California Regional Water Quality Control Board
Santa Ana Region

Time Schedule Order No. R8-2009-0039

for
City of Corona's Department of Water and Power
Water Reclamation Facilities No. 1 and No. 2
Order No. R8-2007-0005, NPDES No. CA8000383, and
Order No. 98-03, as amended by Order No. R8-2007-0052

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board) finds that:

1. The City of Corona's Department of Water and Power (hereinafter Corona) operates water reclamation facilities No. 1 (WRF-1) and No. 2 (WRF-2). Both plants, in combination, are permitted to discharge up to 8.5 million gallons per day of secondary-treated, undisinfected effluent to the Lincoln/Cota percolation/evaporation ponds (hereinafter the ponds). Corona's discharge to the ponds is regulated under Order No. R8-2007-0005 for WRF-1 and Order No. 98-03, as amended by Order No. R8-2007-0052, for WRF-2.

2. The Lincoln Pond is located within the Prado Basin Management Zone (PBMZ), a wetlands, and the two Cota Ponds overlie the Temescal Groundwater Management Zone (TGMZ). These three ponds are located next to each other, and are also adjacent to an unlined portion of Temescal Creek. Both the PBMZ and Temescal Creek are designated in the Water Quality Control Plan for the Santa Ana River Basin (8) (Basin Plan) as REC-1 (body contact recreation) beneficial use water bodies. Effluent limits placed on discharges that would affect these water bodies must be sufficient to protect this beneficial use.

3. In light of the proximity of the ponds to the PBMZ and Temescal Creek, and that the shallow groundwater beneath these ponds may have the potential to surface within Temescal Creek and/or the PBMZ, there may be a potential that wastewater discharged to the ponds does not receive adequate filtering through the soil (i.e. that which would be equivalent to tertiary treatment) to remove pathogens prior to potentially surfacing within Temescal Creek and/or the PBMZ. If this is the case, then the REC-1 beneficial use would not be protected, thus violating the REC-1 requirement of the Basin Plan. Regional groundwater elevation data, included in Corona's Groundwater Management Plan, show that the general groundwater flow in the vicinity of the ponds is towards the PBMZ and Temescal Creek.

4. Based on the evaluation of regional groundwater elevation and flow direction data, which shows that, potentially, groundwater underlying the ponds may eventually flow toward the PBMZ and/or Temescal Creek, and the need to protect the REC-1 beneficial use, it is necessary to require Corona to come into compliance with

provisions of the Basin Plan and improve the quality of its effluent being discharged to the ponds to tertiary treatment standards, and to comply with effluent limitations similar to those already contained in Order No. R8-2007-0005 for discharges to the PBMZ thru discharge point 001 (Butterfield drain).

5. Corona submitted a report of waste discharge in May 2009 for Plant No. 2, in order to obtain waste discharge requirements for the discharge of tertiary treated wastes to the percolation ponds.

6. Corona cannot immediately comply with tertiary treatment requirements for discharges from WRF-1 and WRF-2 to the Lincoln/Cota ponds. Corona must construct major improvements to existing WRF-1 facilities and construct new tertiary treatment facilities at WRF-2 in order to comply with these requirements.

7. Section 13300 of the California Water Code states that, "Whenever a regional board finds that a discharge of waste is taking place, or threatening to take place that violates or will violate requirements prescribed by the regional board.....the board may require the discharger to submit for approval of the board, with such modification as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements."

8. On March 17, 2009, the City of Corona submitted a detailed time schedule listing the tasks and project milestones that must be completed before compliance with tertiary treatment requirements can be achieved. Taking into account the technological, operational, and economic factors that affect the design, development, construction and implementation of the measures that are necessary to improve the effluent quality to the ponds, it is appropriate to require compliance with effluent limitations similar to those contained in Discharge Specification IV.A.1.a. thru e. of Order No. R8-2007-0005 by April 10, 2014 for WRF-2 and April 27, 2012 for WRF-1.

9. The Board has notified the City of Corona and interested parties of its intent to adopt this time schedule order.

10. The Board, at a public hearing held on July 20, 2009, received evidence and considered all relevant information pertaining to this order.

11. This enforcement action is being taken for the protection of the environment and, as such, is exempt from 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, in accordance with Section 13300 of the California Water Code, the City of Corona's Department of Water and Power shall:

1. Conform with the following time schedule to achieve tertiary treatment levels on all effluent discharges to the ponds from WRF-1 and WRF-2, similar to effluent limitations contained in Discharge Specification IV.A.1.a. thru e. of Order No. R8-2007-0005:

TASK	COMPLIANCE DATE	REPORT OF COMPLIANCE DUE DATE
Complete pipeline construction at WRF-1 (rerouting of tertiary effluent to ponds)	October 9, 2009	November 1, 2009
Complete final design (low pressure pump station) at WRF-1	February 11, 2010	March 1, 2010
Complete construction bids for WRF-1 low pressure pump station	April 11, 2011	May 1, 2011
Complete construction of WRF-1 low pressure pump station and associated studies	April 27, 2012	May 15, 2012
Complete final design for WRF-2 tertiary treatment	August 28, 2012	September 1, 2012
Complete construction bids for WRF-2 tertiary treatment	November 15, 2012	December 1. 2012
Complete construction of WRF-2 tertiary treatment	April 10, 2014	May 1, 2014
Achieve full compliance	May 31, 2014	August 1, 2014

2. The time schedules for the construction of a pipeline and low-pressure pump station for tertiary effluent rerouting to ponds from WRF-1 and construction of new tertiary treatment facilities at WRF-2 submitted by the City of Corona on March 17, 2009, shall be an enforceable part of this Order. The Executive Officer may adjust the approved time schedule for verifiable and unforeseen delays beyond the control of the City of Corona.

3. Starting October 1, 2009, Corona shall submit quarterly reports describing the status of the construction of the proposed treatment facilities at WRF-1 and WRF-2.

I, Gerard J. Thibeault, 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, Santa Ana Region, on July 20, 2009.

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

July 20, 2009

ITEM:

SUBJECT: Time Schedule Order No. R8-2009-0039 for City of Corona's Department of Water and Power

DISCUSSION:

The City of Corona's Department Water and Power operates water reclamation facilities No. 1 (WRF-1) and No. 2 (WRF-2). Both plants, in combination, are permitted to discharge up to 8.5 million gallons per day of secondary treated undisinfected effluent to the Lincoln/Cota percolation/evaporation ponds (hereinafter, ponds). Corona's discharge to the ponds is regulated under Order No. R8-2007-0005 for WRF-1 and Order No. 98-03, as amended by Order No. R8-2007-0052, for WRF-2.

The Lincoln Pond is located within the Prado Basin Management Zone (PBMZ), a wetlands, and the Cota Ponds overlie the Temescal Groundwater Management Zone. The three ponds are located next to each other and are also adjacent to an unlined portion of Temescal Creek. Both the PBMZ and Temescal Creek are designated in the Water Quality Control Plan for the Santa Ana River Basin (8) (Basin Plan) as REC-1 (body contact recreation) beneficial use water bodies. Effluent limits placed on discharges that would affect these waters must be sufficient to protect this use.

Article 3, Section 60305 of Title 22, Chapter 3, "Use of Recycled Water for Impoundments" of the California Code of Regulations specifies that recycled water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater (tertiary treated). The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The California Department of Public Health (formerly California Department of Health Services) has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The CDPH has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

Neither the PBMZ nor Temescal Creek, are "nonrestricted recreational impoundments," nor is "recycled water[1]" being used as a supply source for the PBMZ and Temescal Creek pursuant to the definitions in Title 22. However, except during major storms, most of the flow in the PBMZ and Temescal Creek is composed of treated municipal wastewater discharges. The PBMZ and Temescal Creek are used for water contact recreation and, accordingly, are designated REC-1 (water contact beneficial use). People recreating in and downstream of the PBMZ and Temescal Creek face an exposure similar to those coming in contact with recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the PBMZ and Temescal Creek as would be required for the use of recycled water in a nonrestricted recreational impoundment (tertiary treatment).

In light of the proximity of the ponds to the PBMZ and Temescal Creek, and given that the shallow groundwater beneath these ponds may have the potential to surface within Temescal Creek and/or the PBMZ, there may be a potential that wastewater discharged to the ponds does not receive adequate treatment to remove pathogens prior to potentially surfacing within Temescal Creek and/or the PBMZ. If this is the case, then the REC-1 beneficial use specified in the Basin Plan would be violated. Regional groundwater elevation data, included in Corona's Groundwater management plan, show that the general groundwater flow in the vicinity of the ponds is towards the PBMZ and Temescal Creek.

Order No. R8-2007-0005 requires Corona to conduct an investigation, in accordance with a workplan approved by the Executive Officer, to determine whether and to what extent discharges to the ponds receive tertiary equivalent treatment prior to surfacing in Temescal Creek and/or the PBMZ. Should the investigation demonstrate that wastewater discharged to the ponds does not receive tertiary equivalent treatment, then Order No. R8-2007-0005 would be reopened to specify requirements for discharges to the ponds sufficient to protect the REC-1 use.

After initially submitting a workplan to conduct the required hydrogeologic study, and based on their assessment of the risk and cost associated with undertaking the extensive and comprehensive study that could likely conclude Corona's discharge to the ponds from WRF-1 and WRF-2 must be upgraded to tertiary treatment standards, Corona has committed to upgrading their discharge of wastewater to the ponds to tertiary treatment levels in lieu of continuing the hydrogeologic study.

On March 17, 2009 Corona submitted two time schedules proposing the following: 1) construct a pipeline and low-pressure pump station to reroute tertiary treated effluent from WRF-1 to the ponds, and 2) construct new tertiary treatment facilities at WRF-2.

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1 *As defined in the Reclamation Criteria, recycled water means water which, as a result of treatment of domestic wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.*

These schedules show completion of the final project for WRF-1 by April 2012, and by April 2014 for WRF-2. These projects are included on the 2009-2010 Clean Water Revolving Fund Project Priority List, which is scheduled for adoption by the State Board in September 2009.

Corona submitted a report of waste discharge in May 2009 for WRF-2, in order to obtain waste discharge requirements for the discharge of tertiary-treated wastes to the percolation ponds. This permit is tentatively scheduled for consideration by the Regional Board at its October 2009 meeting. In addition, Order No. R8-2007-0005 for WRF-1 will be reopened to specify tertiary treatment requirements.

Since Corona will not be able to comply immediately with tertiary treatment standards for discharges to the ponds, the proposed Time Schedule Order No. R8-2009-0039 includes a schedule for upgrading the existing facilities. Taking into account the technological, operational, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the tertiary treatment standards, the proposed Time Schedule Order requires Corona to achieve compliance with effluent limitations similar to those contained in Discharge Specification IV.A.1.a. thru e. of Order No. R8-2007-0005 by May 31, 2014 for all discharges to the ponds from Corona's WRF-1 and WRF-2.

RECOMMENDATION:

Adopt Time Schedule Order No. R8-2009-0039 as presented.

COMMENT SOLICITATION:

Comments were solicited from the discharger and the following agencies:
U.S.E.P.A., Permits Issuance Section (WTR-5) – Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch
U.S. Fish and Wildlife Service, Carlsbad
State Water Resources Control Board, Office of the Chief Counsel – David Rice
State Department of Fish and Game, Ontario
California Coastal Conservancy – Mary Small
California Coastal Commission – Steve Rynas
California Department of Public Health, San Diego – Steve Williams
California Department of Public Health, Carpinteria - Jeff Stone
California Department of Water Resources - Glendale
Riverside County Environmental Health Services – Sandy Bunchek
Riverside County Flood Control and Water Conservation District – Jason Uhley
Santa Ana Watershed Project Authority – Celeste Cantu
Santa Ana River Dischargers Association -
Inland Empire Waterkeeper - Autumn De Woody
Orange County Water District - Nira Yamachika
Orange County Coastkeeper - Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
City of Corona, Department of Water & Power – Jonathan Daly