

March 22, 2022

Kevin Green, District Manager
Pierce County Recycling, Composting & Disposal LLC dba LRI
17925 Meridian Street East
Puyallup, WA 98375

RE: LRI Landfill – Solid Waste Permit No. 27-050

Kevin Green:

Tacoma-Pierce County Health Department (Health Department) renews the LRI Landfill Solid Waste Permit for Municipal Solid Waste Landfilling (Permit No. 27-050, FA0005338). This permit is issued under the authority of RCW 70A. 205 and in accordance with Environmental Health Code, Chapters 11 (WAC 173-351) and 12 (WAC 173-350) of the Tacoma-Pierce County Board of Health Regulations, Resolution #2014-4410 and Resolution #2019-4601, respectively.

The Solid Waste Permit for the LRI Landfill is conditional and its conditions are enclosed. Major changes to the renewed LRI Landfill Solid Waste Permit are explained on the enclosed document titled *2022 LRI Landfill Permit Renewal Explanation of Revisions*. The LRI Landfill Solid Waste Permit is an annual permit and the next renewal date is February 6, 2023.

Washington State Department of Ecology (Ecology) has 30 days to appeal this permit issuance. If Ecology doesn't notify you within 30 days, you may assume they concur.

If you have questions, please contact Trevor Priestley at (253) 649-1842 or tpriestley@tpchd.org.

Sincerely,



Keith Johnston, RS
Environmental Health Supervisor

KJ:DB:sb

Enclosures: 2022 Explanation of Revisions
 2022 Municipal Solid Waste Landfill Permit

cc: Peter Lyon, WA Dept. of Ecology - SWRO (Certified Mail)
 Ryan Roth, LRI
 Jody Snyder, LRI
 Kevin Lakey, SCS Engineers
 Ryan Dicks, Sustainable Resources
 Jessica Gehle, Health Department

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2022 LRI Landfill Permit Renewal

Explanation of Revisions

March 9, 2022



Listed below are the significant changes incorporated into the 2022 LRI Landfill Permit, with a rationale for each. Not listed are minor changes, consisting primarily of formatting or grammatical edits or clarifications.

1. Section I. Permittee Information

Existing Language: George Duvendack, Site Manager, LRI, (253) 282-5584

Revised Language: Ryan Roth, Site Manager, LRI, (360) 239-9609

Rationale: Personnel change.

2. Section IV. Facility Description, Description of Permitted Units, Scope of this Permit and Authorized Activities

Existing language: Items f-h listed anticipated 2021 construction projects.

Revised Language: Items f-g lists anticipated 2022 construction project that include Cell 9A construction and Phase V Stage B Closure.

Rationale: To update.

3. Section VI. Plan of Operation and Operational Requirements

Existing Language: Item 2. Daily and Interim Cover. LRI may use shredded automobile fluff (autofluff), Griffolyn TX-1200 FR panels, ground woodwaste or contaminated soils as alternative daily cover (ADC) materials.

Revised Language: Added, "NovaThene tarps deployed by Tarp-O-Matic."

Rationale: The Health Department approved NovaThene tarp product (20-mil thickness) as an approved Alternative Daily Cover material (May 2021).

4. Section VI. Plan of Operation and Operational Requirements

Existing Language: Item 31. Landfill Gas Management System and Landfill Gas Odor Controls. References the Landfill Gas Management Plan (March 2007).

Revised Language: Added, "The permittee shall update the Landfill Gas Management Plan by April 15, 2022."

Rationale: To update the Landfill Gas Management Plan listed in the Settlement Agreement (June 29, 2021).

5. Section XII. Closure and Post-Closure Plans

Existing Language: The permittee shall update the LRI Landfill Closure and Post-Closure Plan and submit it to the Health Department **by June 1, 2021**.

Revised Language: "The permittee shall update the LRI Landfill Closure and Post-Closure Plan and submit it to the Health Department **by August 31, 2022**."

Rationale: To update the Closure and Post-Closure Plan for the Landfill. Updates, review and comments were missed last permit cycle due to staff turnover. Extended to August 31, 2022.

6. Section XII. Closure and Post-Closure Plans

Existing Language: Item 1 Closure Sequencing Table.

Revised Language: Added Phase VA

Closure Area	Date	Plan-View Acreage ¹	Slope-Adjusted Acreage ²	Portion of Cell Liner Covered
Phase VA	2021	7.9	8.3	Cell 4B, Cell 5, Cell 6
Totals		39.10	41.56	

Rationale: To update.

Environmental Health Division
Waste Management

3629 South D Street MS 1045
Tacoma WA 98418-6813

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Section I. Permittee Information

Facility Name: LRI Landfill

Facility Location: The site is bordered by 304th Street E (the Kapowsin Highway) to the north and State Route 161 (Meridian E) to the west. The site encompasses the West half of Section 10, Township 17 North, Range 4 East, W.M.

Owner/Operator: Waste Connections, Inc. / Pierce County Recycling, Composting & Disposal, LLC dba LRI (the permittee)

Name of Contact: Kevin Green, District Manager, LRI, (253) 377-2959

Address: 17925 Meridian E., Puyallup, WA 98375

Telephone: (253) 847-7555 (LRI Office); (253) 875-7882 (landfill site); (253) 377-2959

Other Contacts: Ryan Roth, Site Manager, LRI, (360) 239-9609
Jody Snyder, Director of Regulatory Affairs, LRI, (253) 377-0362
Olivier Moi, Environmental Technician, (253) 377-2960
Kevin Lakey, R.G., P.E., Vice President, SCS Engineers

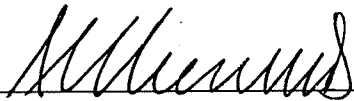
Section II. Authorization

The permittee, Pierce County Recycling, Composting & Disposal LLC dba LRI (LRI), is hereby authorized to conduct activities associated with landfilling of municipal solid waste. Unless specifically stated otherwise, all activities shall be performed by the permittee, their agents, employees or contractors. Activities must be in conformance with the attached general and specific conditions based on information supplied in the complete permit application (Clarifying Report). All activities must be in compliance with Chapters 173-351 WAC, *Criteria for Municipal Solid Waste Landfills* (WAC 173-351) and 173-350 WAC, *Solid Waste Handling Standards*, and all relevant federal, state and local regulations (including state air quality, water quality and noise regulations).

The permit may be suspended or revoked according to the terms set forth in Section XV herein. If the permit is suspended or revoked, the permittee may appeal the action according to the terms of the permit, RCW 70A.205.155, and the Tacoma-Pierce County Health Board of Health Environmental Health Code (Chapters 1 and 11).

The permit is transferable only upon prior written approval of Tacoma-Pierce County Health Department. The prospective transferee must demonstrate its ability to comply with laws, regulations and permit conditions. The permit shall be renewed annually.

This permit is subject to yearly renewal in accordance with Section XV (3) of the General Conditions.



Anthony L-T Chen, MD, MPH, Director of Health

Annual Renewal Date: February 6 Date of This Renewal: March 9, 2022

Date of Modification: January 7, 2016

Date of Modification: _____

Date of Expiration: End of the Operational Phase of the LRI Landfill Life Cycle

The Operational Phase consists of those intervening years from the present day until the landfill formally enters the post-closure care period as defined in the LRI Landfill Amended and Restated Closure/Post-Closure Trust Agreement, dated February 28, 2006.

Section III. Demonstrations¹

In granting this permit, the Health Department acknowledges the following successful demonstrations for the applicable municipal solid waste landfill (MSWLF) unit made in the permit application for the LRI Landfill:

	Description of Demonstration	Appropriate Section of 173-351	Expiration Date of Demonstration
1.	Flood Plain	173-351-130(3)	Siting Criteria - No Expiration Date
2.	Wetlands	173-351-130(4)	Siting Criteria - No Expiration Date
3.	Seismic Impact Zone	173-351-130(6)	Siting Criteria - No Expiration Date
4.	Sole Source Aquifer	173-351-140(1)(a)	Siting Criteria - No Expiration Date
5.	Drinking Water Wells	173-351-140(1)(b)	Siting Criteria - No Expiration Date
6.	Hydrogeologic Report Addendum & Demonstration	173-351-140(1)(a)&(b)	Siting Criteria - No Expiration Date
7.	Alternative Daily Cover Materials Demonstration	173-351-200(2)(b)	Operating Criteria – No Expiration Date

Section IV. Facility Description, Description of Permitted Units, Scope of this Permit and Authorized Activities

The site of the facility is located on State Route 161 approximately 16 miles south of Puyallup, Washington in Pierce County. The landfill footprint will eventually cover 169.2 acres. The landfill's footprint will provide for a permitted capacity of approximately 34.4 million cubic yards.

For the purposes of this permit, the landfill footprint shall constitute a single MSWLF unit. LRI is authorized to conduct the following activities during the specified times at the MSWLF unit as described below:

1. a. **MSWLF Unit Name/Description:** LRI Landfill/Landfill Footprint

¹WAC 173-351-100 states, "Demonstration" means a showing by the owner or operator that human health and the environment can be protected as equally as a given requirement in the regulations. The Tacoma-Pierce County Health Department interprets this definition to mean that the applicant's intended method(s) will provide human health and the environment no less protection than would the method or standard otherwise required in the regulations.

Tacoma-Pierce County Health Department – LRI Landfill Solid Waste Permit

- b. **Rule applying to this unit:** ☐ 173-304 ☒ 173-351
- c. **Types of waste authorized in this unit:**
☒ MSW ☒ Industrial ☒ Commercial ☒ Other See Section VI(1)
- d. **Authorized design volume:** Approximately 34.4 million cubic yards, including daily cover. This design volume equates to an estimated capacity of approximately 26.9 million tons. These figures are based upon the assumptions contained in the June 2008 Closure and Post-Closure Plan.

The maximum permitted height of the landfill at final closure shall not exceed 860 feet above mean sea level as depicted on Drawing C-3, Proposed Conceptual Final Grading Plan, which is contained in the approved Engineering Report and Plans. The Engineering Report and Plans are Volume 1 of the *Clarifying Report for the 304th Street Landfill Solid Waste Permit Application* (dated September 1995).
- e. **Earliest authorized start of construction activities:** May 1, 1998
- f. **Anticipated construction of Cell 9A:** Summer 2022
- g. **Anticipated construction of the Phase V Stage B Closure:** Summer 2022
- h. **Tax Parcels**

04-17-10-2-002	04-17-10-3-010	04-17-10-3-015	04-17-10-3-020	04-17-10-3-027	04-17-10-6-004
04-17-10-2-005	04-17-10-3-011	04-17-10-3-016	04-17-10-3-021	04-17-10-3-028	
04-17-10-3-005	04-17-10-3-012	04-17-10-3-017	04-17-10-3-022	04-17-10-6-001	
04-17-10-3-008	04-17-10-3-013	04-17-10-3-018	04-17-10-3-023	04-17-10-6-002	
04-17-10-3-009	04-17-10-3-014	04-17-10-3-019	04-17-10-3-024	04-17-10-6-003	

2. a. **Other Permitted Activity Name:** LRI Landfill Leachate Storage Facility
- b. **Rule applying to this unit:** [X] 173-350-330
- c. **Types of waste authorized in this facility:** Leachate generated by the LRI Landfill.
- d. **Authorized design volume:** 217,600 gallons

**Section V. Pre-Construction, Pre-Operational, and Pre-Closure Review
and Cessation of Construction or Operation Activities**

1. **Notice Before Construction** - At least 60 days prior to the beginning of construction of the following MSWLF components: bottom liners; leachate collection and removal systems; landfill gas control systems; leachate and landfill gas condensate treatment and disposal systems; final cover systems; environmental monitoring systems or ancillary facilities, LRI shall submit the final construction design drawings, construction specifications and the construction quality assurance manual to the Health Department and Washington Department of Ecology. LRI shall not begin construction until the Health Department has approved these documents in writing.
2. **Notice Before Use** – The permittee may not accept solid waste in any new or laterally expanded cell until a licensed engineer, having supervised construction, has certified that the construction is in accordance with this permit and in accordance with the construction quality assurance plans. LRI must notify the Health Department in writing of the date when solid waste will be first received at the cell. LRI shall not accept authorized solid waste until approved in writing by the Health Department.

Additionally, the permittee shall ensure that the cell and final cover construction observations, monitoring and testing results and record drawings have been documented in a construction report stamped by a licensed engineer. After the completion of construction, LRI shall submit the construction report to the Health Department and the Washington Department of Ecology.

3. **Notice Before Closure** - One hundred and eighty (180) days prior to beginning closure activities, specified in Section IV, the permittee shall notify the Health Department and the financial assurance trustee and/or insurer of the intent to close each unit or all units according to the approved closure plan, and submit final engineering closure plans to the Health Department for review, comment, and approval. Closure activities shall not begin until approved in writing by the Health Department.
4. **Cessation of Activity** - If construction or operation activities cease for a period of twelve consecutive months or more, the Health Department may, at its discretion, revoke this permit. The Health Department shall provide notice to the owner or operator in writing explaining the reasons for revocation. The Health Department shall not revoke a permit if the cessation of construction or operation is caused by factors beyond the reasonable control of LRI or if such cessation is in accordance with the provisions of the permit.
5. **Construction Inspections** - The Health Department reserves the right to enter, and to have on site during construction, a representative from the Health Department to inspect all activities associated with the construction. Upon entering the site, the Health Department representative shall comply with all site safety procedures. The Health Department or Washington Department of Ecology's (Ecology) site representative(s) shall not be prevented in any manner from acquiring physical samples or examining construction documents for the purposes of independently conducting Construction Quality Assurance (CQA) analyses. All samples collected by the Health Department will be performed in accordance with the approved CQA plan. LRI shall be afforded the opportunity to collect duplicate samples.

Section VI. Plan of Operation and Operational Requirements

The Health Department hereby approves the revised Plan of Operation dated December 2020. LRI shall operate and maintain the facility according to the Plan of Operation dated December 2020, or as hereafter amended and approved. Any subsequent amendments to the approved Plan of Operation shall be effective only upon the Health Department's written approval. The Health Department's continuing approval of this permit is contingent upon LRI's compliance with the following specific operational and maintenance requirements:

1. **Waste Acceptance** – The permittee is authorized to accept for disposal municipal solid waste and non-municipal solid waste, including industrial, inert and demolition, woodwaste, other types of non-hazardous solid waste and solid wastes that have been excluded, exempted or otherwise removed from regulation under Chapter 173-303 WAC, the Dangerous Waste Regulation or otherwise excluded by state law, provided that such non-municipal wastes are co-disposed with municipal solid waste in a unit authorized in this permit, and such disposal is not elsewhere prohibited by law.
 - a. the permittee must implement procedures for excluding the receipt of dangerous waste, including random vehicle load inspections, according to *Chapter 2 Control of Incoming Waste* in the approved Plan of Operation.
 - b. the permittee shall work with the Health Department to implement the Waste Disposal Authorization (WDA) Program to screen inappropriate and/or unauthorized wastes from disposal at the landfill.
2. **Daily and Interim Cover** – The permittee shall apply daily cover according to the approved Plan of Operation. LRI may use shredded automobile fluff (autofluff), NovaThene tarps deployed by Tarp-O-Matic, Griffolyn TX-1200 FR panels, ground woodwaste or contaminated soils as alternative daily cover (ADC) materials. The use of shredded automobile fluff and contaminated soils is contingent upon their designation as a non-dangerous solid waste. The acceptance and utilization of contaminated soils as an ADC must be authorized on a case-by-case basis by the Health Department through the issuance of a Waste Disposal Authorization.

Autofluff and ground woodwaste shall be restricted to a minimum compacted thickness of six (6) inches. If the Health Department finds that the ADC materials do not perform as well as six inches (6") of daily soil cover, then the Health Department may modify, suspend or revoke LRI's authority to use alternative cover materials.

The permittee shall utilize interim soil covers and interim plastic covers to the maximum extent practicable over all active portions of the landfill (with the exception of the active working face where daily cover is utilized) in order to minimize leachate production, minimize landfill gas emissions and maximize stormwater runoff.

Autofluff, contaminated soils and ground woodwaste utilized as ADC remain defined as solid waste and are therefore subject to the out-of-county waste prohibition established in **Condition VI. 20. Out-of-County Waste Restriction**.
3. **Disease Vectors** - The permittee shall prevent or control disease vectors according to the approved Plan of Operation. This may include a bird deterrent system consisting of a series of steel wires attached to poles and stretched across the active area of the landfill in a "May Pole" configuration.

4. **Explosive Gas Control** - The permittee must control explosive gases to ensure that concentrations of methane do not exceed standards set forth in Chapter 173-351 WAC. Monitoring of perimeter landfill gas monitoring probes and on-site structures shall be performed in accordance with the approved Plan of Operation. The monitoring results shall be submitted to the Health Department on a quarterly basis along with the quarterly groundwater monitoring report.
5. **Air Criteria** - The permittee must comply with all applicable requirements of the Washington State implementation plan approved under Federal Clean Air Act laws and shall not conduct open burning unless authorized in the approved Plan of Operation. Household waste shall not be burned at this facility under any conditions.

The permittee shall utilize the best available control technologies (BACT) as proposed in the approved Plan of Operation and as may be defined in the future by the Health Department, Ecology and Puget Sound Clean Air Agency (PSCAA) to control odors and prevent the off-site migration of landfill gas. See also **Condition VI. 31. Landfill Gas Management System and Landfill Gas Odor Controls** for additional specific conditions related to the landfill gas management system and odor controls.
6. **Access Requirements** - The permittee shall control access by humans and animals to the active portions of the landfill according to approved Plan of Operation and the approved Engineering Report and Plans. LRI shall have a lockable gate at each entry to the facility.
7. **Run-on/Run-off Control Systems** - The permittee shall maintain the run-on/run-off control systems for the active and closed cells according to the approved Plan of Operation, and the approved Engineering Report and Plans.
8. **Surface Water Requirements** - The permittee shall ensure that the facility does not discharge pollutants into waters of the State in violation of state law and regulations concerning pollution from either point or nonpoint sources.
9. **Liquids Restrictions** - The permittee shall prohibit the disposal of liquids, except in accordance with the approved Plan of Operation. Prior to the implementation of a permanent leachate recirculation system, the permittee shall submit to and obtain approval from the Health Department the engineered design, operations and odor control plans for the recirculation system. The re-introduction of landfill gas condensate back into the landfill via landfill gas condensate sumps is authorized in accordance with WAC 173-351-200(9)(a)(ii) and this permit.
10. **Record Keeping** - The permittee shall keep records required by the Plan of Operation at an approved location. LRI shall notify the Health Department when documents (not otherwise excluded from this requirement in the Plan of Operation) have been placed in or added to the operating record. All information contained in the operating record shall be available for inspection at all reasonable times by the Health Department.
11. **Annual Reports** - The permittee shall submit an annual report for the previous calendar year to the Health Department and the Department of Ecology by April 1 each year on forms supplied by the Department of Ecology, and other information as required in this permit.
12. **Additional Operating Requirements** - The permittee shall operate the facility to control road dust, collect scattered litter, prohibit scavenging, and ensure that qualified landfill personnel are on site in accordance with the approved Plan of Operation and this permit.

13. **Reserve Operational Equipment** - The permittee shall ensure that reserve operational equipment is available at all times according to the approved Plan of Operation.
14. **Marking of Active Disposal Area Boundaries** - The permittee shall clearly mark the active disposal area boundaries authorized in the permit with temporary berms, or an equivalent method approved by the Health Department that is clearly visible for inspection purposes.
15. **Compaction** - The permittee shall thoroughly compact solid waste before succeeding layers are added according to the approved Plan of Operation.
16. **Maintenance of Monitoring Systems** - The permittee shall maintain the monitoring systems for air, landfill gas, groundwater and surface water according to the approved Plan of Operation and the approved Hydrogeologic Report.
17. **Require Recycling** - Because this facility is not directly open to the public, on-site recycling opportunities are not required. The permittee shall, however, continue to provide convenient recycling opportunities for the public at the Hidden Valley Transfer Station and any other publicly accessible transfer stations operated by LRI in Pierce County.
18. **Municipal Sewage Sludge/Biosolids** - The permittee shall prohibit the disposal of municipal sewage sludge or biosolids except in accordance with WAC 173-351-220(10).
19. **Hours of Operation** - The operating hours of the landfill shall be limited to 8:00 a.m. through 6:00 p.m. seven days per week. Operational activities, as defined below or herein after by the Health Department, are prohibited outside the hours of 8:00 a.m. through 6:00 p.m.

The following activities are conducted on a regular basis as a part of the site's routine operations and are specifically defined as being *operational activities*:

- a. Waste delivery, acceptance, disposal and compaction;
- b. Moving and relocating the tipper and tarping station;
- c. Construction of temporary haul roads on the active areas of the landfill;
- d. Placement of daily cover; and
- e. Placement of interim cover materials on exterior and interior slopes and driving areas.

Waste delivery shall be defined as "the process of vehicles being weighed in at the scale house and accepted for entrance into the facility." This definition has been established to allow early arriving waste haul trucks to queue on landfill property (that area prior to crossing the scale house) rather than on SR 161 in front of the facility. This queuing is intended to reduce traffic hazards and improve public safety on SR 161. In conjunction with this change, the permittee shall also implement additional procedures to discourage waste delivery trucks from arriving prior to 8:00 a.m.

The permittee shall work with the various waste haulers to time their deliveries sufficiently before 6:00 p.m. to ensure that daily cover operations are complete by 6:00 p.m. (to the maximum extent practicable). The permittee shall not accept late deliveries of wastes from a given hauler if the need to extend daily cover operations beyond 6:00 p.m. becomes routine. For the purposes of this permit, late deliveries are defined as those deliveries arriving after 5:30 p.m.

The hauling of leachate shall be considered a maintenance activity and is limited to the hours of 7:00 a.m. through 7:00 p.m. Leachate hauling outside of these hours shall only be allowed under emergency conditions after the Health Department has been notified and such activities have been authorized.

Landfill construction activities consisting of new cell construction, landfill closure construction, and other non-routine construction activities, shall be limited to the hours of 7:00 a.m. through 7:00 p.m. unless otherwise approved by the Pierce County Planning and Public Works. No landfill construction activity shall occur on weekend days within 750 feet from the east and south property lines. Upon showing an emergency and obtaining prior written approval from the Pierce County Planning Division, the permittee may work during weekend days closer than 750 feet from the south and east property lines.

20. **Out-of-County Waste Restriction** - The permittee shall not accept for disposal or utilization at this site, solid waste generated outside of Pierce County or from any community that did not participate in the 1989, or thereafter amended, Solid Waste Management Plan (SWMP), unless the SWMP is revised to specifically authorize the importation of solid waste from outside of Pierce County to this facility. This condition shall ensure that a minimum twenty- (20-) year disposal capacity for Pierce County's solid waste is maintained at this facility as required by the SWMP.
21. **Open Working Face Size** - The permittee shall limit the landfill's open working face to an area approximately 300 feet wide and 300 feet long in accordance with the approved Plan of Operation.
22. **Operations Layer** - The permittee shall place waste directly on the operations layer in accordance with the approved Operations Plan. The permittee shall not dispose of waste material that could damage the liner upon compression by overlying waste.
23. **Runoff and Erosion Control** The permittee shall comply with LRI Landfill's Industrial Stormwater General Permit (ISGP; WAR002557) and Construction Stormwater General Permit (CSWGP; WAR002557) issued by Washington Department of Ecology. The permittee shall ensure that all runoff from temporary or final closed areas, stockpiles, borrow areas and support facilities at the site are collected in ditches around these areas and are routed to the stormwater pond unless otherwise approved by the Health Department. LRI shall minimize the sediment load to the stormwater system by complying with the fugitive dust measures set forth in **Condition VI. 24. Fugitive Dust and Erosion Control** (listed below) and the Stormwater Management Manual for the Puget Sound Basin. Exposed soil areas shall either be hydroseeded to the extent practicable before October 15, or covered with plastic, straw, or other suitable erosion control material during the winter and spring months. Additionally, LRI shall contain all runoff coming in contact with wastes so that it can be collected as leachate.
24. **Fugitive Dust and Erosion Control** - The permittee shall follow the standard fugitive dust and erosion control measures developed by EPA, Ecology and/or PSCAA, including watering both paved and unpaved roads as necessary, planting exposed soil in temporary stockpiles with vegetative cover or covering with plastic, watering exposed areas during dry periods, and limiting unnecessary traffic.
25. **Water Source for Fire Suppression, Dust Control and Construction Purposes** - The permittee shall maintain a permitted or approved water source for fire suppression, dust control and construction purposes. Additionally, the permittee shall ensure that the landfill operations personnel have adequate training and equipment to control fires as approved by the State and local fire control jurisdictions. Should more than five thousand gallons per day (5,000 gpd) be needed for fire suppression, dust control, or construction purposes, the amount greater than 5,000 gpd shall be hauled in from off-site unless a water right permit is obtained from the Department of Ecology.

26. **Facility Inspections** - The permittee shall inspect and maintain leachate systems, stormwater controls, and miscellaneous facilities in accordance with the approved Plan of Operation. The inspections shall be recorded on the Inspection Checklist (Appendix C) of the approved Plan of Operation.
27. **Leachate Collection System Operations** – The permittee shall operate the landfill’s leachate collection system to maintain less than a 1-foot depth of leachate over the liner and less than a 2-foot depth over the leachate pump sump area. The permittee shall also operate and maintain the landfill’s leachate collection, storage and load-out systems in accordance with the approved Plan of Operation and WAC 173-350-330 *Surface Impoundments and Tanks*. Collected leachate shall be pumped from each leachate sump to the leachate storage facility. Leachate haul trucks shall be loaded by properly trained personnel only. All below ground tanks and piping not equipped with a leak detection system capable of detecting a release from the tank or piping, and where any portions of the tank or piping cannot be inspected visually, shall have leak or tightness testing no less frequently than every two years.
28. **Leachate Hauling and Treatment** - The permittee’s request for approval of a permanent leachate recirculation program, contained within the November 30, 2005 Reissuance Application, was denied in March 31, 2006. The Health Department acknowledges that leachate recirculation can be a valuable tool for the management of leachate in municipal solid waste landfills and presents significant potential benefits.
- Future proposals for leachate recirculation will be evaluated through a permit process administered in accordance with Chapter 173-351 WAC.
- All leachate collected at the LRI Landfill will be transported by tanker trucks to the LRI Leachate Pretreatment Plant located at the Hidden Valley Landfill or to alternate facilities that have been permitted for the acceptance of leachate. Leachate transported to the LRI Leachate Pretreatment Plant will be managed as stipulated in the Pierce County Recycling, Composting, and Disposal, Industrial Waste Discharge Permit issued by the Pierce County Department of Planning and Public Works. LRI shall only utilize tanker trucks to haul leachate that the Health Department has licensed to haul septage.
29. **Cell Sequencing** - The current landfill development and closure sequence (cell sequencing) plan is described in Appendix B of the draft LRI Landfill Closure and Post-Closure Plan (November 1, 2013). The amended Closure and Post-Closure Plan remains under review as of the renewal of this permit. Implementation of and subsequent modifications to the development and closure sequence plan must be pre-approved by the Health Department.
30. **Wheel Wash System and Best Management Practices (BMP’s)** - The permittee shall maintain an on-site vehicle wheel wash system to prevent the off-site tracking of sediment and rocks by trucks and other vehicles. The permittee shall also establish and implement (a) a routine maintenance schedule for the wheel wash system to ensure its availability and efficacy and (b) best management practices such as, but not limited to, the routine sweeping and rocking of haul roads. These BMP’s shall include the annual, or as otherwise agreed upon, clean-up and removal of accumulated sediments from the north-bound shoulder of SR 161 and the acceleration lane.
31. **Landfill Gas Management System and Landfill Gas Odor Controls** - The permittee shall manage the landfill gas management system in accordance with the approved LRI Landfill Plan of Operation (December 2020) and Landfill Gas Management Plan (March 2007). Further, the landfill gas management system shall be designed and operated utilizing the best available control technology to prevent odor impacts to the neighboring community. The permittee shall proactively expand the landfill gas collection

system in accordance with the approved Landfill Gas Management Plan to prevent the occurrence of both on-site and off-site landfill gas odors. The permittee shall update the Landfill Gas Management Plan by April 15, 2022.

Section VII. Groundwater Monitoring Program and Hydrogeologic Report²

Groundwater quality monitoring shall continue from the establishment and construction phase of the landfill through both its operational life and post-closure care period. The purpose of the following conditions is to provide for the development of background information and the early detection of potential contamination originating from the landfill.

1. **Groundwater Standard** - The permittee shall not cause or allow the facility to exceed the maximum contaminant levels in groundwater specified in this permit at the approved Point(s) of Compliance (POC). LRI shall also not cause or allow exceedances of standards contained in Chapter 173-200 WAC (Water Quality Standards for Ground Waters of the State of Washington), Chapter 246-290 WAC (Group A Public Water Systems) or Chapter 246-291 WAC (Group B Public Water Systems) at the approved POC.

The approved POC shall consist of the property boundaries to the east and south, and the line of perimeter monitoring wells (MW) to the west and north. Specifically, the northern and western POC shall consist of a solid straight line running from one well to the adjacent well. To the north, this shall consist of a straight line running due east from MW-1 to the eastern property, from MW-1 to MW-2, from MW-2 to MW-3, from MW-3 to MW-4, from MW-4 to MW-5 and from MW-5 to MW-6. To the west, the approved POC shall be a straight line from MW-6 to MW-7, from MW-7 to MW-8, and from MW-8 running due south to the southern property line. The locations of these wells are depicted on Drawing G-5, Post-Development Site Plan and Environmental Monitoring, of the Engineering Report and Plans (Volume I of the Clarifying Report).

2. **Hydrogeologic Report** - The Health Department finds that the combination of the Hydrogeologic Report dated December 1, 1989 and the Hydrogeologic Report Addendum and Demonstration dated September 12, 1995 meet the performance standards of WAC 173-351-490. These documents are hereby approved.
3. **Groundwater Monitoring System** - Subject to the following conditions, the Health Department finds that the Groundwater Monitoring System Design found in the *LRI Landfill Groundwater Monitoring Plan* (dated March 10, 2014) meets the performance standards of Chapter 173-351-400 through 490 WAC.
 - a. The groundwater monitoring system shall consist of ten wells (two background wells MW-9 and MW-10 and eight downgradient wells MW-1 through MW-8) installed within the shallow, Vashon Outwash aquifer.
 - b. All monitoring wells shall be constructed in accordance with Chapter 173-160 WAC and Chapter 173-162 WAC.

²See also Hydrogeologic and Ground Water Monitoring Program Permit Applications Checklist

4. **Sampling and Analysis Plan (SAP)** - Subject to the following conditions, the Health Department finds that the *LRI Landfill Groundwater Monitoring Plan* (dated March 10, 2014) meets the performance standards of Chapter 173-351-410 WAC.
- a. All groundwater sampling and analysis efforts shall comply with the approved *Groundwater Monitoring Plan* and Chapter 173-351 WAC.
 - b. Background data development in accordance with Chapter 173-351-430(2) WAC and the approved *Groundwater Monitoring Plan* shall be implemented during the first year of groundwater monitoring for each new background and downgradient monitoring well.
 - c. Foreground data development in accordance with Chapter 173-351-430(3) WAC and the approved *Groundwater Monitoring Plan* shall be implemented after the background data development period is completed and shall consist of groundwater samples collected on a quarterly basis. The samples will be analyzed as described in the approved *Groundwater Monitoring Plan*.
 - d. The Health Department may modify, increase or reduce the frequency, number of samples or extent of analytical testing, provided the permittee is given ten (10) days or more notice and written rationale for the action. LRI may request modification of monitoring requirements. Any proposed modifications by LRI must be approved in writing by the Health Department prior to implementation.
5. **Off-Site Drinking Water Well Sampling Program** - The permittee shall fund the Health Department's development and implementation of an Off-Site Drinking Water Well Sampling Program for area residents. This drinking water sampling program is being implemented to address the concerns of the community regarding the safety of their drinking water resources and not in response to a contaminant release from the landfill. This program will be administered by the Health Department and will consist of offering annual water quality testing to area residents with property within ½ mile of the LRI Landfill site. Water sampling will be done upon request of the property owner, but no more frequently than annually per site. Health Department staff will collect samples, evaluate the analytical results and share the results with individual property owners. Analytical parameters will be determined by the Health Department in consultation with the Department of Ecology and the permittee.

Section VIII. Leak Detection and Collection System Monitoring Program

Leak detection and collection system (LDCS) monitoring shall commence during the establishment and construction phase of the landfill and continue through both the landfill's operational life and post-closure care periods in accordance with the *LRI Landfill Groundwater Monitoring Plan* (dated March 10, 2014). The purpose of the following conditions is to provide for the early detection of leakage originating from the overlying landfill cells into the underlying leak detection and collection system.

1. **Flow Monitoring** - Totalizing flow meters shall be installed at each leak detection/collection system sump to measure the daily groundwater discharge.
2. **Daily Monitoring** - The permittee shall measure the flow and conductance of the effluent from each sump every day. The Health Department shall have access to the daily flow and conductance records at the landfill.
3. **Quarterly Monitoring** - Samples of the groundwater seepage shall be collected quarterly from each cell's leak detection and collection system sump and be analyzed as described in the approved Groundwater SAP.
4. **Background Monitoring** - Background data (for Appendix I, Appendix II and Appendix IV constituents) shall be established for groundwater seepage into the leak detection and collection system sumps beneath each disposal cell. This shall be accomplished by the collection and analysis of at least three samples prior to the acceptance of waste in each cell.
5. **Data Evaluation and Leak Detections** - Water quality data from each of the LDCS sumps shall be evaluated using the daily conductivity measurements and the quarterly monitoring results. Daily conductivity data will be plotted each quarter and examined for an increasing trend in concentration. Quarterly monitoring results shall be evaluated for potential leachate leakage and/or landfill gas migration using the indicator parameters identified in Section 12.2.5 of the approved Plan of Operation. If, after examining the data, potential leakage is suspected, additional sampling will be performed for confirmation and characterization.
6. **Modifications** - The Health Department may modify, increase or reduce the frequency, number of samples, or extent of analytical testing, provided the permittee is given ten (10) days or more notice and written rationale for the action. The permittee may request modification of monitoring requirements. Any proposed modifications by the permittee must be approved in writing by the Health Department prior to implementation.

Section IX. Leachate Monitoring Program

Monitoring of leachate is addressed in Section 13.0 Leachate System Monitoring of the approved *LRI Landfill Groundwater Monitoring Plan* (dated March 10, 2014). In accordance with that Plan, leachate monitoring shall commence with the first quarterly groundwater monitoring round after the initial receipt of solid waste and shall continue through both the landfill's operational life and post-closure care period, and is subject to the following conditions:

1. **Monitoring Frequencies and Parameters** - Samples of leachate shall be collected annually from each disposal cell during the Fourth Quarter (December) monitoring event, except for the first year that each new cell is used when samples will be collected quarterly. Leachate samples shall be analyzed for Appendix I and Appendix II constituents in Chapter 173-351 WAC.
2. **Modifications** - The Health Department may modify, increase or reduce the frequency, number of samples, or extent of analytical testing, provided the permittee is given ten (10) days or more notice and written rationale for the action. The permittee may request modification of monitoring requirements. Any proposed modifications by the permittee must be approved in writing by the Health Department prior to implementation.
- 3.

Section X. Surface Water Monitoring Program

Surface Water compliance at the LRI Landfill is regulated by the Washington State Department of Ecology. The permittee shall comply with Ecology's *Construction Stormwater Permit* (Permit No. WAR-002603) and Ecology's *Industrial Stormwater Permit* (Permit No. WAR-002557).

Section XI. Quality Assurance and Quality Control

The permittee shall ensure that all construction activities are performed in accordance with the Construction Quality Assurance Plan (implemented by an independent third party) and the Construction Quality Control Plan (implemented by the contractor or installer). The Construction Quality Assurance and Construction Quality Control Plans dated September 14, 1995 are hereby approved and subject to the following condition:

1. **Project Specific Quality Assurance and Quality Control Plans** - Project specific construction quality assurance (CQA) and construction quality control (CQC) plans shall be developed by the permittee for each earthwork, geosynthetics, pipe or landfill gas collection system project. The project specific CQA and CQC plans shall be prepared and submitted to the Health Department along with the project specific construction plans and specifications. If there is conflict between the 1995 CQA and CQC Plan and the project specific CQA and CQC plan, the approved project specific CQA and CQC plan shall prevail.

Section XII. Closure and Post-Closure Plans

The permittee shall perform closure and post-closure activities according to the approved LRI Landfill Closure and Post-Closure Plan, dated June 30, 2008 and as may be hereafter amended. The permittee shall update the LRI Landfill Closure and Post-Closure Plan and submit it to the Health Department **by August 31, 2022**. Closure and Post-Closure are also subject to the additional specific conditions:

1. **Closure Sequencing** – The permittee shall perform landfill closures in a manner consistent with the approved LRI Landfill Closure and Post-Closure Plan. Deviations from the closure schedule or areas depicted in the approved Closure and Post-Closure Plan shall be discussed with and approved in writing by the Health Department prior to implementation.

The Closures that have occurred are:

Closure Area	Date	Plan-View Acreage ¹	Slope-Adjusted Acreage ²	Portion of Cell Liner Covered
Phase I	2001	4.74	5.16	Cell 1
Phase IIA	2007	5.18	5.52	Cell 1, Cell 2A, Cell 2B
Phase IIB	2008	3.87	4.11	Cell 1, Cell 2A, Cell 2B, Cell 3A
Phase IIC	2009	4.23	4.43	Cell 1, Cell 2A, Cell 2B
Phase III	2011	6.34	6.83	Cell 1, Cell 4A, Cell 4B
Phase IVA	2018, 2019	6.84	7.21	Cell 4A, Cell 4B
Phase VA	2021	7.9	8.3	Cell 4B, Cell 5, Cell 6
Totals		39.10	41.56	

¹ Plan-View Acreage is where closure acreage equals bottom liner acreage

² Slope-Adjusted Acreage is where closure acreage is greater than bottom acreage

2. **Post-Closure Care** - Post-Closure care and environmental monitoring efforts shall be implemented on each closure area following the completion of closure construction. Post-Closure shall be performed for a presumptive period of 30 years after the completion of final closure in accordance with Chapter 173-351-500(2)(a) and (b) WAC and may be extended by the Health Department if it is determined that a longer post-closure care period is necessary.
3. **Environmental Covenant** – In accordance with Chapter 173-351-500(1)(h) Environmental Covenants, following the closure of the LRI Landfill, LRI must file an environmental covenant conforming to the procedures and requirements of chapter 64.70 RCW, Uniform Environmental Covenants Act. The covenant shall be in a form approved by the Health Department and shall, at a minimum, include the provisions identified in Chapter 173-351-500(1)(h)(i-vi).
4. **Functional Stability Criteria** - The permittee shall amend the existing Closure and Post-Closure Plan to incorporate the criteria in Chapter 173-351-500(2)(b)(iii) and the environmental covenants. The amended Plan was submitted to the Health Department on November 1, 2013 and remains under review as of the renewal of this permit.

Section XIII. Financial Assurance for Closure, Post-Closure and Corrective Action

The permittee shall maintain the approved LRI Landfill Amended and Restated Closure/Post-Closure Trust Agreement, established on February 28, 2006 between LRI, the Health Department and Wells Fargo Bank. This financial assurance program was established and shall be maintained in accordance with Chapter 173-351-600 WAC. The financial assurance programs for closure, post-closure and corrective actions are subject to the following specific conditions:

1. **Closure and Post-Closure Trust Fund Contributions** - On or before November 15 of each year, during each pay-in period, the permittee shall contribute funds to the trusts or provide a surety payment bond in the amounts as calculated in Sections 7 and 8 and Exhibits B, C, and D of the approved Trust Agreement, and recalculated as provided therein.

At this time the LRI Landfill Trust Closure and Post Closure Accounts are fully funded as calculated in accordance with the approved Trust Agreement. Future payments or bond requirements will be calculated and executed according to the approved trust agreement on or before November 15 of each year.

2. **Closure and Post-Closure Cost Estimate Annual Adjustments** - The permittee shall annually review and adjust the closure and post-closure cost estimates and shall submit these adjustments to the Health Department for review and approval no later than October 1 of each year, commencing October 1, 2006. Such cost estimates shall include, in current dollars, the cost of hiring a third party under a contract subject to Chapter 39.12 RCW, Prevailing Wages on Public Works, to close the largest area of the MSWLF unit ever requiring a final cover at any time during the active life of the facility.
3. **Post-Closure Funding in Perpetuity** - The permittee shall fund the post-closure trust fund sufficiently to maintain the fund in perpetuity. The Health Department, presumptively no sooner than thirty (30) years post-closure, may determine that the facility will require no further care and authorize the trustee to terminate the trust.
4. **Corrective Action** - Should the permittee be required to undertake a corrective action program under Chapter 173-351-440(6) WAC, the permittee must develop and implement a corrective action financial assurance mechanism in compliance with Chapter 173-351-600 WAC.
5. **Financial Assurance Audits** - Annual audits of the financial assurance accounts and mechanisms shall be completed and submitted in accordance with Chapter 173-351-600(5)(f) WAC.

Section XIV. Other Specific Conditions

1. **Conditional Use Permit** - The permittee shall comply with all conditions of Conditional Use Permit CP8-89 issued by the Pierce County Hearings Examiner on January 2, 1996 or as thereafter amended, revised or clarified.
2. **Public Water System** - The permittee shall maintain an approved Group B public water system. The public water system shall comply with Chapter 246- 291 WAC (Group B Public Water Systems).
3. **On-site Sewage Disposal** - The disposal of on-site sewage shall comply with Chapter 246-272A WAC (The State Board of Health On-Site Sewage System Regulations) and Resolution 2010-4222 as amended (the Tacoma-Pierce County Board of Health On-Site Sewage System Regulations).
4. **Alternate Water Supply Provisions** - The permittee shall provide an alternate water supply, at the permittee's cost, to any individual water system or public water system whose water is contaminated in an unhealthful manner by contamination from the landfill. "Contamination in an unhealthful manner" shall mean contamination caused by the landfill that is in excess of a health risk-based primary maximum contaminant level (MCL).
5. **Submittal of Permits** - The permittee shall provide to the Health Department a copy upon receipt of each permit, permit renewal, permit revision or other permit modification required for this project (excluding the Solid Waste Handling Permit).

Section XV. General Permit Conditions

1. **Compliance with All Laws and Regulations** - The permittee must follow and meet applicable WAC 173-351, *Criteria for Municipal Solid Waste Landfills* and WAC 173-350, *Solid Waste Handling Standards* (adopted as Environmental Health Code Chapter 12 of the Tacoma-Pierce County Board of Health Regulations). The permittee shall follow and meet any applicable federal, state or local regulations.
2. **Compliance Inspections** - Employees authorized by Tacoma-Pierce County Health Department (Health Department) may inspect the facility at any reasonable time. Inspections shall determine compliance with the conditions of this permit and current solid waste handling regulations.
3. **Permit Display** - Site operating personnel shall display or store in an easily accessible location this Solid Waste Handling Permit and the approved Plan of Operations.
4. **Permit Duration** - This permit shall extend through the Operational Phase of the LRI Landfill Life Cycle. The Operational Phase consists from present day until the landfill formally enters post-closure care period per the LRI Landfill Amended and Restated Closure/Post-Closure Trust Agreement, dated February 28, 2006.
5. **Transferability** - Permits issued under this regulation are only transferable with prior written approval from the Health Department. Prior to transfer approval, a prospective transferee must demonstrate they are able to comply with applicable laws and regulations, permit conditions, and other requirements to which the prospective transferor is subject.

Upon ownership transfer of all or part of a facility, the property deed must include provision indicating the period of time the facility disposed solid waste, a description of the solid waste contained within, and that facility records are filed with the Health Department. The deed must also refer to a map, which must be filed with the county clerk, showing the limits of the active areas as defined in Chapter 173-351-100 WAC.

6. **Permit Amendments** - The Health Department may amend this permit to protect public health and the environment. This may include imposing restrictions on the facility during the period the permit is valid. Changes provided in writing by the Health Department, shall become specific conditions of this permit.
7. **Suspensions and Revocations** - This permit is subject to suspension or revocation if the Health Department finds:
 - a. the permit holder or their agent misrepresented or omitted any information that could have affected the permit issuance, or will affect the current facility operation; or
 - b. a significant change in quantity or character of solid waste or solid waste handling without prior approval from the Health Department; or
 - c. a violation of any condition in this permit.

8. **Appeals** - Whenever the Health Department denies or suspends a permit for a solid waste disposal site, it shall, upon permit applicant or holder request, grant a hearing on the denial or suspension within thirty (30) days after the request is made. The hearing notice shall be given to all interested parties including the county or city having jurisdiction over the site and the Health Department. Within thirty (30) days after the hearing, the health officer shall notify the applicant or the holder of the permit in writing of their determination. Any party aggrieved by the determination may appeal to the pollution control hearings board by filing a notice of appeal with the hearings board within thirty (30) days after receipt of the health officer's notice of the determination. The hearings board shall hold a hearing in accordance with the provisions of the Administrative Procedure Act, Chapter 34.05 RCW, as now or hereafter amended.
9. **Public Health Emergency** - In the event a state of emergency is declared or an imminent risk to public health exists, the Health Department may temporarily suspend or waive permit provisions or operational conditions, or impose additional permit provisions or operational conditions, for such period deemed necessary in the sole discretion of the local health officer or his/her designee. To be considered an emergency or imminent risk to public health, the emergency must be declared by the President of the United States, the Governor of the State of Washington, the Pierce County Executive or a health order issued by the local health officer as provided by law.
10. **Severability** – If any permit provision or condition is found to be invalid, the rest of this permit and its conditions are not affected.
11. **Permit Renewal** - This solid waste permit will expire on February 6, 2023. The permittee may continue all activities allowed under the current permit if the Health Department has not issued a renewal by the current permit's expiration date.
12. **Permit Modifications** - For facility changes tied to a regulatory design or operation standard, the permittee shall follow Permit Modification requirements per WAC 173-351-720(6) or WAC 173-350-710(4).

Solid Waste Handling Permit

Conditional



Tacoma - Pierce County

Health Department

Healthy People in Healthy Communities

Permit Number 27-050 Next Annual Renewal Date: February 6, 2023

Type of Facility: MSW Landfill ☒ Transfer Station ☐ Recycling ☐

Biosolids Utilization ☐ Composting ☐ Incinerator ☐ Other ☐

This Certifies that Pierce County Recycling, Composting & Disposal, LLC dba LRI

Engaged in the Business of Operating A Municipal Solid Waste Landfill

Is Permitted in Accordance with Chapter 173-351 WAC, Chapter 173-350 and RCW 70A.205

BY

ANTHONY L-T CHEN, MD, MPH, DIRECTOR OF HEALTH

THIS CERTIFICATE IS REVOCABLE FOR CAUSE AND IS NOT TRANSFERABLE

ISSUED : 02/07/22
PT0008754

EXPIRES: 02/06/23
\$ 31,715.63

Facility Review - Solid Waste

Permit Issued to:

LRI Landfill
30919 Meridian ST E
Graham, WA 98338