



Los Angeles Regional Water Quality Control Board

April 29, 2019

Ms. Annette Toale Circle K Stores, Incorporated 1120 West Warner Road Tempe, AZ 85284 Certified Mail 7018 1830 0001 5952 5193 Return Receipt Requested

GENERAL WASTE DISCHARGE REQUIREMENTS FOR IN-SITU GROUNDWATER REMEDIATION AND GROUNDWATER RE-INJECTION CIRCLE K STORE #2709454 (FORMER MOBIL STATION #18-AJ5) 5553 WHITE OAK AVENUE, ENCINO, CA (ORDER NO. R4-2014-0187, SERIES NO. 138; CI NO. 10475) (UST CASE NO. 913160370)

Dear Ms. Toale:

We have completed our review of your application for coverage under the General Waste Discharge Requirements (WDR) for ozone sparging into groundwater to supplement active remediation of the groundwater contamination plume beneath the subject site (Site).

Circle K Stores, Incorporated (hereinafter Discharger) owns the facility located at the corner of White Oak Avenue and Burbank Boulevard at 5553 White Oak Avenue, Encino, California (Figure 1). The Site is currently an active retail fuel service station consisting of five underground storage tanks (USTs) that store gasoline and diesel, three dispenser islands, and a station building. The Site is located in an area of mixed residential and commercial properties.

The Site is located within the San Fernando Valley Groundwater Basin. According to boring logs, the subsurface lithology of the Site consists of sands, silts, and clay from ground surface to a depth of approximately 40 feet below ground surface (bgs).

Several site investigations conducted at the Site between 2001 and 2016 indicate that soil and groundwater beneath the Site have been impacted by fuel constituents. Soil remediation at the Site (April 2001) included soil excavation during tank removal activities.

A total of eleven groundwater monitoring wells (MW-1 through MW-11) are associated with the Site and periodic groundwater monitoring has been conducted since July 2011. The data from the most recent groundwater sampling event (November 2018) reported the maximum total petroleum hydrocarbons as gasoline (TPH_G) concentrations up to 6,400 micrograms per liter (μ g/L), benzene up to 30 μ g/L, methyl tertiary butyl ether (MTBE) up to 11J μ g/L, and tertiary butyl alcohol (TBA) up to 44,000 μ g/L. Well MW-9 is reported dry. Depth to groundwater ranged from approximately 38 to 50 feet bgs and groundwater flow direction varies from south-southeast. Coordinated groundwater sampling is performed with an adjacent Shell service station (Figure 2).

IRMA MUÑOZ, CHAIR | RENEE PURDY, EXECUTIVE OFFICER

In June 2016, a vapor extraction (VE) and air sparge (AS) pilot test was conducted using the existing vapor extraction wells VE-1 and VE-2 and AS well (AS-1). Based on the pilot test results, ozone sparging in conjunction with soil vapor extraction was recommended to address the hydrocarbon-impacted groundwater plume and to capture and prevent vapor migration.

In a remedial action plan (RAP) dated October 13, 2016, your consultant, Blaes Environmental Management, Inc. (Blaes) proposed to conduct ozone sparge (OS) in conjunction with soil vapor extraction to remediate source area soil and hydrocarbon-impacted groundwater and fuel oxygenates and to capture and prevent vapors from migrating through the OS process. Blaes proposed to install twenty (20) OS wells and two vapor VE wells. An OS remedial system will be installed, and connected to the OS wells. Ozone will be injected into the OS wells via an automated system. The OS system is equipped with programmable controller, alarm indictor and resets, valve control. Blaes further proposed to switch to oxygen-enriched AS to be used as a contingency if excess byproducts (e.g., hexavalent chromium) are detected in the groundwater samples. The AS will continue until the byproducts have attenuated, at which time OS will be reintroduced. The Regional Board approved the RAP on March 16, 2017.

In a letter dated August 16, 2017, the Regional Board determined that based on recent groundwater sampling data, the number of proposed OS wells should be reduced. Blaes submitted a revised site map and proposed to install fourteen (14) OS wells instead of 20 OS wells. The Regional Board determined that the reduced number of OS wells to be installed are adequate. In September 2017, two VE wells (VE4 and VE5) and 14 OS wells (OS1 through OS14) were installed.

The Regional Board has determined that the proposed discharge meets the conditions specified in Order No. R4-2014-0187, "General Water Discharge Requirements for In-Situ Groundwater Remediation and Groundwater Reinjection" adopted by the Los Angeles Regional Water Quality Control Board on September 11, 2014.

Enclosed are your Waste Discharge Requirements (WDRs), consisting of the General WDR Order No. R4-2014-0187, Series No. 138, including the Monitoring and Reporting Program (MRP) Compliance File No. CI-10475. This MRP and General WDRs constitute the WDRs for the proposed feasibility study and full-scale implementation, if necessary. The WDR shall not be terminated until Regional Board staff determines the WDRs are no longer needed for the site cleanup.

When submitting technical WDR monitoring reports to the Regional Board per these requirements, please include a reference to MRP No. CI-10475 to ensure that the reports are directed to the appropriate file and staff. Do not combine other reports with your technical WDR monitoring reports. Submit each type of report as a separate document.

In accordance with regulations adopted by the State Water Resources Control Board (State Board) regarding electronic submittal of information, Underground Storage Tank Program (UST) monitoring reports have been electronically submitted to the State Board GeoTracker system under the UST Global ID T0603753550. To comply with the MRP under this WDR, you shall upload the WDR monitoring reports to the State Geotracker database under the two Global IDs T0603753550 and WDR 100040458.

To avoid paying future annual fees, please submit a written request for termination of your enrollment under the general permit in a separate letter when your project has been completed and the permit is no longer needed. Be aware that the annual fee covers the fiscal year billing period beginning July 1 and ending June 30, the following year. You will pay the full annual fee if your request for termination is made after the beginning of the new fiscal year beginning July 1st.

If you have any questions, please contact Dr. Eric Wu at (213) 576-6683 or email Eric.Wu@waterboards.ca.gov for issues regarding the WDRs. For questions, regarding the UST Program, please contact Ms. Chandra Tyler at (213) 576-6782 or email Chandra.Tyler@waterboards.ca.gov.

Sincerely,

Enclosures: 1. General WDR Order No. R4-2014-0187

2. Monitoring & Reporting Program No. CI-10475

3. Figures 1 & 2

cc: Brian Partington, Southern California Water Replenishment District Richard Slade, Richard C. Slade & Associates LLC, ULARA Watermaster Elōy Luna, City of Los Angeles Fire Department Underground Tanks Royce Long, City of Los Angeles Fire Department Underground Tanks Kristine Martinez, Blaes Environmental Management, Inc.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LOS ANGELES REGION

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ORDER NO. R4-2014-0187 GENERAL WASTE DISCHARGE REQUIREMENTS FOR

IN-SITU GROUNDWATER REMEDIATION AND GROUNDWATER RE-INJECTION (FILE NO. 01-116)

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

- 1. On January 24, 2002, pursuant to the Porter-Cologne Water Quality Control Act (Cal. Water Code §§ 13000 et seq.), the Regional Board adopted General Waste Discharge Requirements (General WDRs) (Order No. R4-2002-0030) that regulated discharges of waste associated with groundwater remediation at petroleum hydrocarbon fuel, volatile organic compound, and/or hexavalent chromium impacted sites. Those General WDRs have been revised by Order No. R4-2005-0030 adopted on May 5, 2005, and by Order No. R4-2007-0019 adopted on March 1, 2007. Order No. R4-2007-0019 authorized the use of a variety of materials for in-situ remediation purposes, including oxidation/aerobic degradation enhancement compounds, reducing/reductive degradation enhancement compounds, inorganics/nutrients, carbon sources/electron donors, and tracer study compounds.
- Since then, additional materials for in-situ remediation have come into use at sites throughout the Los Angeles Region to remediate wastes at petroleum hydrocarbon fuel, volatile organic compound, and inorganic contaminant impacted sites. This revision of the General WDRs by this Order No. R4-2014-0187 (Order) is to authorize the use of additional materials that have been effectively used to remediate wastes in groundwater and soil.
- Attachment A of this Order includes a list of materials that can be used for in-situ 3. soil/groundwater remediation purposes. Newly added or revised remedial materials or amendments include chemical oxidants, chemical oxidant activators, aerobic enhancement compounds. enhancement bioremediation anaerobic degradation degradation reduction enhancement compounds. compounds. metals precipitation/stabilization compounds. surfactants/co-solvents. bioaugmentation organisms, tracer study compounds, and buffer solutions and pH adjusters.
- 4. The California Water Code (CWC), section 13260, subdivision (a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community waste water collection system, which could affect the quality of the waters of the State, shall file a Report of Waste Discharge with the Regional Board. The Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.

- 5. Section 13263, subdivision (i) of the CWC provides that a Regional Board may prescribe general waste discharge requirements for discharges produced by similar operations, involving similar types of wastes, and requiring similar treatment standards.
- 6. The dischargers regulated by this Order are more appropriately regulated by general WDRs than individual WDRs because the Regional Board regulates many sites using this type of process, the cleanup of these type of sites is of high priority, the issuance of individual WDRs is time-consuming without providing additional benefit, and the types of treatment used result in similar impacts that can reasonably be regulated with general In addition, the adoption of general WDRs for in-situ groundwater WDRs. remediation/cleanup or the extraction of polluted groundwater with above ground treatment and the return of treated groundwater to the same aquifer zone would: a) simplify the application process for dischargers, b) allow more efficient use of Regional Board staff time, c) minimize the time needed for Regional Board approval of waste discharges by enabling the Executive Officer to notify the discharger of the applicability of the general WDRs, d) enhance the protection of surface water quality by eliminating the discharge of treated groundwater to surface waters, e) preserve water resources by re-injection of treated groundwater into aquifers, and f) provide a level of protection comparable to individual. site-specific WDRs. This Order does not preclude the adoption of individual WDRs where appropriate.
- 7. Wastes, including petroleum hydrocarbon fuel, volatile organic compounds, and inorganic contaminants, are found in groundwater at various sites throughout the Los Angeles Region and cause or threaten to cause adverse impacts to existing and potential beneficial uses of the region's groundwater resources. Remediation/cleanup of groundwater at these sites includes the use and application of chemical, biological, and physical treatment processes, such as chemical oxidation, chemical oxidarit activation, aerobic bioremediation, anaerobic bioremediation, chemical reduction, metals precipitation/stabilization, surfactants/cosolvents, buffering and pH adjustment, or groundwater pump and treat technology with the return of treated groundwater to the same aquifer zone in some cases.
- 8. The application of such materials or amendments may result in the discharge of waste and may cause unintended adverse impacts to groundwater quality. Any potential adverse water quality impacts that may result will be localized, of short-term duration, and will not impact any existing or prospective beneficial uses of groundwater. Groundwater quality will be monitored before addition of any materials, during treatment, and after treatment is completed to verify no long-term adverse impact to water quality.
- 9. The implementation of in-situ remediation may require a small-scale pilot testing program or demonstration study prior to the design and implementation of a full-scale remediation project. The discharges from pilot test programs or demonstration studies are also covered under this Order.
- 10. The Water Quality Control Plan, for the Los Angeles Region, (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains prohibitions,

contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Water Board). Pursuant to section 13263(a) of the CWC, waste discharge requirements must implement the Basin Plan.

- 11. The designated beneficial uses of underlying groundwater include:
 - a. Municipal and domestic water supply (MUN);
 - b. Agricultural water supply (AGR);
 - c. Industrial service supply (IND);
 - d. Industrial process supply (PRO); and
 - e. Groundwater recharge.
- 12. The Basin Plan establishes numerical and narrative water quality objectives (WQOs) for surface and groundwater within the basin, and recognizes that WQOs are achieved primarily through the Regional Board's adoption of waste discharge requirements and enforcement orders. Where numerical WQOs are listed, these are limits necessary for the reasonable protection of beneficial uses of the water. Where compliance with narrative WQOs is required, the Regional Board will, on a case-by-case basis, adopt numerical limits in orders, which will implement the narrative objectives to protect beneficial uses of the waters of the State. Beneficial uses for individual hydrologic sub-areas are specified in the Basin Plan. See Attachment B (Table 3-13 from the updated 2013 Basin Plan) for WQOs for selected constituents in regional groundwater.
- 13. State Water Board Resolution No. 92-49 ("Policies and Procedures for Investigation and Cleanup and Abatement of Dischargers Under Water Code Section 13304")(Resolution No. 92-49) requires the Regional Board to require actions for cleanup and abatement of discharges that cause or threaten to cause pollution or nuisance to conform to the provisions of State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California")(Resolution No. 68-16) and the Basin Plan. Pursuant to Resolution No. 92-49, the Regional Board shall ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or if background levels of water quality cannot be restored, the best water quality which is reasonable and which complies with the Basin Plan including applicable WQOs.
- 14. Resolution No. 68-16 requires the Regional Board in regulating discharges to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and potential beneficial uses, and will not result in water quality less than that described in plans and policies (e.g., quality that exceeds WQOs). Temporal degradation of groundwater may occur at sites subject to this Order within the defined treatment zone due to the use of amendments. The temporary degradation allowed by this Order is consistent with Resolution No. 68-16 since (1) the purpose is to accelerate and enhance

remediation of groundwater pollution and such remediation will benefit the people of the State; (2) the discharge facilitates a project to evaluate the effectiveness of cleanup technology in accord with Resolution No. 92-49; (3) the degradation is limited in scope and duration; (4) best practicable treatment and control, including adequate monitoring and hydraulic control to assure protection of water quality, are required; and (5) the discharge will not cause WQOs to be exceeded beyond the treatment zone and it is expected that increases in concentrations above WQOs caused by the treatment will be reduced over time.

- 15. The discharges of wastes, including petroleum hydrocarbon fuel, volatile organic compounds, and inorganic contaminants (such as hexavalent chromium), at many sites within the Los Angeles Region affects groundwater sources. Many of the groundwater zones contain general mineral content (total dissolved solids, chloride, sulfate, and boron, etc.) at concentrations that are considered to be naturally occurring and not the result of pollution that may exceed Basin Plan WQOs for these constituents. Treated groundwater that exhibits general mineral content that is naturally occurring and exceeds Basin Plan Objectives may be returned to the same groundwater aquifers from which it is withdrawn, with concentrations not exceeding the original background concentrations for the site. Reinjection of treated groundwater containing materials or amendments authorized by this Order and that may exhibit general mineral content exceeding the original background concentrations may be returned to the same groundwater aquifer within the treatment zone for the purpose of remediating groundwater, if it does not exacerbate the existing groundwater pollution.
- 16. Treated groundwater that is discharged to surface waters is prohibited unless subject to a separate National Pollutant Discharge Elimination System (NPDES) Permit.
- 17. This Order is applicable to groundwater remediation projects at petroleum hydrocarbon fuel, volatile organic compound, and inorganic contaminant impacted sites. Persons subject to this Order must pay an annual fee based on the threat to water quality and complexity of the discharge. The Executive Officer has determined that this Order is intended to regulate groundwater discharges that have a threat to water quality of Category 3 and Complexity rating of A for a combined rating of 3-A.
- 18. Discharges with a rating of 3-A contain wastes that could degrade water quality or cause a minor impairment of designated beneficial uses within the application area of the receiving groundwater. The discharges covered by these requirements are required to comply with a groundwater monitoring program as set forth in this Order.
- 19. The requirements contained in this Order were established by considering, and are consistent with, the applicable water quality control plans, policies, and regulations, and compliance with this Order will protect and maintain the existing beneficial uses of the receiving groundwater.
- 20. This Order does not relieve dischargers of any regulatory requirements from other governmental agencies.

- 21. In accordance with the Governor's Executive Order requiring any proposed activity be reviewed to determine whether such activity will cause additional energy usage, this Regional Board has determined that implementation of these General WDRs will not result in a change in energy usage exceeding what would be used if site-specific WDRs were issued for cleanup at the impacted sites.
- The Regional Board is the lead agency for this project pursuant to the California 22. Environmental Quality Act (Public Resources Code section 21000 et seq.) and has conducted an Initial Study in accordance with section 15063 of the "State CEQA Guidelines" at California Code of Regulations, title 14, section 15000 et seq. Based upon the Initial Study, the Regional Board prepared a Mitigated Negative Declaration concluding that the project will not have a significant adverse effect on the environment and the Regional Board incorporates Resolution No. R14-008 adopting the Mitigated Negative Declaration and approving the Environmental Checklist in this Order. The Mitigated Negative Declaration identifies environmental impacts that are less than significant with mitigation measures regarding (1) Air Quality, (2) Geology and Soils, (3) Hydrology and Water Quality, and (4) Transportation and Traffic. The Mitigated Negative Declaration identifies the mitigation measures and the actions to be taken to reduce the impacts to less than significant. The Dischargers are required by this Order to obtain and comply with applicable permits of other agencies. This Order includes a monitoring and reporting program to assure protection of water quality.
- 23. The discharges authorized in this Order are exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste, set forth in the Title 27, California Code of Regulations (CCR), section 20005 et seq. (hereafter Title 27), which allows a conditional exemption from some or all of the provisions of Title 27. The exemption, pursuant to Title 27 CCR Section 20090(b), is based on the following:
 - i. The Regional Water Board is issuing waste discharge requirements.
 - ii. The discharge is in compliance with the applicable Basin Plan.
 - iii. The wastewater does not need to be managed according to Title 22 CCR, Division 4.5 and Chapter 11 as a hazardous waste.

Section 20090(d) allows exemption for a project to clean up a condition of pollution that resulted from an unauthorized discharge of waste based on the following:

- iv. The application of amendments to groundwater is at the direction of the Regional Board to cleanup and abate conditions of pollution or nuisance resulting from the unauthorized discharge of waste;
- v. Wastes removed from the immediate place of release must be discharged according to the Title 27 regulations; and
- vi. The cleanup actions intended to contain wastes at the place of release shall implement the Title 27 regulations to the extent feasible.

24. Section 13267(b) of the California Water Code provides that:

"In conducting an investigation specified in subdivision (a), the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish under penalty of perjury, technical or monitoring program reports which the Regional Board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring these reports, the Regional Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."

The technical reports required by this Order and the attached Monitoring and Reporting Program are necessary to assure compliance with this Order. The Discharger operates the facility that discharges the waste subject to this Order.

- 25. The Regional Board has notified interested agencies and persons of its intent to prescribe General WDRs for the discharges covered under these General WDRs, and has provided them with an opportunity to submit written comments and provide oral testimony at a public hearing.
- 26. The Regional Board, in a public meeting, heard and considered all comments pertaining to the tentative General WDRs.

IT IS HEREBY ORDERED THAT dischargers authorized under this Order shall meet the provisions contained in Division 7 of the California Water Code, and regulations adopted here under, by complying with the following:

A. ELIGIBILITY

- 1. A discharger may seek coverage under this Order for:
 - a. Existing and future discharges to soil and groundwater of remediation compounds for the purpose of the cleanup of wastes at petroleum hydrocarbon fuel, volatile organic compound, and/or inorganic contaminant impacted sites and similar discharges in pilot studies or full-scale applications.
 - b. Re-injection, percolation or infiltration of treated groundwater from a pump and treat remediation system(s). Treated groundwater may be used for

irrigation and/or dust control provided that the treated groundwater meets the applicable discharge limits for recycling and reuse.

- 2. To be covered under this Order, a discharge must meet the following criteria:
 - a. The Executive Officer must find, based on the Report of Waste Discharge submitted pursuant to Provision C, that the groundwater discharges for which coverage under this Order are sought have a threat to water quality of Category 3 and Complexity rating of A for a combined rating of 3-A, using the rating criteria noted on the Regional Board website.
 - b. The discharger must have an approved Remedial Action Plan (RAP). The discharger shall submit a copy of the approved RAP including any conditions of implementation with the Report of Waste Discharge for application of the General WDRs. At a minimum, the RAP shall comply with any requirements of a cleanup and abatement order issued by the Regional Board and include the following site-specific information:
 - The background water quality of the aquifer of the groundwater remediation site(s) including constituents of concern, total dissolved solids, sulfates, chlorides, nitrogen (NH₄, NO₃, NO₂), chemical oxygen demand, biochemical oxygen demand, phosphorus, pH, dissolved metals, nutrients, dissolved oxygen, dissolved carbon dioxide, methane, temperature, iron, and oxidation-reduction potential;
 - Information on any potential adverse impacts to groundwater quality, and whether the impacts will be localized and short-term;
 - The results of any pilot testing performed for the treatment technology used;
 - Site-specific geology (lithology and physical parameters) and hydrogeologic parameters, hydrologic report;
 - Infiltration rate;
 - Characterization and extent of the wastes, including petroleum hydrocarbon fuel, volatile organic compounds, and inorganic contaminants;
 - Description of the treatment system(s);
 - Adequate groundwater monitoring network with historical groundwater monitoring report;
 - Description of the aerial extent of the application area and identification of monitoring wells to be used to determine water quality upgradient, within the application area, downgradient from the application area and identify the compliance point;
 - Material Safety Data Sheet (MSDS) information and other product technical information for any materials to be used for cleanup;

- Application rate(s), material type(s) and applied concentrations;
- Evaluation of loading rates for nitrogen compounds, total dissolved solids, sulfate, and chloride compounds; and
- GeoTracker database update whenever applicable.
- c. This Order authorizes the materials listed in Attachment A to be used for in-situ remediation purposes. The materials listed in Attachment A do not represent all chemicals that might be used in remediation, rather they meet all criteria specified in section 3 below. Any by-product or impurity of any product containing compounds listed in Attachment A is not authorized by this Order and such materials shall not be used for injection under this Order. Compounds listed under one category can also be used under another category.
- 3. The Executive Officer is delegated the authority to revise and update the list periodically to add materials that meet the following criteria:
 - a. Effective to remediate targeted constituents;
 - b. Minimum degradation of water quality (including toxicity and by-product evaluation) that will not cause or contribute to exceedance of WQOs;
 - c. Protective of human health and safety (including prohibition of human/animal pathogens);
 - d. Availability on the market for a minimum of three years.
- 4. The monitoring program shall be sufficient to identify changes in geochemistry that may alter the potential occurrence of transference of chromium (III) into chromium (VI), or vice versa, during the oxidation or reduction process in the in-situ remediation under these WDRs.
- 5. For the purpose of replacement of existing individual WDRs with coverage under this Order, renewal is effective upon issuance of a notification of coverage by the Executive Officer and issuance of a new monitoring and reporting program.
- 6. When individual WDRs with more specific requirements are issued to a discharger, the applicability of this Order to that discharger is automatically terminated on the effective date of the individual WDRs.

B. AUTHORIZATION

To be authorized to discharge under this Order, the discharger must submit a Report of Waste Discharge in accordance with the requirements of Part C of this Order. Upon receipt of the Report of Waste Discharge, the Executive Officer shall determine the completeness of the Report of Waste Discharge and the applicability of this Order to such a discharge. If

the discharge is eligible, the Executive Officer shall notify the discharger that the discharge is authorized under the terms and conditions of this Order and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Executive Officer's written determination that the discharge is eligible to be covered by this Order and has issued a site-specific monitoring and reporting program.

C. REPORT OF WASTE DISCHARGE

1. Deadline for Submission

- New dischargers seeking coverage under this Order shall file a complete Report of Waste Discharge that includes all information identified in Items A.1 and A.2 above at least 90 days before planned commencement of any discharge.
- b. Existing dischargers covered under individual WDRs may seek coverage under this Order by submitting a Report of Waste Discharge that includes all information identified in Items A.1 and A.2. Coverage under this Order will not occur until the discharger receives notification from the Executive Officer.

2. Forms for Report of Waste Discharge

- a. Dischargers shall use the appropriate forms (Standard Form 200) or equivalent forms approved by the State Water Resources Control Board or the Executive Officer of the Los Angeles Regional Board.
- b. The discharger, upon request, shall submit any additional information that the Executive Officer deems necessary to determine whether the discharge meets the criteria for coverage under this Order, and/or in prescribing an appropriate monitoring and reporting program.
- c. The Report of Waste Discharge shall be accompanied by the first annual fee (if appropriate) in accordance with the current version of California Code of Regulation, Title 23, Division 7, Chapter 9, Waste Discharge Report and Requirements Article 1 fees for a discharge. The check or money order shall be made payable to the "State Water Resources Control Board" and submitted to the Regional Water Quality Control Board Los Angeles Region.

D. DISCHARGE PROHIBITIONS

1. The discharge of wastes, amendments, or other materials other than those which meet eligibility requirements in Part A of this Order and listed in Attachment A, is

- prohibited unless the discharger obtains coverage under another general WDR or an individual site-specific WDR that regulates the discharge of such wastes.
- 2. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.
- 3. Creation of a pollution, contamination, or nuisance, as defined by section 13050 of the CWC, is prohibited.
- 4. The surfacing or overflow of wastes from the treatment system at any time and at any location is prohibited.
- 5. The disposal of wastes in geologically unstable areas or so as to cause earth movement is prohibited.
- 6. The discharge of amendments or wastes to surface water or surface water drainage courses is prohibited.
- 7. The discharge of amendments or wastes to land or groundwater in areas other than that proposed for remediation is prohibited.
- 8. The discharge of wastes or amendments to property that is not under the control of the Discharger is prohibited. The "area under the control" of the Discharger is defined to be at the borders of the treatment zone at areas owned by the Discharger and/or where the Discharger holds an agreement for purposes of investigation and remediation.
- 9. The migration of any by-products produced as part of the treatment process beyond the boundaries of the property owned or controlled by the discharger as defined above in Item 8 of Section D or to surface waters is prohibited.

E. DISCHARGE LIMITATIONS

- 1. The discharge of wastes shall not cause the pH of the receiving groundwater at the compliance point, downgradient outside the application area, to be outside the range of 6.5 and 8.5.
- 2. The discharge of wastes shall not cause the mineral constituents of the receiving groundwater at the compliance point, downgradient outside the application area, to be in excess of applicable limits given in Attachment B. In the letter of determination, the Executive Officer shall indicate the groundwater limitations in Attachment B applicable to the particular discharge, and identify the compliance point(s) for the site.

- 3. The discharge of wastes shall not cause the concentrations of chemical constituents and radionuclides of the receiving groundwater designated for use as domestic or municipal supply at the compliance point, downgradient outside the application area, to be in excess of the Maximum Contaminant Levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations which are incorporated by reference into the Basin Plan: Table 64431-A of section 64431 (inorganic chemicals, including fluoride), Table 64444-A of section 64444 (organic chemicals), and Table 64442 of section 64442 and Table 64443 of section 64443 (radioactivity). This incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.
- 4. Treated groundwater recycled and/or reused for irrigation or dust control shall meet the Title 22 Recycle Water Requirement for coliform not to exceed 2.2. most probable numbers per 100 milliliters (MPN/100ml). Wastewater discharged to groundwater basin/subbasin shall meet the Basin Plan objective of 1.1 MPN/100 ml.
- 5. Waste discharged shall not contain salts, heavy metals, or organic constituents at levels that would cause receiving groundwater at the compliance point, downgradient outside the application area, to exceed the WQOs for groundwater or groundwater that may be in hydraulic connection with surface waters designated for marine aquatic life or body contact recreation.
- 6. Waste discharged shall not cause the groundwater to contain concentrations of chemical substances or its by-products in amounts that adversely affect any designated beneficial use, outside the application area or treatment zone at the compliance point(s).
- 7. Waste discharged shall not cause the groundwater to contain residual taste or odor in concentrations that cause nuisance or adversely affect beneficial uses, outside the application area or treatment zone at the compliance point(s).
- 8. Waste discharged shall not cause the groundwater to contain nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO₃-N+NO₂-N) that exceeds the background concentrations in groundwater basins, or the Basin Plan's groundwater quality objectives of 45 mg/L as Nitrate (NO₃), or 10 mg/L as nitrate-nitrogen (NO₃-N), or 1 mg/L as nitrite-nitrogen (NO₂-N), whichever is lower, outside the application area or treatment zone at the compliance point(s). In a situation where the groundwater may interact with surface water or other aquifers, other relevant regulatory standards may also apply, and then the most protective criteria shall prevail.

F. PROVISIONS

- 1. The Executive Officer may require any discharger authorized under this Order to apply for and obtain individual WDRs with specific requirements. The Executive Officer may require in writing that any discharger authorized to discharge under this Order to apply for individual WDRs by submitting a report of waste discharge.
- 2. This Order incorporates the attached "Standard Provisions Applicable to Waste Discharge Requirements" (Attachment C). If there is any conflict between provisions stated herein before and the attached "Standard Provisions," those provisions stated herein shall prevail.
- Adequate facilities shall be provided to divert surface and storm water away from the application area and/or treatment system and areas where any wastes are stored.
- 4. The application of materials or the re-injection or reuse of treated groundwater shall only be at a site owned or controlled as defined above in Item 8 of Section D by the discharger.
- 5. Re-injection or reuse of treated groundwater shall be limited to the same aquifer where the impacted groundwater was withdrawn from for treatment. Re-injection of treated groundwater to which materials or amendments have been added shall be limited to the same aquifer and within the treatment zone.
- All technical reports required herein that involve planning, investigation, 6, evaluation, or design or other work requiring interpretation or proper application of engineering or geologic sciences, shall be prepared by, or under the direction of, persons registered to practice in California pursuant to California Business and Professions Code, sections 6735, 7835 and 7835.1. To demonstrate compliance with Title 16, CCR, Sections 415 and 3065, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be attributed to the professional responsible for the work. clearly
- 7. The discharge of wastes to or infiltration to a surface water of the State and United States must be covered by a separate NPDES permit.
- 8. The Discharger may be required to submit technical reports pursuant to California Water Code Section 13267 as directed by the Executive Officer. The technical reports required by this Order are necessary to assure compliance with this Order.

- 9. This Order does not alleviate the responsibility of the discharger to obtain other applicable 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. Additionally, the discharger shall notify the Native American Heritage Commission of any plans to disturb the soil in order to comply with California Environmental Quality Act (CEQA) guidelines as set forth in Section Furthermore the discharger is required to provide local 15064.5(b)(c). information prior to excavation to the California Historical Resources Information System (CHRIS). This will serve as their due diligence record search to provide proximity to Native American historical and archeological resources. discharger shall also be required to adhere to California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, CEOA Section 15064.5(d) and Section 15064.5 (f) to ensure that mitigation plan provisions are in-place to identify, evaluate and consult with your commission about the discovery and disposition of any recovered human remains or artifacts, should the occasion arise, during the remediation process overseen by this agency.
- 10. The discharger shall notify Regional Board staff by telephone within 24 hours, followed by written notification within one week, in the event it is unable to comply with any of the conditions of this Order due to:
 - a. Breakdown of waste treatment equipment,
 - b. Accident caused by human error or negligence,
 - c. Other causes such as acts of nature, or
 - d. Site construction or development operations.
- 11. Any discharger authorized under this Order may request to be excluded from coverage of this Order by applying for individual WDRs.
- 12. In accordance with section 13263(e) of the California Water Code, these requirements are subject to periodic review and revision by the Regional Board.
- 13. In accordance with Water Code section 13263(g), these requirements do not create a vested right to continue to discharge and are subject to rescission or modification. All discharges of waste into waters of the state are privileges, not rights.
- 14. The discharger shall develop a contingency plan and maintain it on site. The contingency plan shall detail appropriate actions to be taken in order to protect human health and the environment in case of any spill or failure related to the operation or mis-operation of the treatment system.

G. MONITORING AND REPORTING REQUIREMENTS

- 1. The Executive Officer is hereby authorized to prescribe a Monitoring and Reporting Program for each authorized discharger. This program may include participation of the discharger in a regional monitoring program.
- 2. The discharger shall file with the Regional Board technical reports on self-monitoring work conducted according to the Monitoring and Reporting Program specified by the Executive Officer and submits other reports as requested by the Regional Board.
- 3. The discharger shall retain records of all monitoring information and data used to complete the Report of Waste Discharge and application for coverage under this Order for at least five years from the date of permit issuance. The retention period shall be extended during any unresolved litigation regarding the discharge or when requested by the Executive Officer,
- 4. The discharger shall maintain all sampling, measurement, and analytical results, including the date, exact place, and time of sampling or measurement; individual(s) who did the sampling or measurement; the date(s) analyses were done; analysts' names; and analytical techniques or methods used.
- 5. All sampling, sample preservation, and analyses must be conducted according to test procedures under title 40 Code of Federal Regulations, section 136, unless other test procedures have been specified in this Order or by the Executive Officer.
- 6. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Environmental Laboratory Accreditation Program (ELAP) or other state agency authorized to undertake such certification.
- 7. The discharger shall calibrate and maintain all monitoring instruments and equipment to ensure accuracy of measurements, or shall ensure that both activities will be conducted.
- 8. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the date, constituents, and concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements. Laboratory analytical data from any soil testing and/or groundwater monitoring shall be reported in Electronic Deliverable Format in accordance with California Water Code section 13195 et. seq. requirements, if applicable.
- 9. For every item where the requirements are not met; the discharger shall submit a statement of the actions undertaken or proposed that will bring the discharge into

full compliance with requirements at the earliest time and submit a timetable for correction.

- 10. The discharger shall file a report of any material change or proposed change in the character, location, or volume of the discharge.
- 11. The discharger shall notify this Regional Board within 24 hours by telephone of any adverse condition resulting from the discharge; such notification shall be affirmed in writing within five working days.
- 12. Whenever wastes, associated with the discharge under this Order, are transported to a different disposal site, the following shall be reported in the monitoring report: type and quantity of wastes; name and address of the hauler (or method of transport if other than by hauling); and location of the final point(s) of disposal.
- 13. Each monitoring report must contain an affirmation in writing that:

"All analyses were conducted at a laboratory certified for such analyses by and in accordance with current USEPA procedures or as specified in this Monitoring and Reporting Program."

14. Each report shall contain the following completed declaration:

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

Executed on the	day of	at	
			(Signature)
			(Title)"

15. The Discharger shall comply with the Electronic Submittal of Information (ESI) requirements by submitting all correspondence and reports required under the WDRs' Monitoring and Reporting Program, including groundwater monitoring

data and discharge location data (latitude and longitude), correspondence, and pdf monitoring reports to the State Water Resources Control Board GeoTracker database.

H. CONTINUATION OF THIS ORDER

For those dischargers authorized to discharge under this Order, it shall continue in full force and effect until a new order is adopted. This Order will be reviewed periodically.

I. REAUTHORIZATION

Upon re-issuance of a new general permit Order, dischargers authorized under this Order shall file a new Report of Waste Discharge within 45 days of notification by the Executive Officer.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 11, 2014.

Samuel Unger, P.E.
Executive Officer

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

MONITORING AND REPORTING PROGRAM CI NO. 10475

FOR

CIRCLE K STORE #2709454 (FORMER MOBIL STATION #18-AJ5)
5553 WHITE OAK AVENUE, ENCINO, CALIFORNIA
(IN-SITU CHEMICAL OXIDATION FOR GROUNDWATER CLEANUP)

(ORDER NO. R4-2014-0187, SERIES NO. 138)

I. REPORTING REQUIREMENTS

A. Circle K Stores, Incorporated (hereinafter Discharger) shall implement this monitoring program on the effective date of this Monitoring and Reporting Program (MRP). The first monitoring report under this MRP, for the period from January – June 2019, shall be received at the Los Angeles Regional Board by July 15, 2019. Subsequent monitoring reports shall be received at the Regional Board according to the following schedule:

Monitoring Period	Report Due
January - June	July 15
July - December	January 15

If there is no discharge or injection during any reporting period, the report shall so state.

- B. Laboratory analyses all chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by the State Board Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP). A copy of the laboratory certification shall be provided each time a new and/or renewal certification is obtained from ELAP.
- C. The method limits (MLs) employed for effluent analyses shall be lower than the permit limits established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable and obtains approval for a higher ML from the Los Angeles Regional Board Executive Officer (Executive Officer). The Discharger shall submit a list of the analytical methods employed for each test and the associated laboratory quality assurance/quality control (QA/QC) procedures upon request by the Los Angeles Regional Board.
- D. Groundwater samples must be analyzed within allowable holding time limits as specified in 40 CFR Part 136. All QA/QC samples must be run on the same dates when samples were actually analyzed. The Discharger shall make available for

inspection and/or submit the QA/QC documentation upon request by Los Angeles Regional Board staff.

- E. Each monitoring report must affirm in writing "All analyses were conducted at a laboratory certified for such analyses by the State Board ELAP and in accordance with current United States Environmental Protection Agency (USEPA) guideline procedures or as specified in this Monitoring Program." Proper chain of custody procedures must be followed and a copy of the completed chain of custody form shall be submitted with the report.
- F. Each monitoring report shall contain a separate section titled "Summary of Non-Compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall be located at the front of the report and shall clearly list all non-compliance with WDRs, as well as all excursions of effluent limitations.
- G. The Discharger shall maintain all sampling and analytical results: date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.
- H. If the Discharger performs analyses on any groundwater samples more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report.
- In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with the requirements and, where applicable, shall include results of receiving water observations.
- J. The Discharger should not implement any changes to the MRP prior to receiving Executive Officer's written approval.
- K. In accordance with regulations adopted by the State Board regarding electronic submittal of information, UST monitoring reports have been electronically submitted to the State Board GeoTracker database under the UST Global ID T0603753550. To comply with the MRP under this WDR, the Discharger shall upload the WDRs monitoring reports to the GeoTracker database under both Global ID Nos. T0603753550 (continuing) and 100040458 (new).

II. <u>DISCHARGE MONITORING REQUIREMENTS</u>

The reports shall contain the following information regarding ozone injection activities:

- 1. A location map showing the application area (refer to Figure 1 site map).
- Written and tabular summary defining depth of injection points and depth to groundwater; the quantity of ozone into the groundwater; a summary describing the days on which the ozone injection system was in operation; and the total amount of ozone injected at to the site.
- 3. Groundwater monitoring wells shall not be used as injection points to avoid reduction of the groundwater monitoring network, data bias, well screen clogging and alteration.

III. GROUNDWATER MONITORING PROGRAM

The Discharger shall conduct groundwater monitoring at the site. The Executive Officer may change the monitoring program at any time during remediation. Groundwater samples shall be collected, at a minimum, from upgradient groundwater monitoring wells MW-2 and MW-10, source area groundwater monitoring wells MW-4, MW-5, and MW-11, and downgradient groundwater monitoring well MW-8 (Figure 2) on a semi-annual schedule to monitor the effectiveness of the in-situ groundwater remediation associated with the ozone injection. Groundwater shall be monitored for the duration of the remediation in accordance with the following monitoring program:

CONSTITUENT	UNITS	TYPE OF SAMPLE	MINIMUM FREQUENCY OF ANALYSIS ¹
Total petroleum hydrocarbons as gasoline (TPH _B) and as diesel (TPH _D)	µg/L³	Grab	Semi-Annually
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX)	μg/L	Grab	Semi-Annually
Methyl tertiary butyl ether (MTBE), Tertiary butyl alcohol (TBA), Tertiary amyl methyl ether (TAME), Di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE)	μg/L	Grab	Semi-Annually
Naphthalene Ethanol Formaldehyde Acetone	μg/L	Grab	Semi-Annually
Total dissolved solids, Arsenic, Boron, Chloride, Bromide, Sulfate, Lead, Nickel, Cadmium, Manganese	mg/L ⁴	Grab	Semi-Annually
Oxidation-reduction potential (ORP)	Millivolts	Grab	Semi-Annually
Dissolved Oxygen	· μg/L	Grab	Semi-Annually

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Dissolved Ferrous Iron	µg/L	Grab	Semi-Annually
Total Chromium and Hexavalent Chromium ²	μg/L	Grab	Semi-Annually
рН	pH units	Grab	Semi-Annually
Temperature	°F/°C	Grab	Semi-Annually
Groundwater Elevation	Feet, mean sea level and bgs	In situ	Semi-Annually

1. One week before injection and semi-annually thereafter.

3. µg/L = microgram per liter.

4. mg/L = milligram per liter.

5. bgs = below ground surface.

All groundwater monitoring reports must include, at a minimum, the following:

- a. Well identification, date and time of sampling;
- b. Sampler identification, and laboratory identification;
- c. Semi-annual observation of groundwater levels, recorded to 0.01 feet mean sea level, and calculated groundwater flow direction.

IV. MONITORING FREQUENCIES

Specifications in the MRP are subject to periodic revisions. Monitoring frequencies may be adjusted to a less frequent basis or parameters dropped by the Executive Officer if the Discharger makes a request and the Executive Officer determines that the request is adequately supported by statistical trends of monitoring data submitted.

The Discharger is required to monitor for total chromium and hexavalent chromium in the baseline, second and fourth semi-annual sampling. If detected at any of these sampling events, the total chromium and chromium six must be monitored semi-annually thereafter.

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V. CERTIFICATION STATEMENT

Each report shall contain the following declaration:

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

Executed on the	day of	at	
	y 6		(Signature
			(Title)"

VI. PUBLIC DOCUMENTS

These records and reports are public documents and shall be made available for inspection during normal business hours at the office of the Los Angeles Regional Board, upon request by interested parties.

Ordered by:

fleigh Maly for KT

Date: April 29, 2019



