wastewater (mainly mercaptans) and anaerobic decomposition of the wastewater (mainly hydrogen sulfide). The main sources of the odors are: the aerated treatment tank, the trash trap, the grease interceptor, the membrane vault, sludge storage and digester.

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14. The advanced OWTS will consist of two 30,000 gallon traffic rated fiberglass septic tanks with a total capacity of 60,000 gallons. Tank 1 will serve as the grease interceptor and trash trap with emergency sewage storage. The emergency sewage storage capacity of Tank 1, at a working volume of 15,540 gallons, is 15,294 gallons. Tank 2 will serve as the System equalization, treatment, and distribution tank. The total emergency water storage capacity of Tank 2, if operated at it maximum working volume of 15,800 gallons, is 15,034 gallons. Tank 1 allows for a gravity response time at peak flow of 24 hours and a response time at average flow of 30-33 hours.
15. The Discharger may not have sufficient land area reserved for possible future 100 percent replacement of the subsurface disposal area. The Discharger will be required to have a contingency plan to deal with the event of failure of the disposal system of the loss of soil assimilative capacity.
16. To monitor groundwater in the area, least four (4) wells will be installed within five (5) feet from the edge of the leachfield. Additional downgradient wells further than five (5) feet from the leachfield will be installed to better evaluate the vertical separation at the base of the leachfield. The wells shall be outfitted for manual surface sampling and with a transducer with surface connections capable of providing 24-hour water level measurements. Well completion shall comply with California Department of Water Resources Bulletin 7490 for monitoring well standards (January 1990).
17. Occupancy limitations, operational safeguards, best management practices, low-flow fixtures, and water conservation practices should ensure that the Discharger will not exceed their maximum daily effluent limits identified in the Influent Requirements section of this Order. In the event that the maximum daily effluent limits defined by this Order are exceeded and storage capabilities are compromised, equalization tank pumping on an emergency basis will be required.

CONFORMANCE WITH REGIONAL OBJECTIVES

18. Water conservation practices must be implemented because the water table under the Site is less than ten feet from the surface and, at times, may have groundwater levels that preclude the operation of septic systems under some conditions (e.g. high groundwater, low evapotranspiration, and rainfall or stormwater flows). As a result, the Discharger is required to have the operator fully implement water conservation measures at the restaurant. Among others, water conservation measures will include mandatory best management practices and the installation of waterless urinals, low-flow faucets, and low-flow toilets.
19. The capacity of unsaturated soils to remove pollutants during disposal into the groundwater is a finite value defined by technical means and is known to vary with the elevation of the water table, the travel time of groundwater to surface discharge points, and the regional groundwater and surface water quality objectives. To ensure that water

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quality objectives continue to be met, both surface and groundwater monitoring is required. Due to the sensitive area in which the discharge will take place, regular review of Discharger performance is warranted.

20. A minimum of five feet separation is required between the base of the leachfield and the groundwater because:
 - a. Five feet of separation is used in general waste discharge requirements as the minimum separation for high risk sites, as this location has been defined.
 - b. EPA and State ~~Board~~ Board documents identify 2 or 3 feet of separation as sufficient where soil conditions ensure slow percolation and additional treatment. This site has sand and gravels in the subsurface and does not meet the requirements for this more lenient separation, even if it should be supported by Regional Board documents.
 - c. Should the advance treatment facility fail, it should meet the requirements for a regular septic system with disposal to the subsurface, which requires a minimum of 5 feet separation within existing permits, Regional Board documentation and adjacent jurisdictions.

APPLICABLE LAWS, PLANS, POLICIES AND REGULATIONS

21. On June 13, 1994, the Regional Board adopted a revised Water Quality Control Plan for Coastal Watersheds of Los Angeles and Ventura Counties ("Basin Plan") which was amended on January 27, 1997 by Regional Board Resolution No. 97-02. The Basin Plan designates beneficial uses for surface waters and groundwater, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State anti-degradation policy (Statement of Policy with Respect to Maintaining High Quality Waters in California, SWRCB Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. 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.
22. On November 16, 2000, the State Board adopted a revised Water Quality Control Plan for the Ocean Waters of California ("Ocean Plan"). The State of California Office of Administrative Law and the United States Environmental Protection Agency (USEPA) approved a revised plan in 2005. The revised plan contains water quality objectives for coastal waters of California. This Order includes receiving water limitations, prohibitions, and provisions that implement the objectives of the Ocean Plan.

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23. The Site is located within Malibu Hydrologic Units 404.21 and 404.16 – corresponding to three coastal features: Malibu Beach, Carbon Beach, and La Costa Beach. The Site is assumed to be located in the Carbon Beach area. Basin Plan limitations for groundwater, all of which is assumed to have some potential for domestic or municipal use, shall be protected. While the treated effluent will be discharged to land through the newly installed pressurized leachfield, the depth to groundwater is largely controlled by tidal cycles, with secondary influence from storm surges, and at this location, the receiving water also includes the Pacific Ocean.
24. There are no blue line streams within 500 feet of the Site’s proposed leachfield. The shortest distance from the proposed leachfield to the Pacific Ocean is approximately 180 feet. The Basin Plan has the following beneficial use designations in Hydrologic Units 404.21 and 404.16:

Coastal Features (Malibu Beach)

Existing: Navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wildlife habitat, migration of aquatic organisms, spawning, reproduction, and/or early development of fish, and shellfish harvesting.

Coastal Features (Carbon Beach)

Existing: Navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wildlife habitat, and shellfish harvesting.

Potential: Spawning, reproduction, and/or early development of fish.

Coastal Features (La Costa Beach)

Existing: Navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wildlife habitat, and shellfish harvesting.

Potential: Spawning, reproduction, and/or early development of fish.

25. The Water Quality Assessment adopted by the Regional Board on May 18, 1998 identified beaches along the Santa Monica Bay (including the Malibu Beach, Carbon Beach, and La Costa Beach) as impaired by pathogens. Carbon Beach may also be impacted by nearby septic discharges from the adjacent private residences and commercial sites, which have standard septic disposal systems. Due to the close proximity of the Site to the ocean, an effluent monitoring program is necessary to evaluate the effectiveness of the advanced OWTS and any impacts from the discharge of

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treated wastewater to groundwater, which in this location is connected to the Pacific Ocean.

26. The requirements contained in this Order are based on the Basin Plan, Ocean Plan, other state plans, policies, and guidelines, and consideration of the factors set forth in Water Code section 13263 and section 13241 as described in the Staff Report for this matter.

CEQA and NOTIFICATION

27. This project involves new facilities and, as such, must meet the provisions of the California Environmental Quality Act (Public Resources Code, section 21000 et seq.), in accordance with California Code of Regulations, title 14, section 15301. The City, as lead agency, certified a Mitigated Negative Declaration (“MND”) for the project on January 16, 2007. The Regional Board has considered the relevant portions of the MND and will required the mitigation set forth therein on Pages 25 through 31 with respect to water quality impacts.
28. The Regional Board has notified the Discharger and interested agencies and persons of the intent to issue Waste Discharge Requirements for this discharge, and has provided them with an opportunity to submit their views and recommendations for the requirements.
29. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the tentative requirements.
30. Pursuant to California Water Code (Water Code) Section 13320, any aggrieved party may seek review of this Order by filing a petition with the State Board. A petition must be received by the State Water Resources Control Board, P.O. Box 100, Sacramento, California, 95812, within 30 days of adoption of the Order.

IT IS HEREBY ORDERED that Wavebreak LLC shall comply with the following:

A. PRETREATMENT REQUIREMENTS

1. Pretreatment Education: The Discharger shall document all actions taken to prevent chemicals (such as plumbing agents and cleaning agents) to be added to the water at the proposed restaurant which would interfere with biological processes in the treatment System. The Discharger shall control chemical additives in the influent through the education of the operator and customers to minimize the presence of pollutants of concern in the wastewater stream and to prevent violations of the effluent limits.
 - a. The operator shall be notified by the Discharger that they are responsible for eliminating influent waste from garbage disposals, every-flush toilet bowl cleaners, grease, and cleaning products.

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- b. Documentation of the pretreatment educational materials and/or lease provisions shall be included in the Water Conservation Report prior to system startup.
- 2. Restaurant Waste Management: In its annual Water Conservation Report, the Discharger shall provide a summary of:
 - a. The adequacy of the capacity and design of the Best Management Practices (“BMPs”) to trap and manage fats, oils, and grease before entering the primary separation tank; and
 - b. The operation and maintenance plan actions for the proposed restaurant that will prevent fats, oils and grease from entering the advanced OWTS, and control cleaning agents in wastewaters that enter the advanced OWTS.
- 3. Biological System Start-up and Stabilization: The Regional Board recognizes that advanced biological systems such as the advanced OWTS proposed at the Site require a “start-up” period during which the system’s biological processes require seeding and stabilization. Also, there are rare cases when the biological system is compromised and reseeded is necessary to assist the recovery of the biological treatment system quicker than would be possible by natural re-growth. In such cases, Discharger may import a sufficient amount of fully nitrified sludge from offsite for the express purpose of seeding (or reseeded) the advanced OWTS’s biological process. Discharger shall provide written notice to the Executive Officer² of intent to import at least 7 days in advance to the Executive Officer that include the quantity of sludge and its source.

B. INFLUENT REQUIREMENTS

- 1. Domestic and Commercial Waste: Waste discharge, shall be limited to domestic-commercial wastewater from the site only.
- 2. Influent Flow: The daily flow to the advanced OWTS shall not exceed the System’s design capacity. This flow limitation also applies to treated effluent discharged to the leachfield disposal system. The current total maximum design capacity of the System is 15,000 gallons per day.
- 3. Volatile Organic Compounds (VOCs): VOCs shall not be discharged into the System.

² Any reference to the “Executive Officer” in this Order refers to the Executive Officer of the Los Angeles Regional Water Quality Control Board.

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4. Hazardous Materials: Paints, anti-freeze, and industrial chemicals shall not be discharged to the System and shall be sent to appropriate hazardous waste collection facility.
5. Influent Flow Monitoring: Influent daily flows shall be monitored with a flow meter with signal to the advanced OWTS's control panel for tracking and logging.

C. EFFLUENT REQUIREMENTS

1. Biological System Start-Up: The Regional Board recognizes that advanced biological systems such as the advanced OWTS require a "start-up" period during which the system's biological processes require seeding and stabilization. Therefore, the Discharger is required to meet all effluent constituent concentration requirements in this Order starting 90 days after initial discharge. To demonstrate System stabilization, the Discharger shall be required to monitor effluent concentration limits during the start-up period on a more frequent basis in accordance with Monitoring and Reporting Program No. CI-XXXX.
2. Monitoring Points: The effluent shall be sampled and effluent requirements shall apply as effluent leaves the disinfection system. Exact locations of the monitoring points shall be identified in the preliminary and as-built drawings.
3. Maximum Flows: From commencement of discharge, the maximum daily flow from the System to the leachfield shall not exceed 15,000 gallons. Effluent daily flows shall be measured mechanically with an in-stream flow meter.
4. pH: The pH of wastes discharged shall at all times be 6.5 to 8.5 pH units.
5. Numerical Limits: The effluent prior to discharged to the leachfield shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Weekly (7-day) Average</u>	<u>Monthly (30-day) Average</u>	<u>Daily Maximum</u>
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	30	3020	45
Total Suspended Solids	mg/L	40	3015	45
Oil and grease	mg/L	--	10	15
Nitrate-N	mg/L	--	--	10 ³
Nitrite-N	mg/L	--	--	1 ³
Nitrate-N + Nitrite-N	mg/L	--	--	10 ³

³ For protection of groundwater (Basin Plan)

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Ammonia-N	µmg/L	=	=	2,400 ⁴
Total chlorine residual ⁵	µg/L		8	

6. Turbidity Limits: For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the treated wastewater does not exceed: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24 hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) during any 24 hour period; and (c) 10 NTUs at any time.
7. Pathogen Total Coliform Limits⁶: The effluent discharged to the leachfield shall not contain constituents in excess of the following limits: The median total coliform density shall not exceed 70 per 100 ml, and not more than 10 percent of the samples shall exceed 230 per 100 ml.
8. Fecal Coliform Limits⁷: For 30-day geometric mean, fecal coliform density shall not exceed 200 per 100 ml. For single sample maximum, fecal coliform density shall not exceed 400 per 100 ml.

<u>Constituent</u>	<u>Geometric</u>		<u>Maximum⁹</u>
	<u>30-day</u>	<u>Daily</u>	
<u>MPN/100mL⁸</u>	<u>Mean</u>	<u>Maximum</u>	
Total coliform	—	70	230
Fecal coliform	200	—	200
Enterococcus	35	—	104

9. Enterococcus Limits¹⁰: For 30-day geometric mean, enterococcus density shall not exceed 35 per 100 ml. For single sample maximum, enterococcus density shall not exceed 104 per 100 ml.

⁴ For protection of ocean waters

⁵ If chlorine is used for disinfection (Ocean Plan limit).

⁶ Shellfish Harvesting Standards (Ocean Plan)

⁷ Water-Contact Recreation Standards (Ocean Plan)

⁸ MPN/100mL: Most Probable Number per 100 milliliters; discharger has the option to report total coliform in terms of CFU/100mL after providing advance notice of intent to do so to the Executive Officer.

⁹ For protection of shellfish and recreational beneficial uses in ocean waters

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7.10. Narrative Limits: The effluent discharged to the leachfield shall not contain salts, metals, ~~nitrogen and phosphorous species~~, organic chemicals, or priority pollutants at levels that would adversely impact groundwater or surface water ~~that may be indue to~~ hydraulic connection with groundwater.

8.11. Disposal of Wastes: The disposal of waste shall not impart tastes, odors, color, foaming, or other objectionable characteristics to the receiving water.

D. RECEIVING WATER REQUIREMENTS

1. Biological System Start-Up: The Regional Board recognizes that advanced biological systems such as the advanced OWTS proposed for the Site must undergo a “start-up” period during which the system’s biological processes require seeding and stabilization. Therefore, the Discharger is required to meet all groundwater constituent concentration requirements in this Order starting 90 days after initial discharge. To demonstrate system stabilization, the Discharger shall be required to monitor and report groundwater concentrations during the start-up period on a more frequent basis in accordance with Monitoring and Reporting Program No. CI-XXXX.

2. Groundwater Limits: The wastewater discharged shall not ~~exceed or~~ cause the groundwater to contain constituents in excess of the following limits, based on Basin Plan and Ocean Plan requirements and in conformance with the TMDLs quoted in Findings 23 and 24:

<u>Constituent</u>	<u>Units</u>	<u>Maximum Geometric</u>	
		<u>30-day</u>	
<u>Constituent</u>	<u>Units</u>	<u>Mean</u>	<u>Maximum</u>
Nitrate-N	mg/L	--	10 ¹¹
Nitrite-N	mg/L	--	1 ¹²
Nitrate-N + Nitrite-N	mg/L	--	10 ¹³
Ammonia-N	mg mg/L	--	2,4002.4 ¹⁴
Total chlorine residual		µg/L	10
Oil and grease		mg/L	0
Total coliform	MPN/100mL	70	230 ¹⁵

¹⁰ Water-Contact Recreation Standards (Ocean Plan)

¹¹ For protection of groundwater (Basin Plan)

¹² For protection of groundwater (Basin Plan)

¹³ For protection of groundwater (Basin Plan)

¹⁴ For protection of ~~ocean water~~ Marine Aquatic Life (Ocean Plan)

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<u>Constituent</u>	<u>Units</u>	<u>Maximum</u>	
Fecal coliform	MPN/100mL	200	200400 ¹⁶
Enterococcus	MPN/100mL	35	104 ¹⁷

3. Surface Water Limits: The wastewater discharged shall not cause the surface water (ocean) to contain constituents in excess of the following limits, based on Basin Plan and Ocean Plan requirements, any other Ocean Plan requirements or limits, and in conformance with the TMDLs quoted in Findings 23 and 24:

<u>Constituent</u>	<u>Units</u>	<u>Geometric 30-day Mean</u>	<u>Maximum</u>
<u>Nitrate-N</u>	<u>mg/L</u>	--	10 ¹⁸
<u>Nitrite-N</u>	<u>mg/L</u>	--	1 ¹⁹
<u>Nitrate-N + Nitrite-N</u>	<u>mg/L</u>	--	10 ²⁰
<u>Ammonia-N</u>	<u>mg/L</u>	--	2.4 ²¹
<u>Total coliform</u>	<u>MPN/100mL</u>	70	230 ²²
<u>Fecal coliform</u>	<u>MPN/100mL</u>	200	400 ²³
<u>Enterococcus</u>	<u>MPN/100mL</u>	35	104 ²⁴

3.4. Groundwater Discharge to Surface: Any discharge from the groundwater to the surface or surface water, which Regional Board staff identifies as related to the advanced OWTS operation and disposal of effluent, shall also be sampled by the Discharger, upon written direction by the Executive Officer. Testing and reporting shall be in accordance with Monitoring and Reporting Program No. CI-

¹⁵ ~~For protection of shellfish and recreational beneficial uses~~ Shellfish Harvesting Standards (Ocean Plan)

¹⁶ Water-Contact Recreation Standards (Ocean Plan)

¹⁷ Water-Contact Recreation Standards (Ocean Plan)

¹⁸ For protection of groundwater (Basin Plan)

¹⁹ For protection of groundwater (Basin Plan)

²⁰ For protection of groundwater (Basin Plan)

²¹ For protection of Marine Aquatic Life ~~ocean water~~ (Ocean Plan)

²² Shellfish Harvesting Standards ~~For protection of shellfish and recreational beneficial uses~~ (Ocean Plan)

²³ Water-Contact Recreation Standards (Ocean Plan)

²⁴ Water-Contact Recreation Standards (Ocean Plan)

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~~XXXX. If the advanced OWTS discharges to the surface, it is a violation of this WDR and also a discharge without filing a Report of Waste Discharge.~~

4.5. Water Table Elevation: If Regional Board staff determines that discharge has occurred when the water table is five (5) feet below the base of the leachfield on the Site, the discharge shall be considered an illicit discharge to the groundwater, a Water of the State, which is prohibited.

6. ~~5.~~—If the daily separation between the water table and the bottom of the leachfield is less than five (5) feet, operational changes at the proposed restaurant are required to eliminate effluent discharge until the water table is found to be more than five (5) feet below the base of the leachfield.

7. ~~6.~~—Should groundwater monitoring data indicate adverse impacts to surface water caused by the Discharger, the Discharger shall submit, within 90 days after determination of the problem, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that result from the subsurface disposal of wastes. ~~At all times after the advanced OWTS's initial start-up period, the discharged effluent must meet Ocean Plan standards.~~

8. ~~7.~~—A groundwater and surface water monitoring plan shall be submitted to the Executive Officer 60 days prior to discharge for review and approval.

9. ~~8.~~—In addition to the four (4) proposed monitoring wells, additional downgradient wells shall be installed to evaluate the water quality outside of discharge influence zone and the 5 feet vertical separation below the base of the leachfield.

E. PROHIBITIONS

1. Limited Discharge: There shall be no direct or indirect discharge of wastes to groundwater or surface water, Waters of the State, at any time other than specified by this permit.

2. Construction: No part of the disposal system shall be closer than 150 feet to existing water well. No part of the advanced OWTS or leachfield shall extend to a depth where wastes may deleteriously affect an aquifer that is usable for domestic purposes. At all times, a minimum of five (5) feet of vertical separation between the leachfield and the water table must be maintained. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.

3. Waste Characteristics: Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving groundwater and surface water. Oils, greases, waxes or other materials shall not present in

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concentrations that result in a visible film or coating on the surface of the receiving water.

4. Stormwater Protection: Adequate facilities shall be provided to divert surface and stormwater away from the advanced OWTS and leachfield and from areas where any potential pollutants are stored.
5. Flood: The advanced OWTS shall be protected from damage by storm flows or runoff generated by a storm up to and including the 100-year storm.
6. Sludge: There shall be no onsite disposal of sludge. Any offsite disposal of sewage 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 Water Quality Control Board, and which is in full compliance therewith. Any sewage or sludge handling shall be in such a manner as to prevent its reaching surface waters or watercourses.
7. Odors: Sewage odors shall not be detectable. The close proximity of the Site to other businesses mandates mechanical movement of fumes through filters where vacuum seals are least reliable. Sufficient technological remedies exist to prevent odor discharge from the treatment and disposal system at all times. Odor complaints, even if made by the public and not detected by the operator, are considered indicative of improper operation. Multiple odor complaints are considered indicative of a preventable nuisance which has not been remedied by the Discharger.
8. Nuisance: The discharge of waste shall not create a condition of pollution, contamination, or nuisance. It shall not be considered an excuse that the Site is in close proximity to other businesses as this treatment process has been selected by the Discharger.
9. Toxicity: Wastes discharged from the wastewater treatment plant shall at no time contain any substances, in concentrations toxic to human, animal, or plant life.
10. Biota: The use of chemicals for cleanup and maintenance at the facility that would negatively impact the biota is prohibited.
11. Bypass: 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 Discharger for bypass unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe Site damage. (Severe Site damage means substantial physical damage to Site, damage to the treatment facilities that cause them to become inoperable, or substantial and permanent loss in the absence of a bypass.

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Severe Site 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 should 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. This condition is not satisfied because of failure to design, permit or install a recycled/reclaimed water system for operation when discharge exceeds leachfield assimilation capacity.
 - c. The Discharger must submit written notice at least 24 hours in advance of the need for a bypass to the Regional Board Executive Officer.
 - d. Pumping waste from the treatment system for purposes other than emergencies and regularly scheduled maintenance, indicates loss of system performance, and is also prohibited, without notification of the Executive Officer.
12. Discharge to Surface: The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.
13. Connection to Community Sewer: Within six (6) months after a community wastewater collection (sewer) system becomes available, if feasible, the Discharger shall connect to the community sewer system and properly close the onsite System.

F. PROVISIONS

- 1. Monitoring Reports: The Discharger shall file, with the Regional Board, technical reports on self-monitoring work performed according to the detailed specifications contained in Monitoring and Reporting Program No. CI-XXXX, and as directed by the Executive Officer. The results of any monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program ("MRP") shall be reported to the Regional Board.
- 2. Surface Water Monitoring: Should ~~groundwater~~ surface water monitoring data indicate adverse impacts ~~to surface water~~ caused by the Discharger, the Discharger shall submit, within 90 days after determination of the problem, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that result from the subsurface disposal of wastes. Any water quality impact to

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surface water including, but not limited to, risks to human health from pathogens, and accelerated eutrophication of surface waters from nutrients in wastewater shall be reported.

3. **Groundwater Monitoring:** The Discharger shall establish a groundwater monitoring program utilizing two upgradient groundwater monitoring wells within ten feet of the edge of the Site's leachfield, two downgradient groundwater monitoring wells within five feet of the edge of the Site's leachfield and the additional further downgradient wells outside of discharge influence zone. Representative samples of groundwater shall be obtained according to the detailed specifications contained in Monitoring and Reporting Program No. CI-XXXX. The Discharger shall establish a baseline groundwater level below the base of leachfield and document this baseline in their first monitoring report.
4. **Leachfield Replacement:** The Discharger may not have sufficient land area reserved for possible future 100 percent replacement of the subsurface disposal area. The Discharger shall establish a contingency plan to deal with the event of failure of the disposal system or the loss of soil assimilative capacity. The Discharger must submit the contingency plan to the Executive Officer 60 days prior to discharge for review and approval.
5. **Water Conservation Report:** The Discharger shall provide an annual report regarding water conservation and water recycle/reclamation measures implemented, describing the operation and maintenance of the water conservation equipment and variations in potable, influent and effluent water flows. The first report is due prior to discharge and shall include documentation of pre-treatment education, the maintenance and the method of attaining storage capacities, and operational protocol established to enforce additional water conservation or storage measures when discharge is not possible.
6. **System As-Built:** The Discharger shall submit a final engineering report for the treatment plant, collection system, discharge systems, including the "as-built" engineering diagrams, to the Executive Officer within 30 days of the commencement of discharge.
7. **Inspection:** The Discharger shall cause the advanced OWTS to be inspected once ~~every~~ per year during the life of the permit by the person responsible for onsite operation and maintenance of the treatment system. A copy of this inspection shall be submitted with the annual summary report.
8. **Onsite Wastewater Treatment Systems Regulations:** The Discharger shall comply with all applicable requirements of Chapter 4.5 (commencing with section 13290) of the Water Code.

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9. TMDL Compliance: The Regional Board has adopted a TMDL for bacteria at Santa Monica Bay Beaches, including Malibu Beach, Carbon Beach, and La Costa Beach. The Discharger shall comply with waste load allocations developed and approved pursuant to the TMDL for the area. The Regional Board, after appropriate notice and opportunity for hearing, may require that the Discharger meet bacteria limits stricter than those imposed in this Order.
10. Reduction of Impairments: The Regional Board designated Malibu Beach, Carbon Beach and La Costa Beach as impaired by beach closures on the 2002 303(d) List. The discharge from the Site and resulting changes in discharge from adjacent facilities, shall not cause continuing impairment of beneficial uses in the water bodies adjacent to the Site.
11. Notification of Surfacing: The Discharger shall notify the Regional Board's Project Manager within 24 hours, by telephone or email, of any surfacing of wastes. A written incident report of the spill shall follow within 7 days and shall include information relative to the location(s), estimated volume, water quality, date and time, duration, cause, and remedial measures taken to affect cleanup and measures taken to prevent any recurrence and long term effects.
12. Responsible Operation: The Discharger shall operate and maintain its wastewater collection, treatment and disposal facilities in a manner to ensure that all facilities are adequately staffed, supervised, financed; operated, maintained, repaired, and upgraded as necessary, to provide adequate and reliable transport, treatment, and disposal of all wastewater from all wastewater sources under the Discharger's responsibilities.
13. Notification of Alarms: Because of the extensive number of alarms associated with the advanced OWTS, Discharger shall provide to the Regional Board's Project Manager, within 30 days of the commencement of discharge, a report categorizing the system's alarms and proposed manner and timing of Regional Board notification for each alarm. The Discharger shall provide notification to the Regional Board within two (2) hours of any operator alarm determined by the Discharger or the Regional Board to be of the highest priority. Highest priority alarms, at a minimum, shall include any alarm notifying the operator of excessive flows, significantly reduced System processing rate, and conditions of high groundwater.
14. Operator Certification: Anyone employed in the operation of the wastewater treatment plant must be certified pursuant to Water Code Sections 13625-13633. The advanced OWTS does not meet the exception in Water Code Section 13625.1(a) because operator failure may lead to a violation of water quality objectives at the Site. Should the advanced OWTS fail, treated or partially treated effluent will discharge to the subsurface, and possibly to the surface, and within

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100 feet of the ocean. The rate of problems among advanced systems under Malibu jurisdiction was documented in the Malibu Prohibition record, and justifies additional supervision to protect the public on the heavily used adjacent beach from increased human health risks. The operator must hold a certification as required by the California Department of Public Health.

15. Operation and Maintenance Manual: The Discharger shall submit to the Regional Board an Operations and Maintenance Manual ("O&M Manual") for the advanced OWTS at flow ranging from no-flow to the maximum flow. The Discharger shall maintain the O&M Manual in useable condition and available for reference and use by all personnel. The Discharger shall regularly review, and revise/update the O&M Manual in order for the document(s) to remain useful and relevant to current equipment and operation practices. Reviews shall be conducted annually, and revisions or updates shall be completed as necessary and submitted to the Regional Board on an annual basis. A copy of the O&M Manual shall be submitted to the Executive Officer 60 days prior to discharge for review and approval.
16. Disinfection Manual: The UV disinfection system and membrane filtration system require additional operational supervision and maintenance to ensure successful operation at varying flows. The Discharger shall submit an O&M Manual for these two systems prior to startup. The maintenance and operation of the UV system shall comply with the National Water Research Institute/American Water Works Association Research Foundation Ultraviolet (UV) Disinfection Guidelines. UV disinfection systems maintenance shall be included in the annual summary and O&M Report.
17. Notification: For violations of effluent bacteria concentration limits contained in this Order, the Discharger shall notify the Regional Board's Project Manager within 24 hours of knowledge of the violation either by telephone or electronic mail. Within 30 days of the adoption of this Order, the Discharger shall provide for the Regional Board's Project Manager approval a report detailing which violations warrant notice within 24 hours of knowledge of the violation. All other violations shall be reported to Regional Board in the Discharger's next regularly scheduled monitoring report. The monitoring report shall include the reasons for the violations or adverse conditions, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
18. Other Regulations: This Order does not relieve the Discharger from the responsibility 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.

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19. Termination or Modification: After notice and opportunity for a hearing, this Order may be terminated or modified for causes including, but not limited, to:
 - a. Violation of any term or condition contained in this Order;
 - b. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; or
 - c. A change in any condition, or the discovery of any information, that requires either a temporary or permanent reduction or elimination of the authorized discharge.
20. Additional Reports: The Discharger shall furnish, within a reasonable period of time, any information the Regional Board may request to determine whether or not cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
21. Standard Provisions: This Order includes the attached *Standard Provisions Applicable to Waste Discharge Requirements* which are incorporated herein by reference. If there is any conflict between provisions stated herein and the *Standard Provisions Applicable to Waste Discharge Requirements*, the provisions stated herein will prevail.
22. Access: The Discharger shall allow Regional Board staff, or an authorized representative upon the presentation of credentials and other documents as may be required by law, to:
 - 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 any records that must be kept under the conditions of this Order;
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor for the purposes of assuring compliance with this Order, or as otherwise authorized by the Water Code, any substances or parameters at any locations.
23. Term: The waste discharge requirements contained in this Order will remain in effect for a period of five (5) years. Should the Discharger wish to continue

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discharging to groundwater for a period of time in excess of five years, the Discharger must file an updated Report of Waste Discharge with the Regional Board, no later than 180 days in advance of the expiration date of this Order for consideration of issuance of new or revised waste discharge requirements. Any discharge of waste five (5) years after the date of issuance of this Order without obtaining a new WDR from the Regional Board is a violation of Water Code Section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.

24. Review and Revision: In accordance with Water Code Section 13263(e), these requirements are subject to periodic review and revision by the Regional Board within a five (5) year cycle.
25. Discharge a Privilege: In accordance with Water Code Section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into the waters of the State are privileges, not rights.
26. Posting: A copy of this Order shall be maintained on the Site so as to be available at all times to operating personnel.

G. REOPENER

1. This Order may be reopened to delete outdated requirements, or to include additional or modified requirements to address pollutant loading problems verified by monitoring data, Discharger workplans or mitigation plans, or TMDL or Basin Plan mandates.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of this Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 6, 2010.

Tracy J. Egoscue
Executive Officer

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