

Cal/EPA Secretary

California Regional Water Quality Control Board

Los Angeles Region

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May 5, 2010

Mr. Mike Witzansky, Director
Recreation and Community Service Department
City of Redondo Beach
200 Portofino Way
Redondo Beach, CA 90277

Dear Mr. Witzansky:

TIME SCHEDULE ORDER (TSO) NO. R4-2010-0066 – CITY OF REDONDO BEACH (SEASIDE LAGOON), NPDES NO. CA0060267, CI-8034

Two TSOs (Order Nos.: R4-2007-0024 and R4-2008-0002) were issued at the request of the City of Redondo Beach (City or Discharger) to provide interim effluent limitations for total suspended solids (TSS). The first TSO (Order R4-2007-0024) required the Discharger to conduct a study and find the cause of TSS exceedances and find solutions to achieve compliance with final TSS effluent limitations prescribed for Seaside Lagoon (Facility). The City conducted monitoring between May 28, 2007, and September 7, 2007, and submitted the Source Identification Report (SIR) as required by the TSO. SIR study data indicated that the Facility contributions of TSS were minimal. It also found that similar concentrations of TSS existed in the influent and in King Harbor (receiving water).

On January 19, 2010, the City Council members and staff met with Regional Board Executive Officer and staff and requested TSS relief based on the SIR. A follow-up letter submitted by the City requested that the TSS limits be set at 60 mg/L for monthly average and 120 mg/L for daily maximum.

Enclosed is a copy of the TSO, with interim limits for TSS. The TSO becomes effective on May 10, 2010, and expires on September 10, 2013.

If you have any questions, please call Mazhar Ali at 213-576-6652.

Sincerely,

Cassandra D. Owens, Chief Industrial Permitting Unit

Enclosures:

cc: See mailing list

California Environmental Protection Agency

Mike Witzansky City of Redondo Beach Seaside Lagoon

MAILING LIST

Environmental Protection Agency, Region 9, Permits Branch (WTR-5) U.S. Army Corps of Engineers NOAA, National Marine Fisheries Service Department of Interior, U.S. Fish and Wildlife Service Mr. William Paznokas, Department of Fish and Game, Region 5 Department of Public Health, Sanitary Engineering Section California State Parks and Recreation California Coastal Commission, South Coast Region Water Replenishment District of Southern California Los Angeles County, Department of Public Works, Waste Management Division

Mr. Gary Yamamoto, DPH, Division of Drinking Water and Environmental Management

Dr. Mark Gold, Heal the Bay

Mr. Tom Ford, Santa Monica BayKeeper

Mr. David Beckman, Natural Resources Defense Council

Mr. W. Lee Smith, Michel & Associates, P.C.

Mr. Mark McDermott, Easy Reader News

State of California

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

TIME SCHEDULE ORDER NO. R4-2010-0066

REQUIRING CITY OF REDONDO BEACH TO COMPLY WITH THE REQUIREMENTS PRESCRIBED IN ORDER NO. R4-2005-0016 (NPDES PERMIT NO. CA0064297)

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

- 1. City of Redondo Beach (hereinafter City or Discharger), discharges wastewater under Waste Discharge Requirements (WDRs) contained in Order No. R4-2005-0016 adopted by the Regional Board on March 3, 2005, which serves as the National Pollutant Discharge Elimination System (NPDES) permit (CA0064297) for the facility known as Seaside Lagoon. Order No. R4-2005-0016, expired on February 10, 2010. The terms and conditions of the current Order are continued and remain in effect until new WDRs and an NPDES permit are adopted.
- 2. The Seaside Lagoon Facility (Lagoon or Facility) is located at 200 Portofino Way, Redondo Beach, California, and is owned and operated by the City. The Facility is a city park and consists of a 1.4 million gallon man-made saltwater lagoon, artificial beaches, children's play area, snack bar facilities, and other recreational areas. The Lagoon was constructed in 1962 and has since been open to the public for swimming from Memorial Day to Labor Day each year. At other times, the City may allow the use of the Facility for social functions which may result in discharges into the receiving water (King Harbor) outside of the designated operational season. The surface area of the water in the Lagoon is approximately 1.2 acres with a maximum depth of 7 feet. Wastewater is discharged from Discharge Point No. 001 to the King Harbor, a water of the United States.
- 3. Water for the Lagoon comes from the cooling water outfall of a nearby steam generating plant (AES Redondo Beach, L.L.C., Power Plant) where the seawater is used to cool turbines. The Power Plant is located at 1100 Harbor Drive, Redondo Beach. When operated at design capacity, the AES Power Plant discharges up to 898 million gallons per day (mgd) of once-through cooling water into King Harbor. This discharge is regulated under separate waste discharge requirements contained in Board Order No. 00-085. Approximately 3,200 gallons per minute (gpm) for twelve hours per day, which is equivalent to approximately 2.3 mgd, of once-through cooling water, is directed to the Lagoon.

The power plant is a "peak demand" generation facility and as such operates intermittently. When the plant is in operation, water flows from the ocean to the power plant and after use as once-through non-contact cooling water the water flows through the outfall to King Harbor. Thus, the power plant outfall is the Lagoon influent. When

City of Redondo Beach Seaside Lagoon Time Schedule Order No. R4-2010-0066

the power plant is not operating, because of tidal influence water from King Harbor fills the Power Plant outfall pipe. When the Power Plant is not operating the Lagoon influent flow is tidal backwater from the discharge end of the power plant outfall.

The City is using only a small portion (0.26 %) of the cooling water from the Power Plant for recreational beneficial use, which would otherwise be discharged directly to the ocean.

To maintain the water level in the Seaside Lagoon, the City discharges roughly 3,200 gpm for twelve hours per day (approximately 2.3 mgd) of dechlorinated saltwater to King Harbor when the Lagoon is in use. The water is discharged through three overflow structures located along the northwest edge of the Lagoon. The water then flows by gravity to a manhole, then to a conduit that empties into King Harbor at the shoreline (Latitude 33° 50' 38" N and Longitude 118° 23' 47" W) embankment through Discharge Serial 001. During periods when the Lagoon is not open for public use, the Lagoon water is flushed periodically.

The Lagoon water supply system is equipped with both chlorination and dechlorination facilities. The treatment system consists of adding sodium hypochlorite solution to the influent to maintain a residual chlorine level of approximately 1.0 parts per million (ppm or mg/L) in the Lagoon. The effluent is dechlorinated with sodium bisulfite to reduce the residual chlorine below 10 parts per billion (ppb or μ g/L). The chlorination system consists of one, 1,000-gallon storage tank which holds 17% sodium hypochlorite, dual chemical feed pumps with manual controls, and related piping. The de-chlorination system consists of one, 1,000-gallon storage tank which holds 38% bi-sulfate, dual chemical feed pumps with manual controls, and related piping.

- 4. The Lagoon discharges water intermittently. The Lagoon's summer swim program occurs during daylight hours from late May through early September, and as a result discharges water only 100 days per year and less than 12 hours per day.
- 5. Two TSOs (Order Nos.: R4-2007-0024 and R4-2008-0002) were issued at the request of Discharger to provide interim effluent limitations for total suspended solids (TSS). The first TSO (Order R4-2007-0024) required the Discharger to conduct a study to identify the cause of TSS exceedances and find solutions to achieve compliance with final TSS effluent limitations prescribed for Seaside Lagoon. The average TSS concentration in King Harbor near the Lagoon effluent pipe (47 mg/L) and at the Power Plant Outfall (44 mg/L). These TSS concentrations are slightly higher than the average TSS Lagoon discharge effluent concentration (42 mg/L) based on the Source Identification Report (SIR) submitted by the City in 2007. The SIR study data indicates that the Facility contributions of TSS were minimal.

As part of the SIR study, a Monitoring Plan was developed and implemented between May 28, 2007, and September 7, 2007. The Monitoring Plan examined not only the condition of the effluent but also the influent, interior lagoon, and harbor water quality. Samples were taken at a total of seven locations. The study concluded that the elevated concentrations of TSS detected in 2006, were also detected in samples collected during the study period, although the levels detected during the study period were somewhat lower then those detected in 2006. Similar concentrations of TSS existed in the influent and harbor water.

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The City reviewed the operational data of the AES Redondo Beach Power Plant (Power Plant) from January 2004 through September 2007. This time frame covered four operational seasons of the lagoon. During that period, 78% of the time the Lagoon was drawing water outside of the harbor (Power Plant was in operation) and 22% of the time it was drawing water directly from inside of the harbor. The SIR identified high TSS concentrations in both sources. There is an average 6.5 percent increase between influent and effluent TSS concentrations. The City requested and was granted interim effluent limitations for TSS in the second TSO (R4-2008-0002) based on the SIR data obtained in 2007.

- 6. The current permit, Order No. R4-2005-0016, includes the monthly average and daily maximum effluent limits for TSS of 50 and 75 mg/L, respectively. The City cannot consistently meet the prescribed effluent limits.
- 7. The City Council members and staff met with the Regional Board Executive Officer and staff on January 19, 2010, and requested issuance of 60 mg/L as monthly average and 120 mg/L as daily maximum limitations for TSS. A follow-up letter dated January 20, 2010, reiterating the request was mailed to Regional Board staff.
- 8. Based on the SIR data obtained in 2007 and request made by the City, this Order includes interim monthly average effluent limitation of 60 mg/L and daily maximum effluent limitation of 120 mg/L for TSS.
- 9. This Time Schedule Order (TSO) does not modify any of the other Discharger's final water quality-based effluent limitations.
- 10. The Regional Board may reopen this TSO at its discretion or at the request of the Discharger, if warranted.
- 11. This enforcement action is being taken for the protection of the environment and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et.seq.) in accordance with Section 15321, Chapter 3, Title 14, California Code of Regulations.

IT IS HEREBY ORDERED that, pursuant to the California Water Code Section 13300, City of Redondo Beach as an operator of Seaside Lagoon shall:

1. Comply with the following interim effluent limits from May 10, 2010, to September 10, 2013:

Constituents	Units	Discharge Limitation	
		Daily Maximum	Monthly Average
Total suspended solids	mg/L	120	60

Discharges after September 10, 2013, must comply with the final effluent limits in Order R4-2005-0016 or of the superseding Order in effect.

2. Submit to the Executive Officer by December 31, 2010, a workplan to determine the

City of Redondo Beach Seaside Lagoon Time Schedule Order No. R4-2010-0066

source of the TSS, whether from AES discharge or the tidal backflow. The workplan shall contain the following components:

- a. A time schedule for implementation of workplan tasks and milestone completion that begins on May 10, 2010, and ends on September 10, 2013.
- b. Summary reports every twelve months including documentation of sample analysis, trends and conclusions.
- c. Completion of any facility upgrades or best management practices needed to come into full compliance by September 10, 2013.
- 3. The City shall also monitor, submit the monitoring results to the Regional Board and comply with all the requirements of Order Number R4-2005-0016 or subsequent Orders for any discharge that occurs in the off-season.
- 4. If the City fails to comply with any provisions of this Order, the Executive Officer may issue an Administrative Civil Liability Complaint pursuant to California Water Code Section 13323. The Regional Board may also refer the case to the Attorney General for injunction and civil monetary remedies, pursuant to California Water Code sections 13331 and 13385.
- 5. The interim limits in TSO Order No. R4-2010-0066 for TSS are in effect from May 10, 2010, to September 10, 2013. Discharges after September 10, 2013, must comply with the final effluent limits in Order No. R4-2005-0016 or any subsequent Order. All other provisions of NPDES Order No. R4-2005-0016 or a subsequent Order not in conflict with this Order, are in full force and effect.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an order administratively issued by the California Regional Water Quality Control Board, Los Angeles Region, on May 5, 2010.

Tracy J. Egoscue Executive Officer