



For a thriving New England

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May 4, 2021

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**RE: Crossroads Landfill - Draft Phase 14 Expansion License Decision #S-010735-WD-YB-N**

Dear Ms. Eleftheriou,

Conservation Law Foundation (“CLF”), and Community Action Works strongly oppose the Draft License published by the Maine Department of Environmental Protection (the “Department”) for the Phase 14 Expansion of Waste Management Disposal Services of Maine (“WMDSM”) Crossroads Landfill in Norridgewock, Maine.

As evidenced in the comments submitted to the Department on October 13, 2020, WMDSM has not demonstrated that the Phase 14 expansion meets the requirements set forth in Chapters 400 and 401 of the Maine Solid Waste Management Rules (“Maine SWMR”), effective November 1998 (revisions effective 12 April 2015). Additionally, the landfill expansion flies in the face of Maine’s solid waste hierarchy, which establishes landfilling as the lowest order of priority for waste management.<sup>1</sup> Any large new landfill will undermine the State’s need to responsibly manage waste through source reduction, recycling, and composting.

The Draft License published by the Department on April 23, 2021 – which authorizes the Phase 14 Expansion – fails to address the numerous and significant concerns we and others have raised regarding this proposal. As such we urge the Department to rescind the Draft License and deny the application. In the alternative, the Department must amend the Draft License to ensure it adequately addresses the concerns raised in our previous comments and outlined here in Section’s II and III of these comments.

CLF is a nonprofit, member-supported, environmental organization working to conserve natural resources, protect public health, and promote thriving communities for all in the New

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<sup>1</sup> 38 M.R.S.A. § 2101.

England region, including Maine. CLF has a long history of advocating for clean air, clean water, and healthy communities, including addressing the environmental and community impacts of solid waste disposal and advocating for waste management strategies focused on waste reduction, reuse, composting, and recycling as opposed to landfilling and incineration.

Community Action Works was founded in 1987 in response to the Woburn drinking water contamination crisis. At Community Action Works, we believe the environmental threats we face are big, but the power of well-organized community groups is bigger. That’s why we work side by side with everyday people to confront those who are polluting and harming the health of our communities. We partner with the people who are most impacted by environmental problems, training them with the know-how anyone would need to make change in their own backyard. Community Action Works has worked with dozens of community groups across Maine the Northeast fight against burning and burying our trash and for Zero Waste.

## I. The Department Should Deny the Application

WMDSM’s proposal to build a freestanding 48.6-acre landfill fails to provide a long-term public benefit to the State of Maine and will result in significant and irreparable harm to the surrounding environment. As such the Department should deny the application.

### A. Failure to Establish a Long-Term Public Benefit to the State of Maine.

The Department should deny the application because the expansion does not provide a long-term public benefit to the State of Maine in accordance with 38 M.R.S.A. § 1310-AA.

As described in the application, and affirmed in the current draft license, WMDSM will continue to accept wastes from the same sources they do now. The proposed expansion would allow WMDSM to bury 450,000 tons per year, for 17 years, or about 7.65 million tons of waste in Maine.

- The 7.65 million tons could all be from out of state. Currently, the Draft License does not require any specific portion of the total waste to be Maine-generate waste. Condition 7(F) of the Draft License only requires that WMDSM “prioritize the

disposal at the Crossroads Landfill Maine generated solid waste.<sup>2</sup> There is no guidance on how WMDSM will prioritize disposal for Maine generated solid waste. In 2019 a third of what was buried at Crossroads Landfill was from out of state.<sup>3</sup>

- The 7.65 million tons could be from anywhere and composed of any mixture of Municipal Solid Waste (“MSW”), Construction/Demolition Debris (C&D), Alternative Daily Cover/Revenue Generating Cover, or Special Wastes. In 2019 Crossroads Landfill accepted MSW from Canada and C&D from Massachusetts.<sup>4</sup>
- The 7.65 million tons could be buried by WMDSM as quickly as practicable. In fact, if WMDSM buries waste at the rate it did last year (more than 550,000 tons, including alternative daily cover),<sup>5</sup> the new landfill would be completely filled by 2036 – significantly reducing the proposed expected life of the expansion.
- Other than the alternative daily cover buried at the landfill, which is technically classified as recycling despite ending up in the landfill, there is little to no diversion, recycling or composting currently going on at the Crossroads Facility, nor does the new expansion change that.

Additionally, this new expansion will not incentivize reduction, prioritize reuse, or develop recycling or composting programs as set forth in Maine’s Solid waste management hierarchy.<sup>6</sup> The more landfill capacity that is developed, the more likely it is that waste will be buried there.

#### B. Significant and Irreparable Harm to the Environment.

WMDSM has failed to adequately quantify and address the widespread environmental impacts from the construction and operation of an almost 50-acre landfill on the surrounding

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<sup>2</sup> Waste Management Disposals Services of Maine, Inc., Crossroads Landfill Phase 14 Expansion, #S-010735-WD-YB-N. p. 93. (April 23, 2021). (Hereinafter “*Draft License for Phase 14 Expansion*”).

<sup>3</sup> 2019 Annual Report, Crossroads Landfill, Norridgewock, Maine, February 2020, Appendix A, Wastes Managed Within On-Site Secure Landfill.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

<sup>6</sup> 38 M.R.S.A. § 2101

ecosystem given the toxic nature and danger to the environment and public health presented by most of the waste buried at the Crossroads Facility.

i. All Landfills Leak

Given the toxic and dangerous nature of the wastes accepted at Crossroads Facility, it is imperative that the Department recognize that all landfills ultimately fail to contain the hazardous leachate produced, and the best way to protect the environment around them. While the use of one or two composite liners may delay the release of leachate into the environment, they cannot prevent it.

As acknowledged by the U.S. Environmental Protection Agency (“U.S. EPA”)<sup>7</sup>, leachate generation potential will continue for thousands of years (landfills developed by the Roman Empire, 2,000 years ago, are still producing leachate).<sup>8</sup> After the plastic cap is installed, and the landfill cell is closed, the landfill company is required under RCRA to monitor the site for 30 years. Unfortunately, the caps break down in the same manner as the plastic liners. As a result, the landfill company often walks away from the site, the cap fails, precipitation enters the landfill cell, and a whole new wave of leachate production begins, without the leachate collection or monitoring that took place while the cell was accepting waste.<sup>9</sup>

Dry-tomb landfills leave waste in an active state for very long periods of times.<sup>10</sup> Any future breach in the cap or a break in the liner that allows liquids to enter the landfill will trigger degradation and production of leachate and gas.<sup>11</sup> Thus, these facilities need to be monitored for decades, if not perpetually, and someone needs to be responsible for stepping in and taking corrective action when a problem is detected.<sup>12</sup>

ii. Impact to Wetlands

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<sup>7</sup> Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste, G. Fred Lee & Associates, Updated January 2015, Page 6.

<sup>8</sup> *Id.* at 8.

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

During the application process, thirty-nine wetlands were identified within the Phase 14 area.<sup>13</sup> The majority are forested, but some emergent and wetlands with a scrub-shrub component are also present.<sup>14</sup> In the Phase 14 area, the only Wetlands of Special Significance (WoSS), as defined in Chapter 310(4)(A) of the Natural Resources Protection Act Wetlands and Waterbodies Protection Rules, identified are the portions of delineated wetlands located within 25 feet of a delineated intermittent stream.”<sup>15</sup>

A total of 10.273 acres of wetlands are proposed to be permanently impacted by the Phase 14 project, and 0.005 acres of wetlands proposed to be temporarily impacted.<sup>16</sup> In order to construct the facility and access roads, the wetlands permanently impacted will be filled.<sup>17</sup> Additionally, installation of an underground stormwater conveyance pipe will temporarily impact another portion of wetlands.<sup>18</sup>

The only mitigation proposed is the purchase of mitigation land.<sup>19</sup> Wetland banking practices such as this are often ineffective. With banking, wetlands in a broad geographical area are collapsed into a relatively small area. Wetlands within banks tend to be larger and they are less diverse in type than the wetlands that are lost. Studies have shown that consolidation threatens the diversity and abundance of amphibians and wetland birds.<sup>20</sup> Allowing the destruction of natural wetlands and replication or purchase of existing wetlands for preservation results in small, isolated wetlands that are scattered across the region being destroyed and remaining wetlands centralized. Wetland distribution is critical for disposal and recolonization of many species including amphibians.<sup>21</sup>

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<sup>13</sup> Permit Application, Volume II, Site Condition Report, p. 5.

<sup>14</sup> Permit Application, Volume I, General Information, p. 10. “Wetland boundaries were delineated according to the 1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual and Regional Supplement to the USACE Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), which utilize the three- parameter approach (i.e., evaluating the site for the presence of hydric soils, hydrophytic vegetation and wetland hydrology) for identifying wetlands and determining their jurisdictional limits.”

<sup>15</sup> Permit Application, Volume II, Site Condition Report- p. 6.

<sup>16</sup> Permit Application, Volume II, Activity Description - p. 2.

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> Draft License Phase 14 Expansion, at 36. “WMDSM will purchase 822 acres of mitigation land in Chesterville which will be transferred directly to MDIFW and managed by them as part of the existing Chesterville Wildlife Management Area.”

<sup>20</sup> Steinhoff, Gordon. “Wetlands Mitigation Banking and the Problem of Consolidation.” *Electronic Green Journal*, vol. 1, no. 27, 2008. Crossref, doi:10.5070/g312710758.

<sup>21</sup> *Id.*

As such, the Department should deny the application because building the new landfill will destroy over ten acres of irreplaceable wetlands at the site.

## **II. The Department Should Require Additional Study and Evaluation Before Rendering a Final Decision**

As explained in Section I, we strongly urge the Department to deny WMDSM's application for Phase 14 expansion. Absent denying the application now, CLF strongly urges the Department to rescind the Draft License and halt any permitting decision until the following additional studies and evaluations are performed.

### **A. The Department Should Require an Independent Hydro-Geological Assessment.**

The Geological and Hydrogeological Assessment Report, prepared by Golder Associates claims that “there is no hydraulic connection between groundwater in the Phase 14 area and the significant sand and gravel aquifers because groundwater flow in all hydro-stratigraphic units in the Phase 14 area is primarily to the south-southwest” and “not toward the aquifers.”<sup>22</sup> CLF contests this conclusion.

During the application process, the Department correctly questioned the placement of the location of water monitoring well, alleging that any release would fail to be detected as a result of their planned location.<sup>23</sup> The Department then pushed for additional sampling of bedrock wells before any waste is deposited on site.<sup>24</sup>

As a result of the Department's concerns, WMDSM conducted pumping tests to address the level of hydrologic conductivity. The pumping test was performed in July 2020, and documented in a Supplemental Geologic and Hydrogeologic report dated July 31, 2020. During the pumping test, a bedrock well was pumped at a continuous rate of 1 gallon per minute (gpm) for a period of 72 hours. Groundwater level elevations in wells screened in bedrock, till and clay were continuously monitored prior to, during and after the pumping test.

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<sup>22</sup> Draft License for Phase 14 Expansion, p. 38.

<sup>23</sup> Maine Department of Environmental Protection Comments. (June 22, 2020).

<sup>24</sup> *Id.*

The results of the pumping test revealed hydraulic connection in each of the hydrogeologic units: bedrock, till and clay, to an estimated distance of at least 1,500 ft from the bedrock well.<sup>25</sup> This suggests a hydrogeologic regime that is deeply integrated and very sensitive to small system changes. The impacts from the construction and operation of an almost 50 acre landfill on this delicate system are not adequately addressed or quantified by WMDSM. As such, the Department should deny WMDSM's Application.

Given the Departments previous concerns and the results of the July 2020 pumping tests, the Department should require additional hydro-geological assessments, performed by an independent expert, to evaluate the hydrological connectivity and potential impacts ground water aquifers prior to rendering a final decision on the application.

B. The Department Should Require the Preparation of a Fire Prevention Plan Before Rendering a Final Decision on the Application.

The Draft License notes that WMDSM experienced two fires at the Crossroads Landfill facility within the three years prior to the submittal of the proposed Phase 14 expansion application.<sup>26</sup> Landfill fires are especially dangerous as they can emit harmful fumes from the wide array of materials contained in the landfill. These include carbon monoxide, hydrogen sulfide, and volatile organics.<sup>27</sup> Particulate matter in the smoke created during landfill fires can also exacerbate respiratory and other health complications in those responding to the fire.<sup>28</sup> Given the historic issues associated with fires at this facility, the Department should require WMDSM to develop a fire prevention plan for review before rendering a final decision on the application.

According to the Draft License approving the expansion, WMDSM has "outlined fire prevention procedures in its Site Operations Manual (Volume V of the application, Section I, Part E)."<sup>29</sup> However, that section more accurately reflects the steps to be "initiated when a fire

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<sup>25</sup> Supplemental Geologic and Hydrogeologic Report, Crossroads Landfill, Norridgewock, Maine. Golder. July 31, 2020.

<sup>26</sup> Draft License for Phase 14 Expansion, p. 33.

<sup>27</sup> Racheal Zimlich, Prevention is Key in Managing Landfill Fires, Waste Dive. (September 15, 2015). Available at <https://www.waste360.com/nuisances/prevention-key-managing-landfill-fires>

<sup>28</sup> *Id.*

<sup>29</sup> Draft License for Phase 14 Expansion, P. 33.

occurs or smoke alarms is activated at the facility.”<sup>30</sup> It does not address steps WMDSM will be undergoing to reduce the risk of continued fires at the facility.

Prevention is critical to managing landfill fires, and steps need to be taken at the outset of any new development of the landfill to best protect against both surface fires and subsurface fires. The Department should require WMDSM to develop a plan that includes, but is not limited to, temperature monitoring of piles, isolation of potential ignition sources from combustible materials, and staff trainings. Additionally, the Department should require WMDSM to develop a plan to increase diversion of batteries from the facility. Batteries are the most common source of landfill fires.<sup>31</sup> At a minimum, this must include an educational component, but should also include battery drop-off facilities throughout participating municipalities.

Prior to the development and submission of this fire prevention plan, the Department should not render a final decision on the application. As such, the Draft License should be rescinded until the completion of this study.

C. The Department Should Require an Independent Study the Benefits of Using Movable Impermeable Covers to Minimize Leachate Production.

During the October 1, 2020 Public Hearing, Waste Management’s engineers, Scott Luetlich and Nicholas Yafrate from Geosyntec Consultants the use of movable, impermeable covers would prevent the creation of leachate. However, it is not clear from either the application or the statements made at the public hearing how beneficial the use of these covers would be on limiting leachate.

Despite the statements about the benefits of using these movable impervious covers, WMDSM appears to be seeking to continue using alternative daily cover. In 2019, a third of what WMDSM buried at the Crossroads Facility was daily cover.<sup>32</sup> Using alternative daily cover is a way for Waste Management to get paid to bury waste while still claiming it is “recycling.”<sup>33</sup> Alternative Daily Cover counts toward recycling for the purpose of “alternative daily cover at

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<sup>30</sup> WMDSM Phase 14 Solid Waste Permit Application – Volume V: Site Operations Manual, Section I – Part E, p. 14. (October 2019).

<sup>31</sup> Colin Staub, Battery Fires an “Existential Threat” for Industry, Resource Recycling. (April 10, 2018). <https://resource-recycling.com/recycling/2018/04/10/battery-fires-an-existential-threat-for-industry/>

<sup>32</sup> Permit Application, Volume I, General Information, p. 10.

<sup>33</sup> 06-096 CMR 409(2)(C).



landfills,” however, does not count towards the Department’s goal of recycling and/or composting at least 50% of MSW generated in Maine, because if it were not used for cover, it would be counted as Special Waste. The Draft License does not reference the use of the moveable covers mentioned by WMDSM that allegedly will reduce leachate production.

The Department should require an independent study on the benefits of using movable impervious cover as opposed to alternative daily cover. This study should examine the effectiveness of these covers on limiting leachate creation and conserving landfill capacity. Should the study determine that movable covers are preferable, the Department should require WMDSM to utilize them and ban the use of alternative daily cover at the Crossroads Facility. Until this study is completed, the Department should not issue a final decision on the application. Therefore, the Draft License should be rescinded until the completion of this study.

### **III. If the Landfill Expansion is Permitted, The Department Should Revise the Draft License to Make it More Protective of the Environment and Public Health.**

We firmly believe that the Department should deny the application as it fails to meet the legal and regulatory requirements necessary for approval. The Draft License as currently drafted fails to address the significant concerns raised above, as well as those raised in our previous comments. If the Department does not deny the application – or halt the decision-making process until the completion of the studies outlined in Section II of these comments – then the Department should amend the Draft License to include the following requirements necessary to better protect public health and the environment from the dangers posed by the expansion.

#### **A. The Department Should Require a Double Liner System**

As expressed in CLF’s October 13, 2020 Comments, it is imperative that the Department recognize that all landfills ultimately fail to contain the hazardous leachate produced. As drafted, the Department is only requiring WMDSM to develop a single composite liner system.<sup>34</sup> This is unacceptable. A double liner system is the industry standard and the most effective means for minimizing the eventual leakage of harmful leachate.

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<sup>34</sup> Draft License Phase 14 Expansion, at 58.

In the 1950s, landfills, or sanitary dumps, were just holes in the ground where the waste was covered by a layer of soil to reduce odors and vermin.<sup>35</sup> In the 1970s compacted soil and clay liners were proposed for waste containment. This technology was ultimately abandoned as ineffective at preventing the leachate from escaping the landfill – a clay liner that is a foot thick will be breached in less than five years.<sup>36</sup>

In the 1980s landfills had begun installing plastic liners. Over time, regulations evolved to require composite liner systems – originally in the form of a two-foot-thick clay liner and a 60 mil-thick layer of plastic sheeting (about the thickness of paperboard). Today, most landfill developers are using a geosynthetic clay liner as a substitute for clay. A geosynthetic clay liner is approximately a quarter of an inch thick. While there are pipes to collect the leachate and landfill gas buried in the waste, and a second liner system is now also required in many states, with a second set of pipes to collect the leachate and gas.<sup>37</sup>

In 1991, the United States Environmental Protection Agency promulgated regulations for landfilling municipal solid waste (“MSW”) as part of the Resource Conservation Recovery Act (“RCRA”), Subtitle D. Originally Subtitle D required a single composite (plastic sheeting and compacted clay/geosynthetic) liner, but it was eventually amended by many states to require two liner systems for all new landfill cells. In fact, all of the states in New England would require a dual liner system for this new landfill. The Department is the only state agency that could choose to allow a single composite liner over a layer of clay for a new landfill built to accept these most toxic forms of waste.<sup>38</sup>

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<sup>35</sup> Overview of Subtitle D Landfill Design, Operation, Closure and Postclosure Care, January 2004Page 2.  
<http://www.gfredlee.com/Landfills/LFoverviewMSW.pdf>

<sup>36</sup> Flawed Technology of Subtitle D Landfilling of Municipal Solid Waste, G. Fred Lee & Associates, Updated January 2015, Page 13.

<sup>37</sup> Id. at 10.

<sup>38</sup> State of Connecticut, Title 22a Section 22a-209-14 (1) and (1)(C)(i) “The liner system shall be a dual synthetic liner system,” <https://eregulations.ct.gov/eRegsPortal/Browse/getDocument?guid={F0DC9F57-0100-C7B7-BF07-DE0E453778A8}>; Commonwealth of Massachusetts, “Double composite liner” required at 310 CMR 19.110(4)(a) <https://www.mass.gov/doc/310-cmr-19000-solid-waste-management-facility-regulations/download>; State of New Hampshire, Chapter 800, 805.05 (b), where the number of liner systems required depends on the waste to be contained there, and Env-Sw 805.12 required that MSW landfills “shall be designed as double-lined facilities” as shall incinerator ash landfills (805.13), and landfills accepting “other solid waste types” (805.15). Construction and Demolition Debris landfills are only required to have a single liner system in New Hampshire, <https://www.des.nh.gov/organization/commissioner/legal/rules/documents/env-sw800.pdf>; State of Rhode Island and Providence Plantation, “Double composite liner” required at 250-RICR-140-05-2 A.1. <https://rules.sos.ri.gov/regulations/part/250-140-05-2>; State of Vermont, Section 6-606 Disposal Facilities

However, the Department has required a double composite system for the Crossroads Landfill. Phases 7, 9 (constructed 2001), (constructed 1995), (constructed 1998), and 12 (constructed 2002) are all double composite lined landfill cells.<sup>39</sup> Only the very old landfill cells, and the cells constructed on top of other lined cells, have single liner systems at Crossroads Facility.<sup>40</sup> Moreover, Waste Management is currently in the process of expanding the Turnkey Landfill in New Hampshire. In their application, Waste Management proposed that the expansion have a dual liner system. Similar to this landfill, Turnkey Landfill accepts MSW and CDD. However, Turnkey Landfill accepts much less Special Waste than Crossroads Landfill.

Therefore, the Department should amend the Draft License to require that WMDSM utilize a double liner composite system.

**B. The Department Should Require WMDSM to Pretreat Leachate Onsite.**

The Draft License does not require any pretreatment of leachate. Leachate is currently not pretreated at the Crossroads Facility, nor did the Application discuss it, as it is not required by the local wastewater treatment facilities that accept the Crossroads Facility's leachate. However, based on the environmental and public health concerns associated with leachate management, the Department should amend the Draft License to require WMDSM to pretreat leachate onsite.

Currently, the Draft License only requires WMDSM to manage leachate from the Phase 14 Expansion through a combination of recirculation and offsite treatment and disposal.<sup>41</sup> In terms of offsite disposal, WMDSM maintains contracts with two local wastewater treatment facilities: Sappri North American (which may accept up to 400,000 gallons per day), and the Anson-Madison Sanitary District (which may accept up to 56,000 gallons per day).<sup>42</sup> Both facilities discharge the "treated" effluent into the Kennebec River.<sup>43</sup>

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(b)(2)(E)"All liner systems installed after February 7, 1989 shall be of double liner construction."

[https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/SWRule.final\\_.pdf](https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/SWRule.final_.pdf)

<sup>39</sup> PHASE 14 SOLID WASTE PERMIT APPLICATION VOLUME V OF VI Site Operations Manual, Section III Leachate Management Plan, p. 4-8). Available at [https://www.maine.gov/dep/ftp/projects/crossroads-phase14/application/Ph14%20SW%20PermitApp\\_Vol.%20V%20Operations%20Manual.pdf](https://www.maine.gov/dep/ftp/projects/crossroads-phase14/application/Ph14%20SW%20PermitApp_Vol.%20V%20Operations%20Manual.pdf)

<sup>40</sup> *Id.*

<sup>41</sup> Draft License Phase 14 Expansion, at 62.

<sup>42</sup> *Id.* at 64.

<sup>43</sup> MEDEP Public Hearing, WMDSM's representatives, Scott Luettich and Nicholas Yafrate from Geosyntec Consultants, October 1, 2020.

WWTPs generally are not equipped or required to remove all types of leachate contaminants from wastewater prior to discharge into surface waters. WWTP are primarily focused on reducing wastewater discharges of so-called conventional pollutants: oil, grease, organics like nitrogen and phosphorus, total suspended solids, and settleable matter. U.S. EPA NPDES discharge permits for municipal wastewater treatment facilities do not require monitoring or set limits for the long list of contaminants in leachate – PFAS, PBDEs, and other chemicals of concern – that have been found to be highly toxic to humans and other species and persistent in the environment. According to a USGS study, many leachate contaminants are therefore present after leachate is processed by a municipal wastewater treatment plant.<sup>44</sup>

PFAS is a good example of a toxicant that is definitely in Crossroads Facility’s leachate, and that will be discharged in dangerous amounts into the Kennebec River. The US EPA has abdicated its responsibility to regulate PFAS under the SDWA or the CWA: there is no NPDES permitting criteria for PFAS and no current treatment technology to remove PFAS from either landfill leachate or municipal WWTP effluent. In the end, PFAS chemicals disposed of at the Crossroads Facility and released into its leachate will threaten the water quality of the Kennebec River – a river the State of Maine has spent nearly 50 years resuscitating -- and pose significant threat to the people and ecosystems who rely upon it. The impacts of the permitting of Phase 14 are significant to the community of Norridgewock, but also pose significant threats to communities and ecosystems far downstream.

Given both the quantity of the leachate produced at the Crossroads Facility and the likelihood that the leachate contains heavy metals, PBDEs, PFAS and other chemicals of emerging concern, pretreatment of leachate must be required. Therefore, we urge the Department to revise the Draft License to include a requirement that WMDSM pretreat leachate onsite. This requirement would not be burdensome or unfamiliar as Waste Management has proven it is capable of onsite treatment. The company is pretreating leachate from its Turnkey Landfill in New Hampshire as a requirement of its permit for operation.

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<sup>44</sup> J.R. Masoner, D. W. Kolpin, E. T. Furlong, I. M. Cozzarelli, I.M., & J. L. Gray, J.L., Landfill leachate as a mirror of today's disposable society: Pharmaceuticals and other contaminants of emerging concern in final leachate from landfills in the conterminous United States, 35 Environmental Toxicology and Chemistry 906-918 (2015).

### C. The Department Should Set a Maximum Fill Rate

Should the Department move forward with permitting the Phase 14 Expansion, the Department should amend the Draft License to set a maximum fill rate that control the annual amount of waste that WMDSM can bury per year. This requirement is necessary to preserve the life of the landfill and minimize the needless landfilling of waste that could and should be reduced and diverted.

Over the life of this permit, WMDSM plans to bury 7,650,000 tons of waste at a projected rate of 450,000 tons of waste and alternative daily cover per year. WMDSM states this is assuming the types of waste buried there continue to be similar to those filling the Operating Landfill, which WMDSM has stated is its intention.<sup>45</sup> However, in direct contradiction to this statement, WMDSM actually buried over 550,000 tons of waste at the Crossroads facility in 2019.<sup>46</sup> Therefore, it is clear without a fill rate that WMDSM will exceed the proposed 450,000 tons per year and thus minimize the expected life of the landfill.

It is imperative that if the Department permits WMDSM to build the Phase 14 Expansion, the Department set a maximum fill rate to preserve and extend the life of the expansion.

### D. The Department Should Require WMDSM to Develop and Implement a Plan to Divert Organics and Food Waste

As published, the Draft License fails to ensure WMDSM will adequately divert organics and food waste for composting. We urge the Department to revise the Draft License to include specific and actionable measures that will provide needed accountability and assurance that WMDSM is effectively diverting organics from the landfill.

38 M.R.S.A. § 2132 established the goal of recycling or composting 50% of the municipal solid waste tonnage generated each year within the State by 2021. This goal was not reached and there is significant work needed to get the state on track. Maine's municipal solid waste recycling rate was 35.10% in 2018, and 37.81% in 2019.<sup>47</sup> Meanwhile, the overall

<sup>45</sup> Permit Application, Volume I, General Information, p. 1-2.

<sup>46</sup> 2019 Annual Report, Crossroads Landfill, Norridgewock, Maine, February 2020, Appendix A, Wastes Managed Within On-Site Secure Landfill

<sup>47</sup> Department of Environmental Protection, Solid Waste Generation and Disposal Capacity Report for 2018 and 2019, p. 2. (January 2021).

municipal solid waste disposal rates for the state climbed from 721,646 tons in 2017 to 823,281 tons in 2018 and increased to 844,096 tons in 2019.<sup>48</sup>

Maine must take immediate steps to divert food and organic waste from landfills. This diversion would both drastically reduce methane produced at facilities like the Crossroads Landfill, and minimize, and potentially eliminate the need for new landfill construction. There is currently no composting at the Crossroads facility, and as drafted, no certainty that WMDSM will actually deliver on it's promise to develop a composting facility and effectively implement a program to divert organic waste.

According to the Draft License – WMDSM intends “to develop a composting operation at the Crossroads Landfill facility to serve nearby communities and commercial entities.”<sup>49</sup> WMDSM claims that construction of this facility “will take place within 24 months of obtaining all necessary regulatory permits for the proposed Phase 14 expansion,” and that it expects “to have construction completed prior to beginning operation of Phase 14.”<sup>50</sup> However these assurances have not been memorialized as a permit condition. Currently, the Department is only requiring WMDSM to “implement the proposed reuse, reduction, and recycling and composting programs on or before the commencement of operations in the proposed Phase 14 expansion.”<sup>51</sup>

Additionally, WMDSM has not fully or clearly articulated what the composting program will look like. There is no discussion of education programs to assist customers in reducing food waste, no funding for food rescue for hungry people, or collection programs to partner with local farmers to feed animals or process food through anaerobic digestion on a farm in the Application or Public Benefits Determination Application.<sup>52</sup> There are few, if any, details about the composting program, and nothing much is promised. However, WMDSM will, at some point, maybe, allow people and partner businesses to drop food scraps off at the Airport Road Transfer Station, free of charge. WMDSM will then move those materials to their compost facility, compost it, and store it. There will be some education of employees and customers, and some tours, and WMDSM will track the tonnage collected. Participants will be able to receive finished compost on “designated days” throughout the year. There are no metrics for success, no

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<sup>48</sup> *Id.*

<sup>49</sup> Draft License Phase 14 Expansion, at 43.

<sup>50</sup> *Id.* at 46.

<sup>51</sup> *Id.* at 92.

<sup>52</sup> Waste Management Disposal Services of Maine, Inc., Crossroads Facility, Phase 14 Secure Landfill, Determination of Public Benefit Application, July 3, 2018, p. 34.

deadlines, and no real accountability of any sort.<sup>53</sup> An individual could go to a few training sessions, make some calls to potential customers, and allow their neighbors to drop off food scraps in their yard, and it would fulfill the terms of the Application, so long as the individual let a few neighbors pick up some compost a couple of times a year. This is not an adequate effort, or is it diverting materials to the maximum extent practicable.

We suggest that the Department revise the Draft License to include clear and actionable parameters regarding composting efforts by WMDSM. For instance, requirements such as:

- WMDSM shall instruct its customers, residential and commercial, that no food scraps or other compostable materials are allowed in the MSW to be buried at the Crossroads Facility. This also has the added advantage of decreasing methane generation at the landfill, as described below.
- WMDSM shall construct a composting facility, permitted by, and in accordance with, the Department's rules and regulations, prior to beginning operations at Phase 14.
- The new composting facility shall be able to process at least 75,000 tons a year, or just over 38.41% of the 187,000 tons of MSW WMDSM buried last year.
- WMDSM shall collect or receive the compostables in the same way it collects or receives the MSW. It will not charge additional dollars for transporting the compostables, though it may charge a tipping fee up to half of that for the MSW.
- Customers may come and pickup finished compost, and communities may send a hauler to pick up compost on behalf of their community as well. Pickups are allowed at least two days a week, one of which must be a weekend day.
- WMDSM may use or sell the excess finished compost.
- The Department may evaluate the success of the composting program and require new conditions to improve its operation yearly.

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<sup>53</sup> *Id.*

These measures will provide clear metrics that will ensure the necessary level of accountability needed to evaluate the implementation of MSWDM's composting program. Therefore, we urge the Department to revise the Draft License to include these requirements in relation to WMDSM's proposed composting programs and facility.

#### IV. Conclusion

As outlined in Section I of these comments, as well as the comments submitted previously, WMDSM has failed to establish that the proposed Phase 14 Expansion meets the requirements necessary for approval. Therefore, we urge the Department to deny the application. The Draft License would approve the construction of a freestanding landfill expansion that provides no definite public benefit to the State of Maine, and that will inevitably negatively impact the public health of the region, the environmental resources of the area, and run counter to Maine's Solid Waste Hierarchy and goals.

Should the Department fail to deny WMDSM's Application, we urge the Department to rescind the Draft License and halt any permitting decision until:

- (1) An independent hydro-geological assessment is performed to evaluate the hydrological connectivity and potential impacts to ground water aquifers is completed.
- (2) WMDSM develops a fire prevention plan.
- (3) An independent study evaluating the benefits of using movable impervious cover as opposed to alternative daily cover is completed.
- (4) WMDSM agrees to utilize a double composite liner system.
- (5) WMDSM agrees to retreat leachate onsite.
- (6) WMDSM agrees to a maximum fill rate specifying the total amount of waste that it may bury each year.





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(7) WMDSM includes specific and measurable components in its composting plan to ensure organic and food waste is actually diverted from landfilling.

Thank you for the opportunity to comment on this proposal and your attention on this matter.

Respectfully submitted,

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