

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
TENTATIVE CLEANUP AND ABATEMENT ORDER R5-2020-XXXX
FOR
FORWARD, INC. AND REPUBLIC SERVICES, INC.
FORWARD LANDFILL
SAN JOAQUIN COUNTY

This Cleanup and Abatement Order (Order) is issued to Forward, Inc. and Republic Services, Inc. (hereafter jointly referred to as Discharger) based on provisions of the California Water Code (Water Code) sections described below, including sections 13304 and 13267, which authorize the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board) to issue a cleanup and abatement order (CAO) and to require the submittal of technical reports.

The Executive Officer of the Central Valley Water Board finds that:

BACKGROUND

1. **Parties Responsible for the Discharge of Waste:** Forward, Inc., a subsidiary of Republic Services, Inc., owns and operates the Forward Landfill (facility) located at 9999 S. Austin Road in Manteca, California. The facility is a municipal solid waste (MSW) landfill.
2. The Forward Landfill, including the Austin Road Unit, is regulated under Waste Discharge Requirements (WDRs) Order(s) R5-2014-0006 (for the landfill operation) and Order R5-2003-0080 (for the land application of treated groundwater to a “recharge basin”). The original Forward Landfill operated on 157 acres since 1973 and in 2000 the Discharger purchased the adjacent Austin Road Sanitary Landfill on 410 acres for a total of 567 acres. The landfill consists of both unlined and lined waste management units (WMUs). The current permitted footprint is approximately 388 acres, of which 288 acres contains WMUs. The original unlined Austin Road Unit footprint is 123.9 acres. The Austin Road Unit does not contain an engineered liner, or a leachate collection and removal system, both of which are necessary to prevent the downward migration of pollution.
3. The Forward Landfill is on the floor of the northern San Joaquin Valley. Surface water drainage from the northern half of the site is to the North Fork of South Littlejohns Creek; drainage from the southern half flows to the South Fork of South Littlejohns Creek thence to Littlejohns Creek in the Duck-Littlejohns Hydrologic Area (31.40) of the San Joaquin River Basin.
4. On 1 November 2006, Central Valley Water Board staff notified the Discharger that the unlined Austin Road Landfill was a known source of chlorinated solvent groundwater pollution and that drinking water supply wells at the California Department of Corrections and Rehabilitation (CDCR) O.H. Close Youth Facility located downgradient from the landfill had intermittent detections of tetrachloroethylene (PCE). The notification required the Discharger to investigate whether the Austin Road landfill was the source of the groundwater pollution in the CDCR supply wells.

5. On 24 April 2007, the California Department of Health Services issued Citation No. 03-10-07C-004 to CDCR for its O.H. Close Youth Correctional Facility because the drinking water supplied from the underlying aquifer to inmates exceeded the 5 µg /L maximum contaminant level (MCL) for PCE. The CDCR facility is located at 7707 Austin Road. The source of the volatile organic compounds (VOCs) was attributed to the landfill.
6. Groundwater downgradient of the landfill is impacted with VOCs, including in part: dichloroethane, dichloroethylene, PCE, and trichloroethylene (TCE). VOCs were first detected in 1989. The Discharger's May 2014 Unsaturated Zone Monitoring Review states: "Since 1998, groundwater impacts have been identified up to 4,000 feet downgradient (northeast) of the landfill and appears to have migrated to a lower depth at the leading edge of the plume."
7. On 8 December 2008, the Executive Officer issued Cleanup and Abatement Order R5-2008-0714 (2008 CAO). The 2008 CAO required the Discharger to define the lateral and vertical extent of groundwater impacts downgradient of the landfill, provide an alternate source of drinking water to any landowner with a municipal or domestic well that had a confirmed detection of VOCs above the MCL.
8. As required by the 2008 CAO, the Discharger identified 35 known domestic, industrial, or agricultural groundwater supply wells within one mile and downgradient of the facility. Nearby land uses include agricultural lands to the east, west, and south of the landfill. The Discharger implemented a Domestic Well Sampling Plan to determine if the wells had been impacted by VOCs. No additional wells were identified as impacted at that time.
9. Because the plume continued to migrate away from the landfill, on 10 April 2017, the Executive Officer issued Cleanup and Abatement Order R5-2017-0703 (2017 CAO) requiring the Discharger to enhance the corrective action system at the facility. Additionally, the 2017 CAO required the Discharger to define the horizontal and vertical extent of the plume and investigate if VOCs are impacting other domestic supply water wells, which were previously thought to be outside of the plume.
10. Between February 2018 and April 2019, the Discharger installed eight evaluation monitoring wells north of the landfill to delineate the lateral and vertical extent of the plume. These wells are located approximately 3,500 feet to 10,000 feet north of the Forward Landfill's, Austin Road Unit's Point of Compliance (POC).
11. The 2017 CAO requires the Discharger to expand the aerial extent of their sensitive receptor survey and update their Domestic Well Sampling Plan. The Updated Domestic Well Sampling Plan stated that based on the evaluation monitoring, chlorinated hydrocarbon impacts extended as much as 7,700 feet down gradient of the Austin Road Unit. As a result, the Discharger has located 56 residences within the expanded survey area that utilize groundwater for domestic and agricultural supply. Thirteen of these residences are located along Newcastle Road, and two on Austin Road.

RESIDENTIAL WELL SAMPLING

12. According to Forward Landfill's 2013 Joint Technical Document, the residential supply wells located at 7898 Austin Road and 8106 Austin Road have been impacted by the release of waste from the landfill since 1997. These two residences were the first to receive replacement water. Sampling results for November 2019 indicated PCE concentrations ranged from 2.4µg/l to 13µg/l, respectively.
13. On 21 June 2017, the Discharger began sampling domestic wells to comply with Paragraphs 1.A. and 1.B. of the 2017 CAO. The Discharger is required to sample domestic supply wells and submit monitoring reports on a semi-annual basis under the 2017 CAO. Based on the June 2017 sampling results, the Discharger identified three newly sampled residential supply wells located at 7225 Newcastle Road, 7317 Newcastle Road and 7485 Newcastle Road which have been impacted by VOCs, primarily PCE, TCE, chloromethane, dichlorodifluoromethane, and trichlorofluoromethane associated with the release of waste from the landfill. These supply wells are located adjacent to the CDCR facility where groundwater impacts were identified in 2006. The Discharger has provided residents with the sampling results for their individual supply wells.
14. On 18 July 2017, the Discharger notified Central Valley Water Board staff that the verification sample obtained from the domestic well located at 7317 Newcastle Road confirmed TCE at a concentration of 5.9 µg/l, which exceeded the State and Federal MCL of 5.0 µg/l.
15. On 19 July 2017, Central Valley Water Board staff verbally requested that the Discharger provide the residents at 7317 Newcastle Road with an alternative source of drinking water. The Discharger agreed to do so as a "good faith/good neighbor measure" as a result of the MCL exceedance reported in the residence's domestic supply well.
16. In May 2018, the Discharger sampled the domestic well located at 7443 Newcastle Road. Sampling results indicated the presence of PCE at .30 µg/l, TCE at .61 µg/l and dichlorodifluoromethane at 10 µg/l. No confirmation sampling was conducted due to the presence of VOCs in nearby supply wells.
17. On 11 September 2019, the Discharger sampled the domestic supply well for the residence located at 7833 Newcastle Road. Sampling results indicated VOCs (PCE, TCE and chloroform) in groundwater. The TCE concentration exceeded the State and Federal MCL of 5 ppb. The Discharger subsequently installed a water filtration system at the residence on 14 September 2019. Verification sampling of the influent has since indicated that TCE in groundwater from the supply well ranges from 78 µg/l to 91 µg/l.
18. The Discharger has offered to connect the other residences along Newcastle Road to the city water supply or to install, monitor and maintain residential water filtration systems for each domestic supply well. Several of the residents have elected to have a water filtration system installed at this time. For each residence that has a water filtration system installed, this Order requires the Discharger to prepare an Operation, Maintenance and Sampling Plan.

19. On 20 December 2019, the Discharger submitted a site investigation workplan for the residence located at 7833 Newcastle Road. The workplan proposed groundwater sampling, soil vapor sampling and conducting a human health risk assessment. Central Valley Water Board staff approved the workplan. However, implementation of the workplan is contingent upon the resident's concurrence with the right of entry and site access agreement developed by the Discharger. The Discharger subsequently obtained site access and initiated the workplan on 10 February 2020.
20. On 17 January 2020, the Discharger notified Board staff that, in addition to offering to connect residents to city water supply or to install individual water treatment systems for the residents, Discharger is providing bottled water to all residents on Newcastle Road. Furthermore, the Discharger confirmed that all residences on Newcastle Road along with the CDCR and the San Joaquin County Environmental Health Department had been notified about the existing groundwater contamination.
21. Based on the historical, and recently identified and confirmed detections of VOCs in domestic supply wells along Newcastle Road, and because additional supply wells (domestic and irrigation) located along Newcastle Road may be impacted by the plume, this Order requires the Discharger to provide uninterrupted replacement drinking water (bottled water) to affected residents whose wells contain VOCs above the MCL and long-term replacement water service for residents whose supply wells exceed the MCL for VOCs.
22. Based on the continuing detections of VOCs in groundwater wells (domestic supply, agricultural supply and monitoring wells installed by the Discharger) this Order requires the Discharger to conduct ongoing public outreach for all potentially affected residents along Newcastle Road and for all potentially affected persons living or working within the known VOC plume boundaries.
23. The 2017 CAO requires the Discharger to install and monitor permanent groundwater monitoring devices for the purposes of plume definition. Therefore, this Order requires additional groundwater monitoring wells to be installed between the landfill and the supply wells (domestic and irrigation) west of Newcastle Road to allow for uninterpreted groundwater monitoring and assessment of the effectiveness of the Discharger's Corrective Action Program(s) under Orders R5-2014-0006, R5-2017-0703, and any revisions of them.

BASIS FOR ISSUANCE OF ORDER

24. **Affected Persons:** As stated above, the Discharger has identified 56 known residences within the expanded sensitive receptor survey area surrounding the facility. In addition to the CDCR facility, there are 13 residences located along Newcastle Road North of the landfill and two additional residence on Austin Road. These residences utilize groundwater for domestic and agricultural supply. The designated beneficial uses of groundwater, as specified in the Basin Plan, are domestic and municipal supply, industrial service supply and industrial process supply. For purposes of this Order, "affected persons" means those persons within the known VOC plume boundaries whose domestic supply wells are impacted with VOCs above the MCL.

25. **Discharge of Waste:** The WDRs issued to the facility allow the Discharger to dispose of nonhazardous solid waste including commercial waste, construction and demolition waste, asbestos, dewatered sewage sludge and municipal solid waste. The Discharger also disposes of designated waste which includes coal, wood ash, contaminated soils, salty waste and auto shredder waste. VOCs are often detected in a release from a landfill and are often the primary waste constituents detected in groundwater beneath or downgradient of solid waste landfills.
26. The Discharger has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance. As stated in Finding 2 above, the Austin Road Unit does not contain an engineered liner, or a leachate collection and removal system, both of which are necessary to impede the downward migration of pollution. Additionally, because the Discharger has not yet implemented additional corrective action measures within the plume, as required by the 2017 CAO, the VOC plume continues to migrate uncontrolled and threaten additional supply wells located along Newcastle Road, as well as wells to the east along Austin Road
27. The Discharger's data in their notification of VOC detection in the residence supply well indicates that the on-going release from the landfill has impacted the beneficial uses of the aquifer downgradient of the landfill's POC, as well as impacted the domestic beneficial use of the impacted supply well.

REGULATORY CONSIDERATIONS

28. The Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for all waters of the Basin. The designated beneficial uses of Littlejohns Creek as specified in the Basin Plan, are municipal and domestic supply; agricultural supply; water contact recreation; non-contact water recreation; commercial and sport fishing; warm fresh water habitat; cold freshwater habitat; wildlife habitat; preservation of biological habitats of special significance; migration of aquatic organisms; and spawning, reproduction, and/or early development.
29. The designated beneficial uses of groundwater, as specified in the Basin Plan, are domestic and municipal supply, agricultural supply, industrial service supply, and industrial process supply.
30. Title 27 of the California Code of Regulations (CCR) requires the Discharger to engineer and maintain systems to prohibit waste from being detected outside the waste management unit.
31. Section 20430(b) of Title 27 of the CCR states, "*The Discharger shall take corrective action to achieve the following goals: to remediate releases from the Unit; to ensure that the Discharger achieves compliance with the Water Standard adopted under 20390 for that Unit...*". The WDRs issued to Forward Landfill have set the concentration limit for volatile organic compounds within groundwater at non-detect.

32. The Basin Plan contains numeric water quality objectives for chemical constituents to protect all ground waters of the Sacramento and San Joaquin River Basins, as the objectives are relevant to the protection of designated beneficial uses. The water quality objectives for chemical constituents are derived from primary MCLs established by the Department of Public Health in Title 22 of the CCR.
33. Consistent with the declaration in Assembly Bill 685, approved by Governor Brown on 25 September 2012 and codified in Water Code section 106.3, "every human being has the right to safe, clean, affordable, and accessibly water adequate for human consumption, cooking, and sanitary purposes."
34. Section 13304(a) of the Water Code provides that:

"(a) A person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall, upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner. Upon failure of a person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant."

"(f) Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state, and local drinking water standards, and shall have comparable quality to that pumped by the public water system or private well owner before the discharge of waste.

(g)(1) A public water supplier or private well owner receiving replacement water by reason of an order issued pursuant to subdivision (a), or a person or entity who is ordered to provide replacement water pursuant to subdivision (a), may request nonbinding mediation of all replacement water claims.

(2) If requested, the public water suppliers receiving the replacement water and the persons or entities ordered to provide the replacement water, within 30 days of the submittal of a water replacement plan, shall engage in at least one confidential settlement discussion before a mutually acceptable mediator.

(3) Any agreement between parties regarding replacement water claims resulting from participation in the nonbinding mediation process shall be consistent with the requirements of any cleanup and abatement order.

(4) A regional board or the state board is not required to participate in any nonbinding mediation requested pursuant to paragraph (1).

(5) The party or parties requesting the mediation shall pay for the costs of the mediation.

(h) As part of a cleanup and abatement order that requires the provision of replacement water, a regional board or the state board shall request a water replacement plan from the discharger in cases where replacement water is to be provided for more than 30 days. The water replacement plan is subject to the approval of the regional board or the state board before its implementation.”

(i) A “water replacement plan” means a plan pursuant to which the discharger will provide replacement water in accordance with a cleanup and abatement order.

35. Section 13304(c)(1) of the Water Code provides that:

“If the waste is cleaned up or the effects of the waste are abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by a governmental agency, the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that governmental agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial action. The amount of the costs is recoverable in a civil action by, and paid to, the governmental agency and the state board to the extent of the latter’s contribution to the cleanup costs from the State Water Pollution Cleanup and Abatement Account or other available funds.”

36. Section 13050(l) of the Water Code defines pollution as:

“An alteration of the water quality to a degree that unreasonably affects either beneficial uses or facilities that serve these beneficial uses. Section 13050(m) defines nuisance as “anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal (3) Occurs during, or as a result of, the treatment or disposal of wastes.”

37. Water Code section 13267(b) 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 waste 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 waters 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 report and the benefits to be obtained from the reports. In requiring those 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.”

38. Section 13268 of the Water Code states, in part:

“(a)(1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, failing or refusing to furnish information as required by subdivision (a) or (b) of Section 13267.5, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in accordance with subdivision (b).”

“(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

39. The technical reports required by this Order are necessary to assure compliance with this Order and the WDRs, and to protect the waters of the state. Specifically, this Order requires the Discharger to investigate the extent of groundwater impacts from the landfill, evaluate the potential exposure pathways and risks to anyone utilizing impacted groundwater of who reside, or work in a residence or facility within the known plume boundaries. Existing data and information about the site indicate that waste has been discharged or may continue to be discharged at the property, which is currently owned and operated by the Discharger named in this Order. Finally, this Order requires the Discharger to report the findings to the Regional Board so an evaluation of compliance can be determined.

DISCHARGER LIABILITY

40. VOCs discharged at the site constitute “waste” as defined in Water Code section 13050(d).

41. As described in this Order, existing data and information about the facility indicates that the waste discharged at the site is the source of the VOCs in groundwater. The discharge of waste to groundwater exceeds the water quality objectives for several VOCs, including TCE and PCE in eight domestic supply wells in the vicinity of the Forward Landfill. Additional supply wells are located within approximately 1,500’ of the impacted wells. Exceedance of the water quality objectives constitutes “pollution” as defined in Water Code section 13050.

42. As described in the Findings of this Order, the Discharger is subject to an order pursuant to Water Code section 13304 because the Discharger has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance. The condition of pollution is a priority violation and issuance or adoption of a CAO pursuant to Water Code Section 13304 is appropriate and consistent with policies of the Central Valley Water Board.
43. **Basis for Requiring Replacement Water:** This Order requires the Discharger to provide uninterrupted replacement water supply to affected persons as authorized by Water Code section 13304. This Order requires that the quality of the interim uninterrupted replacement water supply meet federal, state, and local drinking water standards and have comparable quality to that provided prior to the discharge of waste. This level is equal to the federal and state drinking water standards and is lower than the existing VOC concentrations. This requirement is appropriate pursuant to Section 13304. First, alternative water would not be required if the Discharger had not discharged the VOCs. Since the VOC discharge has caused conditions of pollution and nuisance and has adversely affected groundwater beneficial uses, the Discharger is required to provide long term replacement drinking water to affected persons.
44. **California Environmental Quality Act (CEQA) Compliance:** This enforcement action is being taken for the protection of the environment and as such is exempt from the provisions of CEQA (Public Resources Code Section 21000, et seq.) in accordance with Sections 15307 and 15308, Chapter 3, Title 14, California Code of Regulations. The issuance of this Order is also an enforcement action taken by a regulatory agency and is exempt from the provisions of the CEQA, pursuant to Section 15321(a)(2), Title 14, CCR.
45. Any person affected by this action of the Central Valley Water Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Section 13320 of the Water Code and Title 23, CCR, Section 2050 and following. The State Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](#) may be found on the Internet at:

(https://www.waterboards.ca.gov/public_notices/petitions/water_quality/)

or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Sections 13267, 13268 and 13304 of the Water Code, Forward, Inc. and Republic Services, Inc. must abate the effects of the discharge of waste at and near the Forward Landfill. Compliance with this requirement must be achieved in accordance with the following approach and conditions:

1. **WITHIN 90 DAYS** from the issuance of this Order and continuing until this Order is rescinded, Forward, Inc. and Republic Services, Inc., shall submit and implement a

Quarterly Community Public Outreach Plan to ensure that all residents and facility workers at locations that overly the groundwater plume are informed of the items listed below. Public outreach may be conducted through individual or community meetings, distribution of physical and/or electronic media (flyers, newsletters, fact sheets) or any combination thereof. All material must be translated into each resident's native language.

The Central Valley Water Board shall be copied on all correspondence sent to residents pursuant to this Order.

Public outreach topics:

- a. The responsibilities of Forward, Inc. and Republic Services, Inc. associated with the VOC groundwater plume;
 - b. Explanation of groundwater monitoring results;
 - c. Explanation of health risk;
 - d. Explanation of potential exposure pathways;
 - e. Explanation and status of the groundwater remediation system(s) installed by Forward, Inc. and Republic Services, Inc.; and
 - f. Access to all groundwater data in the facility's operating record.
2. Forward, Inc. and Republic Services, Inc. shall provide long-term uninterrupted replacement water¹ to all affected persons as follows:
- a. **LONG-TERM REPLACEMENT WATER – No later than 1 April 2020**, Forward, Inc. and Republic Services, Inc., shall submit for Executive Officer concurrence, a Water Replacement Plan proposal. The Replacement Water Plan proposal must clearly define a long-term solution to identify and develop a new potable water supply for affected residents; include an implementation schedule to fund the supply of water long term; and include a proposed schedule for providing progress reports towards implementation.
 - b. **By 30 April 2020**, Forward, Inc. and Republic Services, Inc. shall submit an operation, maintenance and sampling plan for each individual water filtration system installed at any well impacted by the plume. A copy of the plan shall be provided to the homeowner, as well as uploaded to Geotracker. Forward, Inc. and Republic Services, Inc. shall provide all monitoring and maintenance of the water filtration systems at no charge to the homeowner.

¹ Interim and long-term replacement water shall comply with California Water Code Section 13304(f), which states: "Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state, and local drinking water standards, and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge of waste."

- c. Forward, Inc. and Republic Services, Inc. shall continue to monitor and report the results of all domestic supply well and irrigation wells sampling in accordance with Paragraph 1.B. of Cleanup and Abatement Order R5-2017-0703.
- d. Forward, Inc. and Republic Services, Inc. may not terminate water replacement absent written approval from the Executive Officer.

Groundwater Monitoring and Reporting

- 3. As outlined in Finding 23 of this Order, **no later than 15 April 2020**, Forward, Inc. and Republic Services, Inc. shall submit a *Sentinel Groundwater Monitoring Well Installation Workplan* proposing the installation of groundwater monitoring wells along Newcastle Road in all zones affected by the release VOCs from the landfill. The workplan shall propose the location and depth for each additional groundwater monitoring well and contain a copy of the adjacent domestic well screen interval. If the well log from the domestic well cannot be provided, then all zones affected by the release shall be monitored by individual wells set within each zone.
- 4. By **15 September 2020**, Forward, Inc. and Republic Services, Inc. shall submit the *Sentinel Groundwater Monitoring Well Installation Report* that includes at a minimum from each new monitoring well: the boring logs, the well construction diagrams, the well development logs, the surveyed elevation of the well casing, as well as the initial 5-year constituents of concern sampling as outline in Monitoring and Reporting Program R5-2014-0006 (MRP). After the initial sampling all groundwater monitoring wells shall be sampled in accordance with, or future revisions of the MRP.

Forward, Inc. and Republic Services, Inc. shall obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order. Forward, Inc. and Republic Services, Inc. shall continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished and the release of leachate and landfill gas from the landfill has been controlled to fully comply with this Order and this Order has been rescinded in writing.

In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by Forward, Inc. and Republic Services, Inc. shall contain the professional's signature and/or stamp of the seal.

Each report submitted to the Central Valley Water Board shall be included in the Operating Record maintained by Forward, Inc. and Republic Services, Inc. Furthermore, any person signing a document submitted under 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 knowledge and 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.”

If Forward, Inc. and Republic Services, Inc. fail to comply with the provisions of this Order, the Central Valley Water Board may refer this matter to the Attorney General for judicial enforcement or the Assistant Executive Officer may issue a complaint for administrative civil liability. The Central Valley Water Board reserves the right to take any enforcement actions authorized by law.

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

(https://www.waterboards.ca.gov/public_notices/petitions/water_quality/)

or will be provided upon request.

This Order is effective upon the date of signature.

PATRICK PULUPA, Executive Officer

Date