CALIFORNIA
Water Boards

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ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

May 2, 2014

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TENTATIVE ORDER NO. R8-2014-0008 WASTE DISCHARGE REQUIREMENTS FOR THE RANCHO SAN JOAQUIN GOLF COURSE (THE FORMER LANE ROAD LANDFILL)

Dear Madam/Sir:

Enclosed please find a copy of tentative Order No. R8-2014-0008 for your review. The Order prescribes the requirements for the drainage improvement and postclosure monitoring and maintenance at the Rancho San Joaquin Golf Course (the former Lane Road Landfill). The Order is scheduled for consideration by the Regional Water Board at the June 13, 2014 meeting to be held at the Orange County Water District, located at 18700 Ward Street, Fountain Valley, California.

We are also enclosing a copy each of Monitoring and Reporting Program No. R8-2014-0008 and the Staff Report pertaining to this item.

Please provide any comments that you may have by May 12, 2014. Please submit your comments to Cindy Li, Chief of the Land Disposal and DoD Section at Cindy.Li@waterboards.ca.gov.

Sincerely,

Mike J. Adackapara
Division Chief

Enclosure
Draft Order R8-2014-0008
Monitoring and Reporting Program R8-2014-0008
Attachments A, B-1, B-2, and C
Staff Report

cc:
Leslie Graves, SWRCB, Division of Clean Water Programs (lgraves@waterboards.ca.gov)
Ed Pert, State Department of Fish and Wildlife (epert@dfg.ca.gov)
Eileen Sheehan, U.S. Environmental Protection Agency, Region 9 (sheehan.eileen@epa.gov)
Jay Chen, South Coast Air Quality Management District (jchen@aqmd.gov)
Kathy Cross, County of Orange Environmental Health (kcross@ochca.com)
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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. R8-2014-0008

WASTE DISCHARGE REQUIREMENTS
FOR

Dischargers	**AMERICAN GOLF CORPORATION** **NATIONAL GOLF PROPERTY REALTY SUB LP** **ORANGE COUNTY WASTE & RECYCLING**

Facility	**RANCHO SAN JOAQUIN GOLF COURSE** **(FORMER LANE ROAD LANDFILL: A** **CLOSED CLASS III SOLID WASTE DISPOSAL SITE)** **IRVINE, ORANGE COUNTY**

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

1. American Golf Corporation (AGC) operates a recreational golf course, the Rancho San Joaquin Golf Course, located southeast of Michelson Drive and Harvard Avenue in Irvine, Orange County. National Golf Property Realty Sub LP (NGP) is currently the land owner of the Rancho San Joaquin Golf Course (the Property). Approximately 70% of the golf course property overlies the former Lane Road Landfill (the Landfill), a non-hazardous municipal waste landfill, which was operated by the Orange County Waste & Recycling (OCWR) from 1961 to 1964. The golf course property that overlies the former Landfill is referred to as the "Site" in this Order; AGC, NGP, and OCWR are collectively referred to as the "Dischargers" in this Order. The Site and the Property boundaries are shown on Attachment A.

2. The OCWR leased the 106-acre property from The Irvine Company and operated the Landfill from 1961 through 1964. An estimated 584,000 tons of non-hazardous residential, commercial, and inert wastes were placed at the Landfill during the four years of its operation. The average thickness of the waste piles is from 10 to 15 feet. The Landfill ceased operations in 1964 and was closed with a 3-foot thick interim soil cover. The Site is located within the unincorporated area of Orange County, within a portion of Sections 8 and 9, T6S, R9W, SBB&M, at latitude 33°39'56" and longitude 117°49'60".

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3. On June 07, 2013, the Regional Board adopted General Waste Discharge Requirements, Order No. R8-2013-0010, for Closed, Abandoned, or Inactive landfills within the Santa Ana Region. The Dischargers named above opted not to be regulated under Order No. R8-2013-0010 and requested for individual waste discharge requirements for the former Lane Road Landfill.

4. Regulations governing nonhazardous solid waste landfills are included in the California Code of Regulations, Title 27, Division 2, Subdivision 1, Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste (Title 27)[1]. Definitions of terms and acronyms used in this Order are included in Attachments B-1 and B-2, respectively.

5. Pursuant to Title 27, §20080(d) and (g), the Landfill is designated as an existing, closed, abandoned, and inactive nonhazardous municipal solid waste landfill, which was closed prior to November 27, 1984. As such, the Dischargers may be required to develop and implement a detection monitoring program in accordance with Title 27(§20380 et seq.). If water quality impairment is found, the Dischargers may be required to develop and implement a corrective action program.

6. **Water Quality Monitoring:** California Water Code (CWC) Section 13273 required the State Water Resources Control Board to develop a solid waste water quality assessment test (SWAT) for all landfills within California. The SWAT report for the Site indicated that volatile organic compounds (VOCs), such as trichloroethylene (TCE) and vinyl chloride, were detected in monitoring well MW-4 at concentrations above the established regulatory levels. The OCWR has been conducting groundwater monitoring at the Site since 1999, as directed by Regional Board staff at the conclusion of the SWAT report review. The current water quality monitoring points are shown on Attachment C.

7. **Water Quality Protection Measures:** The Site is currently under corrective action in accordance with Title 27, §20430 for remediating sporadic releases of VOCs, vinyl chloride in particular, to groundwater. Corrective action remedies for the Site include: active landfill gas extraction; landfill cover inspection and maintenance; drainage improvement in compliance with the post-closure performance goal [Title 27, §20950(a)(2)(A)(1)] to minimize water infiltration through waste, thereby minimizing leachate and landfill gas production; and groundwater monitoring to evaluate the effectiveness of the corrective action program.

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[1] On July 18, 1997, the State Water Resources Control Board and the California Department of Resources Recycling and Recovery (CalRecycle) enacted the Solid Waste Requirements, Subdivision 1 of new Division 2, Title 27, California Code of Regulations (CCR). Title 27 replaced the non-hazardous waste portion of CCR, Title 23, Division 3, Chapter 15.

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8. **Environmental Control System Monitoring:** The OCWR has operated a landfill gas extraction system since December 2006 at the Site. The gas extraction system consists of 38 extraction wells. The OCWR also performs regular perimeter gas probe monitoring for human health protection under the direction of CalRecycle.

9. **Precipitation:** The site is located in an arid to semi-arid environment. Average annual site precipitation is estimated to be approximately 13 inches.

10. **Site Maintenance and Drainage Control:** In August 2007, the Executive Officer of the Regional Board issued Cleanup and Abatement Order No. R8-2007-0077 that required AGC to implement a Site inspection and maintenance plan, and a drainage master plan to provide adequate surface drainage control in compliance with Title 27, §20950(a)(2)(A)(1). Regional Board staff approved the Landfill Cover Maintenance Plan in May 2004 and the Drainage System Master Plan in November 2010. Under the Drainage System Master Plan, AGC is scheduled to implement drainage improvements in six stages over a seven year period, beginning 2010. Since 2010, AGC has completed the installation of 12-inch subsurface drainage pipes for four stages. These cover Watershed Basins 1, 2, 7, 8, and 9. This Order incorporates the remaining stages for drainage improvements at the Site. Therefore, Cleanup and Abatement Order No. R8-2007-0077 is no longer necessary and this Order rescinds the Cleanup and Abatement Order.

11. **Regional and Site Geology**: The vicinity of the Site is underlain by tertiary and quarternary sedimentary rocks which exceed 20,000 feet in thickness. The quarternary deposits are essentially flat in the Site vicinity; the tertiary strata are gently folded into a northwest-trending anticline. The Site is situated in a lowland area of the Orange County coastal plain, between the Newport Mesa and the northwestern foothills of the San Joaquin Hills. The Site occupies the east bank of San Diego Creek, which flows into the Newport Bay located about 1.5 miles south of the Site. Most of the Site is 40 to 60 feet above sea level. The site is underlain by alluvium, colluvium, and nonmarine terrace deposits. These deposits generally consist of interbedded clay, silt, and sand of varying texture and composition. There are no reported faults or fractures in alluvium, colluvium, and terrace deposits at the Site.

12. **Regional and Site Hydrogeology**: Regionally, the Site occupies a groundwater subbasin of the Orange County Coastal Basin known as the Pressure Zone. This subbasin in general is characterized by good quality groundwater and is known to be the principal source of drinking water for the area; however, certain areas of the Pressure Zone have undergone degradation due to increasing organic and mineral content and seawater intrusion. The source of groundwater for this subbasin is principally fluvial recharge from the adjacent Forebay Area subbasin of the Orange County Coastal Basin. The groundwater flow beneath the northern portion of the Site is radially northeast to southwest. The flow

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direction beneath the southern portion of the Site is predominantly to the northwest. The groundwater gradient at the Site varies from 0.01 to 0.02 foot per foot (ft/ft). Depths to groundwater vary from 14 to 74 feet beneath the site. Historical groundwater monitoring data at the site indicate that the overall groundwater quality, both upgradient and downgradient of the site, is poor. High natural inorganics concentrations, ranging from 1,300 to 3,200 mg/l of total dissolved solids, in the background wells (Wells MW-1, MW-2, MW-3, MW-5, and MW-6), and elevated inorganics concentrations, averaging 4,000 mg/l of total dissolved solids, in the downgradient well (Well MW-4), above the State secondary drinking water standard (1,000 mg/l) have been detected. San Diego Creek runs along the western side of the Site and flows from north to south. The water quality in the creek is also poor with high dissolved solids concentrations at approximately 1,500 mg/l upgradient, and at approximately 1,700 mg/l downgradient of the Site.

13. **Basin Plan:** The California Water Code (CWC) §13263(a) requires that waste discharge requirements implement relevant water quality control plans. The Regional Board adopted a revised Water Quality Control Plan (the Basin Plan) that became effective on January 24, 1995. The Basin Plan specifies beneficial uses and water quality objectives for waters in the Santa Ana Region. The water quality objectives and the groundwater basin boundaries, now known as groundwater management zones, were updated in February 2008. The requirements contained herein are intended to assure compliance with the Basin Plan.

14. **Groundwater Management Zone and Beneficial Uses:** Subsurface drainage from the facility is tributary to Irvine Groundwater Management Zone, the beneficial uses of which include:

    a. Municipal and domestic supply,
    b. Agricultural supply,
    c. Industrial service supply, and
    d. Industrial process supply.

15. Surface drainage from the site is tributary to San Diego Creek, Reach 2, the intermittent beneficial uses of which include:

    a. Groundwater recharge,
    b. Water contact recreation,
    c. Non-contact water recreation,
    d. Warm Freshwater Habitat, and
    e. Wildlife habitat.

16. Discharges of pollutants to waters of the State, as a result of inadequate cover maintenance, drainage, erosion control, or other factors at the Site, constitute

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waste discharges, and as such, waste discharge requirements are necessary to ensure that discharges from the Site comply with water quality objectives established in the Basin Plan for groundwater and surface water.

17. This Order establishes minimum standards for maintenance and monitoring of the Site. In the event of an inconsistency between the provisions of this Order, Title 27, and the Basin Plan, the more protective water quality provision shall prevail.

18. This Order does not preempt or supersede the authority of municipalities, flood control agencies, or other federal, State or local agencies to prohibit, restrict, or control discharges of waste at the Site subject to their jurisdiction.

19. Monitoring and Reporting Program No. R8-2014-008, Attachments A, B-1, B-2, and C are hereby incorporated into this Order.

20. **CEQA Compliance:** This project of adopting waste discharge requirements is being initiated by the Regional Board. The action to adopt waste discharge requirements is intended to protect the environment. These waste discharge requirements are for an existing landfill site and as such are exempt from provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, section 15301.

21. The Regional Board has notified the Dischargers and interested agencies and persons of the Board's intent to adopt waste discharge requirements for the Site, and has provided them with an opportunity to submit their written views and recommendations.

22. The Regional Board, in a public meeting, heard and considered all comments pertaining to updating the existing waste discharge requirements for the Site.

IT IS HEREBY ORDERED that the Dischargers, in order to meet the applicable provisions contained in Division 7 of the California Water Code, and Title 27 Regulations, shall comply with the following:

A. COMPLIANCE WITH OTHER REGULATIONS, ORDERS, AND STANDARD PROVISIONS

1. If the Executive Officer determines that additional closure or corrective action activities, including the construction of a final cover system or implementation of post-closure maintenance, are necessary to protect water quality, the Discharger shall submit a closure plan or corrective action plan as directed by the Executive Officer.

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2. If any applicable requirements in this Order overlap or conflict in any manner, the most water quality protective requirement shall govern, unless specifically stated otherwise or directed by the Executive Officer.

B. PROHIBITIONS

1. Any additional disposal of waste at the Site is prohibited.

2. Odors, vectors, and other nuisances of waste origin beyond the limits of the Landfill are prohibited.

3. The discharge of waste to surface drainage courses is prohibited.

4. The discharge of waste to property not owned or controlled by the Dischargers is prohibited.

5. The operations of a golf course over the former Landfill shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System requirements, pursuant to Title IV Section 402.

C. SITE MAINTENANCE AND DRAINAGE CONTROL SPECIFICATIONS

1. The Site shall be maintained so that it neither causes nor contributes to a pollution or nuisance.

2. Periodic cover maintenance activities such as: drainage and erosion control maintenance; cover repair and maintenance; and site grading for positive drainage shall be completed in accordance with the schedules in Table 1 of Monitoring and Reporting Program No. R8-2014-0008 (the MRP), unless the Executive Officer has approved or does approve a different schedule.

3. Surface drainage control facilities shall be designed, constructed, and maintained to provide positive drainage, and minimize water ponding and infiltration through the wastes and landfill cover [Title 27, §20950(a)(2)(A)(1)].

4. The Dischargers shall comply with the existing Drainage System Master Plan to complete surface drainage improvement for the remaining stages, as specified in Table 1. The construction reports for the remaining phases of the site drainage improvement projects, identified in the September 2010 Drainage System Master Plan, shall be submitted in accordance with the following time schedule:

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Table 1: Site Drainage Improvement Schedules

Task Description	Target Construction Period	Final Construction Report due
Watershed Basins 5 & 6	07/11/14-10/28/14	Within 60 days after project completion
Watershed Basin 4	09/17/15-10/23/15	"
Watershed Basin 3	09/02/16-09/24/16	"

5. Water collected in any storm water catchment basin or groundwater treatment facility may be used in minimum amounts necessary for dust control, compaction, or irrigation of cover vegetation, provided that water does not infiltrate past the vegetation root zones or past a depth where effective evaporation can occur.

6. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed to maintain the design capacity of the system.

7. The structural integrity and effectiveness of all containment structures, including the landfill cover, shall be maintained as necessary to correct the effects of settlement or other adverse factors.

8. The migration of landfill gas from the Site shall be controlled as necessary to ensure that landfill gas and gas condensate are not discharged to surface waters or groundwater. Gas condensate shall be collected and removed from the site.

9. Areas with visible erosion damage, cracking, exposed waste, lack of vegetation, or ponding shall be repaired as soon as practicable after being discovered.

10. The Dischargers shall comply with the existing Landfill Cover Maintenance Plan for Site inspection and maintenance. In the event of an inconsistency between the provisions of this Order and the Landfill Cover Maintenance Plan, the more protective water quality provision shall prevail.

D. WATER QUALITY PROTECTION STANDARDS

1. The former Lane Road Landfill shall not cause any Monitoring Parameter listed in the MRP to exceed its concentration limit in groundwater at the Point of Compliance.

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2. The concentration limits are specified in the MRP. The Point of Compliance is defined as the vertical surface located at the hydraulically downgradient limit of a landfill and that extends through the uppermost aquifer underlying a landfill.

3. Monitoring results are subject to the most appropriate statistical or non-statistical test, as required by the MRP.

4. The Dischargers shall install groundwater, soil pore liquid, soil pore gas, surface water, and leachate monitoring devices as determined necessary by the Executive Officer to comply with this Order.

E. PROVISIONS

1. The Dischargers shall implement Monitoring and Reporting Program No. R8-2014-0008 immediately upon its adoption. The Executive Officer is authorized to modify the MRP, as necessary.

2. The Dischargers shall have a continuing responsibility for waste containment, water quality monitoring, and site maintenance to assure protection of the waters of the State from pollutants, such as landfill gas, gas condensate, and leachate, generated as a result of waste previously deposited and on-going land use activities at the Site. This responsibility continues as long as the waste and land use activities at the Site pose a threat to water quality.

3. The Dischargers shall furnish the Regional Board, within a reasonable time, any information that the Executive Officer may request to determine compliance with this Order.

4. All technical and monitoring reports required by this Order are pursuant to §13267 of the CWC. Failure to submit reports in accordance with this Order or the MRP, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer may subject the Dischargers to enforcement action pursuant to §13268 of the CWC.

5. The Dischargers shall notify Regional Board staff within 24 hours by telephone or email and within seven days in writing, of any noncompliance item potentially or actually endangering public health or the environment. Any noncompliance item that threatens the waste containment integrity shall be promptly corrected. Correction schedules are subject to the approval of the Executive Officer, except when delays will threaten public health, the environment and/or the waste containment integrity (i.e., emergency corrective measures). Corrections initiated prior to receiving

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Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or a duly authorized representative, may waive the written report on a case by case basis if the oral report provides sufficient information and is received within 24 hours. Noncompliance items include, but are not limited to:

a. Violation of any discharge specifications, prohibitions, water quality protection standards, or provisions in this Order.
b. Slope failure.
c. Leachate seep occurring on, or in proximity to, the Site.

6. The Dischargers shall notify the Regional Board in writing of any proposed change in ownership of or responsibility for the operation at the Property in accordance with Title 27, §21710(c)(1). Failure to submit the notice in writing shall be considered a violation of §13264 of the CWC. Written notice shall be given at least 90 days prior to the effective date of change in ownership or responsibility and shall:

   a. Contain the full legal name, state of incorporation if a corporation, address and telephone number of the new owner or operator assuming responsibility for the Property.
   b. Contain a statement indicating that the new owner or operator assumes full responsibility for compliance with this Order.

7. The Dischargers shall file an addendum to the report of waste discharge at least 180 days prior to the following:

   a. Significant change in maintenance activities, which would significantly alter existing drainage patterns and slope configurations, or pose a potential threat to the integrity of the Site.
   b. Change in land use.
   c. Significant changes in waste limit (e.g. excavation and relocation of waste on site).
   d. Any planned change in the regulated facility or activity, which may result in noncompliance with this Order.

8. If the Dischargers become aware that it failed to submit any relevant facts in a report of waste discharge, or submitted incorrect information in a report of waste discharge or in any report to the Regional Board, the Dischargers shall promptly submit such facts or information.

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9. The Property Owner shall file a deed notice with the Recorder of the County in which the Landfill is located, which identifies the prior use of the Property as a solid waste disposal site. The notice shall include a property description and a map that identifies the location of the former solid waste disposal site and shall state that the property within the waste boundary of the Landfill is subject to this Order. Confirmation of recordation and a copy of the deed notice shall be provided to the Executive Officer within 120 days of the adoption of this Order.

10. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

    a. Violation of any terms or conditions of this Order.
    b. Misrepresentation or failure to disclose fully all relevant facts by the Dischargers.

11. The Dischargers shall submit a work plan and any construction plans, as deemed necessary, at least 30 days prior to any activities that could alter existing cover design, surface drainage patterns, surface drainage control system, water quality monitoring system, or change in existing slope configurations. These activities may include, but are not limited to, grading activities on one acre or greater (≥1 acre) in size, the importation of fill material, the design and installation of groundwater monitoring wells and other environmental control systems that could impact water quality, site investigation and remediation activities.

12. **Final Cover Requirements**: As provided in Title 27 §20950(a)(1), the Regional Board may require final cover design and construction at the Site in accordance with Title 27, §21090 et sequence.

13. Closure of the Landfill may be subject to the regulations of CalRecycle and the South Coast Air Quality Management District.

14. The Dischargers shall comply with all conditions of this Order, any approved plans, and any additional conditions prescribed by the Regional Board in addenda thereto. Any noncompliance with this Order constitutes a violation of the CWC and is grounds for: (a) enforcement action including Regional Board orders or court orders requiring corrective action or imposing civil monetary liability; (b) termination, revocation and re-issuance, or modification of this Order; or (c) denial of a report of waste discharge application for new or revised waste discharge requirements. [CWC Sections 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].

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15. The Dischargers shall take all reasonable steps to minimize or correct any adverse impacts on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as deemed necessary to determine the nature and impact of the noncompliance.

16. The Dischargers shall, at all times, properly operate and maintain all systems of treatment and control (and related appurtenances) that are installed or used to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance and adequate laboratory and process controls, including appropriate quality assurance procedures.

17. Authorized representatives of the Regional Board shall be allowed, at any time and without prior notification, to:

    a. Enter upon the Dischargers' premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order.
    b. Have access to and copy any records that must be kept under the conditions of this Order.
    c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
    d. Photograph, sample or monitor for the purposes of assuring compliance with this Order.

18. A copy of this Order shall be maintained at the local offices of the Dischargers and shall be available to operating personnel at all times.

19. Provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

20. Except for data determined to be confidential under Section 13267(b) of the CWC, all reports prepared in accordance with this Order are considered public record and shall be submitted to the Executive Officer of the Regional Board. All reports shall be signed as follows:
    a. For a public agency - by either a principal executive officer or ranking elected official, or their "duly authorized representative."
    b. For a partnership or sole proprietorship - by a general partner or the proprietor.
    c. For a corporation - by a principal executive officer of at least the level of vice-president, or their "duly authorized representative."
    d. For engineering, geologic, and environmental monitoring reports - by a California Registered Civil Engineer, Certified Engineering Geologist,

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Professional Geologist, or Certified Hydrogeologist as appropriate for the report.

21. Any person signing a report prepared in accordance with this Order shall make the following certification:

    "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

22. The CWC provides that any person who intentionally or negligently violates any waste discharge requirements issued, reissued, or amended by this Regional Board is subject to administrative civil liability of up to 1,000 dollars per day of violation. The Superior Court may impose civil liability of up to 10,000 dollars per day of violation or, if a cleanup and abatement order has been issued, up to 15,000 dollars per day of violation.

23. The CWC provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or falsifying any information provided in the monitoring reports is guilty of a misdemeanor and may be subject to administrative civil liability of up to 1,000 dollars per day of violation.

24. Cleanup and Abatement Order No. R8-2007-0077 is hereby rescinded.

I, Kurt V. Berchtold, 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 June 13, 2014.

Kurt V. Berchtold
Executive Officer

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STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

MONITORING AND REPORTING PROGRAM NO. R8-2014-0008
FOR
RANCHO SAN JOAQUIN GOLF COURSE
FORMER LANE ROAD LANDFILL
IRVINE, ORANGE COUNTY

A. GENERAL

1. The Dischargers shall implement this Monitoring and Reporting Program (the MRP) in order to verify compliance with discharge specifications, prohibitions, and provisions of the Order.

2. At any time, the Dischargers may file a written request, including appropriate supporting documents, with the Executive Officer of the Regional Board, proposing modifications to the MRP. The Dischargers shall implement any changes in the revised MRP approved by the Regional Board's Executive Officer upon receipt of a signed copy of the revised MRP.

3. For any monitoring wells proposed for installation at the Site, the Dischargers shall submit a well design and construction document for approval by Regional Board staff prior to installation. All monitoring wells shall be designed and constructed in accordance with California Well Standards, Bulletin 74-9, or its latest revision. The well design and construction documents shall be submitted at least 60 days prior to the anticipated date of installation of the well(s), and shall include the following:

   a. Proposed locations of the monitoring well(s); and
   b. Proposed design and construction details of the monitoring well(s). These details shall include:
      i. well casing and borehole diameters;
      ii. well casing, annular, and filter materials;
      iii. well depth and well screen intervals;
      iv. the means by which the size and position of perforations shall be determined, or verified, if in the field;
      v. method of drilling and joining sections of casing;
      vi. filter and annular material placement methods;
      vii. depth and composition of soils; and
      viii. well development procedures.

   A final well construction report shall be submitted within 60 days after completion of well installation.

4. The Dischargers shall document and report the handling and disposal of water purged from monitoring wells at the landfill site during sampling. Water purged from a monitoring well shall not be returned to that well or any other monitoring well. Purge water may be discharged to the ground, outside of the landfill footprints, in a manner so that it will percolate back into the aquifer in the same general area from which it came, provided that adequate measures are taken to contain purge water within the property controlled by the Dischargers.

B. SITE INSPECTION AND MAINTENANCE

1. **Site Inspection** - The Dischargers shall inspect the Site, operated as Rancho San Joaquin Golf Course (the Property) which overlies the former Lane Road Landfill (the Landfill), according to the following schedules:

Table 1: Monitoring and Reporting Schedule[1]

Monitoring Program	Monitoring Period	Monitoring Frequency	Report Due Date
Site Inspection and Maintenance	Dry season (April 1 - September 30)	Semi-annually	October 31
	Wet Season (October 1 - March 30)	Semi-annually and after each significant storm event	
Water Quality Monitoring	Spring/Summer (April 1 - September 30)	Semi-annually	October 31
	Fall/Winter (October 1 - March 31)	Semi-annually	

2. At a minimum, the Site shall be inspected as follows to identify problem areas (water ponding, erosion, surface cracks, settlement, etc.) for timely maintenance and repair:

   a. Dry season (April-September) – Semi-annually, an inspection shall be conducted to assess the conditions of the drainage control system and the landfill cover, to identify any noncompliance items for timely rectification, and to prepare the Site for the rainy season.

   b. Wet season (October-March) – Semi-annually, an inspection shall be conducted to assess the performance of the Site drainage control system and the Landfill cover, and to identify any noncompliance items for timely rectification. In addition, a post-storm inspection shall be conducted at the Site after each significant storm event, unless otherwise directed by the Executive Officer. A significant storm event is defined as a storm event that

1 Due to possible multiple party report submittals, the reports in Table 1 can either be submitted separately or combined into one annual report.

produces 0.5 inches or more of rain over a 24-hour period.

3. Site Visual Observations – When conducting a Site inspection, at a minimum, the following observations shall be made and recorded:

   a. Receiving Waters[2]

      i. Floating and suspended materials of waste origin, presence or absence, source, and size of the affected area.
      ii. Discoloration and turbidity – description of color, source, and size of the affected area.
      iii. Evidence of odors – presence or absence, characterization, source, and distance of travel from source.
      iv. Evidence of beneficial use – presence of water-associated wildlife.
      v. Flow rate, if there is a discharge, to receiving water.
      vi. Weather condition.

   b. Landfill Property and Along the Perimeter of the Site

      i. Evidence of liquids leaving or entering the Site (indicate the discharge point on a map), and the estimated volumetric flow rate.
      ii. Evidence of ponded water at any location on the Site (indicate the affected area on a map).
      iii. Evidence of odors – presence or absence, characterization, source, and distance of travel from source.
      iv. Evidence of erosion and/or exposed refuse.
      v. Evidence of non-storm water discharges during dry season, and integrity of all storm water discharge locations during wet season.

   c. Drainage Control System

      The Dischargers shall inspect the drainage control system, and record the following information:

      i. Condition of the drainage control system and any problems with the drainage control systems.
      ii. Any apparent seepage from the Landfill.
      iii. Steps taken to correct any problems found during the inspection and dates of corrective actions.

4. Site Maintenance and Drainage Improvement

   a. By October 31 of each year, all necessary drainage and erosion control

[2] Receiving Waters refer to any surface water and its tributaries with designated beneficial uses as specified in the Basin Plan

system repair and site maintenance activities must be completed, unless the Executive Officer has approved or does approve a different schedule.

5. Rainfall Data - The Dischargers shall record the following information using data from the nearest weather station:

   a. Total precipitation during the Monitoring Period.
   b. Number of storms ($\geq$ 0.5" in a 24-hour period) received during the Monitoring Period.
   c. Return interval of most intense 24-hour storm that occurred during the Monitoring Period (e.g. 25-year frequency storm, 100-year frequency storm, etc.).

C. WATER QUALITY MONITORING

1. The Dischargers shall establish and maintain an appropriate number of monitoring points for all media (groundwater, surface water and landfill gas), for implementing the water quality monitoring program. The current groundwater quality monitoring points are shown on Attachment C of the MRP. The Point of Compliance for the Site is monitoring well MW-4 as shown on Attachment C, or any other alternative monitoring point approved by the Executive Officer.

2. For a newly installed groundwater monitoring point, groundwater samples shall be collected for a minimum of eight sampling events and shall be analyzed for the Monitoring Parameters listed in Table 2, below, to establish the concentration limits.

3. Monitoring of each medium and monitoring at all monitoring points shall be carried out according to the schedule specified in Table 1. Analysis of Monitoring Parameters shall be carried out semi-annually at the Site's groundwater monitoring points, unless an alternative monitoring frequency has been approved by the Executive Officer. Semi-annual monitoring shall be performed during the 2nd and 4th calendar quarters, or in accordance with an alternative schedule approved by the Executive Officer. The due dates for the monitoring reports are specified in Table 1.

4. Monitoring Parameters

   a. **Groundwater Monitoring Parameters** - The Monitoring Parameters listed in Table 2 are typical parameters detected at landfill sites investigated during active implementation of the Solid Waste Water Quality Assessment Test (SWAT) Program. All groundwater samples from all monitoring points shall be analyzed for the following Monitoring Parameters:

Table 2. Monitoring Parameters

Constituent/Parameter	USEPA Method[1]	Units [3]
Water Elevation[4]	-------	Feet
Electrical Conductivity	2510B or Field Instruments	µmhos/cm
pH	Field	pH Units
Temperature	Field	°F/C
Turbidity	Field	NTU
Total Dissolved Solids (TDS)	160.1	mg/l
Chloride, Sulfate	300	mg/l
Nitrate (as nitrogen)	9200	mg/l
VOCs [2]	8260	µg/l

(1) The Dischargers shall analyze for all constituents using the USEPA analytical methods indicated or the most recently approved SW-846 USEPA method or other equivalent USEPA method.
(2) All 47 Appendix I VOCs listed in Appendix I to 40 CFR 258.
(3) mg/l – milligrams per liter, °F/C – degrees Fahrenheit/Celsius, NTU – Nephelometric turbidity units, µmhos/cm – micro-mhos per centimeter; and µg/l – micrograms per liter.
(4) Water elevation shall be recorded for all monitoring wells.

b. **Groundwater Flow Rate and Direction** - For each monitored groundwater body, the water level in each well shall be measured. Semi-annual water level measurements shall be collected, unless the Executive Officer specifically requires or allows otherwise. Horizontal gradients, groundwater flow rate, and flow direction for the respective groundwater body shall be determined across an annual hydrogeologic cycle for each monitoring period. Groundwater elevations for all wells in a given groundwater body shall be measured within a period of time short enough to avoid temporal variations in groundwater flow. The observed groundwater characteristics shall be compared with those of previous determinations, noting the appearance of any trends, and any indications that a change in the hydrogeologic conditions beneath the site has occurred. This information shall be reported in the semi-annual monitoring reports.

c. **Sample Procurement Limitation** - For any given monitored medium, the samples taken from the monitoring points to satisfy the initial data analysis requirements for a monitoring period shall be taken within a span not exceeding the first 10 business days of that period. The first retest sample, if needed, shall be taken at mid-monitoring period. If a tentative release is indicated, retest procedures shall be carried out in accordance with Section D.5, below.

D. SAMPLE COLLECTION AND ANALYSIS

1. Sampling and Analytical Methods

Sample collection, storage, and analysis specified in this monitoring and reporting program shall be performed according to the most recent version of Standard USEPA Methods (USEPA publication "SW-846"), and in accordance with an Executive Officer approved Sampling and Analysis Plan. All future changes to the Sampling and Analysis Plan must be submitted for Executive Officer approval prior to implementation. Laboratories must be certified by the State Department of Public Health for all analytical procedures they perform in accordance with this MRP. Specific methods of analysis must be identified. If methods other than USEPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Executive Officer prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Regional Board. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements. Calibration and maintenance records shall be kept and made available upon request by Regional Board staff. The Dischargers are responsible for seeing that the laboratory analysis of all samples from all Monitoring Points meet the following conditions:

a. **Method Selection:** The methods of analysis and the detection limits used must be appropriate for the expected concentrations. For detection monitoring of any constituent or parameter that is found in concentrations which produce more than 90% non-numerical determinations (i.e., "trace") in historical data for that medium, the SW-846 analytical method having the lowest Method Detection Limit (MDL) shall be selected from among those methods that would provide valid results in light of any Matrix Effects involved.

b. **Trace Results:** Results falling between the MDL and the Practical Quantitation Limit (PQL) shall be flagged as "trace", and shall be accompanied by both the (nominal or estimated) MDL and PQL values for that analytical run. Likewise, any non-detect determination shall include the nominal or estimated MDL concentration for that run.

c. **Estimated MDL and PQL:** The MDL and PQL shall be derived by the laboratory for each analytical procedure, according to State of California laboratory accreditation procedures. Both limits shall reflect the detection and quantitation capabilities of the specific analytical procedure and equipment used by the laboratory. If the laboratory suspects that, due to a change in matrix or other effects, the true detection limit or quantitation limit for a particular analytical run differs significantly from the laboratory-derived MDL/PQL values, the results shall be flagged accordingly and an estimate of the detection limit and/or quantitation limit actually achieved shall be included.

d. **Quality Assurance/Quality Control (QA/QC) Data:** All QA/QC data shall be reported along with the sample results to which it applies. Sample results shall be reported unadjusted for blank results or spike recovery. The QA/QC data submittal shall include the following information:

   i. Method, equipment, and analytical detection limits.
   ii. Recovery rates and an explanation for any recovery rate that is outside the USEPA specified recovery rate.
   iii. Results of equipment and method blanks.
   iv. Results of spiked and surrogate samples.
   v. Frequency of quality control analysis.
   vi. Chain of custody logs.
   vii. Name of the person(s) performing the analysis.

e. **Common Laboratory Contaminant:** Upon receiving written approval from the Executive Officer, a statistical or non-statistical procedure can be used for determining the significance of analytical results for a constituent that is a common laboratory contaminant (i.e. methylene chloride, acetone, 2-butanone, diethylhexyl phthalate, and di-n-octyl phthalate) during any given monitoring period in which QA/QC samples show evidence of laboratory contamination for that constituent. Nevertheless, analytical results involving detection of these analytes in any background or down-gradient sample shall be reported and flagged for easy reference by Regional Board staff.

f. **Unknowns:** Unknown chromatographic peaks shall be identified, quantified, and reported to a reasonable extent. When unknown peaks are encountered, second column or second method confirmation procedures shall be performed in an attempt to identify and more accurately quantify the unknown analyte.

g. In cases where contaminants are detected in QA/QC samples (i.e., field, trip, or laboratory blanks), the accompanying sample results shall be appropriately flagged for easy reference.

2. **Laboratory Records**

Water quality records shall be maintained by the Dischargers and retained throughout the post-closure maintenance period. The period of retention shall be extended during the course of any unresolved litigation or when requested by the Executive Officer. Such records shall show the following for each sample:

a. Identity of sample and the actual monitoring point designation from which it was taken, along with the identity of the individual who obtained the sample.
b. Date and time of sampling.
c. Date and time that analysis was started and completed, and the name of the

personnel performing each analysis.

d. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.
e. Chromatographs and calculation of results.
f. A complete chain of custody log.
g. Results of analysis, and the MDL and PQL for each analysis.

3. Concentration Limits

a. The concentration limit for a given monitoring parameter is a component of the Water Quality Protection Standard under Title 27, §20390 and §20400. The concentration limits for the Monitoring Parameters specified in Table 2, except for the field-measured parameters and VOCs, shall be the respective background values, as determined by using an approved statistical data analytical method.

b. The concentration limit for each VOC monitoring parameter shall be determined as follows:

   i. In cases where the constituent's MDL is exceeded in less than ten percent of the historical samples making up the reference background data set, PQL is the concentration limit.

   ii. In cases where the constituent's MDL is exceeded in ten percent (10%) or more of the historical samples, and the source of the constituent has been confirmed in accordance with Section E.3.e (Contingency Responses/Response to VOC Detection in Background) of this MRP to come from a source other than the landfill, the concentration limit shall be determined using an approved statistical method. Otherwise, the Dischargers shall propose a concentration limit in accordance with Title 27, §20395(a).

c. The Dischargers shall review concentration limits every three years using all data collected from the applicable background data pursuant to Section 5.3 of the USEPA's Unified Guidance.

4. Release Indication

Exceedance of a concentration limit is a tentative indication of a release, unless the constituent is naturally occurring with concentrations exhibiting spatial/temporal variability due to natural geochemical conditions. If a release from the landfill is tentatively indicated, the retest procedure in Section D.5, below, shall be carried out.

5. **Retest Procedure for a Tentative Release**

   a. In the event the Dischargers conclude that a release has been tentatively indicated, the Dischargers shall carry out the appropriate reporting requirements and by mid-period, shall collect a new sample for the monitoring parameter(s) that exceeded the concentration limit at each indicating monitoring point. The Dischargers shall use a single retest sampling approach. The retest sample shall be taken at mid-monitoring period to provide an independent sample for the parameter that was exceeded. If a release is confirmed by the retest, then the results exhibit a measurably significant indication of a release; otherwise, the original release indicated is nullified.

   b. Retests shall be carried out only for the monitoring point(s) for which a release is tentatively indicated, and only for the Monitoring Parameter(s) which triggered the indication.

   c. If the test results confirm the original indication of a release, the Dischargers shall conclude that a release has been discovered and shall carry out the appropriate requirements under Section E.3, Contingency Response/Reporting, of this MRP.

E. REPORTING

1. Monitoring and Reporting Schedule

   a. The Annual Monitoring Report shall be submitted in accordance with the schedule provided in Table 1 of Section B.1 of the MRP. Unless otherwise indicated, all required monitoring and observations shall be reported in the Annual Monitoring Report. The Annual Monitoring Report shall include all site inspection and maintenance activities and the results of all monitoring parameters analyzed as required by the MRP.

   b. Monitoring reports shall be submitted in an electronic format through the State's electronic database (GeoTracker information system). The procedures to obtain a GeoTracker account and upload of information are accessible at http://geotracker.waterboards.ca.gov/.

   c. All monitoring reports shall be comprised, as appropriate, of at least the following information:

      i. Letter of Transmittal: The transmittal letter shall be signed by a principal officer at the level of vice president or above, or by his/her duly authorized representative, if such a representative is responsible for the facility. The letter shall contain a statement by the official, under penalty of perjury, that

to the best of the signers' knowledge, the report is true, complete, and correct. All technical and monitoring reports shall be signed and stamped by a registered civil engineer, a certified engineering geologist, Professional Geologist, or a Certified Hydrogeologist as appropriate for the report.

ii. **Compliance Evaluation Summary:** The summary shall contain the following information:

(a) A summary of the groundwater monitoring results, indicating any changes made or discovered since the previous report.

(b) A comprehensive discussion of the facility compliance record. A discussion of any violations found since the last report was submitted, and shall describe actions taken or planned for correcting those violations. If a detailed time schedule has been previously submitted for correcting violations, a reference to the schedule will be satisfactory. If no violations have occurred since the last submittal, this shall be stated. A review of construction projects with water quality significance completed or commenced in the past year or planned for the upcoming Monitoring Period shall also be included.

(c) Determination of the Velocity and Direction of Groundwater Flow Within Each Water-Bearing Zone - For each monitored groundwater body, a description and graphical presentation of the velocity and direction of groundwater flow under/around the facility, based upon water level elevations taken during the collection of the water quality data submitted in the monitoring reports (i.e., groundwater elevation contour map for each water-bearing zone, beneath and adjacent to the facility). The analysis shall include a discussion of how the observed groundwater flow rate and flow direction compare with those from previous determinations, the appearance of any trends, and any other items which may indicate a potential change in the hydrogeological conditions beneath and adjacent to the facility.

(d) Pre-Sampling Purge - For each monitoring point addressed by the report, a description of the method and time of water level measurement, the type of pump used for purging and the placement of the pump in the well, and the method of purging (the pumping rate, the equipment and methods used to monitor field pH, temperature, and conductivity during purging, the calibration of the field equipment, results of the pH, temperature, conductivity, dissolved oxygen, and turbidity testing, the well recovery time, and the method of disposing of the purge water).

(e) Sampling - For each monitoring point addressed by the report, a description of the type of pump, or other device used, its placement for sampling, and a description of the sampling procedure (number of samples, field blanks, travel blanks, and duplicate samples taken; the

type of containers and preservatives used; the date and time of sampling; the name of the person actually taking the samples; and a description of any anomalies).

iii. Corrective Action Summary - When appropriate, discuss any corrective action measures performed during the monitoring period to achieve compliance with this Order and any enforcement orders issued by the Regional Board.

iv. Graphical Presentation of Analytical Data - As part of the annual summary, the Dischargers shall include relevant concentration-versus-time plots for the constituents of concern at each monitoring point in each medium, and submit the laboratory analytical data for all samples taken within at least the previous five calendar years. Plots shall effectively illustrate trends and/or variations in the laboratory analytical data. When multiple samples are taken, graphs shall plot each datum, rather than plotting mean values. For any given constituent or parameter, the scale for background plots shall be the same as that used to plot down gradient data.

v. Map(s) - The monitoring reports shall include the following maps as appropriate:

(a) A vicinity site location map.
(b) A map or aerial photograph clearly showing the waste and property limits, locations of all monitoring points and relative physical features.
(c) For each groundwater body monitored, a map depicting groundwater contours, groundwater flow direction, to the greatest degree of accuracy possible.
(d) A map showing areas of deficiency, such as water ponding, settlement, cracks, erosion, etc.

vi. Laboratory Results - Laboratory statements, concerning the results of all analyses, demonstrating compliance with the most recently approved sampling and analysis plan. Additionally, the results of all sampling and analyses performed at the Site, outside the requirements of this monitoring and reporting program, shall be summarized and reported. The following information must also be presented:

(a) All monitoring analytical data obtained during the previous year, presented in tabular format.
(b) The evaluation and interpretation of all available data.
(c) Groundwater elevation contour map for each water-bearing zone.
(d) Copy of field sampling log (record) for each well.

vii. An evaluation of the effectiveness of the run-off/run-on drainage control facilities, submitted as a section in the annual report or under separate cover.

viii. A summary and certification of completion of all inspection/observations performed at the Site, submitted as a section in the annual report or under separate cover.

2. Notification Requirements

a. The Dischargers shall notify Regional Board staff within 24 hours by telephone or via email and within seven (7) days in writing, of:

   i. Any noncompliance potentially or actually endangering health or the environment.
   ii. Any flooding, equipment failure, or other change in site conditions that could impair the integrity of the landfill cover, drainage control system, environmental control system, or any portion thereof.

b. The Dischargers shall comply with all notice and reporting requirements of the State Department of Water Resources, and obtain concurrence of the Executive Officer, regarding the construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this monitoring program, as required by §13750.5 through §13755 and §13267 of the California Water Code.

c. **Response to an Initial Indication of a Release:** Should the initial statistical or non-statistical comparison indicate that a new release is tentatively identified, the Dischargers shall:

   i. Within 24 hours, notify their designated Regional Board staff contact by telephone or via email as to the Monitoring Point(s) and constituent(s) or parameter(s) involved;
   ii. Provide written notification within seven days of such determination; and
   iii. Either of the following:
      (a) Carry out a Retest Procedure. If the retest confirms the existence of a release or the Dischargers fails to perform the re-test, the Dischargers shall perform the appropriate Release Discovery Response (Item C.3 below). In any case, the Dischargers shall inform the Regional Board of the re-test outcome within seven days after the results become available.
      (b) Make a determination, in accordance with Title 27, §20420(k)(7), that a source other than the Site caused the release or that the evidence is an artifact caused by an error in sampling, analysis, or statistical evaluation or by natural variation in the groundwater, surface water,

or the unsaturated zone.

3. Contingency Response/Reporting

a. Leachate Seep - The Dischargers shall notify the designated Regional Board staff within 24 hours report by telephone or via email the discovery of any previously unreported seepage from the Site. A written report shall be filed with the designated Regional Board staff within seven days, containing at least the following information:

   i. Map - a map showing the location(s) of seepage.
   ii. Flow rate - an estimate of the flow rate.
   iii. Description - a description of the nature of the discharge (e.g., all pertinent observations and analyses).
   iv. Location – Location of sample(s) collected for laboratory analysis, as appropriate.
   v. Corrective measures - approved (or proposed for consideration) by the Regional Board Executive Officer.

b. Physical Evidence of a Release - If either the Dischargers or Regional Board staff determines that there is significant physical evidence of a release, per Title 27, §20385(a)(3), the Dischargers shall confirm that a release has been discovered and shall:

   i. Within seven days, notify Regional Board staff of this fact by mail (or acknowledge the Regional Board staff's determination).
   ii. Carry out the appropriate Release Discovery Response for all potentially-affected monitored media.
   iii. Carry out any additional investigations stipulated in writing by the Regional Board Executive Officer for the purpose of identifying the cause of the indication.

c. Release Discovery Response - If the Dischargers or the Executive Officer concludes that a release has been discovered, the following steps shall be carried out:

   i. Within 90 days of discovering a release, submit an Amended Report of Waste Discharge, proposing a corrective action plan meeting the requirements of Title 27, §20430.
   ii. Commit to install at least one monitoring well at the facility boundary directly down gradient of the center of the release.

d. Release Beyond Facility Boundary - Any time the Dischargers concludes that a liquid- or gaseous phase release from the Site has traveled beyond the facility boundary, the Dischargers shall make the following notifications to all

persons who either own or reside upon land that overlies any part of the plume (Affected Persons):

i. Initial notification to Affected Persons shall be accomplished within 14 days of confirming a release and shall include a description of the Dischargers' current knowledge of the nature and extent of the release.
ii. Subsequent to the initial notification, the Dischargers shall provide updates to all Affected Persons, including any persons newly affected by a change in the boundary of the release, within 14 days of concluding there has been any material change in the nature or extent of the release.
iii. Annually, the Dischargers shall notify Affected Persons concerning the status of the release and any corrective action being taken or planned.
iv. Each time the Dischargers send a notification to the Affected Persons (under i. or ii., above), the Dischargers shall, within seven days of sending such notification, provide the Regional Board with both a copy of the notification and the mailing list of the Affected Persons. In the case of an annual notification to the Affected Persons (iii. above), notification to the Regional Board shall be via the Annual Report.
v. All notifications to all Affected Persons shall include (at a minimum) the following information:

(a) A summary of the release and corrective action information.
(b) Contact information (i.e., Regional Water Quality Control Board, City, and County Environmental Health Department).
(c) The results of the most recent monitoring data and its availability.

e. Response to VOC Detection in Background Monitoring Point

i. Except as indicated in Section E.3.e.ii below, any time the laboratory analysis of a sample from a background monitoring point shows either three or more VOCs above their respective MDL, or one VOC above its respective PQL, the Dischargers shall:

(a) Within 24 hours, notify Regional Board staff by phone or email that possible background monitoring point contamination has occurred.
(b) Follow up with a written notification by mail within seven days.
(c) Immediately obtain one new independent VOC sample from the background monitoring point and send for laboratory analysis of only the VOCs that were initially detected above the concentration limit.

ii. If the sample collected pursuant to Section E.3.e.i.(c), above, validates the presence of a VOC(s) at the background monitoring point, the Dischargers shall:

(a) Within 24 hours, notify Regional Board staff that the VOC(s) have

been verified to be present at that Background Monitoring Point.

(b) Provide a written notification by mail within seven days of validation.

(c) Within 180 days of validation, submit a report, acceptable to the Executive Officer, which examines the possibility that the detected VOC(s) originated from other than the Site, and proposes appropriate changes to the MRP.

iii. If the Executive Officer determines, after reviewing the report, that the VOC(s) detected originated from a source other than the Site, the Dischargers shall continue the existing MRP.

iv. If the Executive Officer determines, after reviewing the report, that the detected VOC(s) most likely originated from the Site, the Dischargers shall assume that a release has been detected and shall immediately begin carrying out the appropriate Release Discovery Response of this monitoring and reporting program.

All reports required in this monitoring and reporting program are required pursuant to CWC §13267. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with §13320 of the CWC and Title 23, CCR, §2050. The petition must be received by the State Water Resources Control Board within 30 days of the date of this Order. Copies of the laws and regulations applicable to filing petitions will be provided upon request.

Kurt V. Berchtold
Executive Officer

Attachment A: Lane Road Landfill and Rancho San Joaquin Golf Course Boundaries

Attachment B-1

Definitions of Terms

"Title 27" means the State Water Resources Control Board's regulations, in Division 2 of Title 27 of the California Code of Regulations, applicable to the discharge to land of waste that is not hazardous waste.

"Affected Medium" means any natural medium that consists of or contains waters of the state (e.g., ground water, surface water, or the unsaturated zone) that has been affected by a release from a landfill.

"Affected Persons" means any person affected by a release from a landfill.

"Appendix I Constituents" means the suite of 47 volatile organic constituents and 17 metals used as the default monitoring parameter list in 40 CFR §258.

"Background" means the concentrations or measures of constituents or indicator parameters in water or soil that has not been affected by waste constituents or leachate from the waste management unit being monitored.

"Background Monitoring Point" means a well, device, or location specified in the waste discharge requirements at which monitoring for background water quality or background soil quality is conducted.

"Concentration Limit" is a part of the landfill's Water Standard and is the reference background data set, or reference concentration value, for a given constituent against which one compares current compliance well data to identify, in detection mode, the arrival of the release at a given well and to identify, in tracking mode, if the corrective action measures are bringing the landfill back into compliance with the Water Standard.

"Intra-well comparison" means a type of statistical or non-statistical data analysis, applied to a given detection mode compliance well/MPar pair, in which one compares current concentration data, for that Monitoring Parameter, with a suite of background data consisting of selected historical data from that same well to determine if that Monitoring Parameter has produced a measurably significant increase at that well. Typically, the use of a compliance well's own historical data, for a Monitoring Parameter, provides better statistical power (to identify a real release and to avoid producing false-positive indications) than does the inter-well comparison approach, but only in a case where it is reasonable to assume that the compliance well's own historical data does not reflect the presence of a release for that Monitoring Parameter.

"MRP" means the Monitoring and Reporting Program that is an attachment to the Waste Discharge Requirements (or other order) and that is incorporated by reference by the Waste Discharge Requirements.

"Method Detection Limit (MDL)" means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte's concentration is greater than zero, as defined in Title 40 of the Code of Federal Regulations Part 136, Appendix B.

"Point of compliance (POC)" is, for the ground water medium, a part of the landfill's Water Quality Protection Standard and means a conceptual vertical surface that is located, in map view, along the hydraulically downgradient limit of waste placement at the landfill and that extends downward through the uppermost aquifer underlying the Unit.

"Practical Quantitation Limit (PQL)" means the value established as a target value by the United States Environmental Protection Agency that is the lowest concentration of a substance that can be consistently determined within +/- 20% of the true concentration by 75% of the laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the Practical Quantitation Limit for carcinogens is the Method Detection Limit multiplied by 5, and for noncarcinogens is the Method Detection Limit multiplied by 10. These estimated PQLs are listed in Appendix II to Title 40 of the Code of Federal Regulations Part 258. Generally, these are target values that may not reflect the constraints of matrix effects; therefore, the Regional Water Quality Control Board requires the discharger to keep an up-to-date listing of the applicable laboratory-specific PQL and MDL estimates for each analyte on the Constituent of Concern list.

"Quality Assurance (QA)" means a planned system of activities that provide assurance that a project is executed as specified in the design or plan.

"Quality Control (QC) means a planned system of activities that directly monitor and control the quality of a project as specified in the design or plan.

"Reporting period" means the duration separating the submittal of a given type of monitoring report from the time the next iteration of that report is scheduled for submittal.

"Retest" when applied to a scan to detect the presence of an appropriate list of analytes in leachate, landfill gas, or ground water (at an affected monitoring point), means taking a single additional sample from the indicating medium (or, for ground water, the indicating monitoring point) to determine whether the initial detection, for that analyte, is valid.

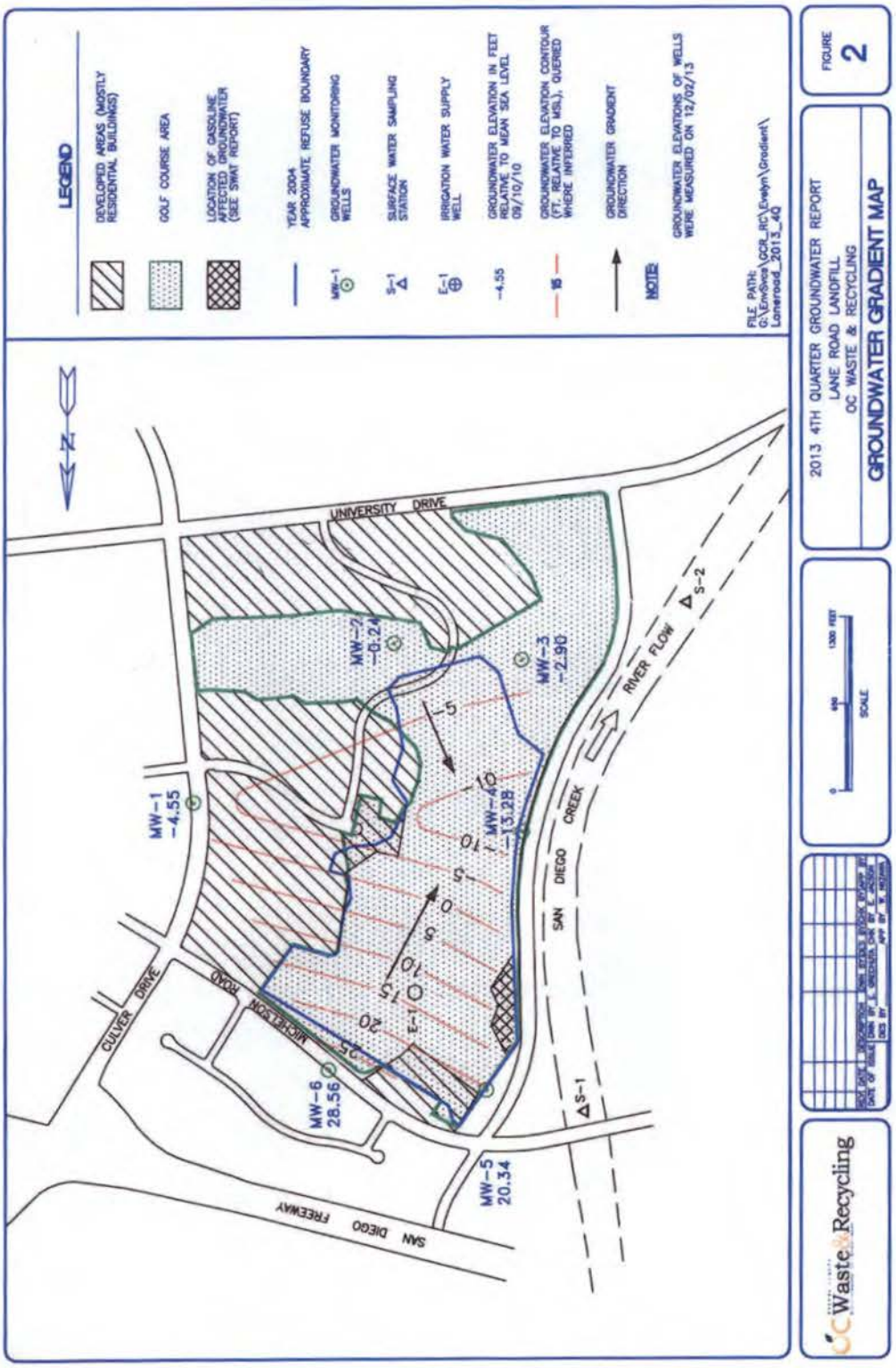
"SW-846" means the laboratory analytical guidance document published by the United States Environmental Protection Agency.

"VOC" means any of the Volatile Organic Compounds that can be identified in a water or leachate sample under United States Environmental Protection Agency Method 8260 (see SW-846). The United States Environmental Protection Agency lists a subset of 47 such constituents in its Appendix I default Monitoring Parameter list (see Appendix I to Title 40 of the Code of Federal Regulations Part 258).

Attachment B-2

List of Acronyms

AGC – American Golf Corporation
CCR – California Code of Regulations
CWC – California Water Code
EXECUTIVE OFFICER – Executive Officer of the Regional Board
MDL – Method Detection Limit
MRP – Monitoring and Reporting Program
NGP – National Golf Property Realty Sub LP
OCWR – Orange County Waste & Recycling
PQL – Practical Quantitation Limit
QA/QC – Quality Assurance/Quality Control
USEPA – United States Environmental Protection Agency
VOCs – Volatile Organic Compounds



Attachment C: Water Quality Monitoring Locations and Groundwater Gradient

State of California
Regional Water Quality Control Board
Santa Ana Region

June 13, 2014

STAFF REPORT

ITEM:

SUBJECT: Waste Discharge Requirements for American Golf Corporation, National Golf Property Realty Sub LP, and Orange County Waste & Recycling, for the Rancho San Joaquin Golf Course (the former Lane Road Landfill: a Closed Class III Solid Waste Disposal Site) in Irvine, Orange County, Order No.R8-2014-0008

DISCUSSION:

American Golf Corporation operates a recreational golf course, the Rancho San Joaquin Golf Course, located southeast of Michelson Drive and Harvard Avenue in Irvine, Orange County. National Golf Property Realty Sub LP is currently the land owner of the golf course property. Approximately 70% of the golf course property overlies the former Lane Road Landfill, a non-hazardous municipal waste landfill, which was operated by the Orange County Waste & Recycling (OCWR) from 1961 to 1964. The Landfill ceased operations in 1964 and was closed with a 3-foot thick interim soil cover.

California Water Code (CWC) Section 13273 required the State Water Resources Control Board to develop a solid waste water quality assessment test (SWAT) for all landfills within California. The SWAT report, prepared by the OCWR, for the Lane Road Landfill site indicated that volatile organic compounds, such as trichloroethylene (TCE) and vinyl chloride, were detected in a downgradient monitoring well at concentrations above the established regulatory levels. The OCWR has been conducting groundwater monitoring at the Site since 1999, as directed by Regional Board staff at the conclusion of the SWAT report review.

To address erosion and drainage problems at the golf course overlying the landfill area, the Executive Officer of the Regional Board issued Cleanup and Abatement Order No. R8-2007-0077 in August 2007 that required American Golf Course to implement a site inspection and maintenance plan, and a drainage master plan to provide adequate surface drainage control in compliance with Title 27, §20950(a)(2)(A)(1). Regional Board staff approved the Landfill Cover Maintenance Plan in May 2004 and the Drainage System Master Plan in November 2010. Under the Drainage System Master Plan, AGC is scheduled to implement drainage improvements in six stages over a seven year period, beginning 2010. Since 2010, AGC has completed the installation of 12-inch subsurface drainage pipes for four stages. This Order incorporates the

remaining stages for drainage improvements at the Site

On June 07, 2013, the Regional Board adopted General Waste Discharge Requirements, Order No. R8-2013-0010, for Closed, Abandoned, or Inactive landfills within the Santa Ana Region. The Dischargers for the Lane Road Landfill opted not to be regulated under Order No. R8-2013-0010 and requested for individual waste discharge requirements for the former Lane Road Landfill.

This Order prescribes requirements for drainage improvements, post-closure monitoring and maintenance at the Rancho San Joaquin Golf Course.

RECOMMENDATION:

Adopt Order No.R8-2014-0008, as presented.