CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

NORTH COAST REGION

5550 Skylane Boulevard, Suite A

Santa Rosa, California 95403

PUBLIC REVIEW DRAFT

ORDER NO. R1-2027-0002

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF UKIAH CLOSURE AND POST-CLOSURE MAINTENANCE UKIAH SOLID WASTE DISPOSAL SITE WDID No. 1B75043OMEN, Mendocino County

FINDINGS

The California Regional Water Quality Control Board, North Coast Region (North Coast Water Board), finds that:

1. Discharger and Facility. The City of Ukiah (City or Discharger) owns, operates, and maintains the inactive Ukiah Solid Waste Disposal Site (Site), a Class III solid waste disposal site as defined in California Code of Regulations (CCR), title 27, sections 20200 through 20220. The Site is located at 3100 Vichy Springs Road, approximately three miles east of the city of Ukiah in southeastern Mendocino County, in the southeast quarter of Section 10, Township 15 North, Range 12 West, Mount Diablo Base and Meridian, and comprises Mendocino County Assessor's Parcel Number 178-130-010. The Site is identified as WDID No. 1B75043OMEN and GeoTracker Global ID L10008371863.

2. Purpose of this Order. This Order rescinds and replaces Interim Closure Waste Discharge Requirements (WDRs) Order No. R1-2002-0061 and associated Monitoring and Reporting Program (MRP) No. R1-2002-0061, except for enforcement purposes. This Order authorizes and prescribes requirements for final closure construction of the waste management unit (WMU) and establishes requirements for the post-closure maintenance period.

3. Waste Management Unit. The WMU occupies an approximately 40-acre footprint within the 283.5-acre Site and contains approximately 1.04 million tons of nonhazardous solid waste. The Site was operated as a burn dump from 1951 until 1971 and thereafter as a sanitary landfill until September 2001. The waste consists of residential, commercial, industrial, and

construction and demolition waste, together with burn residue and boiler and scrubber ash generated by the Masonite Corporation that historically constituted up to approximately two to three percent of the waste stream that the City ceased accepting after December 31, 1995. Because a release from the WMU has been verified, the WMU remains subject to the monitoring and corrective action requirements of CCR, title 27, chapter 3, subchapter 3, article 1. The Site is located in a canyon setting that drains north to an unnamed ephemeral creek tributary to the Russian River.

4. Permitting History. Initial WDRs were issued in 1975 under Order No. 75-43. Order No. 75-43 was amended by General Order No. 93-83 on September 27, 1993 to implement State Water Resources Control Board (State Water Board) Resolution No. 93-62 and Code of Federal Regulations (CFR), title 40, parts 257 and 258 (Subtitle D). On October 27, 1994, Order No. 94-123 was issued to formally incorporate the General Order and Subtitle D regulations and to address groundwater impacts identified at the Site. On June 27, 2002, Order No. R1-2002-0061 was adopted to address interim closure, corrective action needs, and submittal of plans to complete final cover construction in accordance with CCR, title 27.

5. Closure Documents. Final closure and post-closure maintenance of the Site are described in the following documents prepared by EBA Engineering, each of which is incorporated by reference: the Joint Technical Document (JTD), January 2008; the Final Closure and Postclosure Maintenance Plan (FCPMP), April 2019; and JTD Addendum No. 3, Final Closure Construction Submittal, dated June 19, 2026 (EBA Job No. 02-907A). JTD Addendum No. 3 updates dates and cost information and documents non-substantive design modifications accounting for settlement since 2019 and miscellaneous improvements; it does not alter the primary design components of the approved FCPMP. The design modifications are the addition of condensate line cleanouts at crossings spaced at less than 300 feet, consistent with the 300- to 500-foot working length of hydrojetting equipment and with a line slope that avoids stagnant condensate and scaling; the addition of landfill gas collection strips on the manufacturer's recommendation to increase coverage and gas removal efficiency; and replacement of the water release vent, pressure release valve, and gas collection foot and wellhead details with details developed and tested by the cover system manufacturer.

6. Prior Agency Review of the Closure Plan. EBA Engineering submitted amended Final Closure and Post Closure Maintenance Plans on May 10, 2019, responding to North Coast Water Board staff's technical review of

February 27, 2018 and to agreements reached in project status meetings during 2019. By letter dated February 28, 2020, North Coast Water Board staff advised the Discharger that staff had reviewed the amended plans and concurred that they adequately address the closure and post-closure plan requirements of CCR, title 27, in preparation for permitting considerations. The Mendocino County Environmental Health Division, acting as the Local Enforcement Agency, approved the plans on November 1, 2019. By letter dated January 13, 2021, CalRecycle determined that the April 2019 Final Closure and Post Closure Maintenance Plan for City of Ukiah Landfill, including cost estimates of $10,987,856 for closure and $239,731 for annual post-closure maintenance, was technically adequate under CCR, title 27, and approved the plans. Staff concurrence with the technical adequacy of a closure plan is not approval of that plan by the North Coast Water Board; this Order is the instrument by which the North Coast Water Board approves closure and prescribes requirements for closure construction and post-closure maintenance.

7. Final Cover Design. The approved final cover is an engineered alternative under CCR, title 27, section 20080(b), consisting, in ascending order, of a foundation layer of at least 24 inches compacted to no less than 90 percent of maximum dry density; an engineered alternative low-hydraulic-conductivity layer of 50-mil linear low-density polyethylene (LLDPE) Super Gripnet® geomembrane; and an engineered alternative erosion-resistant layer of ClosureTurf™ engineered turf with sand infill ballast. Final side slopes range from 2:1 to 3:1 (horizontal to vertical). The Discharger has demonstrated that this design provides protection equivalent to the prescriptive standard of CCR, title 27, section 21090(a) throughout the post-closure maintenance period.

8. Landfill Gas Collection and Control. A perimeter landfill gas (LFG) extraction system consisting of 17 vertical extraction wells was installed in 1997 in response to subsurface gas migration identified in 1994 at the southern perimeter of the Site. The extraction wells are located along the western half of the southern boundary of the Site, between the waste footprint and the southern property line, and are connected to a manifold and a vacuum blower at the western toe of the WMU. All perimeter landfill gas extraction wells and monitoring probes are located on the Site parcel. Perimeter monitoring point GAS-4 is adjacent to the Guidiville Rancheria trust parcel. Closure construction includes a full-scale active LFG collection and control system encompassing the entire WMU, together with a flare, as described in JTD Addendum No. 3, Attachment 8 (FCPMP

Appendix G, April 2026 Updated Design Plan for Landfill Gas Collection and Control System).

9. Leachate Management. The WMU is not equipped with a blanket leachate collection and removal system. Leachate is collected by a series of polyvinyl chloride piping and French drain systems installed to intercept seeps along the WMU slope faces, conveyed by gravity to a buried pipeline along the northern toe, and discharged to leachate management facilities at the western toe consisting of a sediment chamber, a leachate wet well, a 63,500-gallon aboveground storage tank, and a pump lift station. Collected leachate is pumped via force main to a sewer connection on Vichy Springs Road for treatment at the City of Ukiah Wastewater Treatment Plant under National Pollutant Discharge Elimination System Permit No. CA0022888 (Order No. R1-2024-0016).

10. Hydrogeology. First-encountered groundwater occurs within Quaternary alluvial deposits concentrated in the ephemeral creek bed along the northern WMU boundary, and within underlying continental basin deposits. Groundwater flow in the alluvial deposits is generally westerly down the creek axis at a gradient of approximately 0.02 foot per foot. Flow within the continental basin deposits converges toward the creek from both flanks before turning westerly down the canyon axis. Artesian conditions are present at monitoring well 92-2. Additional detail is set forth in Attachment G.

11. Release and Corrective Action. A release of waste constituents from the WMU to groundwater was verified in 1988. In January 1996 an engineering feasibility study concluded that a “Limited Action” alternative, consisting of an upgraded groundwater monitoring network and a health-based risk assessment, represented the most feasible corrective action alternative; that alternative was approved by the North Coast Water Board. Subsequent corrective action measures include installation of the leachate management system in 1996, installation of the perimeter LFG extraction system in 1997, and removal of the unlined leachate ponds from service. Construction of the final cover and operation of the full-scale LFG collection and control system required by this Order constitute additional corrective action measures, by reducing infiltration and leachate generation and by removing vapor-phase volatile organic compounds that could otherwise partition to groundwater. The corrective action history is set forth in Attachment G.

12. Landfill Gas Regulatory Oversight. Landfill gas at the Site is regulated by other agencies under two programs. Perimeter landfill gas monitoring is conducted quarterly at monitoring points GAS-1 through GAS-10 pursuant

to CCR, title 27, sections 20921 and 20933 and the Solid Waste Facility Permit issued by the Mendocino County Local Enforcement Agency (LEA) and the California Department of Resources Recycling and Recovery (CalRecycle), which are the lead agencies for that program. Methane emissions from the landfill surface and the performance of the gas collection and control system are regulated by the California Air Resources Board under the Landfill Methane Regulation, CCR, title 17, sections 95460 through 95476, and by the Mendocino County Air Quality Management District. The North Coast Water Board receives copies of the quarterly landfill gas monitoring reports. Based on the groundwater monitoring record for the Site, the North Coast Water Board finds that landfill gas does not presently constitute a source of impacts to water quality at this Site. Accordingly, the MRP attached to this Order imposes no separate or additional landfill gas monitoring requirements. It carries forward the requirement of MRP No. R1-2002-0061 that the Discharger conduct quarterly landfill gas monitoring and submit quarterly monitoring reports for all landfill gas probes (GAS-1 through GAS-10) monitored in accordance with the Solid Waste Facility Permit, and adds only annual reporting of the results to the North Coast Water Board. The reporting is necessary to track landfill gas monitoring results after converting the landfill cover from a soil layer to a low permeability liner.

13. Monitoring Program. Monitoring and Reporting Program No. R1-2027-0002, attached to and made part of this Order, establishes the groundwater, surface water, leachate, and landfill gas monitoring and reporting requirements for the Site, and supersedes MRP No. R1-2002-0061 upon the effective date of this Order.

14. Post-Closure Maintenance Period. The post-closure maintenance period begins upon Executive Officer approval of the certification of closure and continues for a minimum of 30 years pursuant to CFR, title 40, section 258.61(a), and for as long as the waste poses a threat to water quality pursuant to CCR, title 27, section 20950(a)(1) and CFR, title 40, section 258.61(b)(2).

15. Financial Assurance — Closure and Post-Closure Maintenance. On January 19, 1994, the City Council adopted Resolution No. 94-33, establishing an Enterprise Fund for the Ukiah Solid Waste Disposal Site (Facility Permit No. 23-AA-0019) and directing the Finance Director to deposit funds into a separate City of Ukiah Solid Waste Facility Closure/Postclosure Maintenance Fund, to be retained by the City Treasurer and held inviolate against all other claims. Clerical corrections to the resolution were approved by minute order on March 16, 1994. The California Integrated Waste Management Board, predecessor to

CalRecycle, approved the Enterprise Fund in April 1994 as meeting the requirements of CCR, title 14, section 18285. For post-closure maintenance, the City and the Integrated Waste Management Board executed a Pledge of Revenue Agreement in 1995 pledging net revenues from garbage collection fees deposited to the City's Garbage Billing and Collection Fund (Fund No. 670), in the amount of $75,160 per year over the 30-year post-closure maintenance period, subject to adjustment to match the current cost estimate as mutually agreed. The Integrated Waste Management Board approved that agreement in 1995 as meeting the requirements of CCR, title 14, section 18290.

16. Financial Assurance — Cost Estimates. The FCPMP, as amended by JTD Addendum No. 3, is the operative document providing for closure and post-closure maintenance of the WMU for the entire post-closure maintenance period of at least 30 years, and until it is demonstrated that the Site no longer poses a threat to water quality, public health, or the environment (CCR, title 27, sections 20950(a)(1) and 21180(a)). The plan includes cost estimates for closure (CCR, title 27, sections 21820 and 22206), post-closure maintenance (sections 22210 through 22212), and corrective action for reasonably foreseeable releases (sections 22220 through 22222). As of the date of this Order those estimates, calculated in accordance with CCR, title 27, are specified in Table 1. The non-water release corrective action plan and cost estimate, submitted as JTD Addendum No. 3, Attachment 15 (JTD Appendix Q), dated June 15, 2026 and prepared by Lawrence & Associates, evaluates the causal events required by CCR, title 27, section 22100(c)(2) and identifies three reasonably foreseeable scenarios: precipitation damage from a 1,000-year, 24-hour storm at $548,091; wildland fire at $392,018; and subsurface fire at $276,865. Earthquake, flood, tsunami, and seiche were determined not to be reasonably foreseeable causal events. Because it is not reasonable to assume the scenarios would occur concurrently, funding is based on the single scenario with the highest cost. Pursuant to CCR, title 27, section 22221, the required corrective action coverage is the greater of the water release estimate of $379,210 and the non-water release estimate of $548,091, and is therefore $548,091.

Table 1. Current Cost Estimates (Financial Assurances)

Requirement	**Estimated Cost**
Closure (including 20 percent contingency)	$21,136,385
Post-closure maintenance, annual	$299,336
Post-closure maintenance, 30-year total	$8,980,072
Corrective action (governing estimate)	$548,091

17. Financial Assurance — Basis and Adequacy of the Current Estimates. CalRecycle approved closure and annual post-closure maintenance cost estimates of $10,987,856 and $239,731 respectively on January 13, 2021, based on the April 2019 FCPMP. The closure estimate increased principally because of additional ballast rock, reconfiguration of the landfill gas collection and control system with additional extraction wells, burial of conveyance piping, industry-wide increases in construction prices, and a change in estimating approach from in-house figures to an independent cost estimator informed by bids received for closure of the South Coast Landfill. The post-closure maintenance estimate increased principally because of expanded scope, surface emissions monitoring required under the revised Landfill Methane Regulation, and increases in laboratory fees and labor rates; the 2019 annual figure of $239,731 adjusted for inflation to 2026 dollars is $298,845, which closely approximates the current annual figure of $299,336. The Discharger confirmed in writing on November 17, 2026 that both the April 2019 and the June 2026 post-closure maintenance cost estimates include the cost of purchase and installation of a complete replacement of the geomembrane component of the final cover, normalized over the 30-year post-closure maintenance period, and that the funding increase agreed on October 11, 2018 was therefore incorporated in the April 2019 estimate and carried forward. The Enterprise Fund and Pledge of Revenue Agreement described in Finding 15 were established under CCR, title 14, division 7, chapter 5, article 3.5 and provide financial assurance for closure and post-closure maintenance only. CCR, title 27, sections 20380(b) and 22220 through 22222 separately require the Discharger to obtain and maintain assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases, naming the North Coast Water Board as beneficiary where CalRecycle does not require corrective action financial assurance. Establishment of a corrective action financial assurance mechanism was identified as an outstanding item in North Coast Water Board staff's letter of February 28, 2020 and remains

outstanding. Section F of this Order requires the Discharger to maintain financial assurances with CalRecycle in at least the amounts specified in Table 1 and to establish the corrective action mechanism.

18. Threat to Water Quality and Complexity Rating. The Site is assigned a threat to water quality and complexity rating of 2A pursuant to CCR, title 23, section 2200, on which annual fees are based. North Coast Water Board staff re-evaluated the rating in connection with this Order and determined that no change is warranted. The Site remains in corrective action and a detectable release remains present, so a threat to water quality category of 3 is not available; the constituents that defined the release have been non-detect since 2009 and the leachate management system and landfill gas extraction system have operated effectively, so a category of 1 is not warranted. Two water-bearing units are at risk and both are monitored, which supports a complexity category of A. Completion of final closure construction, including the final cover and the full-scale landfill gas collection and control system, will reinforce the basis for the existing rating rather than change it. Staff will re-evaluate the rating upon Executive Officer approval of the certification of closure.

19. Basin Plan. As required by Water Code section 13263(a), this Order implements the Water Quality Control Plan for the North Coast Region (Basin Plan), taking into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241. Designated beneficial uses of the affected groundwater and surface water are set forth in Attachment G.

20. Antidegradation. This Order is consistent with State Water Board Resolution No. 68-16. Closure construction and operation of the landfill gas collection and control system will substantially reduce leachate generation and remove landfill gas, both of which represent potential sources of future groundwater impacts. The requirements of this Order constitute best practicable treatment or control of the discharge. The antidegradation analysis is set forth in Attachment G.

21. California Environmental Quality Act. The City certified an Environmental Impact Report in March 2020 and adopted a corresponding CEQA determination on August 5, 2020. A Petition for Writ of Mandate challenging the determination was filed September 8, 2020; the Superior Court of California, County of Mendocino issued a Final Statement of Decision denying the petition on April 14, 2023; and the Court of Appeal, First Appellate District, denied the appeal on December 20, 2024. The North Coast Water Board has considered the CEQA documentation and

the judicial decisions and has determined that the project will not result in a significant effect on the environment.

22. Human Right to Water and Community Considerations. This Order implements Water Code section 106.3 and North Coast Water Board Resolution Nos. R1-2019-0024 and R1-2022-0040 by requiring containment of waste, ongoing monitoring, and corrective action to protect groundwater and surface water resources that serve surrounding communities. Groundwater in the vicinity of the Site provides domestic and agricultural water supply. Pursuant to Water Code section 13149.2, the North Coast Water Board reviewed readily available information concerning anticipated water quality impacts in disadvantaged and tribal communities. One disadvantaged community census block group and one severely disadvantaged community census block group are located within one mile of the Site. Tribal trust land held for the Guidiville Rancheria of California, approximately 43.51 acres, abuts the southwestern portion of the Site's southern property boundary. A small residential community is located on the southern portion of the trust parcel near Vichy Springs Road, approximately 2,000 feet from the shared boundary. The trust parcel is not downgradient of the WMU: groundwater beneath the WMU flows northwesterly, away from the shared boundary, and the trust parcel drains toward Sulphur Creek rather than toward the unnamed ephemeral creek that receives runoff from the Site. The North Coast Water Board provided notification and an offer of government-to-government consultation to the Guidiville Rancheria pursuant to Water Code section 189.7 by letter to the Chairperson dated September 23, 2026, followed by email to the Tribal Administrator on October 20, 2026. North Coast Water Board staff met with the Tribal Council and the Tribe's Environmental Protection Agency Director on October 27, 2026, and the Tribe requested formal consultation on this Order and the attached Monitoring and Reporting Program. Additional findings are set forth in Attachment G.

23. Additional Findings. The additional findings set forth in Attachment G describe the site history, hydrogeologic setting, waste characterization, corrective action history, regulatory framework, and technical rationale that serve as the basis for the requirements of this Order, and are incorporated by reference herein.

24. Agency Coordination. The North Coast Water Board, CalRecycle, and the Mendocino County Environmental Health Division acting as Local Enforcement Agency jointly regulate the Site pursuant to CCR, title 27. The California Air Resources Board, under the Landfill Methane Regulation, and the Mendocino County Air Quality Management District regulate landfill gas emissions and surface methane. North Coast Water

Board staff has coordinated with these agencies, and with the California Department of Fish and Wildlife and the State Water Board Land Disposal Program, throughout review of the closure plans, and will continue to coordinate on permitting, inspection, construction, closure, post-closure maintenance, and financial assurance.

25. Notice and Hearing. On [DATE], the North Coast Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for this discharge and provided an opportunity to submit written comments and recommendations. On [DATE], in a public meeting, the North Coast Water Board heard and considered all comments pertaining to this facility and discharge.

26. Petition Rights. Any person aggrieved by this action of the North Coast Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day falls on a Saturday, Sunday, or state holiday, the petition must be received by 5:00 p.m. on the next business day.

IT IS HEREBY ORDERED that Order No. R1-2002-0061 and Monitoring and Reporting Program No. R1-2002-0061 are terminated, except for enforcement purposes, and that the Discharger, its agents, successors, and assignees, in order to meet the provisions of division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. COMPLIANCE WITH OTHER REGULATIONS

A.1. Closure, post-closure maintenance, and long-term monitoring must comply with all applicable requirements of CCR, title 27, section 20005 et seq. and CFR, title 40, part 258.

A.2. This Order does not replace or supersede the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit) or the Statewide General NPDES Permit for Discharges of Storm Water Associated with Construction Activities (Construction General Permit). Coverage for the Site under the Industrial General Permit, WDID 1 23I001656, was terminated effective July 2, 2015 by a Notice of Termination (NOT ID 528606) approved by the North Coast Water Board on July 30, 2015. The Discharger is responsible for obtaining and complying with all required storm water permits, including enrollment under the Construction General Permit and development and implementation of a Construction Storm Water Pollution Prevention Plan where applicable.

A.3. Storm water reporting required by this Order and the attached MRP is for the purpose of assessing closure and post-closure management and compliance with this Order, and is not for the purpose of determining compliance with the Construction General Permit or the Industrial General Permit.

A.4. Prior to any construction, the Discharger must obtain all permits required under federal, state, or local law. This Order does not authorize violation of any federal, state, or local law or regulation.

B. PROHIBITIONS

B.1. The discharge of any waste not specifically regulated by this Order is prohibited. No further waste of any kind shall be accepted by, or discharged to, the WMU.

B.2. The discharge of waste, including solids, liquids, leachate, or landfill gas, to surface water, surface water drainage courses, the unsaturated zone, or groundwater is prohibited. Water may be discharged in amounts reasonably necessary for dust control, compaction, fire control, and establishment and maintenance of vegetation.

B.3. The discharge of synthetic materials and sand infill ballast associated with the ClosureTurf™ cover system to surface water or surface water drainage systems is prohibited.

B.4. The discharge of waste to areas outside the constructed and capped waste footprint boundary, as certified and approved by the Executive Officer, is prohibited.

B.5. The discharge of hazardous waste and designated waste, as those terms are defined in CCR, title 27, at this facility is prohibited.

B.6. The discharge of leachate from the WMU or the leachate management system to receiving waters is prohibited.

B.7. The discharge of waste to ponded water from any source is prohibited. Ponding of liquids, including rainfall runoff and leachate, over the WMU is prohibited.

B.8. The discharge of waste to surface waters or within 50 feet of surface waters is prohibited.

B.9. The discharge of landfill wastes, including impacted groundwater, to a storm water sedimentation basin is prohibited.

B.10. Wastes within the WMU, and post-closure operations at the Site, shall not result in degradation of groundwater or surface water quality or otherwise

create or threaten to create conditions of pollution, contamination, or nuisance as defined in Water Code section 13050.

B.11. The Discharger shall not cause the concentration of any constituent of concern or monitoring parameter to exceed its respective concentration limit in any monitored medium, as established in the attached MRP.

C. CLOSURE CONSTRUCTION REQUIREMENTS

C.1. Closure construction shall be performed in accordance with the FCPMP, JTD Addendum No. 3, the Construction Quality Assurance (CQA) Plan, and the applicable provisions of CCR, title 27 and CFR, title 40, part 258.

C.2. The WMU shall receive a final cover consisting of at least 24 inches of compacted foundation material, overlain by an engineered alternative low-hydraulic-conductivity layer of 50-mil LLDPE Super Gripnet® geomembrane, overlain by an engineered alternative erosion-resistant layer of ClosureTurf™ engineered turf with sand infill ballast. The geomembrane and engineered turf components are approved as engineered alternatives pursuant to CCR, title 27, section 20080(b); the performance criterion for each component is the equivalency demonstration accepted in the approved closure design, rather than the hydraulic conductivity value prescribed for the soil layers those components replace. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the final cover meet the performance requirements of the approved design.

C.3. All WMU containment structures and erosion and drainage control systems shall be designed and constructed under the direction of a California registered civil engineer or certified engineering geologist and certified by that individual as meeting the prescriptive standards and performance goals of CCR, title 27. All containment structures shall meet the criteria of CCR, title 27, section 20320.

C.4. Construction quality assurance for closure construction shall be provided by a third-party independent consulting firm, and not by the firm that prepared the closure design. This requirement reflects the agreement reached between the Discharger and North Coast Water Board staff in project status meetings during May, June, and August 2019 and confirmed in North Coast Water Board staff's letter of February 28, 2020. The Discharger shall notify the North Coast Water Board of the identity and qualifications of the CQA consulting firm and the designated CQA Certifying Engineer, and shall submit the Final CQA Plan for Executive Officer review, no later than 60 days prior to the start of closure

construction. The CQA Certifying Engineer shall be a California registered civil engineer or certified engineering geologist.

C.5. Materials used for final cover construction shall have appropriate physical and chemical properties to ensure containment of wastes throughout the closure and post-closure maintenance period, and shall be designed and constructed to function with a minimum of maintenance.

C.6. The closed WMU shall be graded to at least a three percent grade to prevent ponding and infiltration. All areas subject to erosion by wind or water shall be designed and constructed to prevent such erosion.

C.7. Precipitation and drainage control systems shall be designed and constructed to limit, to the greatest extent possible, ponding, inundation, erosion, slope failure, washout, and overtopping under 100-year, 24-hour precipitation conditions. Drainage ditches shall be located, to the maximum extent practicable, so that they do not cross over the WMU. Drainage conveyed over the WMU shall be contained in engineered conveyance structures or in ditches, swales, or channels lined with at least one foot of compacted soil having an in-place hydraulic conductivity of 1x10-6 cm/sec or less, or an engineered alternative providing equivalent or better protection from infiltration.

C.8. A sufficient number of permanent survey monuments, and not fewer than two, shall be installed at the time of closure by a California licensed land surveyor or registered civil engineer, from which the location and elevation of all wastes, containment structures, and monitoring facilities can be determined throughout the post-closure maintenance period.

C.9. During closure construction and during any period of repair to waste containment, drainage, or monitoring facilities, legible copies of daily CQA field notes and summary reports shall be submitted to the North Coast Water Board at NorthCoast@waterboards.ca.gov in Portable Document Format, addressed to the Land Disposal Program and identifying the assigned staff person.

C.10. A Final Closure Certification Report prepared and certified by the third-party CQA Certifying Engineer identified under Section C.4 shall be submitted under penalty of perjury to the North Coast Water Board and other appropriate agencies in accordance with CCR, title 27, sections 20324(c), 20324(d), and 21880, within 90 days of completion of closure construction. The report shall include, at a minimum, the certificate of closure; daily summary reports; material acceptance reports; final CQA documentation; laboratory testing results; field testing results; and an as-built topographic map of the capped area at a scale of one inch to 100 feet

with a contour interval of one foot. The as-built topographic map shall serve as the baseline for subsequent iso-settlement surveys.

C.11. The post-closure maintenance period begins upon Executive Officer approval of the certification of closure.

D. POST-CLOSURE MAINTENANCE REQUIREMENTS

D.1. Throughout the post-closure maintenance period, the Discharger shall, pursuant to CCR, title 27, section 21090(c):

a. Maintain the structural integrity and effectiveness of all containment structures, and maintain the final cover as necessary to correct the effects of settlement, ultraviolet degradation, or other adverse factors;

b. Continue to operate and maintain the leachate management system for as long as leachate is generated and detected;

c. Continue to operate and maintain the active landfill gas collection and control system for as long as landfill gas is generated and detected;

d. Maintain all monitoring systems and monitor groundwater, surface water, leachate, and landfill gas in accordance with the attached MRP and CCR, title 27, section 20380 et seq.;

e. Prevent erosion and related damage to the final cover, including adverse sand ballast migration or loss; and

f. Protect and maintain surveyed monuments installed pursuant to Section C.8.

D.2. The closed WMU shall be maintained with at least a three percent grade and maintained to prevent ponding and infiltration.

D.3. Final Cover Leak Search, Inspection, and Repair. Pursuant to CCR, title 27, section 21090(a)(4), the Discharger shall:

a. Periodically test the completed final cover for damage or defects by monitoring surface emissions in accordance with CCR, title 17, section 95471(c). Surface emissions monitoring performed under the Landfill Methane Regulation satisfies the periodic leak search required by CCR, title 27, section 21090(a)(4)(A);

b. Inspect the final cover, drainage control facilities, and sand infill ballast distribution at the frequencies required by Part I, Section E

of the attached MRP, which satisfies the periodic inspection required by CCR, title 27, section 21090(a)(4)(B);

c. Repair each defect identified under subdivision a or b of this provision and test each repair for adequacy in accordance with the construction quality assurance procedures of the closure CQA Plan, pursuant to CCR, title 27, section 21090(a)(4)(C). Sand infill ballast shall be replenished and the final cover repaired in accordance with Section 3.5.1 of the Final Closure and Postclosure Maintenance Plan; and

d. Report the location of each defect, the repair performed, the date of repair, and the result of the retest confirming adequacy of the repair, in the Annual Report required by Part IV, Section C of the attached MRP.

D.4. All post-closure maintenance and repairs to containment structures and erosion and drainage control systems shall be designed and constructed under the direction of a California registered civil engineer or certified engineering geologist and certified by that individual as meeting the prescriptive standards and performance goals of CCR, title 27. Repairs to the low-hydraulic-conductivity layer shall be conducted in accordance with an approved CQA Plan. CQA information and as-built drawings shall be submitted to the North Coast Water Board within 90 days of completion of any phase of reconstruction or repair.

D.5. The leachate management system shall be operated to ensure that leachate and condensate discharged to the leachate wet well are properly diverted to the aboveground storage tank or the leachate overflow underground storage tank. All leachate generated and collected at the Site shall be disposed of at a legal place of disposal.

D.6. Materials used to construct or repair leachate management system components shall have appropriate physical and chemical properties to ensure transmission of leachate through the system over the post-closure maintenance period, and sufficient strength and thickness to prevent collapse under anticipated loads.

D.7. The leachate management system shall be fully inspected annually and integrity tested as needed in accordance with the applicable provisions of CCR, title 27. Inspection and testing results shall be submitted with the Annual Report and shall include a complete report of findings, including a statement as to the presence or absence of leachate.

D.8. Best management practices shall be employed to maintain the capacity of storm water retention facilities. In accordance with CCR, title 27, section

20365, the Discharger shall periodically remove accumulated sediment from storm water retention facilities and manage those facilities to maintain their capacity.

D.9. By October 1 of each year, the Discharger shall complete all necessary erosion control measures and all necessary construction, maintenance, or repairs of precipitation and drainage control facilities to prevent erosion or flooding and to prevent surface drainage from contacting or percolating through waste. All disturbed areas not covered by ClosureTurf™ shall be stabilized to minimize erosion and sedimentation.

D.10. No later than 24 hours prior to a likely rain event, the Discharger shall ensure that erosion controls are functional and effective for all areas that have not been stabilized. A likely rain event is any weather pattern forecast to have a 50 percent or greater probability of producing a 0.5-inch precipitation event in the Site area.

D.11. The Discharger shall maintain an Emergency Response Plan as required by CCR, title 27, section 21860, and shall comply with that plan in the event of any accidental spill or incident pursuant to CCR, title 27, section 21132.

D.12. Post-closure land use shall be limited to the uses described in the approved FCPMP. The Discharger shall notify the North Coast Water Board of any planned physical alteration or addition to the closed WMU, or any planned change in post-closure land use, at least 60 days before initiating the activity. No alteration, addition, or change in land use shall be implemented without prior written approval of the Executive Officer.

D.13. Within 60 days after completion of final closure, the Discharger shall provide proof to the North Coast Water Board that the deed to the Site property, or another instrument normally examined during a title search, has been modified to include in perpetuity a notation stating: (a) the parcel has been used as a municipal solid waste landfill; (b) the date closure was completed; (c) the boundaries, including heights and depths, of the filled area; (d) the location where the FCPMP may be obtained; (e) that land use is restricted in accordance with the post-closure land uses set forth in the FCPMP and this Order; and (f) that in the event the Discharger defaults on carrying out the post-closure maintenance plan or any corrective action needed to address a release, responsibility for that work falls to the property owner.

E. WATER QUALITY PROTECTION STANDARDS

E.1. The discharge of waste must be contained within the WMU to prevent degradation of waters of the state pursuant to CCR, title 27, section 20310(c).

E.2. Pursuant to CCR, title 27, section 20405, the point of compliance is the vertical surface located at the hydraulically downgradient limit of the WMU that extends through the alluvial deposit and continental basin deposit water-bearing units underlying the WMU. Point of compliance monitoring wells, monitoring points, constituents of concern, and concentration limits are established in the attached MRP.

E.3. The discharge of waste shall not cause a measurably significant increase in the concentration of any constituent of concern or monitoring parameter over background or its established concentration limit at the point of compliance. Concentration limits for naturally occurring constituents shall be established statistically as provided in the attached MRP. Concentration limits for constituents that are not naturally occurring shall be set at the method detection limit.

E.4. The Discharger shall update concentration limits throughout the post-closure maintenance period in accordance with the attached MRP and CCR, title 27, section 20390 et seq.

E.5. The discharge of waste shall neither cause nor contribute to surface water degradation, including floating, suspended, or macroscopic particulate matter or foam; increases in bottom deposits or aquatic growth; adverse change in temperature, turbidity, or apparent color beyond natural background levels; visible floating or suspended oil or other products of petroleum origin; or the introduction or increase in concentration of toxic or other pollutants resulting in unreasonable impairment of beneficial uses.

E.6. The discharge of waste shall not cause concentrations of organic chemicals, synthetic organic chemicals, inorganic constituents, or radionuclides in groundwater to exceed federal maximum contaminant levels, the State Water Board Division of Drinking Water's recommended action levels, or maximum contaminant levels established in CCR, title 22, sections 64431 and 64444. This requirement applies to constituents attributable to the discharge of waste from the WMU and does not apply to constituents present at naturally occurring background concentrations, as described in Attachment G, Section F.

E.7. If the Discharger or the Executive Officer determines, pursuant to CCR, title 27, section 20420, that there is measurably significant evidence of a release from the WMU, the Discharger shall immediately implement the

notification, verification, and response procedures set forth in the attached MRP and in CCR, title 27, sections 20420, 20425, and 20430. If a release is confirmed, the Discharger shall submit for Executive Officer approval a corrective action program meeting the requirements of CCR, title 27, section 20430, including a proposed scope of action, schedule, and performance monitoring to demonstrate effectiveness.

E.8. The compliance period is the number of years equal to the active life of the WMU plus the closure period, pursuant to CCR, title 27, section 20410, and begins anew each time the Discharger initiates an evaluation monitoring program pursuant to CCR, title 27, section 20425. If the Discharger is engaged in a corrective action program at the scheduled end of the compliance period, the compliance period is extended until the WMU has been in continuous compliance with the water quality protection standard for three consecutive years pursuant to CCR, title 27, section 20410(c).

F. PROVISIONS

F.1. A copy of this Order and the attached MRP shall be maintained at the City of Ukiah Department of Public Works office, 300 Seminary Avenue, Ukiah, and shall be available at all times to operating personnel and contractors working at the Site. Key operating personnel shall be familiar with its contents. The Discharger shall provide a copy of this Order to all contractors and subcontractors conducting work at the Site.

F.2. The Discharger shall comply with this Order and the attached MRP. A violation of the MRP is a violation of this Order. The Discharger shall further comply with all applicable provisions of CCR, title 27 not specifically referred to in this Order.

F.3. The Discharger may file a written request, with supporting documentation, with the Executive Officer proposing modifications to Monitoring and Reporting Program No. R1-2027-0002. The Discharger shall implement any changes upon receipt of a signed revised MRP from the Executive Officer. Modification of the MRP does not require amendment of this Order.

F.4. The Discharger shall maintain with CalRecycle assurances of financial responsibility for closure, post-closure maintenance, and corrective action in at least the amounts specified for each category in Table 1, adjusted annually for inflation, in accordance with CCR, title 27, sections 20380(b), 20950(f), 22207(a), 22210, 22211, 22212, 22220, 22221, and 22222, and CFR, title 40, part 258, subpart G. The Discharger shall establish and maintain an irrevocable fund for closure and post-closure maintenance

sufficient to ensure closure and post-closure maintenance of the WMU in accordance with the approved FCPMP. Pursuant to CCR, title 27, section 22221, the amount of required corrective action coverage is the greater of the water release and non-water release corrective action estimates. If CalRecycle determines that the financial assurances maintained for the Site are inadequate, the Discharger shall, within 90 days of that determination, obtain a new financial assurance mechanism in the amount specified by CalRecycle and submit a report documenting that mechanism to CalRecycle and the North Coast Water Board.

F.5. Within 180 days of the effective date of this Order, the Discharger shall submit for Executive Officer review and approval documentation establishing a financial assurance mechanism for corrective action in at least the amount of the approved corrective action cost estimate, in accordance with CCR, title 27, sections 22220 through 22222 and section 22228. The Enterprise Fund established by City Council Resolution No. 94-33 and the 1995 Pledge of Revenue Agreement provide financial assurance for closure and post-closure maintenance only and do not satisfy this requirement.

F.6. No later than June 1 of each year, the Discharger shall submit to the North Coast Water Board a report regarding financial assurances, or a copy of the financial assurances report submitted to CalRecycle for the same period. The report shall confirm that the amount pledged under the 1995 Pledge of Revenue Agreement, or any successor mechanism, is at least equal to the annual post-closure maintenance cost estimate then in effect, and shall state the current balance of the City of Ukiah Solid Waste Facility Closure/Postclosure Maintenance Fund, consistent with paragraph 8 of City Council Resolution No. 94-33.

F.7. The Discharger shall update approved closure, post-closure maintenance, and corrective action cost estimates annually to account for inflation, in accordance with CCR, title 27, section 22236. The post-closure maintenance cost estimate shall include the cost of purchase and installation of a complete replacement of the 50-mil geomembrane component of the final cover, normalized over the 30-year post-closure maintenance period. Documentation of the updated estimates and demonstration of an acceptable financial assurance mechanism under CCR, title 27, section 22228 shall be submitted with the Annual Report. Whenever changed conditions increase the estimated cost of closure, post-closure maintenance, or corrective action, the Discharger shall promptly submit an updated FCPMP to the North Coast Water Board, CalRecycle, and the Local Enforcement Agency.

F.8. Every five years following closure, the Discharger shall submit updated post-closure maintenance and corrective action cost estimates with the Annual Report. The Discharger shall demonstrate to CalRecycle and report to the North Coast Water Board that it has established an acceptable financial assurance mechanism in at least the amount of the cost estimate approved by the Executive Officer. The Executive Officer may delete the requirement to submit updated cost estimates, other than inflation adjustments, upon finding that further corrective action is unlikely and that post-closure costs are likely to remain constant.

F.9. In the event the North Coast Water Board determines that the Discharger has failed to pay or is failing to perform corrective action as required by law, the North Coast Water Board may request that CalRecycle direct the Discharger to pay from the pledged revenue or corrective action fund such amounts as are necessary to ensure sufficient corrective action.

F.10. The Discharger shall provide North Coast Water Board staff a minimum of one week notification prior to commencing any field activities related to the installation, repair, or abandonment of monitoring devices, and a minimum of 48 hours notification prior to the collection of samples associated with a detection monitoring program, evaluation monitoring program, or corrective action program.

F.11. The Discharger and persons employed by the Discharger shall comply with all notice and reporting requirements of the Department of Water Resources with regard to the construction, alteration, destruction, or abandonment of monitoring wells, pursuant to Water Code sections 13750 through 13755.

F.12. The Discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with this Order.

F.13. The Discharger shall permit authorized staff of the State Water Board and the North Coast Water Board, upon presentation of credentials, to enter the premises; to access and copy records kept under the conditions of this Order; to inspect any facilities, equipment, practices, or operations regulated by this Order; and to sample or monitor any substances or parameters at locations regulated by this Order.

F.14. The Discharger shall promptly report to the North Coast Water Board any material change in the character, location, or volume of the discharge.

F.15. In the event of any change in control or ownership of the Site, the Discharger shall notify the succeeding owner or operator of the existence of this Order and the status of the Discharger's annual fee account by

letter, a copy of which shall be forwarded to the North Coast Water Board at least 30 days before the effective date of the change.

F.16. The Discharger has the continuing responsibility to ensure protection of waters of the state from discharged waste, including leachate, generated during the post-closure maintenance period and during subsequent use of the property for other purposes. In the event the Discharger defaults on carrying out the post-closure maintenance plan or any corrective action needed to address a release, responsibility for carrying out such work falls to the property owner.

F.17. The Discharger shall continue to monitor the waste footprint and all underlying media in accordance with the attached MRP throughout the post-closure maintenance period, and shall continue to do so until the North Coast Water Board determines that the waste remaining at the Site no longer poses a threat to water quality.

F.18. Should additional data become available through monitoring or investigation indicating that compliance with this Order is not adequately protective of water quality, the North Coast Water Board will review and revise this Order as appropriate.

F.19. The attached MRP will be updated for per- and polyfluoroalkyl substances (PFAS) monitoring and reporting upon adoption of the PFAS general order for closed municipal solid waste landfill sites currently under development by the North Coast Water Board.

F.20. Authorization under this Order is conditioned upon payment of annual fees as required and when due, pursuant to Water Code section 13260.

F.21. The Discharger shall not commence closure construction until each of the following has occurred:

a. The closure and post-closure maintenance plan has been approved as required by CCR, title 27, section 21870(b);

b. The Discharger has demonstrated to CalRecycle, and has provided the North Coast Water Board with CalRecycle's written confirmation, that assurances of financial responsibility for closure and post-closure maintenance are in place in at least the amounts specified in Table 1 and are funded as required by CCR, title 27, division 2, subdivision 1, chapter 6; and

c. The Discharger has satisfied Provision C.4 of this Order concerning the construction quality assurance firm, the designated CQA Certifying Engineer, and the Final CQA Plan.

d. The Discharger shall notify the North Coast Water Board in writing at least 30 days before commencing closure construction. The notification shall include the CalRecycle confirmation required by subdivision b.

G. REPORTING

G.1. All reports required by this Order or the attached MRP shall be signed by a principal executive officer or ranking elected official of the City, or by a duly authorized representative, and engineering reports shall be signed by a California registered civil engineer or certified engineering geologist. Every report shall include the certification statement set forth in the attached MRP.

G.2. All reports and monitoring data required by this Order or the attached MRP shall be submitted electronically to the State Water Board's GeoTracker database.

G.3. The Discharger shall submit the following reports on the schedule indicated:

a. Construction Storm Water Pollution Prevention Plan — at least 60 days prior to the start of closure construction or repair activities that will disturb one or more acres of soil or soil ballast.

b. Final Closure Certification Report — within 90 days of completion of closure construction.

c. Semi-annual Monitoring Reports and Annual Report — on the schedule set forth in the attached MRP.

d. Winterization Plan — annually by August 15, describing measures planned to prepare and maintain the Site during the wet season.

e. Confirmation of Implementation of Winterization Plan — annually by December 15, confirming that the measures described in the Winterization Plan have been implemented and are adequate for maintaining the Site.

f. Leachate Management System Inspection Report — annually, submitted with the Annual Report.

g. Financial Assurance Update — annually, submitted with the Annual Report, and every five years as provided in Provision F.8.

h. Spill Contingency Plan update — annually, submitted with the Annual Report, or a statement that no changes are needed.

DRAFT

i. Five-Year Iso-Settlement Map — on the schedule set forth in the attached MRP.

G.4. The Discharger shall notify the Executive Officer within 24 hours by telephone and email, and shall submit a written report of noncompliance within 14 days, upon any of the following: any new or previously unknown condition of noncompliance that potentially or actually endangers human health or the environment; any flooding, equipment failure, slope failure, or other change in Site conditions that could impair the integrity of waste containment facilities or precipitation and drainage control structures; any leachate seep occurring on or in proximity to the WMU; violation of a discharge prohibition; or any unintentional or accidental spill. Written reports shall describe the reason for and nature of the noncompliance, including photographic documentation; the schedule of tasks necessary to achieve compliance; and the estimated date for achieving full compliance. If the assigned North Coast Water Board case worker is unavailable by telephone or email, the Discharger shall call the North Coast Water Board main office at (707) 576-2220.

G.5. The Discharger shall promptly correct any noncompliance that threatens WMU containment integrity. For emergency corrective measures, the Discharger shall report details of the corrections in writing within seven days of initiating correction.

G.6. All technical reports required by this Order or the attached MRP shall be submitted to the North Coast Water Board and, where applicable, to the Mendocino County Local Enforcement Agency and CalRecycle.

H. LEGAL REQUIREMENTS

H.1. The Discharger shall submit all technical and monitoring reports required by this Order pursuant to Water Code section 13267. The reports are reasonably necessary to provide the Dischargers and the North Coast Water Board with information concerning vadose zone, surface water, groundwater quality and whether the SWDS is responsible for any impacts to their quality; status of waste control measures; status of corrective action measures; and status of compliance with this Order and with CCR, title 27 and CFR, title 40, part 258. The burden, including costs, of these reports bears a reasonable relationship to the need for the reports and the benefits to be obtained from them. Failure to submit reports in accordance with the schedules established by this Order or its attachments, or failure to submit a report of sufficient technical quality to be acceptable to the Executive Officer, may subject the Discharger to enforcement action and administrative civil liability of up to $1,000 per day pursuant to Water Code section 13268.

H.2. Any person failing or refusing to furnish technical or monitoring program reports as required by Water Code section 13267(b), or falsifying any information provided therein, is guilty of a misdemeanor.

H.3. Any person who violates this Order through unauthorized discharge of waste to surface waters or groundwater may be liable for civil or criminal penalties, as appropriate, pursuant to Water Code sections 13350, 13385, and 13387.

H.4. In accordance with Water Code section 13263(g), the discharge of waste into waters of the state is a privilege, not a right. This Order does not convey any property rights of any sort or any exclusive privileges, does not authorize the commission of any act causing injury to persons or property, and does not protect the Discharger from liability under federal, state, or local laws.

H.5. The North Coast Water Board will review this Order periodically and may revise its requirements when necessary.

H.6. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

CERTIFICATION

I, Valerie Quinto, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on [DATE], 2027.

_____

Valerie Quinto, Executive Officer

DRAFT

LIST OF ATTACHMENTS

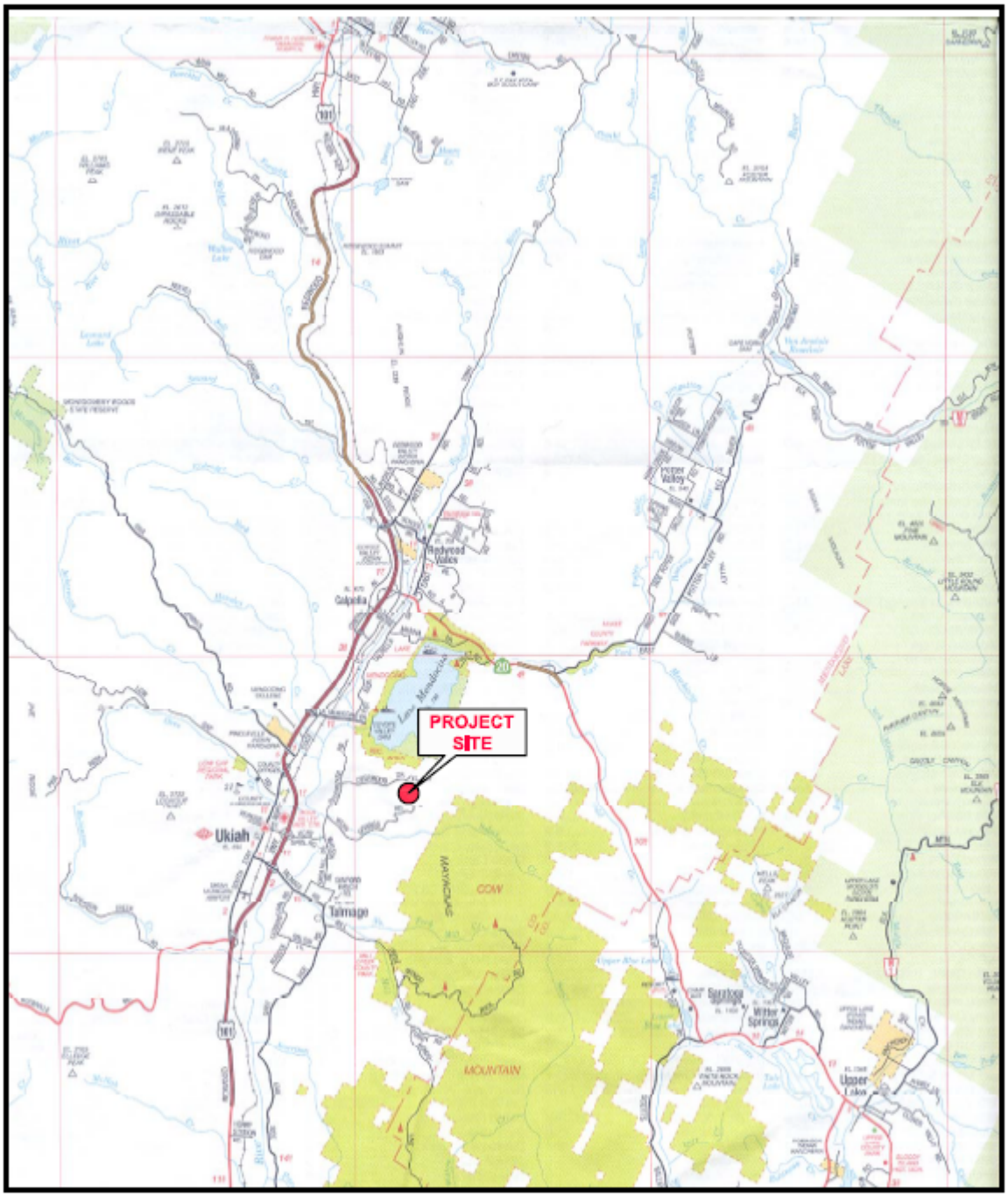
- Attachment A — Disposal Site Vicinity Map
- Attachment B — Site Area Map
- Attachment C — Site Map (monitoring point locations)
- Attachment D — Cover System Design Plan
- Attachment E — Cover System Cross Section Detail
- Attachment F — Flare Station Detail
- Attachment G — Additional Findings
- Monitoring and Reporting Program No. R1-2027-0002

These Waste Discharge Requirements were generated with the help of artificialintelligence using Poppy: California's Digital Assistant and Anthropic' s Claude.

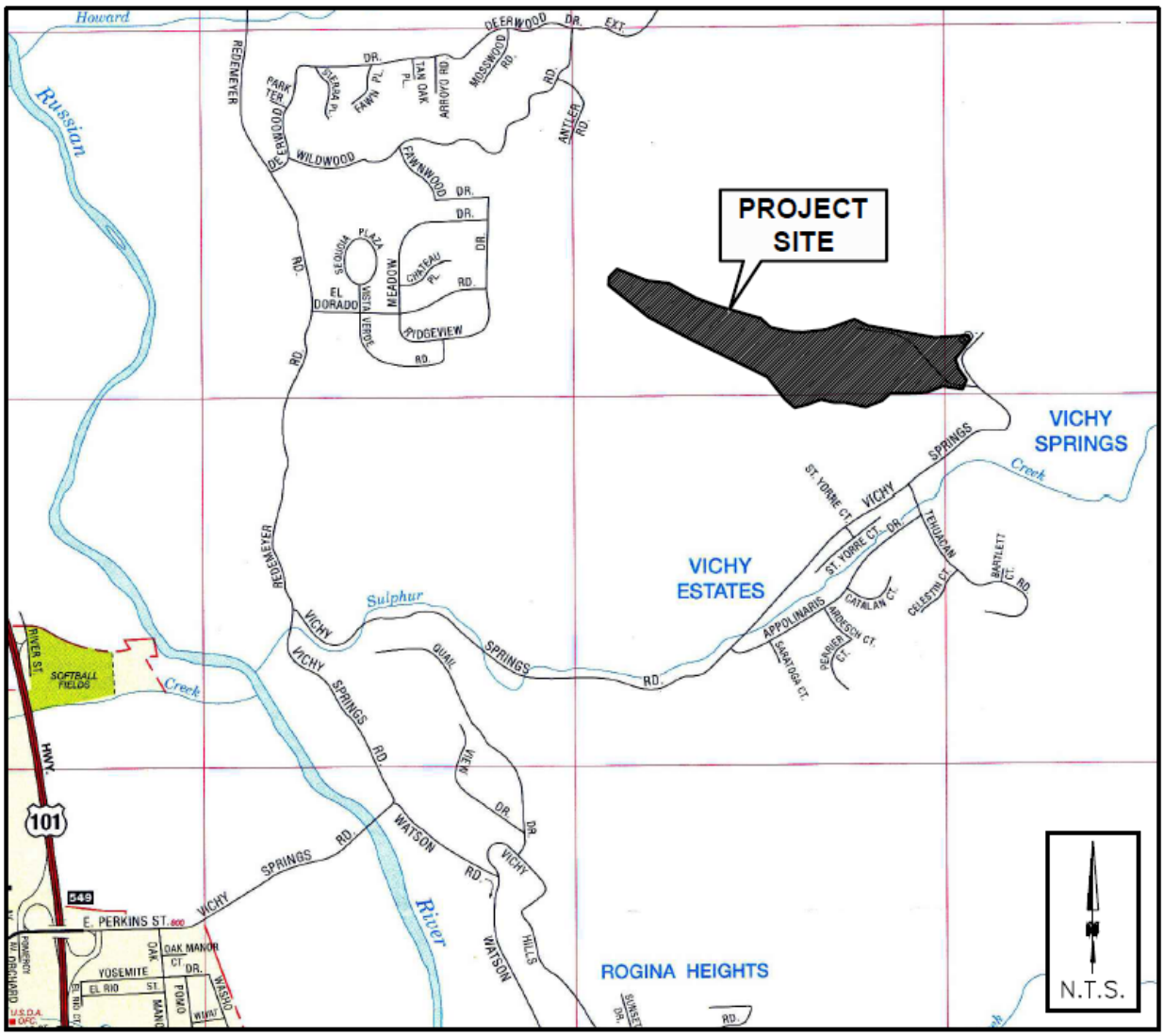
DRAFT

Attachments A-F

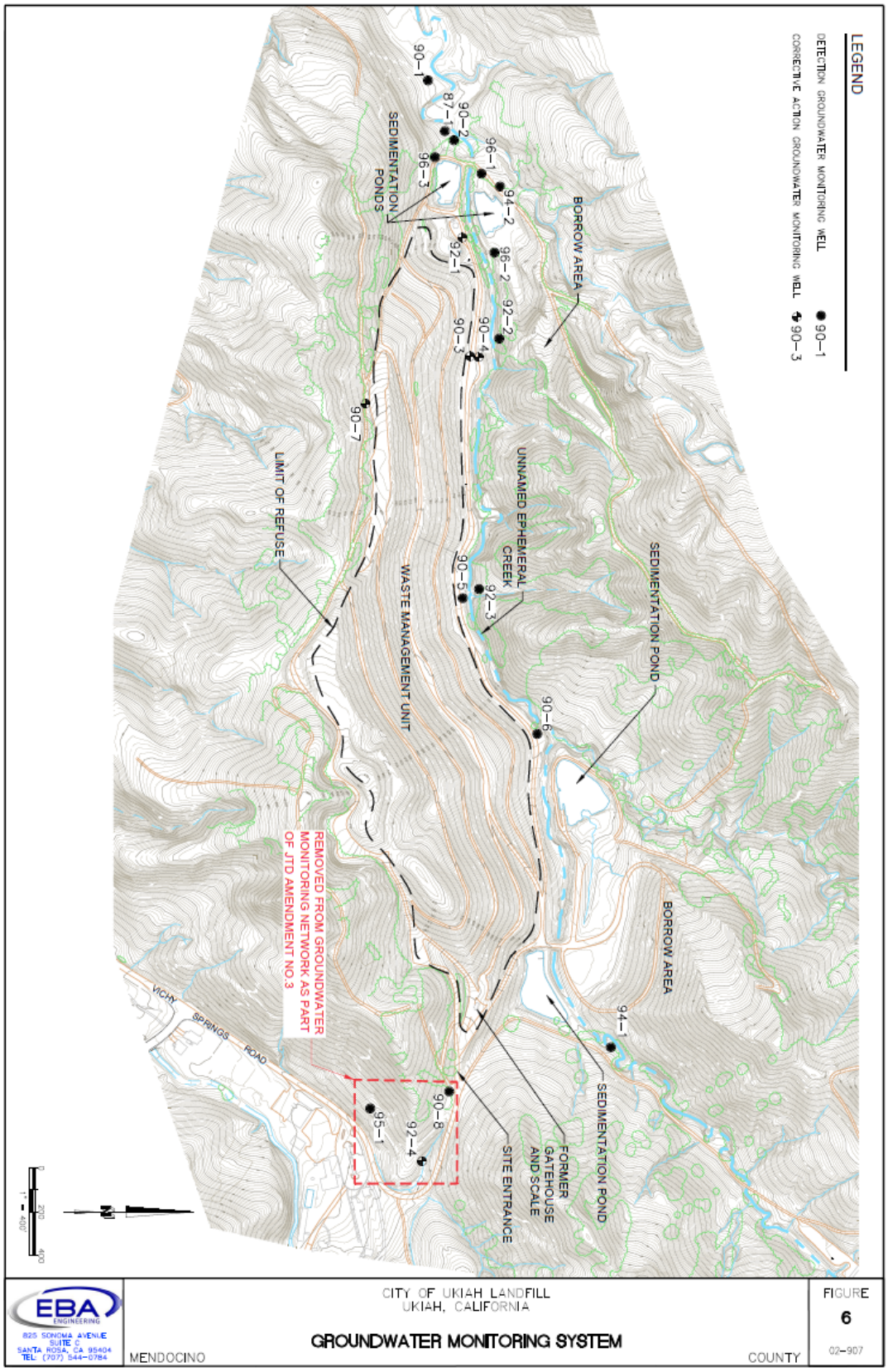
Attachment A – Disposal Site Vicinity Map



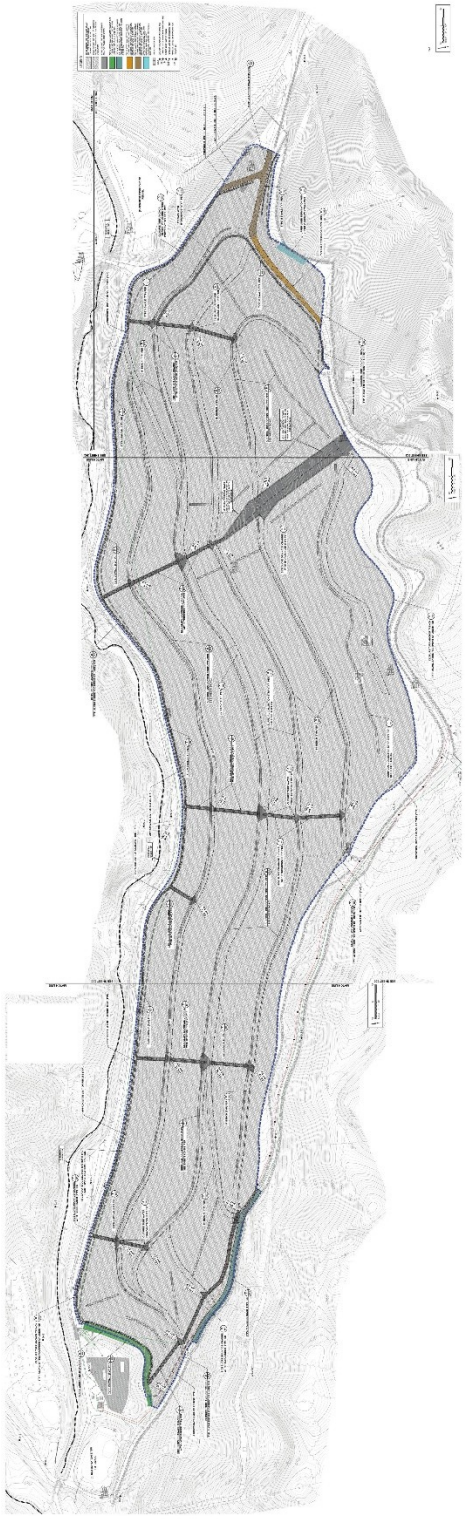
Attachment B – Site Map Location



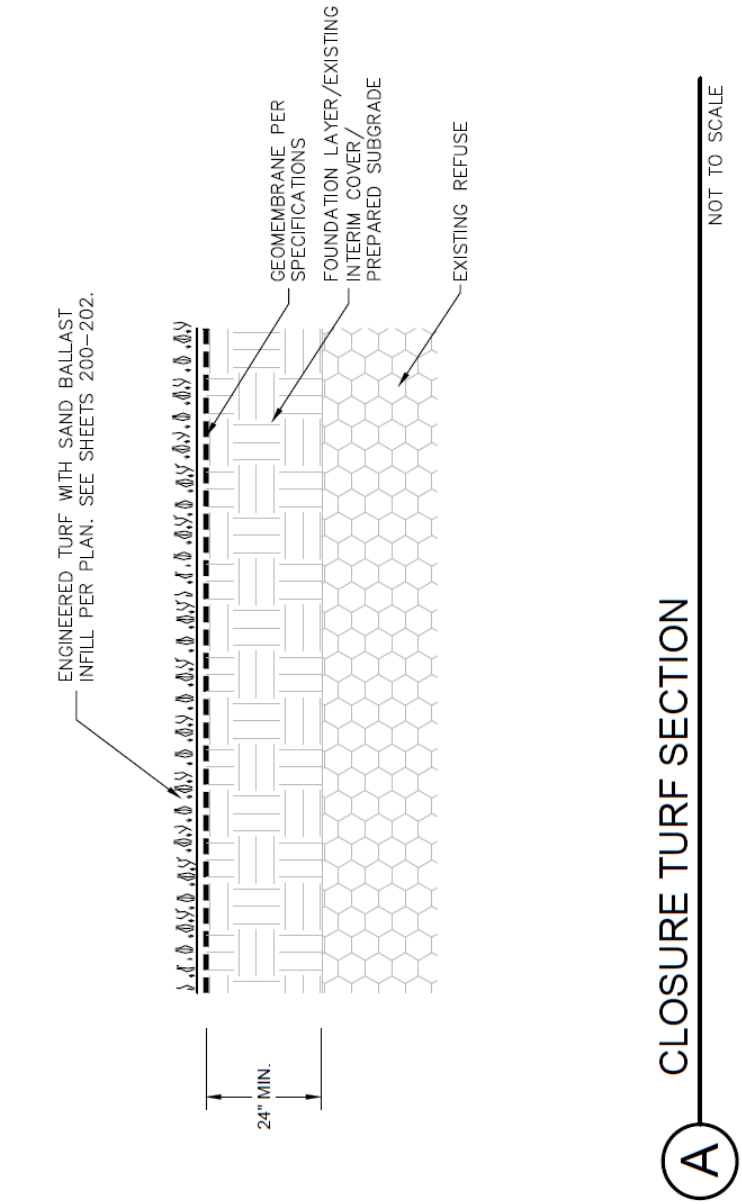
Attachment C – Site Map (monitoring point locations)



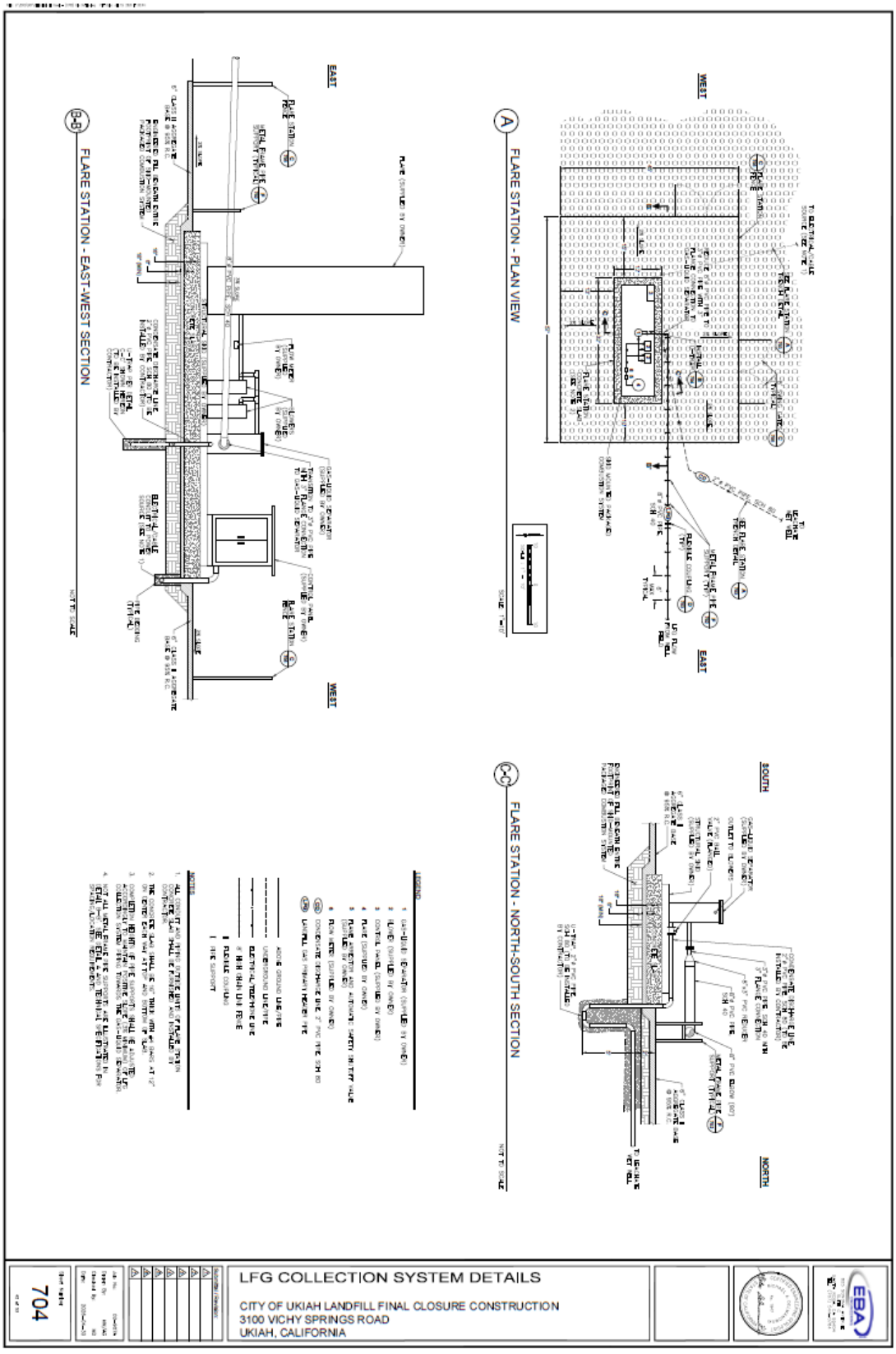
Attachment D – Cover System Design Plan



Attachment E – Cover System Cross Section Detail



Attachment F – Flare Station Detail



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
PUBLIC REVIEW DRAFT

ATTACHMENT G

ADDITIONAL FINDINGS
WASTE DISCHARGE REQUIREMENTS ORDER NO. R1-2027-0002
CITY OF UKIAH — UKIAH SOLID WASTE DISPOSAL SITE
MENDOCINO COUNTY

WDID No. 1B75043OMEN • GeoTracker Global ID L10008371863

A. PURPOSE

A.1. The purpose of Order No. R1-2027-0002 (Order) is to prescribe waste discharge requirements for final closure construction and the post-closure maintenance period at the Ukiah Solid Waste Disposal Site (Site or Landfill), and to rescind and replace Interim Closure Waste Discharge Requirements Order No. R1-2002-0061 and Monitoring and Reporting Program No. R1-2002-0061.

A.2. In accordance with the California Water Code (Water Code), the North Coast Regional Water Quality Control Board (North Coast Water Board) has the authority to regulate waste discharges that could affect the quality of the waters of the State. Under Water Code section 13050(e), waters of the State include any surface water or groundwater within the boundaries of the State.

A.3. This Order serves as waste discharge requirements for discharges to land issued pursuant to Water Code section 13263. All monitoring and reporting requirements specified in Monitoring and Reporting Program No. R1-2027-0002 are issued pursuant to Water Code section 13267.

A.4. The North Coast Water Board developed the requirements in this Order based on information submitted subsequent to the 2015 Joint Technical Document (JTD) Addendum No. 2, together with reports, plans, monitoring data, and other available information, including the Final Closure and Postclosure Maintenance Plan (April 2019), JTD Addendum No. 3 (June 19, 2026), and the facility's detection monitoring reports.

B. FACILITY AND WASTE MANAGEMENT UNIT CLASSIFICATION

B.1. The Site is a Class III landfill as defined in California Code of Regulations (CCR), title 27, sections 20200 through 20220, operating under Solid Waste Facility Permit No. 23-AA-0019 issued by the Mendocino County

Local Enforcement Agency (LEA) and the California Department of Resources Recycling and Recovery (CalRecycle).

B.2. CCR, title 27, section 20164 defines a landfill facility or waste management facility as the entire parcel of property at which solid waste discharge operations are conducted, and defines a waste management unit (WMU) as an area of land, or a portion of a waste management facility, at which waste is discharged, including containment features and ancillary features for precipitation and drainage control and for monitoring.

B.3. Because the Site was not closed prior to the federal deadline of October 9, 1991, the closure requirements of Code of Federal Regulations (CFR), title 40, part 258 (Subtitle D) apply in addition to the requirements of CCR, title 27.

B.4. Because a release from the WMU has been verified, the WMU remains subject to the monitoring and corrective action requirements of CCR, title 27.

C. SITE DESCRIPTION AND HISTORY

C.1. The Site is located at 3100 Vichy Springs Road, at the terminus of Vichy Springs Road approximately three miles east of the city of Ukiah in a rural area of southeastern Mendocino County, in the southeast quarter of Section 10, Township 15 North, Range 12 West, Mount Diablo Base and Meridian, and comprises Mendocino County Assessor's Parcel Number 178-130-010. Access is from State Highway 101 by way of Perkins Street, Redemeyer Road, and Vichy Springs Road. Site location and features are shown on Attachments A through C to the Order.

C.2. The Site is located within a canyon setting. Existing ground surface elevations within the WMU footprint range from approximately 710 feet above mean sea level near the western footprint to approximately 970 feet above mean sea level along the southeast footprint. The WMU has been graded to form a series of terraces stepping down from south to north, with slopes ranging from approximately 2:1 to 3:1 (horizontal to vertical). Area drainage is northward toward an unnamed ephemeral creek bordering the northern footprint of the Landfill, which is tributary to the Russian River.

C.3. Approximately 1.04 million tons of refuse were placed within a 40-acre footprint of the 283.5-acre Site.

C.4. The Site began operation in 1951 and was operated as a burn dump until 1971, after which it was operated as a sanitary landfill for the disposal of municipal solid waste. Waste disposal operations began at the eastern

end of the WMU footprint and progressed upslope and westward. During the 1970s, the unnamed ephemeral creek was realigned northward to maximize available fill area, and a soil berm was constructed along the toe of the WMU to separate the waste from the realigned creek channel. The method of operation was a fill-and-cover approach in canyon and gully terrain. The Site ceased accepting waste in September 2001.

C.5. Initial waste discharge requirements were issued in 1975 under Order No. 75-43. Order No. 75-43 was amended by General Order No. 93-83 on September 27, 1993 to implement State Water Resources Control Board (State Water Board) Resolution No. 93-62 and Subtitle D. On October 27, 1994, Order No. 94-123 was issued to formally incorporate the General Order and Subtitle D regulations and to address groundwater impacts identified at the Site. On June 27, 2002, Order No. R1-2002-0061 was adopted to address interim closure, corrective action needs, and submittal of plans to complete final cover construction.

C.6. The WMU is unlined and is not equipped with an engineered or traditional blanket leachate collection and removal system. Leachate collection consists of a series of polyvinyl chloride piping and French drain systems installed to collect leachate from seeps occurring along the completed WMU slope faces. Collected leachate is conveyed by gravity to a primary buried pipeline along the northern toe of the WMU, which drains westward to leachate management facilities at the western toe.

C.7. Existing on-site support facilities include a leachate management facility comprising a sediment chamber and leachate wet well, a 63,500-gallon steel aboveground storage tank, and a pump lift station; a perimeter landfill gas extraction system consisting of 17 vertical extraction wells located between the waste footprint and the western portion of the southern perimeter of the Site property and adjoining parcels, connected to a manifold line and a vacuum blower at the western toe of the WMU adjacent to the aboveground storage tank, with discharge vented through a stack to the atmosphere; drainage infrastructure; and leachate, groundwater, and landfill gas monitoring wells and probes.

C.8. Leachate collected on site is pumped via a force main to a sewer line connection on Vichy Springs Road for discharge to the City of Ukiah Wastewater Treatment Plant, where it is commingled with municipal wastewater and treated prior to final disposal or beneficial reuse in accordance with National Pollutant Discharge Elimination System Permit No. CA0022888 (Order No. R1-2024-0016).

D. LANDFILL SETTING

D.1. Land adjacent to the Site is zoned primarily as rangeland and is used for grazing. Portions of the Site property outside the WMU footprint, and the adjoining City-owned buffer parcel described in paragraph D.4, have historically been grazed by cattle under lease to reduce fire hazard, with cattle excluded from the WMU footprint. A City-owned law enforcement practice shooting range is located on the buffer parcel approximately 2,400 feet east of the former active landfill area.

D.2. Tribal trust land held for the Guidiville Rancheria of California, identified as Mendocino County Assessor's Parcel Number 178-200-050 and approximately 43.51 acres in area, abuts the Site property along the southwestern portion of its southern boundary for a distance of approximately 1,100 feet. The trust parcel is narrow and extends approximately 3,800 feet south from the shared boundary to Vichy Springs Road and Sulphur Creek. A small residential community occupies the southern portion of the trust parcel, along Medicine Way and Luff Court near Vichy Springs Road, approximately 2,000 feet south of the shared boundary. The northern portion of the trust parcel adjoining the Site is undeveloped. Other portions of the Site's southern boundary adjoin the City-owned buffer parcel described in paragraph D.4.

D.3. The 1999 Report of Disposal Site Information for the Site identified the following dwellings within 1,000 feet of the Site property: a group of structures owned by the Vichy Springs Investors Group within 500 feet of the Site's south property line, and a single-family residence approximately 900 feet west of the Site's western property boundary. A rural residential development is located approximately one-quarter mile west of the Site property boundary. The Vichy Springs Resort, a designated California State Landmark, is located approximately 500 feet southeast of the Site property boundary in an adjacent canyon. A residential subdivision along the south side of Vichy Springs Road, westward of the Vichy Springs Resort, is located approximately 1,000 feet south of the Site property boundary and is separated from the WMU by an intervening ridge. The residential community on the Guidiville Rancheria trust parcel lies west of that subdivision, on the opposite side of Vichy Springs Road, outside the 1,000-foot area inventoried in 1999.

D.4. In December 1993, the City purchased an approximately 96.82-acre parcel (Assessor's Parcel No. 178-210-010) adjoining a portion of the Site's southern property boundary as a buffer zone, to limit future development adjacent to the Site and to allow construction of landfill gas monitoring wells, runoff control, and continued investigation of benzene

DRAFT

detected east of the WMU. The buffer parcel is a separate parcel and is not part of the Site property; the City stated at the time of purchase that the acquisition was not intended to facilitate expansion of the WMU footprint. The buffer parcel is currently used as the Ukiah Gun Club. The few structures on the buffer parcel are more than 1,500 feet from the Site parcel boundary. All perimeter landfill gas monitoring probes and extraction wells are located on the Site parcel rather than on the buffer parcel. The 5 percent by volume compliance level of CCR, title 27, section 20921(a)(2) is therefore applied at the Site parcel boundary.

D.5. Groundwater resources provide domestic and agricultural water supply for the surrounding area. Residences in the developed area west and south of the Site are served by municipal water supply.

E. WASTE CHARACTERIZATION

E.1. The Site was operated as a burn dump from 1951 until 1971, and the waste mass accordingly includes burn residue and a high soil content. From 1971 until September 2001 the Site accepted Class III nonhazardous solid waste. The general categories of waste delivered were residential, commercial, industrial, and construction and demolition debris. Composition of refuse typically received consisted of paper products, food wastes, glass, metal, wood, plastic, cloth, rubber, synthetics, and inert materials such as soil, ashes, and rock. Based on the Source Reduction and Recycling Element for Mendocino County, the waste stream was approximately 27 percent residential, 32 percent commercial, 14 percent industrial, and 27 percent self-haul.

E.2. Wastes prohibited from disposal at the Site included infectious wastes, liquids, automobiles, dead animals, batteries, and chemicals. No high liquid content wastes, designated wastes, or hazardous wastes were accepted for disposal. Hazardous wastes discovered in loads were handled under the City's load checking and household hazardous waste exclusion procedures. Tires delivered to the Site were diverted from disposal and removed by a private contractor.

E.3. The Site accepted boiler ash and scrubber ash generated by the Masonite Corporation, which historically constituted up to approximately two to three percent of the waste stream. Scrubber ash consisted of redwood and Douglas fir bark residue generated from the combustion of wood fiber, in which a water mist scrubber cleansed particulate matter from combustion fumes and the cleansing water was collected in dewatering ponds to dry; it was delivered to the Site approximately twice per year and was last delivered in November 1993. Boiler ash consisted of sander dust from redwood and Douglas fir bark generated from a wood boiler and was

delivered monthly. Both were spread on the active landfill face for disposal. A procedure approved by the Local Enforcement Agency controlled the quantity accepted on a daily basis.

E.4. Disposal of Masonite ash at the Site was acknowledged by the North Coast Water Board. Test results for the ash were evaluated annually by the North Coast Water Board for changes in content and for approval of continued disposal. Testing included toxicity characteristic leaching procedure (TCLP) analyses, TCLP pesticides, TCLP herbicides, TCLP volatiles, and total threshold limit concentration analyses. As identified in the Source Reduction and Recycling Element, the City ceased accepting scrubber and boiler ash for disposal at the Site after December 31, 1995.

E.5. The Solid Waste Facility Permit in effect in 1999 allowed an average and peak loading of 190 tons per day, and the City sought revision to a peak of 295 tons per day. During 1998 the Site received approximately 148 tons per day through the gate and landfilled approximately 140 tons per day over a 304-day work year.

E.6. Waste was last accepted at the Site in September 2001. Approximately 25 years of in-place decay has reduced the mass and mobility of leachable constituents remaining in the waste, and that reduction continues.

F. HYDROGEOLOGY

F.1. Geologic materials at the Site include surficial and bedrock units. The surficial deposits consist of soil and colluvium, shallow landslide materials, and Quaternary alluvial deposits. The alluvial deposits are concentrated in the lower portion of the ephemeral creek bed bordering the northern boundary of the WMU. The bedrock units include continental basin deposits comprising silt-dominated conglomerates, clayey sands, and silty clays, underlain by tectonic mélange associated with the Franciscan Assemblage — sandstone and assorted metavolcanic, greenstone, and chert inclusions within a highly sheared and deformed dark-gray shale matrix.

F.2. The two primary water-bearing units underlying the Site are the Quaternary alluvial deposits and the Plio-Pleistocene upper and lower continental basin deposits. First-encountered groundwater occurs in the alluvial deposits at depths generally ranging from approximately 5 to 25 feet, and in the continental basin deposits at depths generally ranging from approximately 3 to 115 feet. Artesian conditions are present at monitoring well 92-2, completed within the continental basin deposits.

DRAFT

F.3. Groundwater monitoring wells completed within the alluvial deposits include 87-1, 90-1, 90-3, 90-4, 92-1, and 94-1, and range in depth from approximately 12 to 35 feet below ground surface. The remaining monitoring wells are completed in the upper or lower continental basin deposits and range in depth from approximately 23 to 160 feet below ground surface.

F.4. Groundwater flow within the alluvial deposits is generally westerly down the axis of the ephemeral creek at a gradient of approximately 0.02 foot per foot. The hydraulic conductivity of these deposits ranges from approximately 1.6 x 10-5 to 1.6 x 10-4 centimeters per second. Three-point solutions reported in the 1999 Report of Disposal Site Information, using 1992 and 1993 water levels, indicated flow in the alluvial deposits toward approximately N13°W; because the wells used lie nearly in a line, the report concluded that actual flow likely has a more westerly component, similar to surface water flow.

F.5. Groundwater flow within the continental basin deposits exhibits converging components on either side of the ephemeral creek, with a mostly northwesterly component on the south side of the creek beneath the WMU and a south-southwesterly component north of the creek. These components converge in proximity to the creek, whereupon groundwater flows westerly down the axis of the canyon. These potentiometric conditions generally mimic topography, which is typical in mountainous terrain. The hydraulic gradient ranges from approximately 0.04 foot per foot on the north flank of the creek to approximately 0.03 to 0.06 foot per foot on the south flank, and approximately 0.02 foot per foot along the creek axis. The hydraulic conductivity of the continental basin deposits ranges from approximately 7.5 x 10-6 to 2.8 x 10-5 centimeters per second. The 1999 three-point solutions indicated flow in the first water-bearing zone of the continental basin deposits of between approximately N20°W and N36°W, consistent with current potentiometric mapping and directed away from the Site's southern property boundary.

F.6. The groundwater geochemistry of the two water-bearing units exhibits significant natural spatial variability. That variability supports the use of intrawell statistical comparisons rather than interwell comparisons against a common upgradient background, as provided in Monitoring and Reporting Program No. R1-2027-0002.

F.7. The Site lies within the North Coast Range geologic province, characterized by right-lateral strike-slip and oblique faulting with northwest-southeast trending ridges and valleys. The Maacama Fault, with an estimated maximum credible earthquake of magnitude 7.1, is located

approximately one kilometer west of the Site and is expected to generate the highest peak bedrock acceleration. The Site is not located within a Seismic Hazard Zone delineated under the Seismic Hazards Mapping Act, is not within an Alquist-Priolo Earthquake Fault Zone, and is not within 200 feet of a Holocene-age fault. Soils underlying the Site are predominantly clay- and silt-bound deposits not subject to liquefaction.

F.8. CCR, title 27, section 20370 requires that Class III waste management units be designed to withstand the maximum probable earthquake without damage to the foundation or to structures controlling leachate, surface drainage, erosion, or landfill gas. The final cover was designed to the more stringent maximum credible earthquake. A site-specific seismic hazards assessment calculated an average peak bedrock acceleration of 0.66g for a magnitude 7.1 event on the Maacama Fault. Slope stability analysis of the waste mass indicates a static factor of safety greater than 1.7 for failure through the base of the landfill, a yield acceleration of 0.13g, and permanent seismically induced displacement of less than 8 inches. Infinite-slope analysis of the final cover system on the maximum 2:1 slope indicates static factors of safety of 2.8 at the foundation soil and geomembrane interface and 3.3 above the geomembrane, with pseudo-static factors of safety of 1.04 and 1.21 respectively. The yield acceleration calculated for the cover system exceeds the predicted peak ground acceleration, so no permanent seismic displacement of the final cover is predicted.

F.9. Arsenic, barium, and iron occur in groundwater beneath and surrounding the Site at naturally occurring background concentrations. Arsenic has been detected above the primary maximum contaminant level in seven detection monitoring wells and three corrective action monitoring wells, at concentrations reaching 177 and 276 micrograms per liter respectively; barium above 1,000 micrograms per liter in nine wells, reaching 5,520 micrograms per liter; and iron above the secondary maximum contaminant level of 300 micrograms per liter in eight wells, reaching 3,550 micrograms per liter. These constituents are present in both water-bearing units and in monitoring wells situated outside the footprint of the documented release; their distribution shows no correlation with chloride, total dissolved solids, ammonia, or other leachate indicator parameters; and concentrations have remained stable over the monitoring record without significant increasing trends. Arsenic and barium occurrence at these concentrations is characteristic of the Franciscan Assemblage mélange and the continental basin deposits underlying the Site. The North Coast Water Board therefore finds that these constituents are not attributable to the discharge of waste from the WMU. Concentration limits for these and

other naturally occurring constituents are established statistically at each monitoring point under Monitoring and Reporting Program No. R1-2027-0002, and the maximum contaminant level requirement of Section E.6 of this Order does not apply to them.

F.10. Regionally, groundwater supply in the Ukiah Valley comes from unconsolidated alluvial aquifers and the Plio-Pleistocene continental basin deposits. The alluvial aquifer is the most productive, supplying the bulk of municipal and agricultural demand. Wells in the continental basin deposits produce from restricted permeable lenses within less permeable strata, with reported yields of approximately 0.07 to 2.5 gallons per minute, and few wells produce from Franciscan bedrock.

F.11. Pursuant to Order No. 94-123, wells within 500 feet of the WMU that lacked adequate construction documentation, were built by methods no longer considered appropriate, or were redundant were to be sealed or abandoned to the satisfaction of the Mendocino County Health Department. Monitoring wells 78-1, 78-2, 84-3, and 87-2 were abandoned in accordance with Health Department standards in June 1995, and a record of the abandonment was provided to the North Coast Water Board.

F.12. Monitoring wells 90-8 and 92-4 are situated along the topographic divide that separates the Sulphur Creek drainage basin to the south from the drainage basin containing the WMU. Lithologic logs for both wells record a continuous section of Plio-Pleistocene continental basin deposits consisting of low-permeability silty clays and clayey silts, with no perched groundwater, aquitard, or Franciscan Assemblage bedrock encountered. Both wells are low yielding. No free water was encountered during drilling of 92-4, which was completed on March 18, 1993; groundwater was not observed in the well until April 27, 1993, forty days later. Purge and development volumes recorded through August 1994 totaled approximately 172 gallons at 90-8 over three years and approximately 36 gallons at 92-4. The continental basin deposits beneath the Site are estimated to exceed 2,000 feet in thickness, and their basal contact with Franciscan Assemblage bedrock has not been encountered in any boring at the Site, including test boring TB-90-4, which was abandoned at a depth of 265 feet below ground surface.

F.13. Stable isotope analyses of deuterium and oxygen-18 were performed to characterize the relationship between groundwater beneath the Site and the mineral water discharging at the Vichy Springs Resort, and were reported by EBA Wastechnologies in the May 1993 Report of Waste Discharge and in letter reports dated April 14, 1994 and June 10, 1994. Most samples plot along the meteoric water line at values appropriate for

coastal California. Vichy Springs and the nearby Ardeche Spring, both of which discharge from fractures and joints in Franciscan Assemblage bedrock exposed along the southern edge of the Sulphur Creek drainage, plot well to the right of the meteoric water line in the position characteristic of connate or mineralized formation waters that have undergone long residence time in contact with bedrock. Their isotopic signatures are distinct from those of all groundwater sampled at the Site, and no mixing trend between the springs and any Site groundwater is apparent. Samples from monitoring wells 90-8 and 92-4 also plot to the right of the meteoric water line but are distinctly separated from the springs, and plot closely with the City Range Spring, which discharges from the continental basin deposits on the north side of the dividing ridge. The North Coast Water Board finds, on this basis and on the geologic separation described in paragraph F.12, that groundwater monitored at 90-8 and 92-4 occupies a water-bearing zone distinct from, and not in communication with, both the groundwater underlying the WMU and the Franciscan bedrock system that supplies Vichy Springs.

F.14. Hydrochemical data support the same separation. Boron is associated with volcanic activity in the northern Coast Ranges and is commonly reported in groundwater on the east side of the Ukiah Valley. Boron concentrations measured in July 1994 at the southeastern monitoring wells 90-6, 90-8, and 92-4 were not significantly different from one another but were significantly higher than at all other Site monitoring wells, indicating a relationship between location and concentration. Concentrations measured at Vichy Springs between 1990 and 1993 were higher still, and the cation and anion composition of water at 90-8 differs significantly from that at Vichy Springs. Samples collected from Vichy Springs in 1987, 1990, and 1991 contained no detectable volatile organic compounds, and no pesticides or polychlorinated biphenyls have been detected in any Vichy Springs sample.

G. SURFACE WATERS, WETLANDS, AND FLOODPLAINS

G.1. The Site is located within a canyon setting that includes an unnamed ephemeral creek bordering the northern footprint of the WMU, which discharges to the Russian River within the Upper Russian River Hydrologic Area of the Russian River Hydrologic Unit. Other significant drainages within one mile of the Site are Sulphur Creek to the south and Howard Creek to the north, both of which flow west to the Russian River in the Ukiah Valley, together with small stock ponds formed by earthen dams in drainages east and west of the Site. Storm water runoff from the WMU is directed to the unnamed ephemeral creek. The Guidiville Rancheria

trust parcel described in paragraph D.2 lies within the Sulphur Creek drainage.

G.2. Surface water flow in the ephemeral creek has historically occurred only between November and April, and intermittently within that period depending on rainfall totals. This limited flow regime is the basis for the semi-annual surface water monitoring frequency and the first and fourth quarter sampling schedule established in Monitoring and Reporting Program No. R1-2027-0002.

G.3. The Site is not located within a wetland. Federal Emergency Management Agency flood mapping places the Site outside the 0.2 percent annual chance floodplain, that is, outside the 500-year flood zone. The 1999 Report of Disposal Site Information similarly reported the Site to be well above the 100-year flood level mapped by the National Flood Insurance Program, and that later remapping of the 100-year flood level along Sulphur Creek did not change the status of the Site.

G.4. The Basin Plan generally prohibits new point source discharges of waste to coastal streams and natural drainageways that flow directly to the ocean and requires that existing discharges to these waters be eliminated at the earliest practicable date. Specific types of surface water discharges, such as discharges of storm water, may be permitted under general NPDES permits. This Order does not cover such discharges.

H. PRECIPITATION AND STORM WATER

H.1. The Site received an average of approximately 32.6 inches of precipitation per year over the period 2000 through 2024, as measured at the Ukiah Municipal Airport. Most rainfall occurs during October through April, with December, January, and February accounting for more than one half of the annual total. Based on National Oceanic and Atmospheric Administration point precipitation frequency estimates, the 2-year, 24-hour precipitation event for the Site is 3.5 inches, the 100-year, 24-hour event is 7.69 inches, and the 1,000-year, 24-hour event is 9.79 inches. The 2-year, 24-hour depth defines the Major Storm Event inspection trigger in the attached MRP.

H.2. Storm water run-on and runoff at the Site is controlled by a series of perimeter ditches, bench swales, storm drains, down chutes, and sedimentation basins. The drainage system provides engineered controls before discharge to the unnamed ephemeral creek and ultimately the Russian River.

H.3. This Order requires that on-site surface water drainage systems be adequately sized to accommodate peak flows and volumes associated with the 100-year, 24-hour storm, and requires the Discharger to report annually on the adequacy of on-site drainage collection, conveyance, treatment, and storage features.

H.4. This Order does not replace or supersede the Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities or the Statewide General NPDES Permit for Discharges of Storm Water Associated with Construction Activities. Coverage for the Site under the Industrial General Permit, WDID 1 23I001656, was terminated effective July 2, 2015 by a Notice of Termination (NOT ID 528606) approved by the North Coast Water Board on July 30, 2015, on the basis that the facility is closed to the receipt of waste. Closure construction will disturb more than one acre of soil and will require enrollment under the Construction General Permit. Storm water reporting required by this Order is for the purpose of assessing closure management and compliance with this Order, and is not for the purpose of determining compliance with either general permit.

I. CORRECTIVE ACTION HISTORY

I.1. A release of waste constituents from the WMU to groundwater was discovered in 1988 as part of the Solid Waste Assessment Test investigation. The release consisted of trace detections of the volatile organic compound (VOC) chloroethane and the organochlorine pesticide 4,4′-DDD. A leachate sample collected from the WMU's unlined leachate ponds also revealed acetone and methyl ethyl ketone and trace concentrations of methylene chloride.

I.2. The release discovery prompted expansion of the groundwater monitoring network in 1990 with the installation of eight additional monitoring wells, 90-1 through 90-8. Sampling identified miscellaneous VOCs at 90-4 and 90-5 — benzene, chlorobenzene, chloroethane, chloromethane, cis-1,2-dichloroethene, 1,1-dichloroethane, dichlorodifluoromethane, trichlorofluoromethane, and vinyl chloride — and benzene, toluene, ethylbenzene, and xylenes at 90-8. Four additional monitoring wells, 92-1 through 92-4, were installed in 1992 to further evaluate the impacts.

I.3. In May 1993, a Report of Waste Discharge prepared at the request of the North Coast Water Board included a comprehensive analysis of the nature and extent of the impacts. That analysis concluded that no VOCs were present in surface water; that VOCs in both the alluvial and continental basin deposits appeared limited, consisting of sporadic detections at low levels, with the widest variety present at 90-4 and 90-5; that benzene, cis-1,2-dichloroethene, and vinyl chloride were the only VOCs above their

corresponding primary maximum contaminant levels; and that no landfill-related off-site groundwater or surface water impacts had been observed.

I.4. In accordance with Order No. 94-123, an engineering feasibility study was conducted in January 1996 to evaluate groundwater corrective action measures. That evaluation concluded that a “Limited Action” alternative, consisting of an upgraded groundwater monitoring network and performance of a health-based risk assessment, represented the most feasible corrective action alternative. The alternative was approved by the North Coast Water Board. Monitoring wells 96-1 through 96-3 were installed as part of that provision.

I.5. The leachate management system described in Section C of this Attachment was installed in the fall of 1996 as a corrective action measure to eliminate use of the unlined leachate ponds for leachate storage, which had been determined to represent a potential source of groundwater impacts. The leachate management system remains active. In 1999 the City evaluated the feasibility of extracting leachate from the western half of the WMU, where refuse had been placed in shallow ravines between 1972 and 1980 and seeps were theorized to contribute to the groundwater impacts at the northwest toe. Bail-down tests in three leachate extraction wells indicated low recovery rates and minimal leachate within the buried ravines.

I.6. Subsurface landfill gas migration was identified in 1994 at perimeter monitoring point GAS-4, on the southern perimeter of the Site, where methane exceeded the 5 percent by volume boundary compliance level during winter months. In response, a perimeter landfill gas extraction system was installed in the summer and fall of 1997. The system consists of 17 vertical extraction points installed in native geologic materials along the western half of the southern boundary of the Site, between the waste footprint and the southern property line, at depths ranging from 35 to 133 feet, connected to a buried six-inch diameter header pipe and a vacuum blower at the western end of the WMU, with exhaust vented to the atmosphere. Condensate is conveyed to a perimeter condensate sump and pumped to the leachate aboveground storage tank. A screening-level health risk assessment of blower stack emissions completed in February 1998 estimated an individual excess cancer risk of 2.2 in one million at the nearest property line, approximately 450 feet from the stack, below the 10 in one million threshold then applicable. The system was operated under an Authority to Construct issued by the Mendocino County Air Quality Management District.

I.7. Elevated BTEX concentrations at monitoring wells 90-8 and 92-4, and methane detections at perimeter landfill gas monitoring points GAS-6 and GAS-10, are of natural thermogenic origin and are not attributable to the WMU. Lawrence & Associates investigated the source of the methane by isotopic fingerprinting and reported the results on June 18, 1998 under Project No. C96.06.08D. Samples were collected on April 23, 1998 from perimeter gas probes GAS-6D and GAS-10D, groundwater monitoring wells 92-4 and 95-1, and in-waste landfill gas probe LFGP-2, and were analyzed by Isotech Laboratories under chain of custody for the stable carbon and hydrogen isotopes of methane, the stable carbon isotope of carbon dioxide, carbon-14, and natural gas constituents. Interpreted against the genetic classification of methane sources published by Coleman (1993) and Schoell (1980), samples from the eastern wells plot in the field characteristic of thermogenic gas, formed by the same mechanism as natural gas and coal gas, while the sample from LFGP-2 plots in the acetate fermentation field typical of landfill gas. A second comparison, of the carbon isotope composition of associated carbon dioxide against that of methane, produced the same separation. Bacterial oxidation, which can shift the isotopic signature of landfill gas toward the thermogenic field, was excluded: the eastern well values lie beyond the limit attainable by oxidation, and all samples were virtually devoid of oxygen. The carbon-14 results were consistent. The LFGP-2 sample returned 118 percent modern carbon, characteristic of recent origin, while every other sample returned less than 5 percent modern carbon, corresponding to a minimum apparent age of 26,000 years; sample volume recovered from GAS-6D was insufficient for carbon-14 analysis. Waste was first placed at the Site in 1951. Methane in the eastern wells is accordingly naturally occurring gas generated by geothermal heating and decomposition of organic material within the continental basin deposits, an interpretation corroborated by the association of high methane with high carbon dioxide concentrations in those wells and by the historical mining of carbon dioxide in the area. Monitoring well 95-1 was installed southeast of the WMU, on the hillside above Vichy Springs Road, to investigate benzene and other fuel constituents detected at the eastern extremity of the Site property.

I.8. The BTEX observed in the eastern wells is likewise not derived from migration of landfill gas. The June 18, 1998 Lawrence & Associates report, the trace gas analyses transmitted by that firm on September 21, 1997, the perimeter gas extraction stack data reported in its Screening-Level Health-Risk Assessment of February 4, 1998, and its letter of April 26, 1999 responding to the California Integrated Waste Management Board's inquiry of July 22, 1998 together establish four points. First, gas pressures

in the eastern wells substantially exceed those within the waste mass. Pressure at GAS-10D ranges from 60 to 120 inches of water while pressure within the landfill 200 feet away has been measured at less than one inch of water, and the pressures at GAS-6D and GAS-10D exceed those measured at any other uncapped landfill in the investigating firm's experience. Because soil gas moves by convection from higher to lower pressure, the gradient runs from the eastern wells toward the WMU rather than the reverse; using gas permeability independently estimated by two methods as 0.021 and 0.024 foot per day from perimeter extraction system flow and vacuum data, that movement was calculated at approximately 0.4 to 1 foot per day. Second, the constituents that accompany migrating landfill gas are absent from the eastern wells. Freon was detected at perimeter probe GAS-4D but not in the eastern wells, and vinyl chloride, which is more mobile than BTEX, was likewise absent. Third, the comparison runs in both directions: BTEX concentrations at GAS-10D and 95-1 are far higher than those measured in the perimeter gas extraction stack, which is the best available characterization of migrating gas at the Site, while the other trace constituents present in that migrating gas do not appear in the eastern wells. Fourth, when the observed concentrations are compared against typical natural gas composition published by the United States Environmental Protection Agency, prorated to the methane content of each well, the trace petroleum constituents fall well within the range typical of natural gas. BTEX compounds are common constituents of thermogenic oil and gas deposits, and the investigating firm concluded that the BTEX is most probably a byproduct of natural gas formation. The isotopic work addressed 92-4 and 95-1 among the groundwater monitoring points; the basis for the same attribution at 90-8 is the hydrogeologic, isotopic, and hydrochemical separation described in paragraphs F.12 through F.14, including the elevated boron signature shared by 90-6, 90-8, and 92-4. The 1998 and 1999 reports address transport by landfill gas migration; paragraphs F.12 through F.14 address transport in groundwater.

I.9. In January 2003, a Corrective Action Update Report prepared to comply with Order No. R1-2002-0061 concluded that historical water quality trends for both the VOC and inorganic components indicate that the overall nature and extent of the groundwater impacts appear stable and are likely in a state of dynamic equilibrium; that the health-based risk assessment concluded the impacts as observed in 1997 did not represent a potential risk to human or ecological receptors, and that the same conclusion held in 2003 based on the stable nature of the plume in both size and concentration; and that the groundwater monitoring network and program are adequate to identify future changes in the plume.

I.10. In August 2013, a drilling and soil sampling program within the former leachate pond footprint evaluated whether residual soil contamination was present in the vadose zone. The program did not reveal evidence of appreciable residual contamination. It was concluded that no further assessment or remedial action was necessary and that the former leachate pond footprint be backfilled with clean engineered fill as part of final closure construction.

I.11. Current groundwater conditions continue to reflect the stable plume described above. Historical maximum concentrations of the constituents defining the release occurred between 1990 and 2007, and each has been non-detect since. Benzene and other BTEX constituents continue to be detected at monitoring wells 90-8 and 92-4 within the historic ranges for those locations; for the reasons set out in paragraphs F.12 through F.14 and I.7 and I.8 of this Attachment, those constituents are attributed to the naturally occurring thermogenic source rather than to the discharge of waste from the WMU. Other organic detections are limited to low-level diesel range, gasoline range, and heavy range organics at a small number of monitoring points, below applicable environmental screening levels. The inorganic component of groundwater has exhibited stable conditions with no significant increasing trends.

I.12. Final closure construction includes two additional corrective action components. The engineered alternative final cover will serve as a groundwater corrective action measure by appreciably reducing leachate generation through reduced rainwater infiltration. The full-scale landfill gas collection and control system will serve as a groundwater corrective action measure by removing vapor-phase VOCs entrained in landfill gas that could otherwise migrate and partition into groundwater. Closure also includes lining the existing leachate wet well and sedimentation chamber, backfilling the emergency leachate pond, and installing an underground storage tank system for overflow protection.

I.13. Monitoring and Reporting Program No. R1-2027-0002 requires continued sampling and assessment of corrective action monitoring points and requires the Annual Report to summarize and confirm the performance and effectiveness of corrective action efforts as post-closure maintenance proceeds. That Monitoring and Reporting Program removes monitoring wells 90-8 and 92-4 from the monitoring network, including the removal of 92-4 from the corrective action monitoring program. The removal rests on the hydrogeologic separation described in paragraphs F.12 through F.14 and on the attribution of the BTEX at both wells to a natural thermogenic source described in paragraphs I.7 and I.8. Neither well lies within the drainage basin of the WMU or is completed in a water-bearing zone in

communication with groundwater underlying the WMU, and neither serves to detect or track a release from the WMU.

J. CLOSURE DESIGN AND ENGINEERED ALTERNATIVE EQUIVALENCY

J.1. Plans for final closure and post-closure maintenance are described in the Final Closure and Postclosure Maintenance Plan, April 2019, and JTD Addendum No. 3, June 19, 2026, both prepared by EBA Engineering.

J.2. CCR, title 27, section 21090 provides the minimum prescriptive final cover components, consisting of the following layers in ascending order: a two-foot soil foundation layer; a one-foot low-hydraulic-conductivity soil layer with a hydraulic conductivity of 1x10-6 centimeters per second or less, or equal to the hydraulic conductivity of any bottom liner system; and a one-foot erosion-resistant vegetative layer.

J.3. CCR, title 27, section 20080(b) allows engineered alternatives to the prescriptive standard provided the alternative design will provide equivalent protection throughout the post-closure maintenance period.

J.4. The approved final cover consists, in ascending order, of a foundation layer of at least 24 inches compacted to no less than 90 percent of maximum dry density; an engineered alternative low-hydraulic-conductivity layer of 50-mil linear low-density polyethylene Super Gripnet® geomembrane; and an engineered alternative erosion-resistant layer of ClosureTurf™ engineered turf with sand infill ballast. The Discharger has demonstrated that the engineered alternative final cover meets the performance goals of CCR, title 27 and is equivalent to the prescriptive standard.

J.5. The final cover surface is sloped to promote drainage away from the waste footprint, with a minimum three percent and a maximum 2:1 (horizontal to vertical) slope within the limits of the WMU. The WMU is constructed with a series of benches having a maximum vertical height between benches of 50 feet.

J.6. Because the final cover incorporates an engineered turf erosion-resistant layer rather than a vegetative layer, post-closure maintenance requirements addressing vegetation establishment and maintenance are not applicable. Maintenance requirements instead address sand infill ballast replenishment, ultraviolet degradation of the geosynthetic components, and the integrity of the engineered turf and underlying geomembrane.

J.7. North Coast Water Board staff reviewed the amended Final Closure and Post Closure Maintenance Plans submitted May 10, 2019 and, by letter

dated February 28, 2020, concurred that the plans adequately address the closure and post-closure plan requirements of CCR, title 27 in preparation for permitting considerations. The Mendocino County Environmental Health Division, acting as LEA, approved the plans on November 1, 2019. CalRecycle determined the plans technically adequate and approved them by letter dated January 13, 2021. Staff concurrence with technical adequacy is not approval of the closure plan by the North Coast Water Board; the Order is the instrument by which the North Coast Water Board approves closure.

J.8. In project status meetings during May, June, and August 2019, and as confirmed in North Coast Water Board staff's letter of February 28, 2020, the Discharger and staff agreed that final construction quality assurance is to be provided by a third-party independent consulting firm other than the firm that prepared the closure design. That agreement is carried forward as a requirement of this Order. The Discharger has advised that it anticipates issuing a request for qualifications or proposals to retain that firm; the method of procurement is left to the Discharger.

J.9. On October 11, 2018, the Discharger and North Coast Water Board staff agreed that the post-closure maintenance cost estimate would be increased to fund complete replacement of the geomembrane component of the final cover during the post-closure maintenance period. That agreement was the condition on which a 50-mil geomembrane was accepted in place of a 60-mil geomembrane. The Discharger confirmed in writing on November 17, 2026 that no change to that agreement is proposed.

J.10. The ClosureTurf™ engineered turf component is expected to perform for the full post-closure maintenance period without replacement, based on testing performed at third-party laboratories and audited by independent third parties. The Discharger will obtain the manufacturer's standard one-year materials warranty on the engineered turf and a one-year workmanship warranty from the closure contractor, assignable to the City. Section D of this Order requires the Discharger to maintain the final cover, including the engineered turf, throughout the post-closure maintenance period, and Section F requires the cost estimates to be updated annually and reviewed at five-year intervals, so that a replacement allowance may be added if inspection or monitoring indicates that the engineered turf will not perform for the full period.

K. REGULATORY REQUIREMENTS

K.1. CCR, title 27, effective July 18, 1997, and CFR, title 40, chapter I, subchapter I, parts 257 and 258, Solid Waste Facility Disposal Criteria,

Final Rule, promulgated October 9, 1991, include design, construction, operation, closure, and post-closure requirements for landfill facilities.

K.2. Effective July 18, 1997, the water quality regulations for disposal facilities formerly contained in CCR, title 23, chapter 15, and the solid waste regulations formerly in CCR, title 14, were recodified into CCR, title 27, division 2, subdivision 1, chapters 1 through 7. Chapter 15 is no longer applicable to these facilities.

K.3. Where applicable regulatory requirements overlap or conflict, the most water quality protective requirement governs unless specifically stated otherwise in the Order.

K.4. The North Coast Water Board and CalRecycle jointly regulate landfills pursuant to CCR, title 27. CalRecycle certifies local enforcement agencies, primarily county environmental health agencies, to regulate the operation and disposal activities of landfills covered by their Solid Waste Facility Permits. The California Air Resources Board, under the Landfill Methane Regulation, and the Mendocino County Air Quality Management District regulate landfill gas emissions and surface methane. The North Coast Water Board, CalRecycle, the LEA, the Air Resources Board, and the air district regularly coordinate on permitting, inspections, construction, closure, post-closure maintenance, and financial assurance.

K.5. Landfill gas at the Site is regulated by other agencies under two separate programs. Perimeter landfill gas monitoring is conducted quarterly pursuant to CCR, title 27, sections 20921 and 20933 and the Solid Waste Facility Permit, for which the LEA and CalRecycle are the lead agencies. Methane emissions from the landfill surface and the performance of the gas collection and control system are regulated under the California Air Resources Board Landfill Methane Regulation, CCR, title 17, sections 95460 through 95476, which applies to closed municipal solid waste landfills with 450,000 tons or more of waste in place and requires a gas collection and control system, quarterly instantaneous and integrated surface emissions monitoring, monitoring and leak testing of system components, recordkeeping, and reporting to the Air Resources Board and the local air district. The Mendocino County Air Quality Management District regulates landfill gas emissions at the Site.

K.6. Based on the groundwater monitoring record, the North Coast Water Board finds that landfill gas does not presently constitute a source of impacts to water quality at the Site. Monitoring and Reporting Program No. R1-2027-0002 therefore imposes no separate or additional landfill gas monitoring requirements and carries forward the approach of Monitoring and Reporting Program No. R1-2002-0061, which provided that the

Discharger “shall conduct quarterly landfill gas monitoring and submit quarterly monitoring reports for all landfill gas probes (GAS-1 through GAS-10) monitored in accordance with the Solid Waste Facilities Permit.” The only addition is annual summary reporting of those results to the North Coast Water Board.

K.7. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act prohibited under the California Endangered Species Act (Fish and Game Code sections 2050 through 2097) or the federal Endangered Species Act (16 U.S.C. sections 1531 through 1544). The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

L. BASIN PLAN AND BENEFICIAL USES

L.1. The Water Quality Control Plan for the North Coast Region (Basin Plan) is the North Coast Water Board’s water quality control planning document. It designates beneficial uses and water quality objectives for waters of the state, including surface waters and groundwater, and contains implementation plans and policies for protecting waters of the basin. The Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply.

L.2. As required by Water Code section 13263(a), this Order implements the Basin Plan, taking into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other and previous waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241.

L.3. The Basin Plan identifies beneficial uses for each hydrologic area in the North Coast Region and for specific water bodies. The beneficial uses of a specifically identified water body generally apply to all its tributaries. The Site is located within the Ukiah Hydrologic Subarea (114.31) of the Upper Russian River Hydrologic Area of the Russian River Hydrologic Unit. Beneficial uses applicable to groundwater within the Ukiah Hydrologic Subarea to be protected are: municipal and domestic supply (MUN), agricultural water supply (AGR), industrial service supply (IND), industrial process supply (PRO), aquaculture (AQUA), and Native American culture (CUL).

L.4. Basin Plan Table 2-1 identifies the existing and potential beneficial uses of surface waters in the Ukiah Hydrologic Subarea as: municipal and domestic supply (MUN), agricultural water supply (AGR), industrial service

supply (IND), industrial process supply (PRO), groundwater recharge (GWR), freshwater replenishment (FRSH), navigation (NAV), hydropower generation (POW), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), warm freshwater habitat (WARM), cold freshwater habitat (COLD), wildlife habitat (WILD), rare, threatened, or endangered species (RARE), migration of aquatic organisms (MIGR), spawning, reproduction, and/or early development (SPWN), shellfish harvesting (SHELL), and aquaculture (AQUA).

L.5. This Order requires containment of all waste within the WMU to prevent degradation of waters of the state pursuant to CCR, title 27 and CFR, title 40, part 258, and therefore implements the Basin Plan's water quality objectives and protects beneficial uses.

M. GROUNDWATER PROTECTION — RESOLUTION NO. R1-2022-0040

M.1. North Coast Water Board Resolution No. R1-2022-0040 acknowledges the Board's commitment to the protection of high-quality groundwater and the restoration of degraded groundwater to support all beneficial uses now and in the future, given increasing reliance on groundwater in the North Coast Region.

M.2. Groundwater in the Ukiah Valley supports drinking water, sanitation, and hygiene; agriculture, which is a major economic driver in the region; Native American ceremonies and traditions; and replenishment of flows to the Russian River that maintain cold freshwater habitat, migration of aquatic organisms, and spawning, reproduction, and early development beneficial uses supporting anadromous salmonid populations listed under the federal Endangered Species Act.

M.3. This Order implements the groundwater protection goals of Resolution No. R1-2022-0040 by requiring containment of all waste within the WMU; construction and maintenance of an effective final cover to minimize infiltration and leachate generation; operation of a full-scale landfill gas collection and control system; continued operation of the leachate management system; ongoing groundwater monitoring through Monitoring and Reporting Program No. R1-2027-0002; and continued corrective action pursuant to CCR, title 27, section 20430.

N. STATE ANTIDEGRADATION POLICY — RESOLUTION NO. 68-16

N.1. The State Water Board's Statement of Policy with Respect to Maintaining High Quality Waters in California, Resolution No. 68-16, prohibits the North Coast Water Board from authorizing degradation of high quality

waters unless it is shown that the degradation will be consistent with the maximum benefit to the people of California, will not unreasonably affect beneficial uses or otherwise result in water quality less than prescribed in applicable policies, and is minimized through the discharger's best practicable treatment or control.

N.2. This Order authorizes no degradation of water quality. It requires the Discharger to contain all waste within the WMU and to address the existing verified release through continued corrective action. Closure construction and operation of the landfill gas collection and control system will substantially reduce leachate generation and remove landfill gas, both of which represent potential sources of future groundwater impacts. The requirements of this Order constitute best practicable treatment or control of the discharge. Because this Order authorizes no water quality degradation, it complies with the Antidegradation Policy.

O. STATE CLEANUP POLICY — RESOLUTION NO. 92-49

O.1. State Water Board Resolution No. 92-49, Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code section 13304, adopted June 18, 1992 and amended April 21, 1994 and October 2, 1996, sets forth the policies and procedures to be used during an investigation or cleanup of discharged wastes that threaten or create conditions of pollution or nuisance.

O.2. Resolution No. 92-49 requires that cleanup levels be consistent with the Antidegradation Policy, and requires waste to be cleaned up to background or, if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible.

O.3. Pursuant to CCR, title 27, section 20420, if the Discharger or the Executive Officer determines that there is evidence of a release from any portion of the WMU, this Order requires the Discharger to implement the procedures of CCR, title 27, sections 20380, 20385, 20425, and 20430 and Monitoring and Reporting Program No. R1-2027-0002. Corrective action programs compliant with section 20430 are consistent with the policies and procedures for investigation and cleanup required by Resolution No. 92-49.

P. STATE WATER BOARD RESOLUTION NO. 93-62

P.1. State Water Board Resolution No. 93-62, Policy for Regulation of Discharges of Municipal Solid Waste, adopted June 17, 1993 and amended July 21, 2005, directed each Regional Water Board to revise the waste discharge requirements for each discharger owning or operating a

municipal solid waste landfill that received waste after October 9, 1991, to address identified deficiencies between state and federal regulations.

P.2. This Order implements Resolution No. 93-62 by requiring compliance with both CCR, title 27 and CFR, title 40, part 258. General Order No. 93-83, which amended Order No. 75-43 in 1993, and Order No. 94-123, adopted in 1994, were the North Coast Water Board's earlier actions implementing that policy at this Site.

Q. FINANCIAL ASSURANCE

Q.1. CCR, title 27, sections 20950(f), 22207, 22212, and 22220 et seq., and CFR, title 40, part 258, subpart G, require dischargers to obtain and maintain financial assurance instruments to address closure, post-closure maintenance, and corrective action. CalRecycle, in coordination with the North Coast Water Board, verifies that the Discharger has demonstrated availability of financial resources.

Q.2. On January 19, 1994, the City Council adopted Resolution No. 94-33, establishing an Enterprise Fund for the Site and directing the Finance Director to withdraw sufficient funds to meet the requirements of CCR, title 14, sections 18282 and 18285 and deposit them into a separate City of Ukiah Solid Waste Facility Closure/Postclosure Maintenance Fund, retained by the City Treasurer and held inviolate against all other claims. Clerical corrections were approved by minute order on March 16, 1994. The City Treasurer and the Public Works Director certified establishment of the funds by letters dated January 21, 1994. The California Integrated Waste Management Board approved the Enterprise Fund in April 1994 as meeting the requirements of CCR, title 14, section 18285.

Q.3. For post-closure maintenance, the City and the California Integrated Waste Management Board executed a Pledge of Revenue Agreement in 1995 pledging net revenues from garbage collection fees deposited to the City's Garbage Billing and Collection Fund (Fund No. 670), in the amount of $75,160 per year over the 30-year post-closure maintenance period, subject to increase or decrease to match adjustments to the identified cost estimate as mutually agreed. The Integrated Waste Management Board approved the agreement in 1995 as meeting the requirements of CCR, title 14, section 18290.

Q.4. Paragraph 8 of Resolution No. 94-33 directs the Finance Director to produce an annual report containing, as appropriate, revised closure and post-closure maintenance cost estimates and the status and balance of the Closure/Postclosure Maintenance Fund.

Q.5. CalRecycle approved closure and annual post-closure maintenance cost estimates of $10,987,856 and $239,731 respectively on January 13, 2021, based on the April 2019 Final Closure and Postclosure Maintenance Plan. Updated cost estimates submitted in JTD Addendum No. 3, Attachment 12, are $21,136,385 for closure, including a 20 percent contingency, and $8,980,072 for the 30-year post-closure maintenance period, which corresponds to an annual post-closure maintenance figure of $299,336. The closure estimate increased principally because of additional ballast rock, reconfiguration of the landfill gas collection and control system with additional extraction wells, burial of conveyance piping, industry-wide increases in construction prices, and a change in estimating approach from in-house figures to an independent cost estimator informed by bids received for closure of the South Coast Landfill. The post-closure maintenance estimate increased principally because of expanded scope, surface emissions monitoring required under the revised Landfill Methane Regulation, and increases in laboratory fees and labor rates. The 2019 annual figure of $239,731 adjusted for inflation to 2026 dollars is $298,845, which closely approximates the current annual figure. The Discharger confirmed in writing on November 17, 2026 that both the April 2019 and the June 2026 post-closure maintenance cost estimates include the cost of purchase and installation of a complete replacement of the geomembrane component of the final cover, normalized over the 30-year post-closure maintenance period. The funding increase agreed on October 11, 2018, described in paragraph J.9, was therefore incorporated in the April 2019 estimate and carried forward into the current estimate.

Q.6. The water release corrective action plan and cost estimate, submitted as JTD Addendum No. 3, Attachment 14, is $379,210. The non-water release corrective action plan and cost estimate, submitted as Attachment 15, dated June 15, 2026 and prepared by Lawrence & Associates, evaluates the causal events required by CCR, title 27, section 22100(c)(2). Earthquake, flooding, tsunami, and seiche were determined not to be reasonably foreseeable causal events, and no corrective action costs were assigned to them. Three scenarios were determined to be reasonably foreseeable: precipitation damage from a 1,000-year, 24-hour storm at $548,091; wildland fire at $392,018; and subsurface fire at $276,865. Because it is not reasonable to assume that these scenarios would occur concurrently, funding is based on the single scenario with the highest cost. Pursuant to CCR, title 27, section 22221, the amount of required corrective action coverage is the greater of the water release and non-water release estimates and is therefore $548,091.

Q.7. Pursuant to CCR, title 27, section 22102, the non-water release corrective action plan was prepared by a third party who is a certified engineering geologist, is not employed by the entity responsible for design of the Site, and is not the professional in responsible charge of the Site.

Q.8. The Enterprise Fund and the Pledge of Revenue Agreement were established under CCR, title 14, division 7, chapter 5, article 3.5 and provide financial assurance for closure and post-closure maintenance only. CCR, title 27, sections 20380(b) and 22220 through 22222 separately require assurances of financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases, naming the North Coast Water Board as beneficiary where CalRecycle does not require corrective action financial assurance. Establishment of a corrective action financial assurance mechanism was identified as an outstanding item in North Coast Water Board staff's letter of February 28, 2020 and remains outstanding. This Order requires the Discharger to establish and maintain that mechanism, and to maintain with CalRecycle assurances of financial responsibility for closure, post-closure maintenance, and corrective action in at least the amounts specified in Table 1 of this Order, adjusted annually for inflation.

Q.9. The financial instruments for closure, post-closure maintenance, and corrective action adjust annually for inflation in accordance with CCR, title 27, section 22236. If CalRecycle determines that the financial assurances maintained for the Site are inadequate, this Order requires the Discharger to obtain a new mechanism in the amount CalRecycle specifies within 90 days and to document it to both agencies. Whenever changed conditions increase the estimated cost of closure, post-closure maintenance, or corrective action, this Order requires the Discharger to submit an updated Final Closure and Postclosure Maintenance Plan to the North Coast Water Board, CalRecycle, and the Local Enforcement Agency.

Q.10. CCR, title 27, section 21870(b) provides that closure activities shall not commence until there is an approved closure and postclosure maintenance plan. CalRecycle has advised the North Coast Water Board that it cannot approve the closure and post-closure maintenance plan without adequate financial assurance, and that the closure fund must be fully funded because the Site ceased accepting waste in September 2001. This Order therefore conditions commencement of closure construction on written confirmation from CalRecycle that assurances of financial responsibility for closure and post-closure maintenance are in place in at least the required amounts and are funded as required.

R. HUMAN RIGHT TO WATER — RESOLUTION NO. R1-2019-0024

R.1. Pursuant to Water Code section 106.3, the state recognizes that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. The Safe Drinking Water Act provides that all Californians have a right to pure and safe drinking water (Health and Safety Code section 116270(a)). This Order promotes that policy by requiring the Discharger to contain and manage waste in a manner that protects water quality objectives, including those that protect drinking water supplies.

R.2. On October 17, 2019, the North Coast Water Board adopted Resolution No. R1-2019-0024, affirming the Board's commitment to ensuring that the human right to water is considered in all relevant Board decisions, and recognizing that many communities in the North Coast Region rely on small water systems or individual domestic wells that are particularly vulnerable to contamination.

R.3. Groundwater in the vicinity of the Site provides domestic and agricultural water supply, and the Basin Plan designates municipal and domestic supply and Native American culture as beneficial uses of groundwater in the Ukiah Hydrologic Subarea. No active individual domestic supply wells have been identified within one mile of the Site property boundary. The area, including the residential development west and south of the Site, is served by the Millview County Water District. A small residential community is located on the Guidiville Rancheria trust parcel abutting the Site's southern property boundary. This Order implements the principles of Resolution No. R1-2019-0024 by requiring containment of waste within the WMU; ongoing groundwater monitoring designed to detect releases before they impair beneficial uses, including municipal and domestic supply; implementation of corrective action pursuant to CCR, title 27, section 20430 whenever a verified release is confirmed; and financial assurance sufficient to fund corrective action for known and reasonably foreseeable releases.

S. UNDERREPRESENTED COMMUNITIES

S.1. Water Code section 189.7 requires the North Coast Water Board to engage in equitable, culturally relevant community outreach to promote meaningful civic engagement from potentially impacted communities where proposed discharges of waste may have disproportionate impacts on water quality in disadvantaged communities or tribal communities, and to continue that outreach throughout the waste discharge planning, policy, and permitting processes. Water Code section 13149.2(c) requires regional water boards to make a concise programmatic finding on

potential environmental justice, tribal impact, and racial equity considerations related to the issuance of waste discharge requirements.

S.2. A disadvantaged community is defined as a community in which the median household income is less than 80 percent of the statewide annual median household income level (Water Code section 189.7(d)(1)). The statewide annual median household income reported by the U.S. Census Bureau for the 2020–2024 American Community Survey period is $99,122 in 2024 dollars. Based on this data, a community with a median household income less than $79,298 is a disadvantaged community as used in section 189.7, and a community with a median household income less than $59,473 is a severely disadvantaged community.

S.3. Based on 2020–2024 American Community Survey data, one disadvantaged community census block group and one severely disadvantaged community census block group are located within one mile of the Site.

S.4. The North Coast Region is home to more federally recognized tribes than any other Regional Water Board jurisdiction in California, and the Ukiah Valley has a significant and continuing Pomo presence. Federally recognized tribes with lands or governmental offices in the vicinity of the Site include the Guidiville Rancheria of California, the Pinoleville Pomo Nation, the Potter Valley Tribe, the Coyote Valley Band of Pomo Indians, the Redwood Valley Little River Band of Pomo Indians, and the Hopland Band of Pomo Indians. Tribal trust land held for the Guidiville Rancheria of California (Assessor's Parcel Number 178-200-050, approximately 43.51 acres) abuts the southwestern portion of the Site's southern property boundary for approximately 1,100 feet, as described in paragraph D.2. The residential community on the trust parcel is located approximately 2,000 feet south of the shared boundary, near Vichy Springs Road. Perimeter landfill gas monitoring point GAS-4 is located along the Site's southern property boundary which adjoins the Guidiville Rancheria Tribal Trust parcel, and the 5 percent by volume methane compliance level of CCR, title 27, section 20921 applies at the property boundary. Groundwater flow within the continental basin deposits beneath the WMU is northwesterly, toward the unnamed ephemeral creek along the northern boundary and away from the southern property line, and the trust parcel drains south toward Sulphur Creek rather than toward the unnamed ephemeral creek that receives runoff from the WMU. The trust parcel is therefore not situated downgradient of the WMU for either groundwater or surface water.

S.5. The Basin Plan designates Native American culture (CUL) as a beneficial use of groundwater within the Ukiah Hydrologic Subarea, as set forth in Section L of this Attachment. That designation reflects the cultural, spiritual, ceremonial, and traditional connections that tribal communities maintain with the Region's water resources. The verified release from the WMU is to groundwater, and the trust parcel abuts the Site. A release from the Site could therefore affect a beneficial use of direct importance to tribal communities, both through groundwater beneath the shared property boundary and, downstream, through the unnamed ephemeral creek and the Russian River, to which it is tributary.

S.6. CCR, title 27, section 20921(a) and CFR, title 40, section 258.23(a) limit methane to 1.25 percent by volume within on-site structures and to 5 percent by volume at the facility property boundary. The 1.25 percent standard does not apply to off-site structures; occupied structures on the trust parcel are protected by the 5 percent compliance level at the Site property boundary, including the segment shared with the trust parcel. The nearest occupied structures on the trust parcel are approximately 2,000 feet south of that boundary. The landfill gas program at the Site is administered by the Local Enforcement Agency and CalRecycle under the Solid Waste Facility Permit, and by the Air Resources Board and the Mendocino County Air Quality Management District under the Landfill Methane Regulation, as described in Section K of this Attachment. This Order imposes no landfill gas monitoring requirements. If perimeter monitoring detects methane above the compliance level along the southern property boundary, the notification and remediation response required under CCR, title 27 and CFR, title 40, section 258.23(c) is carried out through those programs, and whether monitoring of structures on the trust parcel is warranted is a determination for those agencies.

S.7. Government-to-government consultation has been offered and is in progress. The City, as lead agency under the California Environmental Quality Act, requested consultation with the Guidiville Rancheria under Public Resources Code section 21080.3.1 by letter dated June 7, 2019 addressed to the Chairperson, following contact with the Native American Heritage Commission; no response was received. The North Coast Water Board provided notification and an offer of consultation under Water Code section 189.7 by letter to the Chairperson dated September 23, 2026, followed by email to the Tribal Administrator on October 20, 2026. North Coast Water Board staff met with the Tribal Council and the Tribe's Environmental Protection Agency Director on October 27, 2026 at the Tribal Council office in Ukiah, and the Tribe requested formal consultation on this Order and the attached MRP. The Tribe raised concerns regarding

landfill gas migration onto trust land and potential effects on the health of the residential community there, provided information on inactive groundwater wells on trust land, and requested the reports evaluating thermogenic methane and volatile organic compounds, which staff provided by email on October 27, 2026. Landfill gas monitoring, surface emissions, and health effects are administered by the Local Enforcement Agency, CalRecycle, the California Air Resources Board, and the Mendocino County Air Quality Management District rather than by this Order.

S.8. The North Coast Water Board finds that issuance of this Order will not result in water quality impacts or environmental justice concerns within the scope of the Board's authority. The Order requires containment of waste, ongoing monitoring, corrective action, and financial assurance. If impacts to surface water or groundwater result from the discharges regulated by this Order, North Coast Water Board staff will facilitate outreach and education to inform affected parties, including tribal communities, and connect them with available resources.

S.9. A site-specific GeoTracker webpage for the Site is available to the public and includes monitoring reports required by this Order, staff inspection reports, and official North Coast Water Board correspondence. Interested parties, including tribal environmental departments, may sign up for email alerts to receive notification when new documents are uploaded. Documents can be accessed at the State Water Resources Control Board's GeoTracker site (https://geotracker.waterboards.ca.gov/).

T. CLIMATE CHANGE

T.1. The North Coast Region faces significant threats from the effects of climate change. Extreme weather events, including drought, high intensity precipitation, flooding, and extreme heat, have occurred throughout much of California in recent years and are projected to increase in frequency, extent, or intensity. These considerations are consistent with the State Water Board's Climate Change Resolution No. 2017-0012.

T.2. More frequent high intensity precipitation may result in damage to the final cover and drainage facilities. This Order requires the Discharger to design and maintain landfill drainage to handle the 100-year, 24-hour storm and to inspect the Site following major storm events.

T.3. Because the final cover incorporates an engineered turf erosion-resistant layer with sand infill ballast rather than a vegetative layer, its performance under high intensity rainfall depends on ballast retention rather than on established vegetation. Monitoring and Reporting Program No. R1-2027-

0002 therefore requires standard observations to document exposed turf, exposed geomembrane, and the presence of sand infill ballast in drainage ditches and sedimentation basins, and requires more frequent inspections during the wet seasons immediately following construction.

T.4. The Site is located within a Very High Fire Hazard Severity Zone in a State Responsibility Area, as shown on the Fire Hazard Severity Zone map for Mendocino County adopted by the California Department of Forestry and Fire Protection on June 15, 2023. Wildfire can damage or destroy drainage control structures, monitoring wells, landfill gas monitoring probes, and leachate collection infrastructure; alter surface hydrology and increase post-fire runoff and debris flow risk; impair access roads, preventing timely post-storm inspections and emergency corrective measures; and generate fire-related debris deposited on landfill surfaces. Geosynthetic cover components are vulnerable to direct flame and radiant heat. The non-water release corrective action plan identifies wildland fire as a reasonably foreseeable causal event, assuming damage to approximately one acre of the engineered turf cover together with damage to landfill gas extraction well heads and lateral piping, at an estimated corrective action cost of $392,018. Surrounding lands are oak and brush grassland; the Site itself will not be vegetated, monitoring wells are protected by steel risers, and internal access roads act as fire breaks. The non-water release corrective action plan concluded that there are no combustible surface structures within 300 feet of the Site, other than a scale house to be demolished during closure construction, and that a structure fire is therefore not a reasonably foreseeable causal event. Parcel mapping places the nearest occupied structures on the adjoining Guidiville Rancheria trust parcel approximately 2,000 feet from the Site property boundary, and the 1999 Report of Disposal Site Information places the nearest off-site structures to the south and southeast within approximately 500 feet of the Site property boundary. Those distances support the plan's conclusion, subject to confirmation that no combustible structure lies within 300 feet of the Site. The Discharger should incorporate wildfire preparedness into the Final Closure and Postclosure Maintenance Plan, including maintenance of defensible space around critical infrastructure and protocols for rapid assessment and reporting following fire events in the vicinity of the Site.

T.5. Prolonged drought may affect the Site by depressing groundwater levels and potentially altering groundwater flow patterns and the representativeness of monitoring well data; by concentrating dissolved constituents in leachate and groundwater, potentially causing apparent increases in monitoring parameter concentrations that must be

distinguished from actual releases; and by increasing wildfire risk. Monitoring well 94-1 and surface water monitoring stations S-1 and S-2 have been dry during recent monitoring events.

T.6. Sea level rise is not applicable to this Site, which is located inland at elevations ranging from approximately 710 to 970 feet above mean sea level.

U. ENFORCEMENT

U.1. Water Code section 13000 et seq. authorizes the State and Regional Water Boards to implement and enforce water quality laws, regulations, policies, and plans to protect waters of the state. The North Coast Water Board has broad authority to take informal and formal enforcement actions, including notices of violation, notices to comply, Water Code section 13267 investigation orders, cleanup and abatement orders, time schedule orders, cease and desist orders, modification or rescission of waste discharge requirements, and administrative civil liabilities.

U.2. Enforcement is implemented in accordance with the State Water Board Water Quality Enforcement Policy, which became effective October 5, 2017. If the Enforcement Policy is updated, revised, or amended, the North Coast Water Board will implement the most current version.

U.3. The North Coast Water Board will evaluate compliance with the terms and conditions of this Order based on threat of water quality impairment, content of technical reports, results of inspections, and water quality monitoring data. Violations considered a priority include failure to comply with the monitoring and reporting requirements of Monitoring and Reporting Program No. R1-2027-0002; failure to investigate and clean up water quality impacts; failure to comply with the discharge prohibitions of this Order; failure to comply with the closure construction and post-closure maintenance requirements of this Order; falsification of information; and failure to submit required and complete reports on time.

U.4. The North Coast Water Board's records identify eleven violations at the Site, all predating September 2001. One violation, dated May 24, 1991, documented the presence of volatile organic compounds in groundwater as reported in a Report of Waste Discharge; that violation was not linked to a formal enforcement action, and the release it documented is addressed in Section I of this Attachment. One violation, dated April 21, 2000, documented failure of a grade control structure that discharged sediment. The remaining nine violations, spanning October 1999 through July 2001, were deficient reporting violations for failure to submit quarterly monitoring reports, and each was linked to a formal enforcement action.

U.5. No violation has been recorded at the Site since July 15, 2001. The Discharger has submitted quarterly monitoring reports in accordance with Monitoring and Reporting Program No. R1-2002-0061 throughout the interim closure period.

V. CALIFORNIA ENVIRONMENTAL QUALITY ACT

V.1. The City of Ukiah, as lead agency, circulated a Draft Environmental Impact Report for the closure project in accordance with the California Environmental Quality Act (CEQA) under State Clearinghouse Number 2017022009. North Coast Water Board staff provided comments on January 9, 2020. The City certified the Environmental Impact Report in March 2020 and adopted a corresponding CEQA determination on August 5, 2020.

V.2. A Petition for Writ of Mandate challenging the CEQA determination was filed September 8, 2020. The Superior Court of California, County of Mendocino issued a Final Statement of Decision denying the petition on April 14, 2023. The Court of Appeal, First Appellate District, denied the appeal on December 20, 2024.

V.3. The North Coast Water Board, as a responsible agency, has considered the final Environmental Impact Report and the CEQA determination adopted by the City and has determined that the project will not result in a significant effect on resources within the Board's purview.

W. GENERAL FINDINGS

W.1. This Order does not authorize violation of any federal, state, or local law or regulation.

W.2. In accordance with Water Code section 13263(g), the discharge of waste into waters of the state is a privilege, not a right, and this Order does not create a vested right to continue the discharge of waste. Failure to prevent conditions that create, or threaten to create, pollution or nuisance is reason to modify, revoke, or enforce this Order.

W.3. Pursuant to Water Code section 13267, the burden, including costs, of the reports required by this Order bears a reasonable relationship to the need for those reports and the benefits to be obtained from them. The costs of complying with Monitoring and Reporting Program No. R1-2027-0002 depend on site-specific conditions, including the number of monitoring wells, constituents of concern, and sampling frequency. Although the costs may be significant, they are reasonable because the data are required pursuant to CCR, title 27, section 20385 and are needed to

evaluate compliance with this Order, ensure the protection of water quality, and confirm that beneficial uses are protected.

W.4. The Site may also be subject to the Statewide General Permit for Storm Water Discharges Associated with Industrial Activities and the Statewide General Permit for Discharges of Storm Water Associated with Construction Activities.

W.5. Hyperlinks to codes and regulations are provided for reference only and may become out of date after issuance of this Order.

END OF ATTACHMENT G — ADDITIONAL FINDINGS

These additional findings were generated with the help of artificial intelligence using Poppy: California's Digital Assistant and Anthropic' s Claude.

DRAFT