



RESPONSE TO COMMENTS

Riverbend Landfill

Closure Permit Issuance

To: File and Interested Parties
From: James McCourt, Bob Schwarz and Seth Sadofsky
Date: August 31, 2022
Subject: Response to public comments for issuance of a solid waste disposal site closure permit for Riverbend Landfill

On May 23, 2022, the Oregon Department of Environmental Quality issued a request for comments on the proposed closure permit issuance for the above-referenced facility. DEQ extended the public comment deadline from June 27, 2022 to July 11, 2022 based on comments received at an informational meeting and public hearing held on June 22, 2022. The extended comment period ended at 5 p.m. on July 11, 2022. DEQ received both written and verbal comments. Those comments, and DEQ responses are presented below.

DEQ RESPONSES TO VERBAL PUBLIC TESTIMONY PRESENTED DURING THE JUNE 22 PUBLIC HEARING

TESTIMONY FROM SUSAN WATKINS:

I will expand on these comments in writing later. We should consider the permit in a different way than as currently drafted: We should involve the public. You mentioned a moment ago that the landfill people can request a modification at any time. The public should be involved in another hearing like this one for modifications as well as for other aspects of the permit. There is no hint of transparency in the draft permit, even in sections that pertain to protection of public health and safety. The permit does not mention notification to the public except to say that DEQ will issue a public notice to inform the public of any significant changes to the permit. This notice would occur after the fact. The public is simply dismissed as far as this permit goes. We are dealing with a landfill crew who are very tight-lipped. They do not want the public, including the County, to know what is going on. They do not tell us about violations they are cited for. We have to learn that from the press or sometimes from DEQ. We find out that the doors are closed from customers who tried to get in and couldn't. These are the kinds of things the landfill should be telling us all the time and I would really like to see that in the permit. I would like to suggest that the permit require an annual meeting at which Riverbend and DEQ and the public may make presentations. This would be similar to what is required in the Title V Air Quality Permit, except that DEQ is not required to speak at those meetings, which is a real shame. When I submit my written comments, I will point out the many places in the permit where I think the public should be involved.

DEQ RESPONSE: As Ms. Watkins notes, she submitted an expanded version of these comments after the hearing. DEQ responds to these comments elsewhere in this Response to Comments document.

TESTIMONY FROM MARGARET CROSS:

I recommend notification to the public on the order of three months before modification of landfill operations, to allow public input through a hearing process. Examples: Section 5.2 allows DEQ to

authorize acceptance of other kinds of waste. The permit should allow for public input before a decision is made.

DEQ RESPONSE: Public notice and participation requirements regarding permit actions are specified in OAR 340-093-0100 and -0105. DEQ will adhere to these requirements. Section 5.2 of the permit refers to special wastes as outlined in OAR 340-093-0190. DEQ will keep the Yamhill County Solid Waste Coordinator apprised of any proposed new special waste requests for the Riverbend Landfill.

I have concerns about the financial assurance statement, and I realize that is going to be updated. But I am quite concerned about the basis for these. I am not sure that the numbers we are being shown reflect the current high inflation rate and I would hate to see those numbers understated.

DEQ RESPONSE: As noted in this comment, inflation can have a significant effect on calculation of closure and post-closure costs. DEQ therefore provides guidance each year that specifies what the assumed reference rate should be (<https://www.oregon.gov/deq/FilterDocs/fa-AnnualRecertification-FinAssurance.pdf>). As discussed in OAR 340-094-0140(4)(a), the reference rate considers inflation and other economic factors. This guidance and other related information can be found here: <https://www.oregon.gov/deq/mm/swpermits/Pages/Financial-Assurance.aspx>. Inflation and discount rates are taken into consideration when calculating financial assurance requirements.

I have particular concern about the mention of this second tier to be closed – the green section of 11 acres shown in the presentation. I surely would like more information on that. I am not sure how that would fit into the closure permit but I have real concerns about that because that would affect some of the oldest cells closest to the river and I'd like to see stronger language on that particular area.

DEQ RESPONSE: As DEQ noted at the June 22 public hearing, Riverbend Landfill is considering whether or not to place more waste in an 11-acre area in the southwest portion of the landfill before final capping of that area. Please note that Riverbend already received approval from DEQ in 2017 to line this area and place additional waste. This approval followed a public comment period that included a public hearing held on May 2, 2017. A liner and final cover in this area will further help reduce any potential impacts from the cells referenced.

I'd also like to see inclusion of the current operational plan because I was very distressed in July of 2021 when you basically got about a three-days notice when they slammed the doors and told the public to go away. That constituted a modification to their operations plan. That language needs to be strengthened or expanded so this kind of rather abrupt change cannot occur. Again, that goes to notification.

DEQ RESPONSE: The proposed closure permit requires that a revised Operations Plan be submitted within 120 days of permit issuance. Riverbend submitted an updated Operations Plan when they stopped accepting waste from the public. This plan can be found on the DEQ Riverbend web page.

I also have concerns about why Waste Management is setting the terms of the time by saying contaminated soil is a little tough to get. I don't have any basis in fact for that and I'd like to see that

provided because I don't see why we can't go to a shorter term if, in fact, soil is available. Those are some of my comments. I will put expanded comments in writing and I thank you for the opportunity to comment.

DEQ RESPONSE: Waste Management requested a substantially longer period than eight years to close the landfill. However, DEQ felt that eight years was an appropriate time for closure, considering the time required for closure construction, availability of contaminated soil for disposal, availability of materials and contractors to do the work and consideration of the advantages and disadvantages of closing sooner. For example, closing the landfill sooner reduces odors and leachate generation sooner, while waiting to cap allows more waste settlement to occur prior to capping, therefore reducing stress on the cap. Also, though it may take longer for the landfill to obtain contaminated soil than garbage, contaminated soil has less odor than garbage, does not contain blowable litter, and does not attract birds or rodents.

TESTIMONY FROM RAMSEY MCPHILLIPS:

I have prepared comments but after receiving some information today, it makes many of the comments somewhat moot or confusing so I'm going to ad lib a little here and just read what I feel is still pertinent but I'm protesting that I'm being put in this position at this formal hearing. As I read the limited documents on the DEQ website, there is bond money to be set aside by Waste Management to fulfill the 30 years of closure. Although I see a clear itemization of costs up to 2021 in one document, I do not see a breakdown of costs for what is to be expected of Riverbend in the future as it relates to the financial assurance bond. For instance, Riverbend is to care for the leachate removal for 30 years. If they are to post a bond of \$33 million to carry out closure, how much of that total is allocated to leachate removal? I.e., where is the breakdown of costs you require of them to fulfill closure and what are the costs based on?

DEQ RESPONSE: Permitted landfills including Riverbend Landfill must submit an annual financial assurance update that documents closure and post-closure costs, the basis for those estimated costs, and copies of the financial documents that demonstrate that sufficient funds are available for closure and 30 years of post-closure. The two most recent financial assurance updates are on [DEQ's Riverbend Landfill website](#). The latest update can be found here: <https://www.oregon.gov/deq/Programs/Documents/riverbend-2022CPCFA.pdf>. The basis for estimated costs is provided in this document. For example, closure costs are broken down in a table that begins on pdf page 77. Post-closure costs are tabulated beginning on pdf page 79. Information supporting the costs estimates in those tables is provided beginning on pdf page 82.

Does DEQ have metrics to know what is required for each of the important duties of closure? And just as important, where are the contingencies in case the project costs are not aligned with the economy, environmental future, or the seismic event. We're in the middle of an inflationary period and I would like to see how that is going to be abridged in the overall 30-year program of keeping up with the economy.

DEQ RESPONSE: DEQ technical staff have experience in evaluating landfill closure and post-closure costs, based on review of many closure and post-closure plans, as well as experience doing this work in the private sector. Riverbend Landfill is required to cover the costs of closure and post closure care.

They are required to annually provide updated estimated costs for closure and 30 years of post-closure care financial assurance. In the event of unanticipated costs, Riverbend Landfill and its parent company, Waste Management, remain liable for ensuring that needed work is done.

As for the effects of inflation on these cost estimates, DEQ provides guidance each year that specifies what the assumed reference rate should be (<https://www.oregon.gov/deq/FilterDocs/fa-AnnualRecertificationFinAssurance.pdf>). As discussed in OAR 340-094-0140(4)(a), the reference rate considers inflation and other economic factors. This guidance and other related information can be found here: <https://www.oregon.gov/deq/mm/swpermits/Pages/Financial-Assurance.aspx>.

DEQ seems to be relying on the word of Waste Management to assure that there will be enough money and we have found their word does not always ring true. Frankly, nor does DEQ. Point in case: DEQ fell down on the job regarding the excess methane escaping from Riverbend. Not until the EPA came in, prompted might I add, by Stop the Dump Coalition, did a remedy, fines and cause come to fruition. This permit is an opportunity to assure that there is not more regulatory slippage when no one is looking, and I've not seen in this permit how DEQ is going to have oversight on the dump, which is currently still exhibiting serious problems, methane and leachate spills. Lastly, the County had a LUCS when it first sited this landfill, having to do with returning the landfill to farmland. They then said that that was not applicable because the landfill was not on farmland, and so did DEQ. Said it was on a PWS so that was no longer applicable. The landfill then switched zoning to farming so now we're being told even though it is on farming, they don't need to return it to farming. All they need to do is plant grass. So I'm a little confused by the County - actually I hope you're listening – could you please bring forward the LUCS that guaranteed it return to farming and I hope that DEQ will assimilate the County's LUCS returning it to farming into the permit. It's really important to those of us who are farming around the landfill and not just be an empty space of grass. I will do the rest of my comments in written form. But once again, I would like to make a point that I am not pleased with the way that this hearing has been conducted, given that we weren't given information to prepare. Thank you for your time.

DEQ RESPONSE: The DEQ permits (air, water and land), applicable rules and statutes provide the regulatory framework for oversight on the facility. Yamhill County has authority over the LUCS and questions regarding it need to be directed to the County.

The pertinent statute regarding landfills in farm use areas is ORS 459.055(1):

459.055 Landfills in farm use areas; waste reduction programs. (1) Before issuing a permit for a landfill established after October 3, 1979, in any area zoned for exclusive farm use, the Department of Environmental Quality shall determine that the site can and will be reclaimed for uses permissible in the exclusive farm use zone. A permit issued for a landfill in an exclusive farm use zone must contain requirements that:

- (a) Ensure rehabilitation of the site at the termination of the use for solid waste disposal to a condition comparable to its original use;*
- (b) Protect the public health and safety and the environment;*
- (c) Minimize the impact of the landfill on adjacent property;*
- (d) Minimize traffic; and*

(e) Minimize rodent and vector production and sustenance.

Following is our analysis of these requirements:

- (a) Ensure rehabilitation of the site at the termination of the use for solid waste disposal to a condition comparable to its original use:* Section 11.1 of the draft closure permit requires the permittee to submit a revised closure and post-closure plan within 120 days of the permit issuance date. DEQ will evaluate the closure and post-closure plan to determine whether it addresses this requirement. The site's prior use was as farmland. Presumably, its original use was as woodland. DEQ would oppose planting of trees on the landfill because tree roots could jeopardize the integrity of the final cover. However, DEQ would not be opposed to the permittee growing trees elsewhere on its 740-acre property. Growing certain crops on the landfill would be acceptable, provided the closure plan demonstrated that these crops would not harm the final cover. Our current understanding is that the landfill proposes to grow grass on the closed landfill, to minimize erosion of the soil covering the underlying components of the final cover. We are not aware of any Oregon rule that prohibits farmers from growing grass on their property.
- (b) Protect the public health and safety and the environment:* The proposed closure permit specifies that the landfill must cease accepting waste and complete closure within eight years of permit issuance. Capping of the landfill will increase protection of public health and safety and the environment. Other environmental safeguards, such as leachate and landfill gas management, and environmental monitoring would continue under the proposed closure permit.
- (c) Minimize the impact of the landfill on adjacent property:* As stated in the preceding item, the activities to be conducted under the proposed closure permit will minimize the landfill's impact on adjacent property.
- (d) Minimize traffic:* Traffic related to landfill operations has already been reduced because the volume of waste taken to the landfill has been greatly reduced. Once the landfill ceases accepting waste, traffic will be reduced further.
- (e) Minimize rodent and vector production and sustenance:* One of the key activities to be conducted under the proposed closure permit will be capping of the entire landfill. This will minimize attraction to rodents and other vectors.

TESTIMONY FROM ILSA PERSE:

The whole methane thing seems to have dovetailed in pretty interestingly with the odor nuisance study. After probably more than a decade of vociferously complaining to both DEQ and Riverbend that the landfill odor was intolerable many, many days of the year – it could be smelled in downtown McMinnville – finally somebody at DEQ said, OK great, let's do an odor nuisance study. Then we tried to find the results of the odor nuisance study. We got the data but then we were told by Claudia Davis that, now that EPA is involved, we're outta here. So that has been a big concern for many of us that DEQ went to the trouble to do an odor nuisance study, one of the very few that are ever done in the state, because of ongoing issues at the landfill. And now, that seems not to be a concern for anybody at this point that odor was an ongoing issue at an operating

landfill and now that it's not taking in garbage, well the smell has pretty much gone to very tolerable.

DEQ RESPONSE: The goal of DEQ's Nuisance Odor Strategy is to resolve odor complaints with cooperative voluntary remedies instead of using enforcement actions to address the issue. DEQ staff identified possible violations at Riverbend Landfill and referred those violations to EPA for further investigation and potential enforcement action. In September 2021, EPA completed its investigation and enforcement action which resulted in a consent agreement between EPA and Riverbend Landfill and which included a civil penalty of \$104,482. Since enforcement action has been taken, use of the Nuisance Odor Strategy is no longer appropriate, and the nuisance odor study has been closed.

And when we hear that an expansion could come about however many years down the road, that they could apply for an expansion, and DEQ says, well, we won't do anything until there's permission from the County. The landfill is an environmental catastrophe waiting to happen. And you know it, it's in a severe seismic hazard zone, it's on the banks of a river, and at this point, it seems to me that the County should actually not be in the equation. This is an environmental situation. There's been ongoing smells. There are methane leaks and there's a leachate leak. And I remember at an early EQC meeting maybe 12 years ago, Wendy Wiles, if she's still at DEQ, came up to me and said, "If we knew then what we know now, we never would have sited it there." She said that to me. I couldn't have made that up, I wouldn't have made it up. It's not the sort of thing I ever expected anyone at DEQ to say. So now we hear that DEQ says well, if the County wants to give them a LUCS, our hands are tied. It doesn't seem to me that this is a county decision. This is an environmental decision, and you are the Department of Environmental Quality. And based on the years and years of problems and extreme community disapproval of this, that it might be time for DEQ to say, No, we're not involved in siting a landfill in a place that is so problematic. It's in a wet part of the state, it is not well-managed and I think that at a certain point, DEQ can exercise its authority and say Sorry, you had your however many years and it's not appropriate to be reissuing a permit. You also need to know that the County makes money off of getting garbage. They have a tremendous conflict of interest. They're willing to give a permit to a place that is an environmental catastrophe because they're making money on it. And I think DEQ should probably exercise some authority and realize that this is no longer an appropriate location for a landfill. And I'm hoping, God forbid, that there is ever a request to expand, DEQ says no. Thank you.

DEQ RESPONSE: Both Yamhill County and DEQ have responsibilities regarding review of proposals to site or expand a landfill in Yamhill County. Because these are land use decisions, the initial review is done by the County. The county determines if the proposed facility is compatible with zoning requirements or land use. OAR 340-093-0070(3)(b) requires land use approval as part of a complete permit application to DEQ. If DEQ receives a complete permit application, it is required to review the permit application against applicable state and federal environmental regulations and requirements. These regulations govern where a landfill can be located, and how it must be designed, built and operated. If a proposed facility meets both the land use requirements and the environmental requirements a permit would be issued.

Ms. Perse points out specific environmental concerns, which we address below:

Seismic stability. Seismic stability is a concern for structures of any kind in western Oregon. For this reason, DEQ hired a geotechnical consultant to assist in review of the seismic hazard evaluation and seismic stability analysis of the landfill. DEQ’s consultant concluded that the seismic analysis and the resulting seismic design meet rigorous regulatory requirements, engineering practice and adequately address seismic concerns. Geotechnical review of the final engineered closure and post closure care plans from 2017 indicate conformance with good engineering practice, and adequate safety factors for slope stability. In the case of a seismic event as defined in federal landfill regulations, the deformation appears to be reasonable with no catastrophic consequences. Reasonable engineered closure design and monitoring for slope stability are in place.

Proximity to the South Yamhill River. At its closest point, Riverbend Landfill is approximately 400 feet from the South Yamhill River. The landfill meets the location requirements specified in federal regulations (40 CFR 258, Subpart B) and Oregon rules (OAR 340-094-0030). Based on review by DEQ’s geotechnical consultant, considering the soil and waste characteristics and the flexibility of the landfill mass, we do not believe that a catastrophic failure would occur.

Odors. As mentioned in these comments, odors from the landfill have decreased as a result of the recent reduction in waste flow to the landfill. We believe odors will decrease further because the landfill plans to take more contaminated soil than garbage from this point on. In addition, the proposed closure permit sets a schedule for completing capping of the landfill, which will also result in reduced odors. The final cover system will include an impermeable geomembrane welded along the perimeter to the bottom liner geomembrane. This containment will allow for efficient landfill gas collection and control.

Odors related to leachate storage are controlled by aerators in the leachate pond, which maintain an aerobic environment that limits production of odorous compounds that form more readily in an anaerobic environment. With a final cap system in place that prevents rainwater from entering the landfill, leachate volumes should decrease over time.

Methane leaks. USEPA and Riverbend Landfill Company signed a consent order in September 2021 to address violations related to monitoring of methane escaping from the landfill cover. We should emphasize that this pertains to landfill gas escaping upward into the air, as opposed to subsurface migration of methane. Based on monitoring of the site’s methane probes, subsurface migration is not occurring. The control of surface emissions of methane and other non-methane compounds is subject to the air permitting requirements of both Title V and recent DEQ Air Quality greenhouse gas emission control rules.

As noted above, closure construction will enable better control of landfill gas emissions because the waste will be contained within the underlying and overlying geomembranes (the liner and the cap).

Leachate leaks. Riverbend was cited for three leachate releases in 2021. Two were minor leaks resulting in small wet areas along the perimeter road adjacent to the edge of the landfill liner. (A weld between the liner and a riser pipe and a weld joint in another location failed.) The third was an action by a third-party leachate tanker truck driver who deliberately opened the valve of his truck and released leachate on the landfill property. Fortunately, the landfill’s falconer observed this, yelled at the truck driver and alerted Riverbend staff. Riverbend promptly excavated the impacted soil. None of the three

leachate releases reached nor impacted groundwater or surface water. With closure of the current landfill, there will be likely less leachate and less likelihood of leachate leaks.

DEQ RESPONSES TO WRITTEN COMMENTS

COMMENTS PROVIDED BY SUSAN WATKINS

I'd like to begin by thanking DEQ for posting the full 2017 Closure and Post-Closure Plan on the Riverbend Landfill Projects page. The appendices to this Plan are full of information that is useful to neighbors, businesses, and downstream water users. I hope that full Plans will be posted in the future as well.

There are still some documents that have not been posted, however. DEQ states in its Public Notice of hearing and request for comments that the closure permit will be based on both the 2017 closure plan and the January 27, 2022, permit application. The application itself is posted on the Riverbend Projects page, but the attachments to the permit are not. Some, but not all, of those attachments were made available privately to at least one individual who has commented, but they are not available to the public at large. The attachment that, to my knowledge, no one who attended the public hearing has seen is the "written recommendation from the local government unit having jurisdiction of solid waste in my area." Given that this document has not been shared with the public, I ask that DEQ not take it into consideration.

DEQ RESPONSE: The applicant included an August 12, 2021 solid waste license agreement between Yamhill County and the Riverbend Landfill Co. A written recommendation from the local government is not required for the closure of an existing landfill. This document had no bearing on DEQ's evaluation of the permit application and therefore was not posted to the web page. It is a public document available upon request.

My comments are organized as follows:

- 1. Summary of comments made at Public Hearing**
- 2. Request for more public involvement**
- 3. Additional comments on draft Closure Permit**
- 4. Comments on 2017 Closure Plan**
- 5. Comments on current (2021) Operations Plan**

- 1. Summary of comments made at Public Hearing**

These comments were presented orally at the June 27 Public Hearing. This is obviously only a summary of the comments. I have circulated these notes to the commenters and no one objected to my summary:

- a. The permit should prohibit further expansion of the landfill. DEQ officials have already acknowledged that the site, on a bend in the South Yamhill River, is problematic, and have said that the location would not be approved if Riverbend were seeking to establish a new landfill there. If a new landfill would not be appropriate at this site, an expansion should not be appropriate, and the permit should say so.

DEQ RESPONSE: DEQ does not have the authority to prevent an applicant from applying to modify their permit nor from applying for a new permit. Any permit modification request or new application submitted to DEQ would be reviewed for compliance with all applicable legal requirements in accordance with solid waste statutes and rules.

- b. The permit should require public participation in efforts to modify the permit's terms, whether the modification is initiated by DEQ or by Riverbend. As drafted, the permit only requires DEQ to "notify" the public when a "significant" change is made. At the public hearing, DEQ stated that the public would have the opportunity to participate in any modification that allowed the landfill to expand, but that is not spelled out in the permit draft. The public's right to participate must be clearly stated in the permit.**

DEQ RESPONSE: Public notice and participation requirements regarding permit actions are specified in OAR 340-093-0100 and -0105. A permit modification that is not administrative in nature would require a public notice of the proposed permit action. A permit modification to expand the landfill would require a public notice of the proposed permit action. DEQ will adhere to these requirements.

- c. The permit should require timely public "notification" of every adverse environmental event at the landfill. Currently, neighbors and regulators find out about leachate spills and methane emissions only long after the fact and often from the press or by incidental direct contact with the federal Environmental Protection Agency (EPA) or DEQ. The landfill should routinely inform neighbors about issues that affect them directly or via air, soil, and water quality pollution.**

DEQ RESPONSE: DEQ issues a monthly summary of enforcement actions. The public can subscribe to this by signing up to receive news releases at ordeq.org/GovDeliverySignUp. DEQ also posts the summaries on Oregon Newsroom, found online at ordeq.org/DEQ-Oregon-Newsroom. DEQ will make an effort to keep the county solid waste coordinator informed of what DEQ considers significant issues at the landfill.

- d. Riverbend should be required to host an annual (or semi-annual) community meeting to update the public on its progress toward closure and also to explain any adverse environmental incidents that have occurred since the previous meeting. The landfill's Air Quality (Title V) permit already requires semi-annual meetings; those meetings could be expanded to cover closure as well. In addition to presentations by landfill personnel, the meetings should also allow the public to make presentations and also require DEQ to present its findings/position on the issues discussed.**

DEQ RESPONSE: DEQ rules do not require permittees to host the meetings described in this comment. DEQ will consider scheduling community meetings as circumstances warrant or as requested by the public to address the types of subjects described in the comment.

- e. **The permit should require Riverbend to return the land to farming when the dump is closed. This was required in the original permit granted by Yamhill County. The requirement was dropped when the landfill site was rezoned to PWS (Public Works Safety), but the land has been rezoned again, back to EFU (Exclusive Farm Use), so there's no legal barrier to requiring a farm use.**

DEQ RESPONSE: We believe the pertinent statute regarding landfills in farm use areas is ORS 459.055(1):

459.055 Landfills in farm use areas; waste reduction programs. (1) Before issuing a permit for a landfill established after October 3, 1979, in any area zoned for exclusive farm use, the Department of Environmental Quality shall determine that the site can and will be reclaimed for uses permissible in the exclusive farm use zone. A permit issued for a landfill in an exclusive farm use zone must contain requirements that:

- (a) Ensure rehabilitation of the site at the termination of the use for solid waste disposal to a condition comparable to its original use;*
- (b) Protect the public health and safety and the environment;*
- (c) Minimize the impact of the landfill on adjacent property;*
- (d) Minimize traffic; and*
- (e) Minimize rodent and vector production and sustenance.*

Following is our analysis of these requirements:

- (f) Ensure rehabilitation of the site at the termination of the use for solid waste disposal to a condition comparable to its original use:*** Section 11.1 of the draft closure permit requires the permittee to submit a revised closure and post-closure plan within 120 days of the permit issuance date. DEQ will evaluate the closure and post-closure plan to determine whether it addresses this requirement. The site's prior use was as farmland. Presumably, its original use was as woodland. DEQ would oppose planting of trees on the landfill because tree roots could jeopardize the integrity of the final cover system. However, DEQ would not be opposed to the permittee growing trees elsewhere on its 740-acre property. Growing certain crops on the landfill would be acceptable, provided the closure plan demonstrated that these crops would not harm the final cover system. Our current understanding is that the landfill proposes to grow grass on the closed landfill, to minimize erosion of the soil covering the rest of the final cover. We are not aware of any Oregon rule that prohibits farmers from growing grass on their property.
- (g) Protect the public health and safety and the environment:*** The proposed closure permit specifies that the landfill must cease accepting waste and complete closure within eight years of permit issuance. Capping of the landfill will increase protection of public health and safety and the environment. Other environmental safeguards, such as leachate and landfill gas management, and environmental monitoring would continue under the proposed closure permit.
- (h) Minimize the impact of the landfill on adjacent property:*** As stated in the preceding item, the activities to be conducted under the proposed closure permit will minimize the landfill's impact on adjacent property.

- (i) **Minimize traffic:** Traffic related to landfill operations has already been reduced because the volume of waste taken to the landfill has been greatly reduced. Once the landfill ceases accepting waste, traffic will be reduced further.
 - (j) **Minimize rodent and vector production and sustenance:** One of the key activities to be conducted under the proposed closure permit will be capping of the entire landfill. This will minimize attraction to rodents and other vectors.
- f. Each task involved in closing the landfill needs to be identified in the permit together with its projected cost and an explanation of the method(s) used to determine that cost.**

DEQ RESPONSE: Closure and post-closure tasks will be described in the closure and post-closure plan that the proposed closure permit requires. These costs are also described in the annual financial assurance updates, along with projected costs and the basis for those cost estimates. The two most recent financial assurance updates are on [DEQ's Riverbend Landfill website](https://www.oregon.gov/deq/Programs/Documents/riverbend-2022CPCFA.pdf). The latest update can be found here: <https://www.oregon.gov/deq/Programs/Documents/riverbend-2022CPCFA.pdf>. The basis for estimated costs is provided in this document. For example, closure costs are broken down in a table that begins on pdf page 77. Post-closure costs are tabulated beginning on pdf page 79. Information supporting the costs estimates in those tables is provided beginning on pdf page 82.

- g. The future of the 11 acres that are available for filling with waste should be spelled out in the permit, not left to the whim of Riverbend.**

DEQ RESPONSE: As DEQ noted at the recent public hearing, Riverbend Landfill is considering whether or not to place more waste in an 11-acre area in the southwest portion of the landfill before capping that area. Please note that Riverbend already received approval from DEQ in 2017 to line this area and place additional waste. This approval followed a public comment period that included a public hearing held on May 2, 2017.

2. Request for more public involvement

I made comments "b, c, and d" above and will elaborate here.

- a) **The Permit should require a public hearing on any significant changes to the permit.**

As drafted, the permit requires notification to the public in only one instance: the occasion of a "significant change" in the permit's terms (Sec. 4.5). Given the landfill's past record with respect to, and the public's keen interest in, potential hazards at the landfill, including fire, acceptance of non-permitted material, water contamination, gas emissions, and seismic potential, the public must be involved in any material changes to the final permit.

- b) **The Permit should require public notice whenever the landfill is required to notify DEQ (except notice of sampling and resampling events identified in Sec. 14.1 and 14.2). The following sections of the Permit should require the landfill to notify the public at large as well as Yamhill**

County officials (Solid Waste Coordinator and County Commissioners) and to make the substance of each notice available to the public for review:

5.4 - changes to recycling protocols

6.1 & 9.1 - when hazardous or other unacceptable waste has been deposited at the landfill

7.2 - when a fire occurs

8.1 - whenever the Permit is violated

8.5 - specify when records are to be made available for review by the public

9.2 - whenever a potentially hazardous spill occurs (as written, the Permit does not even require the landfill to notify DEQ in this event!)

9.10 - when the leachate depth is exceeded

10 - decisions regarding site development

11 - decisions regarding closure and post-closure requirements, tasks, and schedule

11.3 & 11.4 - when the Plan is changed

12 - when an updated financial assurance plan is submitted to DEQ for approval

Environmental Monitoring - Sections 13 et seq - when any issues arise

16.3 & 16.4 - when water quality standards are exceeded

16.7 - when emissions standards are exceeded

19.1 - whenever the calendar of due dates requires DEQ to be notified for any of the reasons listed.

This request is based on the historical reluctance of Riverbend to inform the County and the public of any problems at the landfill. County officials as well as neighbors, businesses, and users of the air and water that could be affected by landfill issues usually find out about problems only when a fine is levied and picked up by the press. This is ridiculous. Riverbend's license with the County requires them to notify the County of any violations of law. The Closure Permit should do the same, and include the public in that notice requirement.

DEQ RESPONSE: Public notice and participation requirements regarding permit actions are specified in OAR 340-093-0100 and -0105. DEQ will adhere to these requirements. In addition, DEQ will keep the Yamhill County Solid Waste Coordinator apprised of significant issues at the landfill.

c. **The Permit should require a semi-annual public meeting where Riverbend officials explain the progress made toward closing the landfill as well as any issues that have arisen since the previous meeting.**

As noted in my oral comments at the June 27 Public Hearing, Riverbend's current Title V Air Quality permit already requires a semi-annual public meeting. The Closure Permit should piggy-back on that meeting and require additional information about closure progress. The Title V permit requires Riverbend to provide an opportunity for the public to make presentations at the public meetings, and the Closure Permit should, too. In addition, we have found that it is useful to have DEQ representatives attend the meetings and address issues as well. The Closure Permit should state that DEQ will attend and answer questions at at least one of the public meetings each year.

DEQ RESPONSE: DEQ rules do not require permittees to host the meetings described in this comment. DEQ will consider scheduling community meetings as circumstances warrant or as requested by the public to address the types of subjects described in the comment.

3. Additional comments on draft Closure Permit

I request additions and revisions to the following sections of the draft Permit:

9.8 - The Permit should identify the "borrow area" and any laws or rules that place limitations on the amount of soil that may be "borrowed" and equipment that may be used, etc. In the past, issues have been raised concerning possible Native American grave sites or artifacts located within the borrow area; while these should not be made public, the landfill should be required to address this issue with interested tribal governments.

DEQ RESPONSE: DEQ looked into this issue prior to construction of the MSE berm in 2013. At that time, DEQ contacted Eirik Thorsgard at Confederated Tribes of the Grande Ronde regarding their assessment of Riverbend Landfill's efforts to safeguard cultural resources before excavating soil from the onsite soil borrow area. That work included having a registered archeologist onsite during construction of test pits in this area in 2012. Mr. Thorsgard stated at the time that he was satisfied with those efforts. In addition, Riverbend's excavation plan provides for notification and review by a registered archeologist should something be identified during excavation.

9.10 - The Permit should acknowledge that cells 1, 2, and 3 likely were not compacted to DEQ standards prior to waste being deposited in those cells.

DEQ RESPONSE: Section 9.10 of the permit concerns current leachate management practices. Based on years of data and analysis DEQ does not believe the quality of construction of the liners for cells 1, 2 and 3 has bearing on current leachate management requirements nor is causing an impact. Current waste mass in that area should result in further compaction.

9.12 - The Permit should acknowledge that the County has found that Riverbend's current and most-recently proposed litter control measures are not satisfactory and that the County's rejection of those measures has been upheld by LUBA. The Permit should prohibit the deposit of any potentially windblown waste on the landfill until Riverbend submits to the County and to DEQ a satisfactory litter control plan that meets the criteria of ORS 215.296.

DEQ RESPONSE: Section 9.12 cites OAR 340-094-0040(11)(I), which provides DEQ with authority to regulate proper control of litter at municipal solid waste landfills. We believe this is the pertinent citation for the purpose of this permit. ORS 215.296 pertains to findings and oversight by a local governing body (Yamhill County). As the landfill moves towards final closure, the potential for wind-blown litter will ultimately be eliminated.

9.13 - The Permit should acknowledge that farmers surrounding the landfill have complained for years about birds attracted to the landfill and then damaging their crops and animals. In light of

this past history, the Permit should require Riverbend to develop a strong bird control plan with public input.

DEQ RESPONSE: Based on review of various bird control methods, we believe the most effective option is the use of falcons, combined with minimizing the size of the working face. We recommended these measures to Riverbend several years ago and Riverbend has employed a falconer since then. Bird control should also be improved as a result of reduced quantity of waste coming into the landfill and the fact that more of that waste will be contaminated soil rather than garbage. In addition, the permit specifies a time limit for closing the landfill, which will eliminate exposed waste that could attract birds.

9.14 - The Permit should acknowledge that users of Highway 18 have complained for years about dust and litter on the highway. In light of this past history, the Permit should require Riverbend to develop a strong dust control plan with public input.

DEQ RESPONSE: In response to past complaints about dust and mud on the roads, Riverbend has taken several measures to address this issue, including installation of a truck wash facility at the landfill, and use of sweeper trucks on the property and on the access lane from the site onto Highway 18. Based on our inspections over the past several years, these measures have been effective. As discussed in the facility's Operations Plan, dust control measures include watering, and applying a dust suppressant on the access roads when necessary. With limited waste acceptance and the closure of the landfill, dust and litter on the highway should be reduced and ultimately eliminated.

9.14, 9.19, & 9.20 - The Permit should acknowledge that users of Highway 18 have complained for years about malodors emanating from the landfill. In light of this past history, the Permit should require Riverbend to develop a strong emissions control plan with public input. Moreover, the Permit should require Riverbend to notify the public whenever emissions exceed required standards.

DEQ RESPONSE: Emissions monitoring and control are covered under the facility's air quality permit. There are no quantitative standards related to odors. However odors are less of a problem since the landfill significantly reduced the amount of waste it receives. The proposed closure permit sets a schedule for capping of the uncapped portions of the landfill. This will also reduce or eliminate offsite odors.

9.22 - The Permit should acknowledge Riverbend's past failures to maintain the cover system. In light of this history, the Permit should establish specific standards for Riverbend to meet in maintaining the cover system, including frequency of inspections and time limits for effecting repairs.

DEQ RESPONSE: Issues regarding methane emissions through the cover system are addressed in the landfill's air quality permit. Odor control is addressed through the proposed closure permit in that it specifies a schedule for installation of final cover over the entire landfill. The solid waste permit requires at least monthly inspections to determine compliance with this permit, DEQ solid waste regulations and a record of any repairs performed.

9.23 & 11.7 - The Permit should require that all vegetation be native and not noxious.

DEQ RESPONSE: OAR 340-094-0120(2)(c) states:

“The finished surface of the closed areas shall consist of soils of a type or types consistent with the planned future use and approved by the Department. Unless otherwise approved by the Department, a vegetative cover of native grasses shall be promptly established over the finished surface of the closed site.”

As this requirement is addressed in rule, we do not believe it needs to be stated in the permit. Currently, the landfill is using Dutch White Clover. Dutch White Clover requires less frequent mowing, which supports surface emission measurement goals. Changing soil conditions can warrant different seed mixes. Therefore, the landfill may change the seed mix as necessary to support the goals of the cover without modifying the Closure Plan or permit.

As we have done in the past, DEQ will review specifications for all aspects of closure, including vegetation specs. Based on discussions with the OSU agricultural extension office in McMinnville, they believe Dutch White Clover is a suitable plant for the purpose of vegetative cover at Riverbend Landfill.

9.24 - In addition to the requirements of this section, the Permit should require final contours to blend in to the surrounding landscape as much as possible consistent with erosion criteria.

DEQ RESPONSE: The surface contour criteria identified in section 9.24 of the proposed permit are intended to address more than erosion. These criteria also serve to minimize the risk of stormwater settling in depressions, so it does not exert hydraulic pressure on the impermeable cover.

9.25 - The Permit should state specifically that no "maintenance, expansion, or enhancement" of the existing site can occur until and unless the landfill solves the litter, odor, and pest issues to the satisfaction of Yamhill County and landfill neighbors.

DEQ RESPONSE: One of the main purposes of the proposed closure permit is to establish a schedule for the installation of final cover on the landfill. This should eliminate any remaining litter and pest concerns and greatly reduce landfill odors. These activities could be considered maintenance or enhancement. The proposed permit pertains to closure, not expansion, of the landfill.

9.26 - The Permit should require the landfill to notify the County's Solid Waste Coordinator whenever a complaint is filed and, subsequently, how the complaint was resolved and also to make the complaint log available to the public. In addition, the Permit should require the landfill to have a local phone number and local personnel to take complaints. At present, to report a problem at Riverbend, one must call a Texas phone number to reach someone who has no idea where Riverbend Landfill is or how to handle the complaint.

DEQ RESPONSE: Waste Management states that, when someone calls its 24-hour hot line regarding Riverbend Landfill, the operator takes the information and sends alerts to a contact list for the landfill. Nick Godfrey, Senior District Manager, is the local contact. The 24-hour hot line forwards any information to Nick's contact number.

4. Comments on 2017 Closure Plan

Section 7.6 of the draft Permit requires Riverbend to develop and submit for approval "updated Final Engineered Closure and Post Closure Care Plans." (It's unclear whether one or several plans are required; the Permit should specify whether one plan is required or more than one and, if the latter, what each is to address.) The final Plan should address each of the items called out above for inclusion in the final Permit.

DEQ RESPONSE: We anticipate receiving one closure plan and one post-closure care plan. The permittee may submit these separately or in one document, provided that the requirements of OAR 340-094-0110 and -0115 are met. The Final Engineered Closure plan describes how the landfill will be closed (grading, cover system, etc.). The Post Closure Care Plan describes how the landfill will be maintained after final closure.

In addition:

The closure Permit should require the settlement evaluation (Appendix C) to analyze settlement both with and without any additional added waste.

DEQ RESPONSE: The settlement evaluation included as Appendix C in the 2017 closure and post-closure plan is based on the current proposed final elevations. We will evaluate revisions to this, if any, when we receive the updated closure and post-closure plan. The draft permit requires that this be submitted within 120 days of permit issuance.

The slope stability evaluation in Appendix E relies on old reports, one from 2014 and one from 2016. The Closure Permit should require new -- and independent -- evaluations.

DEQ RESPONSE: The proposed permit requires that the closure and post-closure plan be updated and resubmitted within 120 days of permit issuance. DEQ and its geotechnical consultant will evaluate the slope stability evaluation based on current requirements.

The new Closure Plan should be submitted to the public for review and comment before it is accepted by DEQ.

DEQ RESPONSE: DEQ plans to post the closure and post-closure plan on its Riverbend Landfill website once we have completed our review. A member of the public can obtain a copy prior to completion of our review by submitting a records request.

5. Comments on current (2021) Operations Plan

Section 7.1 of the draft Permit requires Riverbend to submit "any necessary updates to the site Operations Plan to DEQ for review and approval" within 120 days after the permit is issued. Given that the most recent Operations Plan failed to even mention that the landfill has stopped accepting community waste, this requirement should be strengthened to require a wholly new operations plan that reflects the landfill's actual practice on the ground. The plan should promptly be made available to Yamhill County officials and the general public.

First, a general comment: The "updated" 2021 operations plan frequently states that required activities will be performed "to the extent possible" or "as soon as possible" or the like, without any attempt to define those terms. The closure Permit should require any such statements in the required updated Closure Plan to qualify what is meant by "possible," e.g., financially possible? Legally? Weather permitting? With use of state of the art equipment or techniques (or historical but outdated equipment and techniques)? Industry "best practices," as defined by --? The closure Permit should require the new operations plan -- as well as the new Closure Plan -- to specify what is meant by "possible" in each circumstance.

Comments relating to specific sections of the 2021 operations plan:

4.2 - Riverbend claims in this section to still be accepting MSW. The closure Permit should require that the operations plan be accurate and up-to-date, including public notification of future plans.

5.6 & 6.6 - These are the only sections to address odor. Since odor has historically been a source of many complaints, including assaults on health, the closure Permit should require the operations plan to address activities to reduce or eliminate odor with specificity.

5.7 & 5.8 - The closure Permit should require the operations plan to identify actual daily cover practices used at the landfill, not merely theoretical practices that might potentially be used.

5.7.2 - Apparently DEQ allows Riverbend to use sludge for daily cover. The type of sludge is not defined, but given the huge odor potential in some sludges, the type should be restricted by the closure Permit.

6.2 - The closure Permit should require Riverbend to monitor the vadose zone under the entire landfill, and especially cells 1, 2, and 3, and not just the poplar area.

8.1 - The closure Permit should require Riverbend to add both the County's Solid Waste Coordinator and the general public to the list of "necessary contacts" to be notified in event of an emergency at the landfill. There is nothing in the current Section 8 that requires the public to be notified about emergencies, including leachate leaks (Sec 8.5.3), spills and water contamination (Sec 8.5.4), landfill gas migration (Sec 8.5.5 -- you will recall that explosions have occurred in the past due to gas migration off-site), fires (Sec 8.6.6), and more. That is unacceptable. The closure Permit should require timely notification to both the County's Solid Waste Coordinator and the general public whenever an environmental issue occurs at the landfill. The Permit should further define "timely" to be appropriate to the event but in no case to be longer than 10 days. In some cases, immediate notification might be appropriate.

8.6.2 - Riverbend does not appear to realize that the 30-year post-closure period can be extended. The closure Permit should require the landfill to take into consideration this possibility when drafting its Closure Plan and operations plan.

Finally, there is no mention of the borrow area in the current operations plan. The closure Permit should require Riverbend to identify the borrow area and to spell out its plans with respect to soil removal and use.

DEQ RESPONSE: DEQ will forward these comments to Riverbend Landfill and will consider them as we review the updated Operations Plan. DEQ solid waste permits are issued for a maximum of ten years, future permits will address extending the 30 year post closure care period if necessary.

COMMENTS PROVIDED BY RICHARD MCJUNKIN

I recommend that Oregon Department of Environmental Quality (DEQ) NOT ACCEPT “2021 Annual Financial Assurance Update and Recertification, Riverbend Landfill; Solid Waste Disposal Permit No. 345 Yamhill County,” or “Final Engineered Site Closure and Post-Closure Plan, Riverbend Landfill, McMinnville, Oregon” (CP).

My justification for this recommendation is that significant financial closing costs for Riverbend Landfill (RL) were not only omitted from planning but not even considered in the scenario for establishing Closing Costs: 1) Catastrophic And Total Failure Of The Landfill, as well as 2) groundwater contamination that has gone undetected by Waste Management, Incorporated (WMI) monitoring wells. The current WMI scenario for total financial closing costs for RL, in no uncertain terms, should have addressed a catastrophic seismic foundation failure from an earthquake.

DEQ RESPONSE: DEQ does not have the authority to require landfills to factor for catastrophic events into the worst case closure plan. The financial assurance provided for landfills considers a 30-year post closure period. However, landfill owners know the regulations allow the states to extend the post closure period for a landfill based on site specific conditions. Activities required in post closure include, but are not limited to, operation and maintenance of any systems that are necessary to protect human health and the environment such as leachate collection and removal systems and gas extraction systems. DEQ approval is required before a landfill shuts down any of these systems. As long as any of these systems are operating, a permit and financial assurance will be required. However, in the event of an earthquake or other major problem, the landfill owner is responsible for remedying the problem.

OAR 340-095-0090 outlines the requirements for financial assurance. Closure, post-closure maintenance and any corrective action required by DEQ are the three categories. Setting funds aside for an unknown failure at an unknown point in the future is not within current financial assurance regulations.

It appears that specific geologic sampling data from drilling data, that exposed wide-spread liquefiable sands to be everywhere present in the geologic foundation for RL, were ignored. If considered, these sampling data would have forced recognition of the landfill long-term vulnerability. At least some of the liquefaction data collected WMI were in characterization efforts for constructing the Mechanically Stabilized Earthen (MSE) Berm; however and for whatever reason, liquefaction data were withheld from public access for approximately five years. During public WMI/DEQ meetings for the RL MSE Berm, the presence of liquefaction in the geologic foundation of RL was presented by the public as a big concern, especially as WMI sampling data indicated liquefiable sands were everywhere throughout the geologic foundation. In an attempt to

remedy public concerns, Bob Schwarz, PE, who was the DEQ permit writer at the time, stood before a RL public meeting in McMinnville and stated that “No liquefiable sands were present beneath RL - NONE.” In reflection, this public statement is very confusing given that sampling data from drilling operations at this same time period, showed by laboratory analyses, that liquefiable sands were wide-spread in the geologic foundation of RL. Samples, also verified as liquefiable by WMI laboratory analyses, appear to be present in 30 to 40 percent of subsurface sands in the RL foundation. Refer to: 1) Liquefaction Review Paper - January 28, 2013 (attached) and 2) Liquefaction Updated - 2017 (attached) for a detailed review of WMI soil samples collected from the Riverbend Landfill geologic foundation that are suspect by laboratory analyses to be liquefiable.

DEQ RESPONSE: Mr. McJunkin’s questions about liquefaction are similar to those he raised during the 2013 public comment period related to DEQ’s decision to approve a mechanically stabilized earthen berm to provide additional waste volume. Waste Management’s consultant, Geosyntec, provided a substantial amount of geotechnical testing data over several months in response to review by DEQ and its own geotechnical consultant. Soil characteristics were determined based on visual classification and standard penetration tests in the field, followed by soil lab testing. In addition, a geophysical survey was conducted to obtain shear wave velocity information for site soils.

DEQ disagrees with two comments. First, Mr. McJunkin states that DEQ staff stated that there were no liquefiable soils beneath the landfill. In fact, DEQ acknowledged that there were thin, discontinuous layers of liquefiable soils (uncompacted silts and sands). However, DEQ’s geotechnical consultant determined that, based on soil types, limited and discontinuous distribution of liquefiable soil, soil density and shear wave velocity tests, and plasticity measurements, the site soils do not pose a risk of significant liquefaction-induced deformation.

Second, Mr. McJunkin states that liquefaction data were withheld from public access for approximately five years. DEQ posted key documents on its Riverbend website. These and other documents were and are available to the members of the public provided they submit a records request.

Besides seismic issues not considered in final closing costs, further groundwater characterization appears to have also been dismissed, with approval by DEQ, as unneeded by WMI. In my decades of professional experience as a State licensed hydrogeologist, the RL groundwater monitoring system, designed and operated by WMI, does not provide adequate monitoring assurance for detecting a contaminant release(s). This is because the flow of groundwater occurs in three-dimensions and this type of groundwater flow has not been characterized, or even considered a possible issue, by WMI or DEQ. Until proven otherwise by more focused and deeper level groundwater sampling, WMI groundwater data showing non-detection values should all be considered *suspect* in locations down-gradient beyond the limits of RL waste cells – suspect without a doubt!

Groundwater Contamination and Flow Direction(s)

Groundwater contamination from RL is a proven fact with years of documenting analytical data. However, the total area impacted has not been characterized and is therefore unknown. This is because the same monitoring wells have been used for years without expanding the groundwater monitoring network to other down-gradient areas, including wells constructed deeper into groundwater. It was argued by WM that additional wells were not needed because contamination levels are low in the part-per-billion (ppb) range and have remained ‘somewhat’ steady through

time. **Not presented or discussed are health risks from even some low-concentration of some contaminants that can significantly impact human health, especially chlorinated solvents. In my reading of US Environmental Protection Agency (USEPA) Code of Federal Regulations (CFR), landfills must address several types of groundwater monitoring. The first effort is to install ‘Detection Monitoring Wells’ sited and designed to intercept the first contaminant release from a source. Then and by regulation, if any contamination is monitored in Detection Monitoring Wells, additional wells termed ‘Assessment Monitoring Wells’ need to be installed to fully characterize any down-gradient plume. Unfortunately, WM never installed additional down-gradient monitoring wells (Assessment Monitoring Wells) beyond the known limits of contamination. Data lacking in these areas is therefore limiting the knowledge of any groundwater plume, if present. In a monitoring system, if ‘Assessment Monitoring Wells’ detect contamination, a plume has to be present. With a contaminant plume identified, CFR requires characterization monitoring wells be installed that fully characterize subsurface contaminated areas. Once a groundwater plume is fully characterized, ‘Compliance Monitoring Wells’ are selected/installed that continue to monitor the plume for movement, dissipation, or additional impacts to groundwater. In the presence of groundwater contamination, the entire monitoring system needs to be flexible for monitoring spatial changes in the groundwater plume. WMI has never used this type of detailed approach as required by CFR.**

DEQ RESPONSE: DEQ rules regarding groundwater monitoring at municipal solid waste landfills refer to federal rules found at [40 CFR 258](#), Subpart E. The landfill’s extensive groundwater monitoring network can be seen in Figure 1-2 of the landfill’s most recent Annual Environmental Monitoring Report (AEMR), which can be found on [DEQ’s Riverbend Landfill website](#). The monitoring network includes shallow wells that are screened in the shallow, clayey-silty water-bearing zone and deep wells screened in the underlying gravelly water-bearing zone. Well construction details, including well screen depths, are shown in Table 3-1 of the AEMR.

Detection monitoring wells include:

- MW-5A and MW-5B. These wells were installed in 1992 in response to concerns about detections of volatile organic compounds (VOCs), which were attributed largely to migration of these chemicals with landfill gas. In response, the landfill installed a gas collection and control system, which continues to operate. Subsequent monitoring indicates that this system has successfully addressed contamination at this location. This conclusion is based on the fact that the volatile organic compounds have been reduced to single-digit part per billion concentrations, have remained stable over many years, and do not appear in the compliance wells downgradient from this well, which is immediately adjacent to the landfill.
- Monitoring wells MW-19A, 20A, 20B, and piezometers P-05A, 06A and 07A continue to monitor groundwater quality in and downgradient of two poplar field areas. Leachate was applied to these areas until 2013. Contaminant concentrations have been declining or remaining steady since leachate application was discontinued in these areas.
- Monitoring well MW-22A serves to monitor groundwater quality downgradient of the leachate storage pond.

Compliance monitoring wells: The landfill has five pairs of compliance monitoring wells. These include a shallow well for monitoring groundwater quality in the shallow, silty water-bearing zone, and the deeper, gravelly water-bearing zone. These ten wells include MW-12-A/B, 14-A/B, 15-A/B, 16-A/B and 21-A/B.

The groundwater monitoring that is documented in the AEMRs is conducted in accordance with the landfill's environmental monitoring plan, which was reviewed and approved by DEQ. The monitoring well network meets or exceeds the standard of practice for groundwater monitoring at a large landfill. DEQ does not consider the monitoring well network and the data suspect and considers it to be an accurate representation of site conditions.

There is a known negative (down-ward) gradient in groundwater underlying RL. However, the full-extent and impact of the negative down-ward flow of groundwater, which also carries soluble/miscible contaminants deeper into groundwater, has not been characterized or even fully identified by WMI, or requested by DEQ. This has provided for a significant gap in groundwater monitoring data through time.

In any given location, negative or down-ward groundwater gradients are more commonly much larger than the horizontal gradient, often by two or three orders of magnitude. The impact of this phenomenon cannot be overstated because contaminants travel deep into groundwater in very little horizontal distance. Such negative and down-ward groundwater gradients provide for a contaminant plume that flows beneath and bypasses the present RL monitoring wells installed by WMI and approved by DEQ. Refer to Figure 1 for a West to East cross section through RL showing how a contaminant plume could migrate undetected beneath the RL groundwater monitoring system. Numerous real-life examples of this scenario have been characterized at many sites throughout the Central Valley of California and Southern California, with some plumes being miles in length.

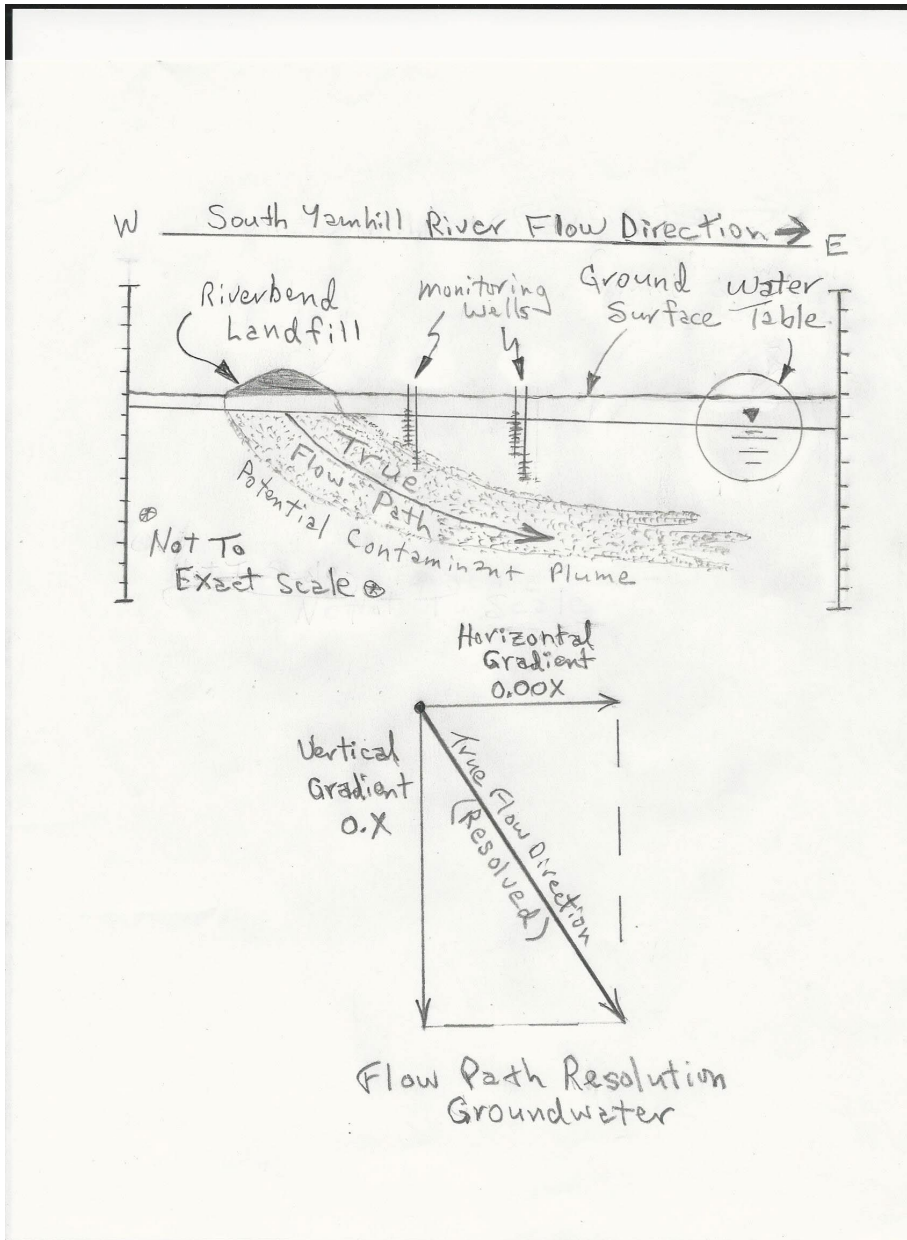


Figure 1. West to east cross-section through RL showing a conceptual groundwater contaminant plume flowing beyond the limits of detection by WMI monitoring wells. In this scenario, the negative (downward) groundwater gradient known to be present beneath RL is pulling a contaminant plume beneath existing monitoring wells so that it migrates down-gradient but is un-detected. This real life scenario has happened at many under-characterised waste sites in California and elsewhere.

DEQ RESPONSE: Vertical gradients are estimated at each monitoring well pair by comparing groundwater elevations in the shallow and deep well. This information is presented in Table 6-1 of the most recent AEMR, and is included in previous AEMRs. As noted in this comment, the groundwater gradient is downward at most locations. Contaminant migration is affected by groundwater gradients, but also by

other factors such as the horizontal and vertical distance of the monitoring point from the contaminant source (i.e., the landfill), and the ability of the soil to retard contaminant movement. As an example, silty, clayey soil has a greater ability to retain contaminants than gravelly soil.

The best measure of contaminant migration is not vertical gradients but the chemical concentrations found in the water samples. Based on the site's extensive groundwater monitoring network, groundwater quality meets the requirements specified in the DEQ-approved groundwater monitoring plan.

Surface Water

In addition to groundwater, the South Yamhill River (SYR) is hydrologically very active at the base of RL. The SYR has the potential to quickly erode and deposit large volumes of flood plain materials in areas that are impossible to forecast. RL has on-site drilling logs that reveal 'non-decomposed' wood collected from tens of feet below-ground-surface. Non-decomposed wood indicates that burial was geologically very recent and is also indicative of a very active river system. No mention was made by WMI for possible erosion at the landfill toe by the SYR. To complicate this situation, WMI with DEQ approval excavated (borrowed) large quantities of soil from the river plane below the landfill to install ponds for storing leachate drained from the landfill. This excavation by WMI has the effect of locally increasing the river gradient and thus future erosion and raises a major question: why did WMI with DEQ approval install leachate collection storage ponds on the SYR flood plain and not higher in elevation to be more protected? This entire excavation has all the appearance of just a ploy to acquire soils (borrow material) for landfill coverage activities with no concern for river flooding or erosion.

Even though ALL soils in the SYR channel will eventually be eroded and moved, WMI made no provisions in the CP for erosion control. To my knowledge, no costs have ever been proposed by WMI for erosional control maintenance issues caused by the SYR, even though erosion is an eventual absolute given.

DEQ RESPONSE: In the course of evaluating the potential for river migration, DEQ sought technical assistance from the Oregon Department of Geology and Mineral Industries (DOGAMI) in 2015. In a September 11, 2015 memo, DOGAMI estimated that the South Yamhill River could migrate on the order of 1.1 to 3.5 feet per year. The direction and rate of that migration could vary depending on the location on the river being considered and other factors. The landfill is roughly 400 feet from the river. Assuming the river migrated consistently toward the landfill, it could reach the landfill in 100 to 400 years. Should that happen, mitigation measures would have to be considered. These might include reinforcing the lower portion of the south slope of the landfill with rock, or constructing a berm near the south side of the river. While this situation could occur in the distant future, it is not something that DEQ would require to be included in a post-closure cost estimate at this time.

Seismic/Liquefaction Considerations

At the time the landfill was permitted, Oregon seismic issues were only beginning to be recognized as a potential threat to engineered structures. Today, news agencies routinely present forecasts of a *pending* Cascadia Fault Zone (CFZ) earthquake of Magnitude 9 on the Richter Scale. These earthquake forecasts are based on recent scientific research that indicates 19 earthquakes, caused

by a complete break of the CFZ, have occurred in the last 10,000-years; however, five of these Magnitude 9 earthquakes occurred in the last 2,000-years (Refer to Figure 2 for a partial accounting of significant PNW earthquakes). Besides Magnitude 9 events, many magnitude 6, 7, and 8 earthquakes also occurred with epicenters within 100-miles of the Pacific coast. The last full-break CFZ earthquake is well-dated and occurred in late January 1700, more than 100-years before the arrival of the Lewis and Clark expedition. Given that five major earthquakes have occurred in the last 2,000 years and that the last Magnitude 9 CFZ earthquake was 322-years in the past, places the PNW well into the window for a repeat full-break of the CFZ that will result in a Magnitude 9 devastating earthquake. How could WMI propose and DEQ accept the total closing cost amount now set at a maximum cap of \$15,425,086 given this pending earthquake threat? How could they and who will pay for remediating a total failure of RL??

When the MSE Berm was being permitted, geologic data, confirmed by WMI laboratory analysis, showed that even though the landfill itself may be stable when exposed to a magnitude 9 earthquake, the geologic foundation for the landfill would fail by foundation liquefaction during an earthquake of even moderate magnitude. Totally overlooked (disregarded-?) in the RL Closure Plan was any mention of these liquefaction data and the single largest long-term threat to RL: Earthquakes. For a partial review of WMI liquefaction data, confirmed by laboratory analysis, refer to Attachment 1 (Liquefaction Review Paper) and Attachment 2 (Liquefaction Updated - 2017) below.

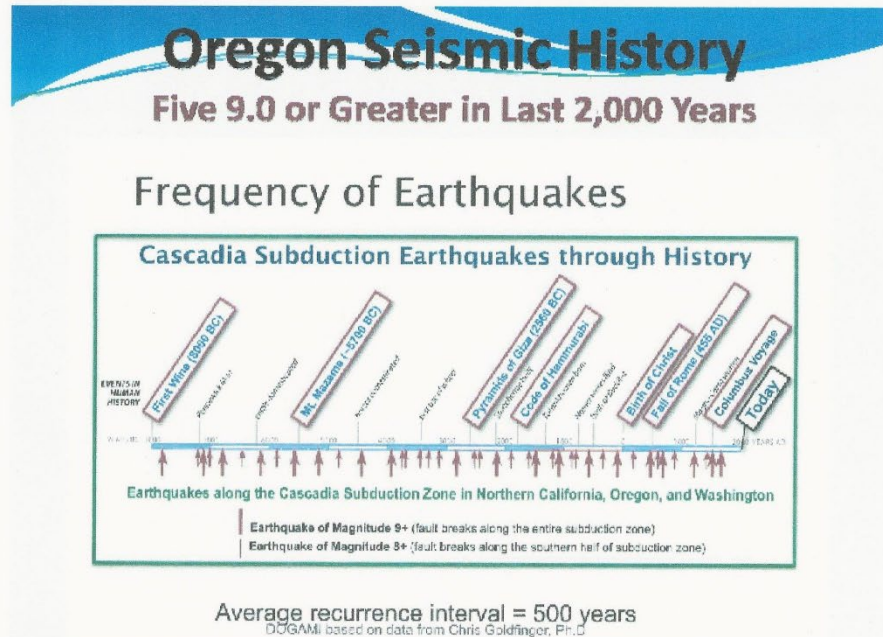


Figure 2. Graph showing 19 Richter Magnitude 8 and 9 earthquakes associated with the CFZ during the last 10,000 years. Besides the Magnitude 8 and 9 earthquakes hundreds, if not thousands, of Magnitude 4 to Magnitude 7 events have also occurred. All data presented, especially the timing of earthquakes, show that a full-break of the CFZ is pending. Data after Chris Goldfinger, Ph.D., Oregon State University and Oregon Department of Oil, Gas, and Mineral Industries (DOGAMI).

DEQ RESPONSE: As discussed above, liquefaction was evaluated in detail during DEQ’s review of seismic evaluation and design submitted as part of a proposal to construct a mechanically stabilized earthen berm. This review was conducted between 2011 and 2013. Waste Management’s consultant, Geosyntec, provided a substantial amount of geotechnical testing data over several months in response to review by DEQ and its own geotechnical consultant. Soil characteristics were determined based on visual classification and standard penetration tests in the field, followed by soil lab testing. In addition, a geophysical survey was conducted to obtain shear wave velocity information for site soils.

DEQ acknowledged that there were thin, discontinuous layers of liquefiable soils (uncompacted silts and sands). However, DEQ’s geotechnical consultant determined that, based on soil types, limited and discontinuous distribution of liquefiable soil, soil density and shear wave velocity tests, and plasticity measurements, the site soils do not pose a risk of significant liquefaction-induced deformation.

Seismic Wave Amplification: Overview

From the lack of comments in the CP, WMI and DEQ also appear to not fully recognize, or appreciate, that RL geologic site conditions favor amplifying seismic wave energy during earthquakes (Seismic Wave Amplification). This geologic situation is given to make shaking, even from small earthquakes, more intense. Seismic wave amplification will be generated at RL for one classic reason: loose geologic sedimentary river deposits overlie hard well-cemented bedrock. In this setting, seismic waves from deep underground earthquakes travel upward at thousands of feet per second in dense well-cemented rock and then propagate into soft near-surface sedimentary materials that have seismic velocities less than 1,000 feet per second. As these high-velocity waves are transmitted into near-surface much lower seismic velocity loose sands and gravels, conservation of total seismic wave energy must be maintained. To conserve total wave energy requires that seismic wave amplitude be increased significantly, a given, with some localized shaking severe. This setting translates into significantly higher ground shaking for RL which undoubtedly exceeds what was used in PGA stability calculations used by WMI and approved by DEQ.

In geologic settings for amplifying seismic wave energy similar to that of RL, two examples are well-known: 1) Olive View Hospital in San Fernando, California which was destroyed in the 1971 San Fernando earthquake (magnitude=6.6) and, 2) the Cypress Viaduct freeway structure for the Interstate 880 approach to Bay Bridge from Oakland that failed by collapse during the 1989 Loma Prieta earthquake (magnitude 6.9) and also killed 42 people. In both of these cases, the structures were built on slow-velocity geologic materials overlying higher velocity bedrock with the low-velocity near-surface geologic materials amplifying seismic wave energy. Refer to Technical Comments and Discussion Letter; Riverbend Landfill; Yamhill County Oregon - dated August 27, 2012 (attached below). Refer to Attachment 3 (Technical Comments and Discussion Letter) for photos, descriptions, and discussions of this seismic wave amplification damage.

Even though both liquefaction and seismic wave amplification phenomena are associated with the RL site, WMI is committed to persist with the opinion that these threats are more conceptual than reality; therefore, not of significant threat to RL seismic stability. As WMI minimizes both concepts, they have had the full support of DEQ who must also consider seismic wave amplification and liquefaction as incapable of generating any significant RL earthquake damage. Such a HUGE mistake!

Conclusions and Recommendations

The data are clear that RL is geologically subject to Seismic Wave Amplification. This phenomenon will increase ground shaking for any given earthquake and be a threat to RL surface structures. To address seismic data gaps that could be generated during any earthquake impacting RL, I propose that DEQ request WMI to install a permanently affixed “strong-motion accelerograph” in an on-site location free from structurally influenced ground motion. This accelerograph would measure strong earthquake ground motion during seismic events and provide for collecting valuable engineering data to analyze precise ground motions, including PGAs, as well as enhanced motion velocities and displacements. Data from such an accelerograph would be beneficially invaluable for seismic engineering concerns, especially if RL sustained damage or underwent total failure

during an earthquake. This installation may be of technical interest to US Geological Survey (USGS) who has an earthquake strong-motion monitoring program that installs and monitors accelerographs. In other words, USGS may install and service such an accelerograph free of charge. In my more than 50-years of geologic experience, one thing has been deeply learned: moving earthen materials is expensive and time consuming. Further, the type of material being excavated and distance moved determines the final cost and moving clean soil is much-much cheaper than moving contaminated soils. It is my estimate that a total seismic failure of RL would require all of the landfill materials to be ‘eventually’ excavated, loaded, hauled, and dumped, possibly temporarily for later movement, to a final containment site. In any catastrophic failure, RL waste and leachate would be comingled into huge quantities of soil, water, and pasty, leaking exposed landfill waste needing to be excavated and removed. Given excavation, containment, transportation, and disposal costs to an approved site, could easily be in the range of \$600 to \$800 per cubic yard. With cost overruns and the fact that the waste needing to be remediated could be potentially hazardous, the final cost per cubic yardage could be \$900 to \$1,000 per yard. At these rates which only address remediating landfill waste, the minimum cost for a catastrophic failure is estimated, on the low end, to be between \$500-million and \$650-million dollars; a more realistic total of \$750-million to \$900-million is probably more correct. Where did WMI generate a dollar amount in the CP, that was approved by DEQ, of only \$15,425,086, which is *almost* a humorous amount? Again, who is supposed to pay for RL in the case of a total landfill failure? The citizens of Yamhill County who once voted to approve using the landfill?? The citizens of Oregon???

I request that readers once again review Figure 1, Figure 2, The Technical and Review Paper, and the two Liquefaction Reports and ask yourself if the RL geologic foundation will perform without damage in future earthquakes? What should be especially considered are WMI soil samples, confirmed by laboratory analyses, showing loose liquefiable sands being wide-spread in the RL geologic foundation. An answer needs to be provided by SEQ.

Closing Statements

After personally reviewing and studying RL geologic and seismic data from drill logs and other measurements, and using my 50-years of professional drilling and characterization experience, it is clear to me that the geologic foundation of the RL is very fragile to seismic acceleration. In fact, it is much more fragile than WMI and DEQ have ever admitted. The high percentage of drill logs (30 - 40 percent) showing the presence of liquefiable sands proves RL is a seismic accident waiting to happen. Another condition is also set: *Seismic failure of RL will provide for the single largest environmental disaster in the post-European settlement-history of Oregon.*

RL permitting and closure efforts in no way support the DEQ ‘Mission Statement.’ RL failure debris will be a long-term issue with wide-spread watery contamination everywhere down-gradient from the landfill. The SYR, by its nature, will assist in spreading RL contamination toward McMinnville, Newberg, and beyond to Portland. Resources for addressing remediation of this disaster will not be available for months, and possibly years. And all the while, Yamhill County residents will be forced to live in conditions caused by failure of the landfill; stinking conditions that would possibly not have occurred if geologic and seismic data were fully recognized (understood)

by DEQ and used to address RL technical reviews. Upon any failure of RL, especially from seismic sources, DEQ will encumber a huge long-term debt of responsibility to the citizens of Yamhill County and Oregon who will be the ones truly experiencing post-disaster environmental effects. These individuals will be the ones who bear the very uncomfortable burden of living with a failed RL reality.

It is professionally disappointing to me that WMI very fully understands the threat from *catastrophic* geologic details underlying RL and that the details will provide for a total collapse during any future seismic event that lasts more than a few seconds. This fact is also understood by DEQ who, it appears, fully supports the inadequate CP being submitted by WMI to the citizens of Oregon. Further, no explanation is provided by WMI or DEQ for apparently keeping confidential from public access, during a critical permitting period, the full scope of technical understanding for geologic and seismic liquefaction conditions underlying RL. Even though WMI and DEQ always knew the true seismic risk from geology underlying RL, it is minimized and disregarded. And the damaging data have been in the WMI and DEQ records for years with Mr. Bob Schwarz, the past DEQ permit writer, standing in front of a public meeting and openly denying that to the audience that there were no liquefiable geologic materials underlying RL. Had Mr. Schwarz not read WMI drilling reports in the position of DEQ that showed the wide-spread presence of liquefiable sands underlying the RL geologic foundation?

Thank you for the opportunity to provide technical comments with considerations. RL Closure needs a Final CP that financially addresses a catastrophic event turning RL closure operations into the monumental remediation of a totally destroyed landfill. Closure should only be completed with a full commitment by WMI to adhere to future and long-term maintenance issues that also include a total landfill remediation from a PENDING extreme and scientifically forecasted Cascadia Fault Zone (CFZ) earthquake. The future occurrence of a magnitude 9 earthquake along the CFZ is a given. WMI has stated and shown by mathematical calculation that RL will be completely stable in a magnitude 9 earthquake. The landfill was sold to the Oregon public under the pretense of seismic stability; therefore, WMI should fully indemnify the landfill against seismic failure. Otherwise, the people of Oregon will suffer the long-term financial responsibility to remediate a failed landfill whose geologic foundation was positively known to be seismically unstable by WMI and DEQ who, for whatever reason, excused the geologic facts from Closure consideration. A more realistic ‘starting’ dollar amount of financial assurance for RL should be *at least* \$750,000,000 to address a total landfill failure knowing that when such an event occurs, the final cost to remediate RL will be one billion dollars (\$1,000,000,000) or more and it is unavoidable.

DEQ RESPONSE: DEQ and its seismic consultant reviewed the seismic characterization and design thoroughly during our review of the MSE berm application between 2011 and 2013. This review considered many issues, including liquefaction, earthquake magnitude, source to site distance, and associated ground motions. We concluded that the design met the regulations for municipal solid waste landfills. We also point out that these seismic regulations are more stringent than those used for most other structures (bridges and buildings, for example). Regarding Mr. McJunkin’s comments on amplification of

seismic wave energy, this was evaluated at length by both DEQ's and Waste Management's geotechnical consultants. Both consultants concluded that there was actually deamplification, rather than amplification of this energy as it moves up through the waste mass.

Financial Assurance requirements are based DEQ regulations. Setting funds aside for a total landfill failure is outside of DEQ authority. Based on the 2022 financial assurance cost estimates, the Riverbend Landfill Co has set aside approximately \$33,630,418.

COMMENTS PROVIDED BY CHARLES C. ROGERS

**Riverbend Landfill provides a most important service for our local area.
It needs to remain operational to serve our community.**

Certainly closing Riverbend Landfill does not solve problems. Throwing out the baby with the wash water has never been a satisfactory answer, and closing Riverbend is just that.

To discard Riverbend without finding solutions does not serve anyone except special interest groups and individuals emotionally charged with fear.

Our local governmental bodies can find solutions -- closure is no real solution. Yamhill County government is the agency to approve, and should approve, the land use application.

DEQ RESPONSE: The currently permitted area has approximately 400,000 cubic yards of space remaining of its 12,600,000 cubic yard capacity. During much of the landfill's life, the amount of waste coming to the landfill would have filled the remaining capacity in less than a year. For this reason, DEQ determined that landfill operations may continue but that they should be conducted under a closure permit rather than an operating permit. The proposed closure permit also specifies that the landfill must complete closure activities within eight years of permit issuance. Yamhill County has decision authority over land use, not DEQ.

COMMENTS PROVIDED BY DAN ARMSTRONG

**Dear fellow Oregonian and Earth Resident,
We must close the Riverbend Landfill in Yamhill County.**

At some time in the future a catastrophic event will cause all the toxic waste stored there to slide into the South Yamhill River. The poisons will then flow into the Willamette River and on into the Columbia River and Pacific Ocean.

This will contaminate all the waters and riverbanks. Farmers will continue to pump toxic waters onto their croplands and into our food. Poisons will be stored in the land for years following.

Do not add to this madness. Close the dump now.

DEQ RESPONSE: We do not believe the environmental effects of the landfill would ever be as severe as envisioned by the commenter. However, we do agree that we should lay out a schedule for completing closure. That is one of the main purposes of the proposed closure permit. Balancing remaining waste capacity with ensuring proper closure, the permit requires the landfill to close within eight years from permit issuance.

COMMENTS PROVIDED BY HELEN BITAR

The dump from the beginning should never have been put where it was.... so near the water and wet lands..... shame shame shame.

Riverbend Landfill should be Closed Tomorrow forever..... not any trying to slip in a request to reopen it.

We have a cancer in our backyard and it is not a pretty site.

It is bad enough that out in Sheridan there is a Superfund Site... that will be there for years because of a pole plant company not knowing better.

As far as I can see.... no one really could see the future to understand what was coming... and that. what. was. coming. is. Now.... I would say it is a Superfund site too.

DEQ RESPONSE: Riverbend Landfill will not be closed tomorrow. However, the proposed closure permit lays out a process and an achievable schedule for doing so. The landfill is required to be fully closed within eight years for permit issuance. Balancing remaining waste capacity with ensuring proper closure, the permit requires the landfill to close within eight years from permit issuance.

COMMENTS PROVIDED BY LEONARD RYDELL

As a former Engineer of Record for Riverbend Landfill who resigned because Riverbend Landfill was not following the approved construction plans and standards, I am concerned regarding the continuing failure to address permanent problems in the landfill. The bottoms of the first landfill cells were unlined, uncompacted and below ground water. I know because I have my construction staking elevations and my well level measurement records that showed that winter ground water elevations were above the cell bottoms.

The below posting by "Stop the Dump" describes the problem.

I am attaching a spread sheet from the annual monitoring reports to document the problem. The amounts of leachate hauled off for disposal from Cells 1 through 5 are:

2017 11,447,454 gallons

2018 7,166,960 gallons

2019 4,497,096 gallons

2020 4,850,096 gallons

You can see that something changed. Data for 2021 has not been posted on the website.

I can understand that Riverbend Landfill wants to get the landfill closed so that they can avoid responsibility, but the closure plan needs to be extended indefinitely and needs to require monitoring and treatment until the groundwater problem is resolved.

There is no surprise in any of this to me. Our county commissioners over the years turned a blind eye while all of this was happening.

DEQ RESPONSE: We agree that the clay liner for the landfill's first three cells, even if it had been constructed according to specifications, would not provide the same protection as the double liners with geosynthetic components that were used for subsequent cells. It is also true that the bottom of a portion of the landfill is below the elevation of the groundwater surface.

As noted above, leachate generation from the collection sump serving landfill cells 1 through 5 declined between 2017 and 2020. That decline continued in 2021, when the total volume from these cells was 3,528,064 gallons. As discussed at the public hearing, this is a positive development. The amount of leachate generated by the landfill has decreased because the landfill has placed temporary cover over portions of the landfill that have not yet received the more robust final cover. The plastic sheet used for temporary cover has diverted rainwater off the landfill so that it would not percolate through the waste and become leachate.

During the public hearing, Mr. Rydell elaborated on these comments, suggesting that the reduced leachate quantities were due to leachate escaping to the groundwater. As discussed at that meeting, we are confident this is not happening. If landfill staff chose simply not to collect the leachate, it would fill up in the landfill. The landfill monitors leachate levels on the liner daily. As required in federal regulations (40 CFR 258.40), the landfill must be designed and operated so that the depth of leachate on the liner does not exceed 30 centimeters (12 inches). Riverbend Landfill provides DEQ with records quarterly showing daily readings of leachate levels to document that this requirement is met.

DEQ also notes that, if the landfill were to allow leachate to escape to the environment, contaminants would be detected in the substantial groundwater monitoring well network downgradient from the landfill. Groundwater monitoring data confirms that this is not occurring. Closure of the landfill does not release the owner of responsibility to maintain the landfill, monitor groundwater, leachate, and landfill gas, manage leachate appropriately, and respond to any groundwater contamination issues that may

come up. The installation of the final cover system will prevent rainwater from getting into the landfill, which will lead to further reductions in leachate generation volumes.

COMMENTS PROVIDED BY ERIN RAINEY

It's about time. Riverbend Landfill has been an environmental eyesore long enough. In our lush Yamhill River Valley where we pride ourselves with our quality of life, from the food crops we grow, the wines we make, to the beautiful pastoral views of the hills, farms and pastures it doesn't make sense to bring so much garbage out to dump on the riverbend. Why was it a good idea to site a landfill on the banks of our river there in 1982. 3 miles west of McMinnville, probably if a dump had not been there all these years there would have been much more development to the west of town.

2008 was the first public hearing in regards to landfill expansion plans, rather than filing for their closure permit for 2014 as was permitted in 1982. Since that time, we have watched the garbage mountain continue to grow, over half of the garbage trucked in from various other sources around the Northwest. It became a "garbage can" with the 20-40' berm built around the edge, to create less slope. Why was that ever a good idea?

Riverbend Landfill, the time has come to close. Literally on a riverbend! A river that we live along, draw water to drink and water our crops. This always was an antiquated idea. While at one time the solution to pollution was dilution- dump the garbage on the riverbank and the spring floods will carry it away. It doesn't work that way anymore.

We have put up the methane gas leaks, creating the nasty acrid smells on a lovely evening, along with the fresh dump air smells as we drove by. We have read about the leachate leaks into the Yamhill River, listened to the seismic experts tell us the truth about the construction faults, and sat in many a DEQ meeting and listened to how hard they are trying to make it right. It can't be made right- it's too big, too stinky, too intrusive to our quality of life and health. Riverbend landfill needs to be closed now, not at some time in the future when there is new technology available. This is a good idea.

We will see if Waste Management can be trusted to maintain the steaming mountain of toxins they have dumped on our river bank. They have promised that the methane will continue to be drawn off and fire the generators for another 20 years. They will have to work to earn our trust again.

DEQ RESPONSE: Thank you for these comments. We believe the draft closure permit provides a path and schedule for closing the landfill, as you recommend.

COMMENTS PROVIDED BY DONNA AALTO

I'm looking for a basic rational sane conclusion from everyone who is in the loop to determine the closing of this facility. With all information that I've been able to take advantage of from News Register coverage which fully published input provided by pros/cons regarding this issue, it is most clear to me that I'm watching a situation that is parallel to PGE's liability when credible reports were made

available to them which they chose to ignore in favor of continuous bonuses that went to their shareholders. Court records verify this claim along with the many lives lost in horrific forest fires that could have been prevented!!! In our situation all reports of environmental threats have been issued and verified. I want to be able to depend on the common sense factor that realizes that waiting is guaranteed to, eventually, result in the disasters that have been foretold. It is only a matter of time when these consequences will occur and I'm hopeful that at long last, the big corporations will not be allowed to run roughshod over people and our environment in favor of the god-almighty dollar. PLEASE have the gumption to set aside the urge to, once again, placate the higher-ups who are in violation of our own DEQ regulations!!!!!!!!!!

DEQ RESPONSE:

The landfill is required to be fully closed within eight years for permit issuance. DEQ permitting and oversight of the closed landfill will continue as long as there is a need for active supervision of the site, maintenance of the site, or maintenance or operation of any system or facility on the site. (OAR 340-094-0100(5).)