CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2012-0082

AMENDING WASTE DISCHARGE REQUIREMENTS
ORDER R5-2007-0014 (NPDES PERMIT NO. CA0083681)

COUNTY OF SACRAMENTO
PUBLIC WORKS AGENCY
KIEFER LANDFILL GROUNDWATER EXTRACTION AND TREATMENT PLANT
SACRAMENTO COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter "Central Valley Water Board") finds that:

1. On 15 March 2007, the Central Valley Water Board adopted Waste Discharge Requirements Order R5-2007-0014, prescribing waste discharge requirements for the Kiefer Landfill Groundwater Extraction and Treatment Plant, Sacramento County. For purposes of this Order, the County of Sacramento Public Works Agency is hereafter referred to as "Discharger" and the Kiefer Landfill Groundwater Extraction and Treatment Plant is hereafter referred to as "Facility."

2. The Discharger owns and operates a municipal solid waste landfill with a groundwater treatment plant. The Facility consists of a groundwater extraction well network and an air stripping system to remove volatile organic compounds (VOCs).

3. The Discharger has been directed to remediate contamination of groundwater with VOCs under an approved Corrective Action Plan (CAP) required under Cleanup and Abatement Order No. 91-725.

4. Order R5-2007-0014 authorizes the discharge of up to 2.17 million gallons per day of treated groundwater to Deer Creek, a tributary to the Cosumnes River.

5. Order R5-2007-0014 contains a Monitoring and Reporting Program (Attachment E) that includes a requirement to monitor all VOCs listed in the United States Environmental Protection Agency EPA Method 502.2 in the effluent to Deer Creek once per week. The Discharger was required to monitor all VOCs listed in EPA Method 502.2 because it was uncertain which VOCs were present in the contaminated groundwater. Since the original NPDES permit adoption for this surface water discharge in 2001, sufficient data showing consistent results has been collected to identify VOCs of concern. The VOCs of concern include vinyl chloride, tetrachloroethene, trichloroethene, 1,2-dichloroethene, trichloroethane, 1,1-dichloroethane, dichlorodifluoromethane, trichlorofluoromethane, dichloromethane, chloroform and cis-1,2-dichloroethene. The current weekly frequency of monitoring for VOCs is no longer necessary. Monthly monitoring of

VOCs of concern and annual monitoring for all other VOCs, per EPA Method 502.2., is sufficient.

6. The Central Valley Water Board finds that the reduced monitoring frequency for these constituents is an appropriate amount of data to determine compliance and adequately characterize the effluent for the next NPDES permit renewal. Consequently, this Order revises the Monitoring and Reporting Program in Order R5-2007-0014 as discussed in Finding 5.

7. Order R5-2007-0014 contains a Monitoring and Reporting Program (Attachment E) requirement to sample total residual chlorine in the effluent once per week or continuously. Chlorine is only used for occasional well maintenance, not in the treatment process, and has not been detected in the past five years of weekly monitoring. Weekly monitoring is no longer necessary; therefore, the frequency of the total residual chlorine monitoring in Order R5-2007-0014 is reduced to once per month, or continuous monitoring as applicable during start-up of discharges.

8. Order R5-2007-0014 contains a Monitoring and Reporting Program (Attachment E) requiring sampling of pH, total residual chlorine, dissolved oxygen, electrical conductivity and turbidity. A footnote will be added corresponding to monitoring requirements for these constituents allowing a hand-held field meter to be used, provided the meter utilizes a United States Environmental Protection Agency (USEPA)-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions.

9. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") pursuant to Water Code section 13389, since the adoption or modification of a NPDES permit for an existing source is statutorily exempt and this Order only serves to modify a NPDES permit (*Pacific Water Conditioning Ass'n, Inc. v. City Council of City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.).

10. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

IT IS HEREBY ORDERED THAT:

Waste Discharge Requirements Order R5-2007-0014 (NPDES No. CA0083861) is amended as shown in Items 1-4, below.

1. Change the Order number throughout Order R5-2007-0014 to "R5-2007-0014-01."

2. **Attachment E, Monitoring and Reporting Program –** Modify table in section IV.A.1 (Effluent Monitoring) as shown below in underline/strikeout format:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Meter	Continuous	[1]
pH	standard units	Grab	1/week	[1], [7]
Chlorine, Total Residual	mg/L	Grab or Meter~~5~~6	~~1/week~~1/month or Continuous~~5~~6	[1], [7]
Turbidity	NTU	Grab	1/week	[1], [7]
Dissolved Oxygen	mg/L	Grab	1/week	[1], [7]
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab	1/week	[1], [7]
Hardness (as $CaCO_3$)	mg/L	Grab	1/quarter	[1]
Temperature	ºF (ºC)	Grab	1/week	[1]
Total Dissolved Solids	mg/L, lbs/day	Grab	1/week	[1]
Volatile Organic Compounds of Concern [2]	µg/L	Grab	~~1/week~~1/month	[1]
Other Volatile Organic Compounds[3]	µg/L	Grab	1/year	[1]
Aluminum	µg/L, lbs/day	Grab	1/quarter	[1]
Manganese	µg/L, lbs/day	Grab	1/quarter	[1]
Nickel, Total Recoverable	µg/L, lbs/day	Grab	1/quarter	[1]
Organochlorine Pesticides [3]	µg/L	Grab	1/quarter	[1]
Fluoride	µg/L	Grab	1/quarter	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Priority Pollutants[4]	µg/L, lbs/day	Grab	1/Permit Lifecycle	[1]

[1] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136;
[2] Volatile organic compounds of concern include vinyl chloride, tetrachloroethylene, trichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethane, dichlorodifluoromethane, trichlorofluoromethane, methylene chloride, chloroform, and cis-1,2-dichloroethylene.
[3] All volatile organic compounds listed in EPA Method 502.2.
[4] Organochlorine pesticides include aldrin, alpha-BHC, beta-BHC, delta-BHC gamma-BHC, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, dieldrin, endrin, endrin aldehyde, alpha-endosulfan, beta-endosulfan, endosulfan sulfate, heptachlor, heptachlor epoxide, and toxaphene.
[5] For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.
[6] Continuous chlorine residual monitoring is required for a minimum of 24-hours after the discharge to Deer Creek resumes following well and groundwater treatment system maintenance events.
[7] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

3. **Attachment E, Monitoring and Reporting Program –** Modify table in section VI.A.1. (Sedimentation Monitoring) as shown below in underline/strikeout format:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Calculated	[2]	[1]
pH	standard units	Grab	[2]	[1], [6]
Chlorine, Total Residual	mg/L	Grab	[2]	[1], [6]
Dissolved Oxygen	mg/L	Grab	[2]	[1], [6]
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab	[2]	[1], [6]
Total Dissolved Solids	mg/L	Grab	[2]	[1]
Volatile Organic Compounds of Concern [3]	µg/L	Grab	[2]	[1]
Title 22 Metals [4,5]	µg/L	Grab	[2]	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

[1] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136;
[2] Samples shall be collected during post tower maintenance, post well maintenance, and post well rehabilitation discharges which represent the quality of effluent discharged to the sedimentation basin.
~~[3] All volatile organic compounds listed in EPA Method 502.2~~
[3] Volatile organic compounds of concern include vinyl chloride, tetrachloroethylene, trichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethane, dichlorodifluoromethane, trichlorofluoromethane, methylene chloride, chloroform, and cis-1,2-dichloroethylene.
[4] Title 22 metals shall include the analyses of arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, and zinc.
[5] For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.
[6] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

4. **Attachment E, Monitoring and Reporting Program –** Modify table in section VIII.A.1. (Receiving Water Monitoring) as shown below in underline/strikeout format:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow[2]	cfs	Meter	1/month	[1]
pH	standard units	Grab	1/month	[1], [4]
Dissolved Oxygen	mg/L	Grab	1/month	[1], [4]
Electrical Conductivity @ 25 ºC	µmhos/cm	Grab	1/month	[1], [4]
Hardness (as $CaCO_3$)	mg/L	Grab	1/month	[1]
Temperature	ºF (ºC)	Grab	1/month	[1]
Turbidity	NTU	Grab	1/month	[1], [4]
Priority Pollutants[3]	µg/L	Grab	1/Permit Lifecycle	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

[1] Pollutants shall be analyzed using the analytical methods described in 40 CFR 136;
[2] Estimate of receiving water flow, recorded for each day of sample collection. Use nearby gauging station, if available.
[3] For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.
[4] A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 2 August 2012.

Original Signed By

PAMELA C. CREEDON, Executive Officer