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CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Gardner Sludge Landfill Expansion
PROJECT MUNICIPALITY : Gardner
PROJECT WATERSHED : Millers River
EEA NUMBER : 16643
PROJECT PROPONENT : City of Gardner
DATE NOTICED IN MONITOR : December 23, 2022

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.06 and 11.11 of the MEPA Regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project **requires** the submission of a Draft Environmental Impact Report (DEIR).

Project Description

As described in the Environmental Notification Form (ENF), the project consists of the expansion of the City of Gardner's (City's) existing sludge landfill to provide additional capacity to dispose of 276,500 cubic yards (cy) of sludge generated by the City's wastewater treatment plant (WWTP). According to the ENF, the additional capacity will not be used to increase the daily tonnage of sludge disposed of at the landfill; rather, it will permit the City to continue its current practice of disposing of five dry tons of sludge per day (two truck trips from the WWTP to the landfill per day), five days a week, for 17 years after the existing landfill is filled to capacity. To improve the stability of the material, dry sludge delivered to the site is mixed with sand at a ratio of 3 parts sand to 1 part sludge prior to disposal on the landfill.

The additional landfill capacity will be provided over an 8.75-acre area, including 2.75 acres within the footprint of the existing landfill and an expanded area of approximately six acres on the southwest side of the existing landfill. Construction of the expansion area will involve regrading by removing up to 20 feet of soil over the six-acre area to establish a subbase sloping from approximately elevation 1005 feet NAVD 88 at the north end to 985 ft NAVD 88 at the

south end. According to the ENF, the design of the landfill expansion includes measures to manage leachate, which is the liquid produced when precipitation comes into contact with the dry sludge. The subbase will be a minimum of four feet above the seasonal high groundwater (SHGW) elevation. A Groundwater Protection System (GWPS) will be constructed on top of the subbase to act as a barrier between the sludge/leachate and groundwater. The GWPS will be constructed so as to extend a minimum of 10 feet beyond the limit of the existing landfill liner. The GWPS will consist of the following, which will be installed in the order below (from the bottom of the liner in contact with the subbase to the top of the liner in contact with sludge/leachate):

- A low permeability layer which will cover the subbase with 12 inches of compacted soil with low hydraulic conductivity, a geosynthetic clay liner (GCL) and a high-density polyethylene (HDPE) geomembrane;
- A leak detection and secondary leachate collection system over the low permeability layer listed above;
- A primary low permeability layer with a GCL and HDPE geomembrane to cover the leak detection and secondary leachate collection system;
- A primary leachate collection system over the primary layer; and,
- A 12-inch layer of low permeability material over the primary leachate collection system to protect the underlying components of the GWPS; sludge will be placed into the cell on top of this layer.

The expanded area of the landfill will include three cells that are proposed to be constructed at the same time and then filled sequentially, beginning with Cell 1 located at the southern end of the facility. The cells will be separated by berms covered with HDPE geomembrane liner material to prevent flow of leachate between the cells. A 15,000-sf area at the southernmost and lowest end of Cell 1 will be used as a detention area to which leachate from the remainder of Cell 1 and Cells 2-3 will be directed. Leachate will be pumped from the detention area in Cell 1 by a new pump station through a new 4-inch diameter, 1,200-ft long force main to the existing leachate conveyance system, which will pump leachate from the landfill to an 8-inch diameter gravity sewer main in West Street that will convey flows to the existing WWTP for treatment. The leachate detention area in Cell 1 will be filled with sludge after Cells 2 and 3 are filled to capacity.

The project also includes construction of structures outside the footprint of the landfill and GWPS, including a new leachate pump station, force main, a 12-ft wide perimeter gravel access road and a stormwater management system consisting of a perimeter swale, a bioretention area at the north end of the site and infiltration basins to the west and south.

The landfill, including the existing and proposed expansion area, will be capped at the end of its operations with a three-foot thick cap consisting of a gas venting layer, a low permeability layer, a drainage layer and a vegetative support layer. The final elevation of the mound will be 1,054 ft NAVD 88, or approximately 15 ft higher than the top of the existing landfill and approximately 50 to 70 ft above the existing grade of the expansion area. As noted below, the Massachusetts Department of Environmental Protection (MassDEP) recommends that the project incorporate early closure of portions of the landfill into the project design and a phased expansion plan.

Project Site

The 41.4-acre project site is located within a larger parcel owned by the City in west Gardner. A cemetery and the City's former solid waste landfill (now closed) are located to the east and northeast and another cemetery and a ground-mounted solar photovoltaic generating facility are located to the north of the project site. Vehicular access to the site is provided by a driveway from West Street, which runs along the northern edges of the cemeteries and former solid waste landfill. Areas to the south and west of the site consist of undeveloped woodlands, including conservation land. The municipal boundary between Gardner and Templeton coincides with the course of the Otter River approximately 1,500 feet west and south of the project site.

Wetlands are located north, east and south of the site. Two certified vernal pools, which are designated as Outstanding Resource Waters (ORWs) pursuant to the Massachusetts Surface Water Quality Standards (314 CMR 4.00), are located approximately 300 feet west and southwest of the existing sludge landfill and approximately 100 feet from the edge of the proposed landfill expansion. As shown on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) Number 2503050008B (effective July 2, 1981), the site is not located within the 100-year floodplain. Areas of flooding associated with nearby wetlands are mapped on the FIRM as 500-year floodplain and extend onto the northern and southern areas of the project site adjacent to the existing sludge landfill. Two water supply wells for the Town of Gardner are located approximately 4,000 feet west and south of the site. The western edge of the proposed landfill expansion is approximately 1,700 ft east of the nearest part of the Zone II wellhead protection area of one of the public water supply wells and approximately 3,500 feet north of the Zone II of the other well.

According to preliminary mapping of Environmental Justice (EJ) populations available when the ENF was filed, the site is located just outside the one-mile radius from one EJ population designated by Income and within five miles of 10 EJ populations in Gardner, including seven designated as Income, two designated as Minority and one designated as Minority and Income. Updated mapping issued on November 12, 2022 and made effective January 4, 2023, did not materially change these designations, except that the EJ populations within a five-mile radius are now designated under different demographic categories. As discussed below, the City should establish a Public Involvement Plan, in consultation with MassDEP, and hold at least one public meeting prior to filing the DEIR.

Environmental Impacts and Mitigation

Potential environmental impacts of the project include alteration of 5.9 acres of land and creation of 4.1 acres of impervious area. The purpose of the project is to extend the duration of current sludge disposal practices, including disposal of 5 tons of sludge per day (two truck trips), for an additional 17 years. Construction and operation of the project will generate dust, odor and Greenhouse Gas (GHG) emissions.

Measures to avoid, minimize and mitigate impacts include construction of a double composite liner and leachate conveyance system to minimize infiltration of leachate into the soil and groundwater, construction of a cap over the landfill at the end of its operations (??) to minimize odors and production of leachate, mixing of sludge with sand to minimize odor and

add stability to the landfill, installation of a gas venting system and construction of a stormwater management system. The DEIR should provide a comprehensive discussion of proposed mitigation measures.

Jurisdiction and Permitting

The project is undergoing MEPA review because it requires Agency Actions and meets the ENF review threshold at 301 CMR 11.03(5)(b)(5)(a), New Capacity or Expansion in Capacity for combustion or disposal of any amount of sewage sludge, sludge ash, grit, screenings, or other sewage sludge residual materials. The project requires an Approval of Wastewater Treatment Residual Landfill and a Superseding Order of Conditions (SOC) from MassDEP. According to MassDEP, the project will also require a WP34 Approval of Closure Plans for Wastewater Residual Landfills. The project requires a National Pollutant Discharge Elimination System (NPDES) Stormwater General Permit from the Environmental Protection Agency (EPA).

Because the project is not seeking Financial Assistance from an Agency, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of any required or potentially required Agency Actions and that may cause Damage to the Environment, as defined in the MEPA regulations.

Review of the ENF

The ENF described existing site conditions, provided a project description and site plans and identified alternatives to the project. It included appendices describing proposed stormwater management measures and a hydrogeological report. Consistent with the MEPA Interim Protocol on Climate Change Adaptation and Resiliency, the EENF contained an output report from the MA Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action Team (RMAT) (the “MA Resilience Design Tool”),¹ together with information on climate resilience strategies to be undertaken by the project.

I received comments from residents and community groups expressing concerns about the environmental impacts of the proposed landfill expansion. Issues of particular concern include a desire for the City to evaluate alternatives to the continued operation of the landfill; odor and air quality impacts, including GHG emissions; potential for contamination of groundwater, including drinking water supplies; alteration of wetlands, wildlife habitat and recreational open space; and impacts to EJ populations. The City will provide additional information and analyses of the project’s impacts in the DEIR. In addition, the City will be required to establish a Public Involvement Plan and has been encouraged to conduct at least one public meeting before the DEIR is filed. The Scope also includes information requested by MassDEP with respect to the construction of the proposed sludge landfill expansion, capping of the existing sludge landfill and other measures that will minimize impacts associated with the facility.

¹ https://resilientma.org/rmat_home/designstandards/

Alternatives Analysis

The ENF reviewed nine alternatives to the proposed project. The No Action Alternative would continue to use the existing landfill for approximately 2-3 more years until it reaches capacity, at which point the landfill would be closed and capped and the City would have no means of disposing of sludge. Because the WWTP will continue to operate and generate sludge beyond that time period, the No Action Alternative does not address the purpose of the project to facilitate disposal of the sludge material. Similarly, avoiding the generation of sludge by the WWTP by discontinuing operation of the facility or discharging untreated wastewater (the “Eliminate Sludge Generation Alternative”) does not address the project need because sludge is an unavoidable product of sewage treatment.

The Land Application Alternative would involve converting sludge to fertilizer pellets to be used for agricultural purposes. The ENF did not describe what additional processes would be involved in converting sludge to fertilizer or identify impacts associated with those processes. According to the ENF, land application of sludge has been effectively halted in Massachusetts because of the presence of per- and polyfluoroalkyl substances (PFAS) in sludge, which would also be present in fertilizer and could potentially contaminate soil and groundwater in areas where the fertilizer would be applied. A similar Construct a Composting Facility Alternative would include construction of a composting facility at the site of the proposed landfill expansion or at another location. The ENF did not identify potential impacts associated with a composting facility. This alternative was also determined to be infeasible because of concerns that the compost would contain PFAS.

The Modify the WWTP to Add Anaerobic Digestion Alternative would expand the WWTP to add an anaerobic digester that would generate biogas, which could be used as an energy source, through the processing of sludge produced at the facility. According to the ENF, this alternative is not feasible because anaerobic digestion is not economically feasible for facilities that treat less than 10 million gallons per day (mgd) of wastewater; the existing WWTP treats approximately 3 to 4 mgd. In addition, anaerobic digestion would produce solids that would need to be disposed of as compost or fertilizer, which the City believes are infeasible disposal methods; alternatively, the solids would need to be taken to a landfill. Several commenters noted that the City of Fitchburg is evaluating the feasibility of constructing an anaerobic digester at its wastewater treatment facility which could accept sludge from Gardner. As detailed below, the DEIR should further evaluate the feasibility of this alternative.

The Construct an Incinerator and Construct a Pyrolysis or Gasification Facility Alternatives would reduce the volume of sludge to be disposed of by either incinerating (burning) sludge generated by the WWTP or by using pyrolysis or gasification to transform sludge into gas and char through a high-temperature process that do not involve incineration. According to the ENF, incineration of sludge has not been shown to destroy PFAS, which would be emitted into the air. The temperatures used in the pyrolysis and gasification processes are higher than those achieved in incineration and may be high enough to destroy PFAS; however, the effectiveness of these processes has not been demonstrated and no such facilities have yet

been permitted in Massachusetts.² For this reason, the City determined that these disposal methods are not feasible. Furthermore, incineration, hydrolysis and gasification produce solid wastes which would require disposal.

According to the ENF, the Construct a New Sludge Landfill Elsewhere in the City Alternative is not feasible because alternative locations were deemed less suitable than the Preferred Alternative and none have been permitted for sludge disposal. The ENF did not identify any sites that were considered or provide a comparative analysis of the impacts associated with siting a landfill at those locations. The DEIR should identify alternative locations evaluated by the City and describe potential impacts of siting a sludge landfill at those locations.

The Contract Hauling and Disposal Alternative would involve hiring a contractor to haul sludge from the WWTP to an off-site disposal facility. According to the ENF, the City evaluated this alternative in 2016 by obtaining data from WWTPs who employ this sludge disposal method. Sludge hauling contracts were found to be typically short-term (2-5 years) due to contractor concerns about uncertainty in availability of disposal locations and associated costs.

According to the ENF, the Preferred Alternative has been designed to accommodate the existing rate of sludge production for at least 17 years. The volume of wastewater treated and sludge produced at the WWTP is not expected to change significantly based on long-term population trends and because the City does not intend to accept sludge from other communities for disposal at the landfill. According to the ENF, the Preferred Alternative is the most cost-effective sludge disposal option, which is an important consideration in light of the income base of the City's residents who will have to bear the cost of any disposal plan. The expansion will include a double membrane liner that will be designed as a barrier between leachate and soil and groundwater, and with a leachate management system that will collect leachate and discharge it back to the WWTP for treatment.

According to the ENF, both the existing and expanded section of the landfill will be capped at the same time when the expanded area reaches capacity in the year 2041 or later. As detailed in MassDEP's comment letter, the City should cap portions of the existing landfill, which is nearing its capacity, as it expands capacity in other locations in order to minimize odors, reduce leachate production, stabilize slopes and improve stormwater management. Capping of the existing landfill would be consistent with MassDEP's regulations for solid waste landfills, which require that capping commence soon after the landfill ceases to accept waste. As detailed in the Scope, the DEIR should include an evaluation of alternatives for interim and final capping of the existing landfill when it reaches capacity.

Leachate Management

The landfill is designed to minimize potential infiltration of leachate into the soil and groundwater through a GWPS consisting of a double composite liner with a primary and secondary leachate management systems, as described above. According to the ENF, most leachate will be collected by the primary leachate management system and the secondary

² A DEIR was filed in February 2022 describing a proposed gasification facility in Taunton (Aries Taunton Biosolids Gasification Project, EEA# 16311). The lack of data regarding the destruction of PFAS by the gasification process was a key concern expressed by MassDEP and other commenters.

leachate management system is intended as a backup for any leachate that is not contained by the primary leachate management system, which will pump the leachate to a sewer main via the leachate conveyance system. Any leachate reaching the secondary leachate management system will be similarly pumped to the leachate conveyance system and discharged into a sewer main.

The ENF included a Hydrogeological Evaluation Report (HER) that described existing soil and groundwater conditions and modeled groundwater flow under proposed conditions. Subsurface conditions are characterized by coarse-grained glacial outwash deposits on top of bedrock. Groundwater data was collected from 21 wells, including 13 wells near the sludge landfill and eight wells to the north and northeast of the sludge landfill. According to the HER, groundwater flow within the proposed expansion area is generally to the south-southeast under existing conditions. Groundwater flows were modeled for proposed conditions, including regrading of the site, construction of the landfill expansion and proposed infiltration basins and bioretention pond. The model evaluated groundwater flows under a steady-state condition representing an average annual rainfall, as well as under a 24-hour, 100-year storm event. The model indicated that groundwater flow would continue to flow to the south under proposed conditions. Groundwater elevations modeled under 24-hour, 100-year storm conditions were estimated to be up to approximately five feet higher than those observed under existing conditions and up to one foot higher than modeled post-construction, steady-state conditions; however, it appears that a separation of at least four feet will be maintained between groundwater and the proposed landfill expansion subbase.

Two public water supply wells in Templeton are located less than one mile to the west and south of the project site. The Zone II Wellhead Protection Area associated with the well to the west extends to within one-half mile of the expansion site; the nearest point of the Zone II of the well to the south is approximately 0.7 miles from the site. The ENF identified 18 private drinking water wells in Gardner located within a mile north of the site along West Street and Bridge Street. Several commenters asserted that 71 private water wells in Templeton and Gardner are located within one mile of the site, including wells south and east of the site. As described below, the DEIR should confirm the presence of any additional wells within one mile of the site and review the results of the HER as related to those sites.

Landfill Construction and Design

The project involves a vertical expansion of the landfill as well as an expansion of its footprint. Placement of sludge on the western portion of the existing landfill will result in a final elevation approximately 10 to 15 ft higher than the current height of the landfill. The GPS will be designed to overlap with the lower slope of the existing landfill; however, no cap or liner is proposed to cover areas where additional sludge will be placed on the landfill. According to MassDEP, areas of the existing landfill where vertical expansion is proposed should be covered by a hydraulic separation layer consisting of a combination of low permeability barriers and high-capacity drainage systems. The DEIR should include a revised design of areas of vertical expansion that includes a system for hydraulically separating the existing landfill from waste to be placed as part of the expansion project.

As described in the ENF, the three cells in the proposed landfill expansion area will be constructed at the same time in order to minimize construction impacts and reduce costs. According to MassDEP, construction of all cells at the same time, including Cells 2 and 3 which

will remain empty until partial filling of Cell 1 is completed, may result in damage to the liner that will reduce its effectiveness. As detailed below, the DEIR should include an evaluation of alternatives involving construction of the expansion cells in a phased manner and a description of additional inspection and maintenance tasks that will need to be performed to ensure the impermeability of the liner is not reduced while the cell remains empty.

The City proposes to cap both the existing and expanded portions of the landfill at the same time when the landfill reaches capacity in 2041. According to MassDEP, the existing landfill should be capped as soon as possible after it has reached capacity, as required by the Solid Waste Regulations at 310 CMR 19.115(e)(1)(a). Capping as much of the landfill as soon as possible will minimize impacts, including odor and potential leachate production. The DEIR should include a discussion of potential cap designs for the existing landfill and identify and associated construction impacts with installation of the cap.

Stormwater Management

The ENF described the proposed stormwater management system for the landfill expansion area. Runoff will be collected by grass-lined swales, deep-sump catch basins and HDPE pipes and directed to a bioretention pond and two infiltration basins. The swales and HDPE pipes will have the capacity to convey stormwater runoff from a 10-year storm event and will be constructed with check dams to reduce flow velocities in the channels during larger storms. The bioretention pond will be located north of the expansion area and will consist of a soil bed planted with non-invasive vegetation. Runoff entering the pond will be filtered through a 24-inch layer of soil filter media and pea gravel before entering an underdrain system that will discharge through an outlet control structure. The infiltration basins will be constructed to the west and south of the expanded landfill. The infiltration basins will be designed to have the capacity to store and infiltrate a 24-hour, 100-year storm. According to the ENF, the stormwater management system will meet SMS requirements by decreasing peak discharge rates for the 2-, 10-, 25-, and 100-year, 24-hour storm events compared to existing conditions, recharging groundwater and removing between 85 and 90 percent of the Total Suspended Solids (TSS) in runoff.

Odor

Odors associated with the proposed landfill expansion will be produced by the sludge and landfill gas; measures to control landfill gas are discussed below. According to the Operations and Maintenance Plan included in the ENF, odor produced by sludge is controlled by applying daily cover to the landfilled sludge and keeping the sludge as dry as possible by preventing ponding of water.³ Odor is monitored daily by City employees using an Odor Intensity ranking system to record the level of odor experienced at the site. The Odor Intensity scale ranges from 0 to 5, with 0 representing no odor and 5 indicating an overpowering odor that is not tolerable for any length of time. Odor complaints from the public are tracked by the Gardner Board of Health and the WWTP staff; the tracking system also includes information concerning the activity level at the landfill and the weather, including temperature, wind direction and wind speed. According to the ENF, additional cover material may be applied to mitigate nuisance odors.

³ The Engineering Report included in the ENF states that daily cover is not necessary. The DEIR should clarify whether daily cover will be applied.

Commenters note that persistent odors emanate from the landfill and affect visitors to the cemeteries and conservation land adjacent to the site, as well as more distant residential areas. As noted above, MassDEP has recommended that portions of the existing landfill be capped once those areas reach capacity; this would mitigate odors generated from sludge deposited in the existing landfill. The DEIR should review odor mitigation measures that will be implemented during filling of the expansion area.

Climate Change

Adaptation and Resiliency

Effective October 1, 2021, all new MEPA projects are required to submit an output report from the MA Resilience Design Tool to assess the climate risks of the project. The ENF included an output report from the tool for the project. As shown in the output report, the project has a high exposure rating based on the site location for urban flooding associated with extreme precipitation and extreme heat. Based on the 30-year useful life and the self-assessed criticality of the landfill, the MA Resilience Design Tool recommends a planning horizon of 2050 and a return period associated with a 10-year (10 percent chance) storm event when designing the project. The 30-year useful life appears to have been selected because the landfill expansion will be filled during an approximately 20-year period; however, it does not take into account the long-term maintenance of the landfill once it is capped. In addition, a 10-year storm event recommendation appears based on a “Low” criticality assessment for the landfill, despite its stated importance in maintaining sludge disposal for the City. For “Medium” to “High” critical assets, the Tool recommends a 25-year or 50-year storm event as of the planning year.

According to the ENF, the project’s high risk for urban flooding identified by the MA Resilience Design Tool is due to the addition of impervious area associated with the landfill liner. During the period when the expansion cells are being filled, rainfall will filter through a minimum of 12 inches of protective cover before reaching the impervious liner, at which point it will be conveyed through the leachate management system rather than flow on the surface; therefore, the project is unlike most projects that add impervious area at the surface and cause an increase in surface runoff. The leachate management system was designed to operate under extreme weather conditions based on the EPA’s Hydrologic Evaluation of Landfill Performance (HELP) model, which was used to simulate 20 years of daily weather conditions to identify the 7-day extreme condition to be accommodated by the leachate management system and leachate collection pond. According to MassDEP, the most current version of the HELP model should be used to calculate the conditions for which the leachate management system should be designed.

As noted above, the stormwater management system has been designed to collect, convey and treat stormwater runoff based on the National Oceanic and Atmospheric Administration’s (NOAA’s) Atlas 14, Volume 10 rainfall data. The NOAA Atlas 14 estimates a rainfall depth of 6.9 inches for the 100-year storm event, which is greater than the 5.7-inch precipitation depth for the 2050 10-year storm event included in the MA Resilience Design Tool output report. Because the landfill and stormwater management system will remain in place beyond 2050, I encourage the City to review the recommendations generated by the MA Resilience Design Tool for the project based on a useful life longer than 30 years and for higher criticality assets (25-year or 50-year storm events). A dashboard showing anticipated 24-hour rainfall volumes under a wide

variety of future storm events is now available as a resource on the Resilient MA Climate Change Projections Dashboard.⁴

Greenhouse Gas Emissions

Sludge produces emissions of GHG, including methane and carbon dioxide. The ENF included an estimate of annual emissions of landfill gas through the year 2130 using the EPA's Landfill Gas Emissions Model (LandGEM). Total emissions are anticipated to peak between 2040 and 2045 at a rate of approximately 275 short tons per year. A gas venting system will be incorporated into the final cap design to allow the gas to passively vent into the air. According to the ENF, the amount of gas emitted by the landfill is too low to warrant management, such as flaring.

During landfill operations prior to final capping, gas will migrate upward to the surface of the landfill and be passively released to the atmosphere. According to MassDEP, gas may be prevented from venting through the landfill surface under certain conditions, such as when the ground is frozen during the winter. The City should monitor landfill gas to ensure that it is not migrating away from the landfill toward on-site structures or off-site properties.

Conclusion

The ENF described the design of the proposed landfill expansion and identified construction-period impacts and mitigation measures. The DEIR should describe additional components of the project, including interim and final caps, that may be required by MassDEP in connection with permitting of the landfill expansion.

SCOPE

General

The DEIR should follow Section 11.07 of the MEPA regulations for outline and content and provide the information and analyses required in this Scope. It should demonstrate that the Proponent will pursue all feasible measures to avoid, minimize and mitigate Damage to the Environment to the maximum extent feasible

Project Description and Permitting

The DEIR should identify any changes to the project since the filing of the ENF, including potential design of a cap for the existing landfill and potential environmental impacts of the construction of the cap. It should identify and describe state, federal, and local permitting and review requirements associated with the project and provide an update on the status of each of these pending actions. The DEIR should include a description and analysis of applicable statutory and regulatory standards and requirements, and a discussion of the project's consistency with those standards. The DEIR should identify the need for a Landfill Closure Permit from MassDEP and address relevant regulatory standards.

⁴ <https://resilientma-mapcenter-mass-cocea.hub.arcgis.com/>

The DEIR should include site plans for existing and post-development conditions at a legible scale. Plans should clearly identify wetland resource areas, buildings, roads, impervious areas, and stormwater infrastructure. The DEIR should provide plans, sections, and elevations to accurately depict existing and proposed conditions, including proposed above- and below-ground structures, on- and off-site open space, and resiliency and other mitigation measures. The DEIR should clarify whether the project site was taken for recreational or other purposes and whether the project is subject to Article 97; if necessary, the DEIR should include an analysis consistent with the EEA Article 97 Land Disposition Policy.

The information and analyses identified in this Scope should be addressed within the main body of the DEIR and not in appendices. In general, appendices should be used only to provide raw data, such as drainage calculations, traffic counts, capacity analyses and energy modelling, that is otherwise adequately summarized with text, tables and figures within the main body of the DEIR. Information provided in appendices should be indexed with page numbers and separated by tabs, or, if provided in electronic format, include links to individual sections. Any references in the DEIR to materials provided in an appendix should include specific page numbers to facilitate review.

Alternatives Analysis

The DEIR should include a supplemental alternatives analysis that provides additional details that may be available concerning a proposed anaerobic digester in Fitchburg. It should review an alternative involving trucking sludge to the proposed Fitchburg anaerobic digestion facility, if it were to be available for sludge disposal, and evaluate potential environmental impacts and impacts on EJ populations.

Environmental Justice

While the project site is not located within one mile of an EJ population, MassDEP has indicated to the MEPA Office that it will require the City to develop and implement a Public Involvement Plan (PIP) in connection with filing of applications for the landfill expansion. MassDEP expects a fact sheet prepared using a MassDEP template describing the project be distributed by Gardner to appropriate local distribution outlets prior to the issuance of a draft permit. The DEIR should establish a public involvement plan to engage nearby EJ populations. The DEIR should contain a full description of measures the Proponent intends to undertake to promote public involvement by such EJ populations during the remainder of the MEPA review process, including a discussion of any of the best practices listed in the MEPA Public Involvement Protocol for Environmental Justice Populations (the “MEPA EJ Public Involvement Protocol”) that the City intends to employ. The DEIR, or a summary thereof, should be distributed to all Community Based Organizations (CBOs) and tribes/indigenous organizations included in an “EJ Reference List” available from the MEPA Office; all statewide entities and those located in municipalities within one miles of the project site should be included. The City is encouraged to consult with the EEA EJ Director and the MEPA Office regarding community engagement strategies appropriate for the project, well before the filing of the DEIR. The City should hold at least one public information meeting about the project before filing the DEIR.

Landfill Design and Construction

The DEIR should include an analysis of alternative designs and construction methods for the phased construction of the expansion cells. For each alternative, the DEIR should discuss its feasibility, describe inspection and maintenance procedures, and an evaluation with respect to minimizing erosion, siltation and degradation of the liner.

The DEIR should clarify the anticipated timeline for the existing sludge landfill to reach capacity. According to MassDEP's guidance document entitled "Wastewater Residuals Guidance Document No. 89 2, Closure/Post Closure Requirements For Residuals Landfills", the owner or operator of a landfill must submit for MassDEP's review and approval a closure/post-closure plan at least six months prior to proposed closure activities. The closure/post-closure plan must be submitted to MassDEP as part of a WP34 Approval of Closure Plans for Wastewater Residual Landfills application. The DEIR should review alternatives for capping any portion of the existing landfill where new waste has not or will not be applied within a one-year period, unless the area is permitted to accept additional waste, has reached final approved elevations, or any other criteria stated in the Solid Waste Management regulations at 310 CMR 19.115(e)(1)(a). The DEIR should include an analysis of capping designs and describe how the feasibility of the design and how it would address leachate production/management, odors, slope stability, and stormwater management. As requested in MassDEP's comment letter, the DEIR should evaluate alternative designs for construction of a hydraulic separation layer, in accordance with the requirements of MassDEP Solid Waste Management Regulations 310 CMR 19.110(5)(c), and leachate management system over the existing landfill in connection with its vertical expansion, and identify potential impacts of each alternative design.

As noted above, a revised version of the HELP model is available for use in designing the proposed leachate management system in the expanded landfill. The DEIR should provide an updated leachate system design based on the use of the current version of the HELP model.

Groundwater

The DEIR should confirm the number of all public and private water supply wells in Gardner and the surrounding communities within one mile of the site expansion area, and provide a map of the location of each well. In addition, it should include a map of all existing monitoring wells associated with the existing sludge landfill, municipal solid waste landfill, and proposed monitoring wells for the expansion project. It should discuss potential impacts to wells from migration of groundwater from the landfill and describe how the proposed groundwater monitoring program, including any additional monitoring wells that may be proposed, will detect potential impacts to the wells.

Stormwater

The DEIR should include a discussion of how runoff will be managed during the period that the expanded landfill is being filled with sludge. It should clarify whether the proposed BMPs identified for the final capped condition will be in place and whether any additional BMPs or conveyance systems will be necessary on a temporary basis. The project will be required to develop a Stormwater Pollution Prevention Plan (SWPP) in accordance with its NPDES CGP to

manage stormwater during the construction period. The DEIR should describe stormwater management measures that will be implemented during construction.

Air Quality

The DEIR should describe the source of all the model parameters used in the LandGEM tool as they apply to sludge landfills rather than solid waste landfills. It should describe how landfill gas will be collected from the existing and proposed new portions of the sludge landfill evaluate potential measures to minimize odors and GHG emissions associated with the gas. At a minimum, the DEIR should evaluate the feasibility of conveying those gases to the existing flare in operation at the nearby municipal solid waste landfill, which was approved by MassDEP in an Air Quality Plan Approval issued in 2005 and amended in 2008. The analysis of this connection between landfill gas collection systems should describe how gas will be vented, including during the winter when the ground surface is frozen, and monitored. The City should review federal regulations related to landfill gas emissions from solid waste landfills, including 40 CFR Part 60, to determine whether standards for capture and control of landfill gas would trigger MassDEP air permitting. The DEIR should confirm whether or not daily cover will be applied to the landfill; if not, it should discuss why this odor mitigation measure cannot be implemented.

Climate Change

The DEIR should review projected rainfall data for the years beyond 2050 available from the Resilient MA Climate Change Projections Dashboard to discuss the resiliency of the stormwater and leachate management system to future climate conditions associated with the 10-year, 25-year, and 50-year storm events. The DEIR should clarify whether the leachate management system is designed to be resilient to a certain storm event (e.g., 24-hour rainfall for a 100-year storm), and how such event compares to the recommended values provided by the MA Resilience Design Tool. The DEIR should include an analysis of the landfill's resilience to future climate conditions and describe any potential changes to the design of the final cap or proposed stormwater management system that may be necessary to maintain the long-term integrity of the landfill.

Construction Period

The DEIR should provide a cut and fill analysis, including a plan, of the area in which the landfill expansion will be constructed. It should describe management of soil, including on-site stockpiling, off-site disposal, or reuse. The DEIR should identify construction-period impacts and mitigation relative to noise, air quality, water quality, and traffic, including the number and route of construction vehicles. It should confirm that the project will require its construction contractors to use Ultra Low Sulfur Diesel fuel, and discuss the use of after-engine emissions controls, such as oxidation catalysts or diesel particulate filters. More information regarding construction-period diesel emission mitigation may be found on MassDEP's web site at <http://www.mass.gov/dep/air/diesel/connetro.pdf>.

Mitigation and Draft Section 61 Findings

The DEIR should include a separate chapter summarizing all proposed mitigation measures including construction-period measures. This chapter should also include a

comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.

Responses to Comments

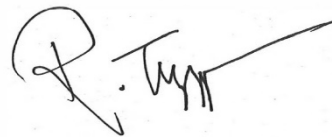
The DEIR should contain a copy of this Certificate and a copy of each comment letter received. It should include a comprehensive response to comments on the ENF that specifically address each issue raised in the comment letter; references to a chapter or sections of the DEIR alone are not adequate and should only be used, with reference to specific page numbers, to support a direct response. This directive is not intended to, and shall not be construed to, enlarge the Scope of the DEIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent should circulate the DEIR to each Person or Agency who previously commented on the ENF, each Agency from which the Project will seek Permits or Financial Assistance, and to any other Agency or Person identified in the Scope. Per 301 CMR 11.16(5), the Proponent may circulate copies of the EIR to commenters in CD-ROM format or by directing commenters to a project website address. However, the Proponent must make a reasonable number of hard copies available to accommodate those without convenient access to a computer and distribute these upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the digital copy or identifying the web address of the online version of the DEIR indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. A copy of the DEIR should be made available for review at the Gardner Public Library.

February 10, 2023

Date



Rebecca L. Tepper

Comments received:

01/03/2023 Robert L. Chicoine
01/04/2023 David K. Peabody

01/09/2023	Templeton Select Board
01/17/2023	Josh Forgues
01/17/2023	Pastor Jeffrey W. Lore
01/20/2023	Cheryl Alvarez
01/20/2023	Taylor Sala
01/21/2023	Kelsey
01/22/2023	David Antaya
01/22/2023	David Legere
01/23/2023	Bob Chicoine
01/27/2023	Millers River Watershed Council (MRWC)
01/28/2023	Gardner Clean Air
01/28/2023	Mary E. Marsh
01/28/2023	Theresa Griffis
01/28/2023	Thomas B. Esposito
01/30/2023	Anonymous
01/30/2023	Connecticut River Conservancy
01/30/2023	Jo-Anne Burdin
01/30/2023	Millers River Watershed Council (MRWC)
01/31/2023	Anonymous
01/31/2023	cortkiewel@gmailcom
01/31/2023	Erin Kiewel
01/31/2023	Hugh Jardon
01/31/2023	Massachusetts Department of Environmental Protection (MassDEP)
01/31/2023	Paul N. Demeo
01/31/2023	Rice Flanders
01/31/2023	Tim Gurczak
01/31/2023	Victoria Heidorn

RLT/AJS/ajs

From: [Bob Chicoine](#)
To: [Strycky, Alexander \(EEA\)](#)
Subject: Gardner Sledge Landfill Extension
Date: Tuesday, January 3, 2023 1:21:32 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Secretary Theoharides,

This letter contains my comments on the Gardner Sludge Landfill Expansion Environmental Notification Form (ENF). This expansion project raises important concerns with the ENF and the need for further in-depth analysis via an Environmental Impact Report (EIR). My concerns are:

1. Risk of ground water contamination with impact to drinking water and watershed.

The project Vicinity Map – One Mile Radius (G002) does not identify all of the approximate 70 private drinking water wells. The ENF does identify the two Town of Templeton Public Drinking Water Wells within one mile of the site.

The Hydrogeological Evaluation Report (Appendix F) describes the geology of the site as having glacial outwash sand and gravel atop fractured and weathered bedrock. Therefore, this geology does not provide any natural containment and allows contaminants to travel faster and further. The ENF shows no attempt to model the release of contaminants to groundwater from the sludge landfill.

The ENF mentions a double composite groundwater protection system (GWPS). The GWPS's life expectancy is not specified and not guaranteed for any time period. Manmade infrastructure ultimately fails. If this system fails in 1, 5, 10, 25, or 100 years, no remediation procedure is specified to deal with contaminated private wells, public wells, or wetland resources. No bonding or reserve funding has been designated for remediation.

PFAS contamination has become a growing concern in Massachusetts and the Country. According to the US EPA, peer-reviewed studies have shown that PFAS may lead to increased risk of some cancers, reproductive effects in pregnant women, and developmental delays in children. According to the Gardner Wastewater Treatment Plant (WWTP) NPDES Permit (No. MA0100994), the now-closed Gardner Sanitary Landfill discharges an average of 1,182 gallons of non-process leachate to Gardner's WWTP. It is highly likely that this landfill leachate contains PFAS and this leachate is not tested for PFAS. Neither Gardner sludge or the Sludge Landfill monitoring wells are tested for PFAS. PFAS testing must be

done in order to determine the level of PFAS and evaluate the risk of dumping 4,000 cubic yards of sludge per year for 17 years at this site.

2. Negative impacts to the public recreational use of the Wildwood Cemetery Forest, Cummings Otter River Conservation Area, and the Ebenezer Keyes Conservation Area.

For many years, the community has used the Sludge Landfill Expansion project site location, within Gardner's Wildwood Cemetery Forest, for community recreation.

This property abuts and connects with a network of trails on the Cummings Otter River Conservation Area. A blazed trail along the property's glacial period esker provides year-around use by the public for hiking, snow-shoeing, cross-country skiing, and hunting. The Gardner Conservation Department, North County Land Trust, and Millers River Watershed Council have conducted guided hikes to these properties. Destruction of 6 acres of forest and the persistent odors from the Sludge Landfill negatively impacts the use of both of these beautiful properties and the new NCLT-owned Ebenezer Keyes Conservation Area, located to the east of the expansion site.

3. Continued source of ongoing poor air quality for entire area.

The ENF does not mention historical odor problems with the existing Sludge Landfill. Air quality has been a consistent problem over many years and numerous odor complaints have been submitted by residents and visitors to the nearby conservation areas and cemeteries, includes 3 Catholic Cemeteries owned by Annunciation Parish. The cemeteries and conservation areas are visited by thousands of people. There are residential neighborhoods with approximately 563 adult residents with 272 homes per the street listings for Gardner and Templeton.

The one-mile radius is also home to facilities owned by 13 businesses, 3 social organizations, and 3 religious organizations.

The odors are nauseating to those who visit this area. The City has not installed air quality monitoring devices in order to determine the frequency and intensity of odors. Instead, the City has depended on residents and visitors filing odor complaints, a process neither effective and widely known.

4. Destruction of 6 acres of natural resources including wildlife habitat, forest, a natural esker, and close-proximity to two certified vernal pools.

The planned expansion will destroy 6 acres of Gardner's natural resources, including a hardwood forest, wildlife habitat, and a geologically important esker in the Wildwood Cemetery Forest.

This expansion is inconsistent with the City's own Wildwood [Forest Management Plan](#) (2012) that has the following stated goals: "The City of Gardner would like to improve and protect the forest resources on the Wildwood Cemetery property for the benefit of the residents of Gardner. Protecting water quality is a high priority.

Maintaining and improving aesthetics near the Cemetery is extremely important as well.”

5. Failure of the City of Gardner to present a thorough and accurate examination of alternative sludge management options.

The alternatives analysis dismisses sludge disposal alternatives without completing a single feasibility study of any such alternative. The alternatives analysis fails to consider partnering with any neighboring communities or pursuing a private sector partnership for a viable alternative to the project. The City has rejected pursuit of a phased construction of the project which will, in effect, commit the City to the 17-year landfill expansion. This effectively prevents the City from migrating to an economically and environmentally better alternative within 17 years. With this Project, Gardner will not be able to take advantage of innovation in the other alternatives or partner with other communities in pursuit of a sustainable solution prior to 2042.

The presence of an Environmental Justice community is within one mile of the project site and should trigger the threshold for requiring an Environmental Impact Report (EIR). An EIR will provide more in-depth analysis of the environmental & human impacts and alternatives to this project.

Please feel free to contact me if you have any questions.

Sincerely,

Robert L Chicoine
300 Clark Street
Gardner Ma 01440
bobchic1s@aim.com
978-410-4044

Sent from my iPhone

From: [David Peabody](#)
To: [Strycky, Alexander \(EEA\)](#)
Cc: [Alan Rousseau](#)
Subject: Gardner, MA Sludge Landfill
Date: Wednesday, January 4, 2023 12:35:57 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Strycky,

As a resident and taxpayer in Gardner, MA I have witnessed folly, ego, and utter disregard for liveability in the decisions made, taken, and then clung to by city official. While it is arguable that Gardner should use Town Meeting governance and would perhaps be more responsive to citizen objection... that is a battle for a different day.

Today's battle is an old one. Two decades ago the solution for the cities sewage sludge was to create another pile behind the already capped rubbish landfill. The stench cloud from that new facility has been almost ever-present where I live 2.6 miles downwind. I even discussed with my attorney suing the city for "infringing upon the peaceful enjoyment of my property" for the invisible olfactory offense. He suggested I move rather than waste money suing. There have been many warm summer evenings when the gaseous invader, the sludge landfill stench, has forced me inside. It has not allowed me to sit on my beautiful stone patio for which I saved for years for and worked hard to create.

To describe the stench, assume the smell of the most viral of diarrheas' concentrated as in a small toilet room without a fan. This is the offense that is being transported in the air to my home. You step outside... take a deep inhale of the "fresh air" only to realize that today, IT IS NOT CLEAN AIR.

With an almost constant wind from the west ALL of metropolitan Gardner is downwind. The topography of Gardner's hills bend the flow around a bit to the southeast placing my home directly in the line of fire(see illustration). The freeze of winter brings some respite, frozen poop cannot mold and therefore off-gasses less.

There ARE so many better solutions than to expand the current sludge dump. Digester methane to energy, processing for fertilizers, commercial char production,... ANYTHING BUT STACKING IT UP. and repeating the twenty year old mistake.

For an illustration of how irresponsible the city can be, I give you the methane harvest from the capped city landfill. Originally the methane was just burned and wasted. Citizens raised concern, a grant was obtained and a methane to electricity generator was obtained and installed. More than 8 years ago now, a fire burned the inside of the generator building. It has not been repaired. The disposal of the methane has returned to being wasted... just burned.

I want you to consider also that after 50 years of EPA mandated BETTER water

treatment, the otters have returned to the Otter River. The water that drains from the sludge landfill when breaches or overflows occur goes almost directly into tributaries of the Otter River. Expanding the Sludge Landfill will exacerbate this current problem.

I also add to the fact pile that Gardner official have quietly said behind the scenes, that in order to make the current proposal work financially, the city may have to import sludge from other cities. This flimflam was also used three decades ago during the 10 year long "capping" of the old landfill. In order to "pay" for the capping, the city imported commercial construction refuse for 8 long years. ONLY then, as time was running out on the "within ten years mandate" they placed the methane pipes, the cover membrane, soil, and grass seed.

Mr. Strysky, the alternate solution may not be within your purview, BUT a denial will force the city to consider other less harmful solutions.

Regards and Thank You for you time

David K Peabody
3 Jackson Park
Gardner, MA 01440
508-479-5278





Dashboard(javascript:void(0)); > View Comment(javascript:void(0));

Comment Details

16643

Adam

160 Patriots Road, Rm. 6

Town of Templeton

1-9-2023

Lamontagne

—

Municipality

1-31-2023

—

MASSACHUSETTS

Accepted

Alexander Stryisky (857)408-6957,
alexander.stryisky@mass.gov

alamontagne@templetonma.gov

01438

Topic: Letter from Select Board

Please find the attached letter from the Templeton Select Board

[Letter to EEA re Gardner Sludge Exp Templeton SB 28DEC22 esign.pdf\(null\)](#)

Status

Accepted

SUBMIT

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[BACK TO SEARCH RESULTS](#)



**TOWN OF TEMPLETON
SELECT BOARD
160 Patriots Road, P.O. Box 620
EAST TEMPLETON, MASSACHUSETTS 01438
TEL: (978) 894-2755**

December 28, 2022

Beth A. Card, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
EEA No. TBD
100 Cambridge Street, Suite 900
Boston, MA 02114

Secretary Card,

Congratulations on your appointment in May 2022! We, the Select Board of Templeton, are writing to you today relative to the 4.3-acre 850 West Street Landfill Expansion Project, or commonly known as the "Sludge Landfill Expansion" in Gardner, MA. We currently have a great intermunicipal relationship with Mayor Nicholson and several of his city departments; we would like to continue this, but we are writing as we are pressed with the EEA deadline of January 12th.

A Templeton Village, East Templeton, not only shares a border with Gardner and the proposed expansion, but this village is currently serviced by Gardner's Waste Water Plant and therefore interlinked with the project as a whole. We would also like to further describe our town's proximity to the landfill by offering that 2 of our 4 town fresh water wells are in relatively close proximity, hydrologically speaking. We have had 2 public meetings where various experts (from our own water and sewer department), local abutters, and concerned residents offered observations, support, and opposition. We share many of these concerns and ask you to investigate and provide oversight in this matter. Our Town Administrator sent a letter dated August 4, 2022 to the Gardner Conservation Commission with our succinct but direct concerns with no response.

The environmental impact of the existing sludge landfill and proposed expansion are a potential threat to our wells and wetlands. We understand the technical sureties of this project, but we are still concerned with the process of compliance, hazard mitigation, and potential liability in the event of a containment breach. We understand that the Gardner DPW Water and Sewer's fact sheet on the project identifies that an Analysis of Alternatives was conducted and 8 other projects were considered; we were never consulted concerning these, nor impacts in the event of a leakage, however unlikely. With respect to risk mitigation, we would petition the project owners to offer a Hazard Mitigation plan, reviewed by experts and selected emergency management officials that is based in likelihood and severity of a possible containment breach.

Finally, we understand that the Gardner Conservation Commission approval vote of 14 November 2022 was not unanimous. We hope you will take these concerns into consideration. We wish for our water to be clean and safe! Our Town Administrator can be reached at alamontagne@templetonma.gov. Thank you!

SELECT BOARD,



Timothy Toth (Jan 6, 2023 21:28 EST)

Timothy Toth, Chair



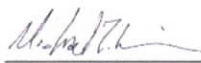
Theresa Griffis (Jan 5, 2023 21:50 EST)

Theresa Griffis, Clerk



Jeffrey P. Bennett (Jan 7, 2023 09:51 EST)

Jeffrey Bennett, Member



Michael Currie, Vice Chair

Michael Currie, Vice Chair



Julie Richard (Jan 6, 2023 15:24 EST)

Julie Richard, Member



alexander.stryisky@mass.gov

[Dashboard\(javascript:void\(0\);\)](#) > [View Comment\(javascript:void\(0\);\)](#)

View Comment

Comment Details

EEA #/MEPA ID 16643	First Name Josh	Address Line 1 104 Ryan St	Organization Resident
Comments Submit Date 1-17-2023	Last Name Forgues	Address Line 2 --	Affiliation Description Individual
Certificate Action Date 1-31-2023	Phone --	State MASSACHUSETTS	Status Opened
Reviewer Alexander Strysky (857)408-6957, alexander.strysky@mass.gov	Email Underpantgnome83@yahoo.com	Zip Code 01440	

Comment Title or Subject

Topic: No on the Sludge Landfill Expansion

Comments

Hello,

As a 30+ year resident of Gardner, who currently lives about 1 mile away from the Sludge Landfill, I do not see any benefit of expanding its size. As it is currently, we can smell it festering anytime the wind blows from that direction, and it is exponentially worse in the summer months. This project also appears that it could have a dramatic impact on the local wildlife and wetlands/drinking water in the area. It does appear that there could be other, environmentally friendly options to recycle this sludge, that would better benefit the wildlife and residents of the surrounding communities.

Thanks you,

Attachments

Update Status

Status

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From: [Jeffrey Lore](#)
To: [Stryisky, Alexander \(EEA\)](#)
Subject: Gardner sludge landfill project
Date: Tuesday, January 17, 2023 12:15:30 PM

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Sir,

I have resided at 19 Watkins Street in the city of Gardner, MA for more than thirty years. I am highly opposed to approval of this project for a great many reasons. The greatest being it's very real potential to pollute, and render drinkable, my well water. My community grew out of an area that was a recreational area many years ago with just a few scattered camps around what is known as Parker's Pond. There is no city water in our community. While there is city sewerage, outside of a very few homes close to the West Street end of the neighborhood, the remaining majority of homes receive their water via wells. There are 71 wells that would be affected. Several are still shallow dug, which will certainly be impacted by draining and dredging as they were the last time the city did this. What the city is proposing is simply dangerous and would be disastrous to the community as well as the conservation and wild lands surrounding it. I beg you to please reject this project that the city is proposing. It is thoughtless, short sighted, and motivated by a wrong headed mentality in our local government.

Thank you for your kind consideration.

Sincerely, Pastor Jeffrey W. Lore,

Sent from my iPhone

From: [Cheryl Alvarez](#)
To: [Strysky, Alexander \(EEA\)](#)
Subject: Gardner Sludge
Date: Friday, January 20, 2023 8:29:54 PM

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Hello

Saw this circulating. My family resides in Templeton. We believe that sludge from landfills or dumps is most likely to be toxic in some way. We would like for the expansion of Gardners Landfill dump to be stopped. We are concerned about our water supply in Templeton MA. We have children drinking and bathing in the towns water.

Thank You,
Cheryl Alvarez Templeton MA resident

From: [Taylor Sala](#)
To: [Stryisky, Alexander \(EEA\)](#); [Stryisky, Alexander \(EEA\)](#)
Subject: Gardner MA toxic sludge landfill project
Date: Friday, January 20, 2023 3:57:36 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr. Stryisky,

I wanted to reach out in regards to the Gardner toxic sludge landfill. I am incredibly disheartened and astounded that the city is proposing to move their landfill close to the water supply of our town of Templeton. It is reminding me of the movie A Civil Action based on the reservoir case I once studied in torts class in college. It is a very unsettling thought that the city thought this was a good idea to push their landfill boundaries and pollute our water that is used for drinking, showering/baths, and washing clothes/dishes. It feels as though there is a complete disregard for human life to move forward with this project. I had contacted Jan Greenwood who laughed off my concerns and said the notice was posted in December around the 15th which is not enough time for residents of Templeton to learn and know the next steps, especially when it's the holiday season and everyone is busy with that and school vacation with their kids, such as myself who didn't learn about this till Christmas and wondering how this would affect my family of 3 young children if this project were to move forward. I beg you to please take these comments from my fellow neighbors with great consideration as many of us are upset, displeased, and nauseated that Gardner shows a lack of human decency to push toxic sludge close to the water supplies of our town and put thousands of people at risk.

We were also given one email address and your number to contact but Jan gave me a separate email address and I'm hoping both of these are working and will reach you because only one was shared on our town's social media to contact.

Thank you for your time,

Taylor Sala

From: [Kelsey Coates](#)
To: [Strysky, Alexander \(EEA\)](#)
Subject: Gardner Sludge Expansion
Date: Saturday, January 21, 2023 1:10:48 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Alex,

My name is Kelsey. I am a Templeton resident living right on the Gardner line near this proposed project.

I can already smell the sludge from my house now. The LAST thing we need in the area is to double the size of it and move it closer to the road. Idk what we have to do to prevent it, seems like it was really short notice too...but I know many more people in the area who are 100% against it for even more reasons than just the pure stench of it.

There has GOT to be a better place for this project - away from residential areas. There is no need to expand.

If there is anything we can do - or sign - or literally anything to prevent this, please let me know what we can do. I don't need to raise my little family next to a sludge landfill.

Thank you,

Kelsey

From: [david antaya](#)
To: [Stryisky, Alexander \(EEA\)](#)
Subject: ENF Comment/Gardner Sludge Landfill Expansion
Date: Sunday, January 22, 2023 2:53:13 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Alex,

I was one of the 30 plus people who attended your site visit at the Gardner Sludge Landfill. The following statements are some of my concerns and comments about the Gardner Sludge Landfill Extension. Hopefully, with all the comments you receive, a more in depth study will be needed in the form of an Environmental Impact Report(EIR).

1. Ground Water Contamination of Drinking Water

I am concerned that the private wells in Templeton and the Otter River Watershed have the potential to be contaminated being within the one mile radius of the sludge landfill extension. Especially, when the 4 plus acre extension will overlap the present Garner Sludge Landfill and be 70 feet high. I am not sure there was enough information provided in the ENF to successfully mediate the runoff from the combined sludge landfill parcels.

2. Recreation

The Cummings Otter River Conservation Area will be one of the borders where the Gardner Sludge Landfill Extension will be located. An esker is part of the boundary where a recreation trail will travel on top of. As the sludge is piled 70 feet high against the esker, There will be limited enjoyment smelling and walking the Cummings, Otter River Conservation Area. Possibly, with the sludge piled 70 feet high, it maybe above the esker! Again a need to have an EIR completed to see how the esker and the trail will be impacted by the sludge landfill.

3. Environmental Justice Community (EJC)

Gardner's ENF report states there is no Environmental Justice Community within a mile radius of the sludge landfill extension. Depending which point on of the sludge landfill you are measuring, the mile radius will make a difference for the houses considered an EJC. How did the City decide which point to use to measure the radius?

Public Involvement Activities ENF Section III A part 2 page 25

In this section, it is stated that at a public hearing the City Council approved the acquisition of funds to pay for the Gardner Sludge Landfill Extension Project. In year 2018-2019, the City Council provided engineering money, not money for the total project. At Alexander's MEPA site visit, a question was asked how much the entire project would cost over the 17 year

period, no answer was given. The public needs to know the price for the total cost of the project including capping. An EIR would assist the city in arriving at a total cost for the project including capping the 70 foot sludge landfill extension.

Public Involvement Activities ENF Section III part C page 26

In general, this section states that the City would engage the community by notifying the community through their website and social media for public meetings related to the project. The MEPA visit with Alex, was a public meeting that the City advertised in the Gardner News Newspaper on December 9, 2022. The Gardner News is not the City of Gardner's website nor social media. The roughly 30 people who attend the site visit were notified by flyers, e-mails and word of mouth by non-profit organizations and private citizens, NOT the City of Gardner. The City of Gardner needs to follow through on what was stated in the ENF for notifying citizens. In the end, the tax payers of Gardner need to be notified because they will be paying the bill for handling sludge over the life of the landfill.

Recommendation

The City of Gardner have an EIR completed for the proposed Gardner Sludge Landfill Extension project. Hopefully, by completing an EIR, the City of Gardner would have data on the environmental and residential impacts of constructing the sludge landfill extension. From the data, the City could provide a better calculation of the entire cost of the project and possible alternatives for handling Gardner's sludge.

Thank-you
David Antaya
444 Stone Street Gardner MA 01440
978-630-2811
dantaya@fitchburgstate.edu

Sent from [Mail](#) for Windows



[Dashboard\(javascript:void\(0\);\)](#) > [View Comment\(javascript:void\(0\);\)](#)

[View Comment](#)

Comment Details

EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	david	10 turner road	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-22-2023	legere	--	--
Certificate Action Date	Phone	State	Status
1-31-2023	--	MASSACHUSETTS	Opened
Reviewer	Email	Zip Code	
Alexander Stryisky (857)408-6957, alexander.stryisky@mass.gov	legere3161@aol.com	01436	

Comment Title or Subject

Topic: Gardner sludge landfill expansion site

Comments

This is a problem for the residents on Turner Road, Baldwinville and Bridge St. Gardner. This will affect the water from the seepage, we have lived here for 30 years and I do not accept this type of project. This is a problem created by the town of Gardner, possible contamination to the water in case of a system failure is a major concern for the residents. More research and funding for all areas that will be affected should be developed before any plans to be considered.

Attachments

Update Status

Status

Opened

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alexander.stryisky@mass.gov

[Dashboard\(javascript:void\(0\);\)](#) > [View Comment\(javascript:void\(0\);\)](#)

Comment Details			
EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	david	10 turner road	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-22-2023	legere	--	--
Certificate Action Date	Phone	State	Status
1-31-2023	--	MASSACHUSETTS	Opened
Reviewer	Email	Zip Code	
Alexander Strysky (857)408-6957, alexander.strysky@mass.gov	legere3161@aol.com	01436	

Topic: gardner sludge landfill expansion

please do not let this go through not a good idea very up setting to people in this area right down the street from me do not want it seeping in to my water and do not want the god awful smell it would be very unhealthy it is time to work for the people and not the money thank you

Attachments

Status

Opened

SUBMIT

SHARE WITH A REGISTERED USER

[BACK TO SEARCH RESULTS](#)

Strysky, Alexander (EEA)

From: Bob Chicoine <bobchic1s@aim.com>
Sent: Monday, January 23, 2023 2:52 PM
To: Alan Rousseau; Strysky, Alexander (EEA)
Cc: Terry Griffis; JoAnne Burdin; Susan Rousseau; Schmitz, Judith (DEP); Matt Marro
Subject: Re: Gardner Sludge Landfill MEPA Site Visit

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Pictures of the problem at outfall pipe #2 is quite unnerving.

[Sent from the all new AOL app for iOS](#)

On Monday, January 23, 2023, 12:51 PM, Alan Rousseau <rousseaua@verizon.net> wrote:

Hi Alex,

I reviewed the sign-sheet and there are a few folks not on the sheet. They probably they arrived as the site meeting was in progress. I cc'd them on this email so you would have their email addresses.

1. Terry Griffis, Templeton
2. Jo-Anne Burdin, Templeton
3. Bob Chicoine, Gardner
4. Sue Rousseau, Gardner

Also, Judith Schmitz (Mass DEP) asked about the current siltation problem at outfall pipe #2 at the southwest end of the existing sludge landfill. We did not see this area at the site visit because we walked to the northwest end. For your reference, attached are a couple of pictures of this area taken on 9/22/22. I cc'd Matt Marro, (PWTPO, CSI Principal Consultant with Matthew S. Marro Environmental Consulting), as he is familiar with this erosion issue and had documented it to the Gardner Conservation Commission on 9/26/22.

Best Regards,
Alan



MILLERS RIVER WATERSHED COUNCIL, INC.
100 Main Street, Athol, MA 01331
council@millersriver.net

Jan. 27, 2023

Rebecca Tepper, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)

Attn: MEPA Office

Alexander Strysky EEA #16643
100 Cambridge Street, Suite 900
Boston, MA 02114

Subject: EEA #16643 — ENF Comment / Gardner Sludge Landfill Expansion
Via email: alexander.strysky@mass.gov

Dear Secretary Tepper,

These comments on the ENF for the proposed Gardner Sludge Landfill Expansion, EEA #16643, are being submitted by the Millers River Watershed Council, Inc. (MRWC) **on behalf of the Coalition for a Sustainable Alternative to the Gardner Sludge Landfill Expansion (Coalition)**. MRWC is a non-profit organization formed in 1970 with the mission to protect and enhance the health of the Millers River and its watershed for the long-term benefit of its human and non-human residents. The proposed Project is within the Millers River Watershed, and within a half-mile of the Otter River, the largest tributary to the Millers River.

In response to the Project, the Coalition was formed in 2021 and consists of the following local, regional and statewide organizations: Athol Bird and Nature Club, Clean Water Action, Connecticut River Conservancy, Gardner Clean Air, MassPIRG, Mass Rivers Alliance, MRWC, Mount Grace Land Conservation Trust and North County Land Trust; The Sierra Club of Massachusetts provides the Coalition with technical support.

The ENF submission is deficient in many important respects. Here are the main problems with the ENF and the project and the reasons an EIR should be required:

- 1. The ENF Project Description does not acknowledge recreational resources:** The Project Description omits mention of the recreational use of the Wildwood Cemetery Forest at the project site by the local community; that property abuts and connects with a network of trails on the Cummings Otter River Conservation Area. — **See attached 1-mile Radius Site Map.** Page 6 of the ENF is therefore wrong to say it is consistent with open space impacts because the area is not targeted for recreation.

2. **Site geology is completely unsuitable for proposed expansion:** The Hydrogeological Evaluation Report, Appendix F of the January, 2022 Engineering Report prepared by Woodard & Curran, describes the geology at the site of the project as glacial outwash atop fractured and weathered bedrock. That material does not provide any natural containment for leachate leakage to groundwater. No modeling or discussion of the release of contaminants to groundwater from the sludge landfill is mentioned in the ENF. — **See attached comments by Mike Wilczynski**, Certified Professional Geologist.
3. **Potential leakage, migration and groundwater contamination at existing sludge landfill should be discussed in the ENF and in an EIR:** Analysis of data from the sludge landfill's Annual Operations Reports and the former Gardner solid waste landfill's Annual Environmental Monitoring Reports suggest that deicing salt may have contaminated groundwater down gradient of the landfill. — **See attached comment #4 by Denise Trabbic-Pointer**, Certified Hazardous Material Manager Emeritus. Additional analysis indicates that portions of the sludge landfill were installed at a depth below the assessed four feet above seasonal high groundwater table levels, which may be contributing to contaminant migration. — **See attached comment #7 by D. Trabbic-Pointer**. These two analyses suggest that the Project could result in the migration of contaminants into groundwater that are not limited to salt.
4. **The Project will threaten nearby water bodies and wetlands:** As noted in the Engineering Report's Hydrogeological Evaluation Report, groundwater flow at the proposed landfill expansion site moves to the south and southeast. The area to the south and southeast of the proposed expansion has many interconnected wetlands, spring-fed ponds, and streams that flow through City-owned (Cummings) and privately owned (Ebenezer Keyes) Conservation Areas on their way to the Otter River, which joins the Millers River as it flows west to meet the Connecticut River. Any sludge landfill contamination of surface or ground water will likely impact these vital water bodies. Such impacts are not addressed in the ENF.
5. **The Project will threaten drinking water wells:** 71 private drinking water wells in Gardner and Templeton, as well as Templeton's Otter River and Sawyer Street municipal wells, are within a mile of the site and—based on the reported groundwater flows—likely rely on the groundwater under the Project site. No plans exist for mitigation of future well contamination; indeed such mitigation is notoriously difficult and expensive.
6. **Inadequate alternatives analysis:** The alternatives analysis dismisses sludge disposal alternatives without completing a single feasibility study of any such alternatives. The alternatives analysis fails to consider partnering with any neighboring communities or pursuing a private sector partnership for a viable alternative to the project. Feasible sludge management alternatives exist: The nearby city of Fitchburg is currently working to develop a biosolids processing plant using proven anaerobic digestion (AD) technology that would be able to accept sludge waste from surrounding towns, like Gardner. Several other AD facilities are operational in other communities in Massachusetts. The City of Gardner has itself recently contracted with SoMax for a feasibility assessment of its hydrothermal carbonization (HTC) technology, which SoMax is piloting in Pennsylvania in a town of similar size to Gardner. There is no mention of these Project alternatives in the ENF. — **See attached comments on Project Alternatives.**
7. **No phased construction:** The City has rejected pursuit of a phased construction of the project which will, in effect, commit the City to the 17-year landfill expansion. This effectively prevents the City from migrating to an environmentally and economically better alternative within 17 years. With this Project, Gardner will not be able to take advantage of innovation in the other alternatives or partner with other communities in pursuit of an environmentally sustainable solution prior to 2042.

8. **Potential stormwater management/erosion issues:** The Project site is adjacent to the western edge of the existing landfill, where documented wash-out incidents in 2020 and 2022 resulted in landfill material exiting an outfall pipe near “Wetland D.” These direct discharges in the Buffer Zone to the Bordering Vegetated Wetland (BVW) have gone unabated and introduced silt into the BVW. The source of the erosion has not been identified, and temporary mitigation measures have been ineffective. Given that the Project is in close proximity to two Zone II recharge areas and the Otter River, it is likely that the wetland resource areas on the site help protect the public water supply for Templeton’s water district. The existing *and potential* erosion issues are not mentioned or addressed in the ENF.
9. **Irreversible Environmental Damage - Inconsistency with Gardner’s stated goals:** The proposed sludge landfill expansion will destroy six acres of Gardner’s natural resources, including a hardwood forest, wildlife habitat, and a geologically important esker in the Wildwood Cemetery Forest. This expansion is inconsistent with the City’s own [Forest Management Plan \(2012\)](#) that has the following stated goals: “*The City of Gardner would like to improve and protect the forest resources on the Wildwood Cemetery property for the benefit of the residents of Gardner. Protecting water quality is a high priority. Maintaining and improving aesthetics near the Cemetery is extremely important as well.*” Item II.C of the ENF’s Land Section on page 6 should have been checked Yes.
10. **Poor air quality:** The Project will perpetuate and increase the existing odor problem. Persistent odors emanating from the existing sludge landfill were documented in the sludge landfill Annual Operations Reports for 2020 and 2021. These results indicate that odor was present at **100 percent** of the twelve inspections. The odors negatively affect visitors to the abutting cemeteries and the recreational use of the nearby Conservation Areas. These odors impact Gardner residents, including the City’s large Environmental Justice (EJ) community.
11. **ENF’s climate change modeling is faulty - underestimates impacts:** Section 8 and Appendix M of Woodard & Curran’s Engineering Report appear to dismiss the impact of gas emissions as *not measurable*. An analysis of these documents indicates possible flaws in the methods and data used by Woodward & Curran. Specifically, the LandGEM (Landfill Gas Emissions Model) Version 302 does not factor in all potential point sources of GHG emissions, leading to a significant underestimate. To effectively assess the impact of a project, maximum possible emissions should be assessed. An analysis of the Gardner sludge landfill’s GHG emissions using the Biosolids Emissions Assessment Model (BEAM) Version 1.1 resulted in a figure of 7,257 CO₂ eq (Mg/year).— All GHG emissions should be considered significant, and their mitigation should be addressed.—**See attached comment #10 by D. Trabbic-Pointer.**
12. **Article 97 checkbox should be marked Yes:** Item II.D of the ENF’s Land Section asks: “Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97?” This box should have been checked Yes: This project involves conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth.—**See attached “Plan of Taking by the Town of Gardner for Cemetery and Park Purposes” dated July 14, 1919.**
13. **ENF’s Public Involvement Activities (p. 25, EJ Section - III.A.2) include several inaccurate or misleading statements:** 1). The City has held NO public meetings regarding the *overall* expansion proposal since 2016; those public meetings covered a project design and alternatives analysis that is now over six years old. 2). The Gardner Conservation Commission’s public meet-

ings held in 2022 were limited to discussion of the project’s ‘Notice of Intent’, and therefore narrowly focused on subject matter relative only to the MA Wetlands Protect Act and the Gardner Wetland Protection Ordinance—not the project in general. 3). The ENF does not include a description of “any issues of concern that were raised at such meetings, and any steps taken (including modifications to the project design) to address such concerns.” 4). While the Gardner City Council approved expenditures totaling \$440k for engineering work at two meetings in 2018 & 2019, no additional funds have been appropriated for construction—though the ENF response suggests otherwise. 5) Flyers posted on the City website are lacking any information specific to environmental impacts, project costs or alternatives to expansion. 6) According to the ENF, the City made no mailings to any members of the Gardner community, including the EJ population.

Other:

EIR triggered - EJ Threshold: In addition to the above deficiencies, the presence of an Environmental Justice community within one mile of the project site triggers the threshold for requiring an EIR. The ENF statement that there are no environmental justice (EJ) populations within 1 mile of the project site is incorrect.—**See attached EJ vicinity map and attached Environmental Justice Concerns**

According to Section 7 of the Gardner Sludge Landfill Expansion Engineering Report (Jan. 2022): “Closure of the sludge landfill expansion is proposed to occur as a single event together with the original landfill closure, after filling has been completed in all landfill cells.” Therefore, the original Sludge Landfill will remain part of the expansion project until the predicted date of closure in 2041. The project site boundary is 0.934 miles from an EJ population, and the fence line of the original landfill is 0.999 miles from an EJ population.

Thank you for your consideration of these comments. The Coalition’s member organizations, listed below, agree that the ENF is adequate and a viable alternative to landfill expansion exists that will have substantially less impact on the surrounding environment. Given the EJ threshold trigger and the significant deficiencies identified with the ENF and the proposed expansion, we ask that the Secretary not issue a Certificate for the ENF and require submission of an EIR.

Respectfully,

Ivan Ussach,
Director, MRWC

Alan Rousseau,
Co-chair, Gardner Clean Air

David Small,
President, Athol Bird & Nature Club

Elizabeth Saunders,
Mass State Director, Clean Water Action

Ron Rhodes
Acting Executive Director,
Connecticut River Conservancy

Janet Domenitz,
Executive Director, MassPIRG

Julia Blatt,
Executive Director, Mass Rivers Alliance

Emma Ellsworth,
Executive Director,
Mount Grace Land Conservation Trust

Anna Wilkins,
Executive Director, North County Land Trust

*Coalition for a Sustainable Alternative to
Gardner's Planned Sludge Landfill Expansion*



Millers River Watershed Council

Gardner Clean Air



Clean water. Healthy habitat. Thriving communities.

**Connecticut River
Conservancy**

MASSPIRG



**Athol Bird &
Nature Club**



Pangea Environmental, LLC

Mike Wilczynski
Certified Professional Geologist
Pangea52@yahoo.com
248.318.4732

May 9, 2022

Gardner, MA Proposed Landfill Expansion-Hydrogeological Review

Pangea Environmental LLC has conducted a review of the geological and hydrogeological information for the area around the proposed sludge (biosolids) landfill expansion.

The hydrogeological review was conducted by Mike Wilczynski, Certified Professional Geologist-Emeritus with Pangea Environmental, LLC. Mr Wilczynski has over 40 years of professional experience, which includes hydrogeological and environmental studies in over a dozen states, Canada and Colombia, SA. He has a BS and MS in Geology and has completed post-graduate studies in hydrogeology. He has worked for several large mining and oil companies and retired from Macomb Community College and the Michigan Department of Environmental Quality.

The purpose of the hydrogeological study was to assess the suitability of the area's geology for a landfill expansion for biosolids. Biosolids are emerging as a major source of groundwater and soil contamination.

Biosolids are not the inert material that people have been believing. Recently, in Livingston County, Michigan, a herd of cattle had to be destroyed because the meat contained PFAS from the spreading of biosolids on the pasture. PFAS accumulates in the food chain and works its way up into our diet.

The soil borings for the monitoring wells contained in Appendix F of the Expansion Engineering report and other sources indicate the near surface geology consists mostly of glacial outwash sand and gravel. The material is highly permeable and can make excellent aquifers when saturated with groundwater. This material is very good at allowing contaminants to migrate.

Beneath the glacial outwash is a bedrock that is fractured and weathered in places. The fractures and weathering can increase the permeability of the material allowing groundwater to flow faster and further. Groundwater can flow much faster and further in fractures than in porous material, such as the overlying unconsolidated glacial outwash sand and gravel. Therefore, the contaminants can also travel faster and further.

The nearby municipal wells are shallow and may be vulnerable to contamination from the landfill and proposed expansion. In addition to PFAS, the biosolids can also contain other contaminants



Pangea Environmental, LLC

Mike Wilezynski
Certified Professional Geologist
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that are not routinely analyzed prior to disposal. PFAS do not naturally degrade to less toxic compounds, as so many other contaminants and their behavior in the subsurface is not well understood.

We reviewed the very limited information available for the computer model used to produce the wellhead protection zones around the East Templeton municipal wells. A complete review was not possible with the information in the Templeton Zone II Approval Letter.

The computer model of the extent from which groundwater is being drawn by the municipal systems indicates no groundwater flow under the Otter River. However, it is stated in the report that surface water was used as a barrier to flow in the computer model. In other words, the groundwater was “forced” to discharge to surface water because of how the computer model was designed. The wells may draw groundwater beyond what is estimated in the computer model.

The computer model of groundwater flow in Expansion Engineering Report Appendix F was designed to estimate the changes in groundwater flow as a result of the proposed landfill expansion. However, there was no attempt to model a release of contaminants to groundwater from the landfill.

The analytical results for sodium and chloride from monitoring wells in the northern part of the study area, just northwest of the closed landfill warrant further study. The unusually high concentrations could be an indication of leachate leaking from the solid waste landfill.

This could be the result of road salt for deicing. However, the large increase in concentrations downgradient from the landfill may indicate a larger problem, such as a leaking landfill liner.

Sodium and chloride concentrations in groundwater also appear to be elevated in the monitoring wells associated with the current sludge landfill. This again, could be an indication of leachate from the landfill reaching the groundwater. This leachate could also contain PFAS.

The permeable unconsolidated glacial sediments and fractured bedrock will allow any contaminants to migrate to an aquifer. Landfills are typically located in areas that have extensive clay deposits and/or a large separation between the bottom of a landfill and the water table. Neither of these conditions exist at the proposed expansion.



Pangea Environmental, LLC

Mike Wilczynski
Certified Professional Geologist
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248.318.4732

The 4 ft separation between the water table and bottom of the proposed sludge landfill expansion could lead to problems if the groundwater rises. Groundwater can provide uplift forces on the bottom of a landfill liner and compromise the integrity. There is also less of an unsaturated zone to allow natural degradation of some contaminants before they reach the groundwater. Climate change is leading to higher surface water levels which will most likely lead to increased groundwater elevation in the future.

In conclusion, it would be difficult to find a location that is more poorly suited for a landfill. The location is better suited for an aggregate mine than a landfill.

More study is needed to understand the hydrogeology of the area, but it will not likely change our opinion about the suitability of the proposed location for a landfill of any kind. In addition, groundwater samples should be collected and analyzed for PFAS.

Please let us know if we can be of further assistance.

Pangea Environmental, LLC
Mike Wilczynski
Certified Professional Geologist-Emeritus
248-318-4732

Reference:

<https://www.mlive.com/public-interest/2022/01/advisory-warns-of-pfas-in-beef-from-michigan-cattle-farm.html>



Pangea Environmental, LLC

Mike Wilezynski
Certified Professional Geologist
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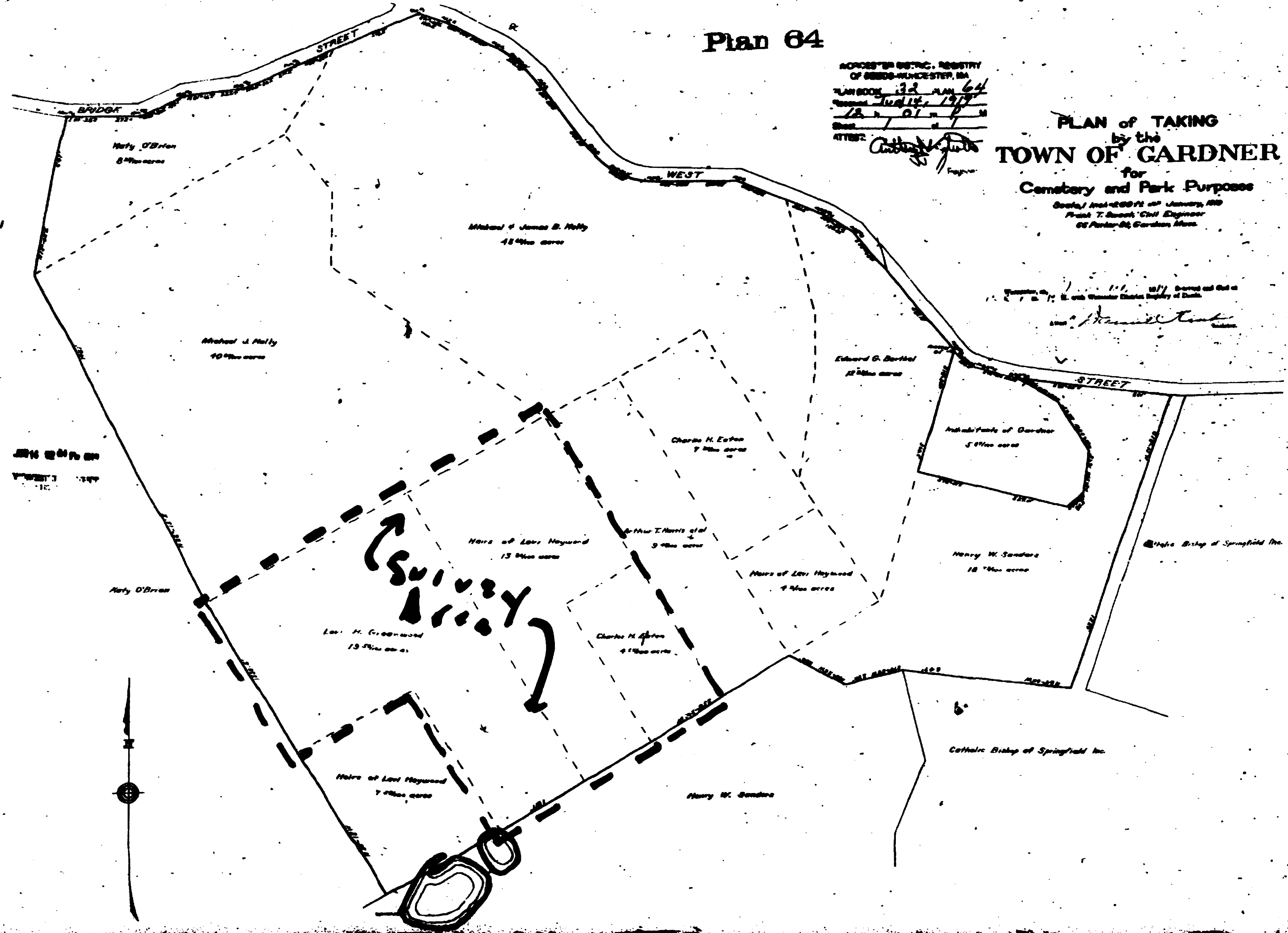
Plan 64

ROCHESTER DISTRICT, REGISTRY
OF DEEDS-WINCESTER, MA
PLAN BOOK 32 PLAN 64
Recorded July 14, 1919
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Shed 1 of 1
ATTB2

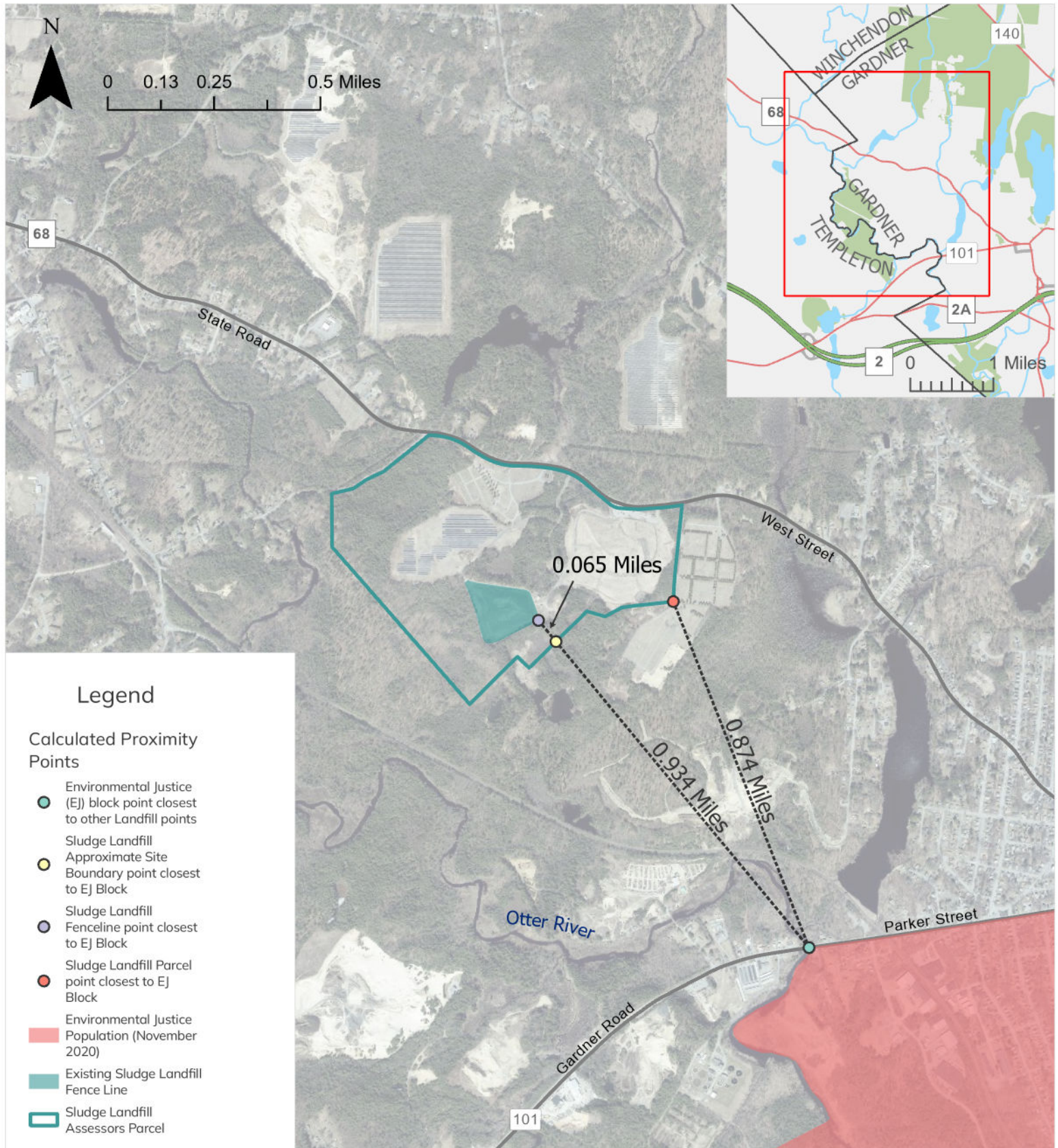
PLAN of TAKING by the TOWN OF GARDNER for Cemetery and Park Purposes

Scale, 1 inch = 200 feet as of January, 1919
Frank T. Smith, Civil Engineer
65 Parker St., Gardner, Mass.

Witness, the 1st of July, 1919, before me and Subscribed and sworn to before me by the Town of Gardner, Mass.
Notary Public
[Signature]



Gardner Sludge Landfill Proximity to Environmental Justice Populations



THIS MAP IS NOT A SURVEY.

This map was prepared without the benefit of field measurements and it and the calculations presented are intended solely for illustrative purposes.

Map created by Aaron Nelson, Mount Grace Land Conservation Trust



Environmental Justice Concerns regarding the expansion of the Gardner Sludge Landfill

Prepared by the Coalition For a Sustainable Alternative to Expanding Gardner's Sludge Landfill

December 2021

Gardner is a lower income city and a clear target for companies to locate their hazardous facilities. According to the recent 2020 Census, 79.8% of Gardner's population qualifies for the Environmental Justice (EJ) community designation, through the criteria of income and minority populations.¹ Steps should be taken to protect the city's residents from more environmental harm. In this case it is the City of Gardner itself that is proposing to expand the size of the existing sludge landfill by 4.2 acres. In addition to sludge generated by the city's wastewater treatment facility, this landfill expansion is being considered for the acceptance of sludge waste from outside Gardner, placing additional environmental burden from increased waste on Gardner city residents.² Disposing of sludge into a landfill has become an outdated way of dealing with this type of waste and holds the most environmental impact.³ The expansion of the Sludge Landfill will negatively impact the health and well-being of city residents, disproportionately affecting the 79.8% of the city's EJ population.

Smell and particulate matter: Particulate matter can carry particles of pathogenic bacteria that can cause respiratory illness to residents downwind from the sludge landfill.^{4,5} The smell itself is a nuisance which impacts both landowners and people enjoying the adjacent Cummings Conservation Area, which has hiking trails, vernal pools, and a glacial esker.⁶

Methane Production: Unlike the nearby solid waste landfill where the landfill is kept under negative pressure and the methane produced through decomposition is collected increased and turned into energy, the Gardner sludge landfill does nothing to control the methane production and it is freely released to the atmosphere through several vents in the landfill. The sludge landfill is a greenhouse gas producer, contributing to global climate change, and the plume of emissions released from the landfill could contribute to localized warming in the city of Gardner.⁷ Growing the size of this sludge landfill, which may include importing sewage sludge from outside Gardner, will increase the amount of methane being produced. The lack of underground monitoring or control of methane is also a hazard. It is possible that the methane, which is highly explosive, could migrate underground and end up in someone's basement.⁸

¹ MA EEA. 2021. 2020 Environmental Justice Populations. <https://www.mass.gov/info-details/massgis-data-2020-environmental-justice-populations>

² NEBRA. 2019. The Mass Sludge Survey 2018: wastewater solids generation and management. V1.1 p.23

³ NEBRA. 2019.

⁴ Lu, J.C.S. et al. 1983. A critical review of wastewater treatment plant sludge disposal by Landfilling. US EPA. EPA-600/S2-82-092.

⁵ Odonkor, S.T. and T. Mahami. 2020. Microbial Air Quality in Neighborhoods near landfill sites: Implications for Public Health. Journal of Environmental and Public Health. 2020: 4609164.

⁶ McClure Engineering. (2021) 2020 Operations Report for Municipal Sludge Landfill Facility Gardner, MA. 310 CMR 19.130(34)(d) pp. 150-160.

⁷ US EIA. 2011. Emissions of GHG in the U.S. DOE/EIA-0573(2009). https://www.eia.gov/environment/emissions/ghg_report/ghg_methane.php

⁸ Williams, G.M. and N. Aitkenhead. 1991. Lessons from Loscoe: the uncontrolled migration of landfill gas. Quarterly Journal of Engineering Geology and Hydrogeology. 24: 191-207.

Climate Justice: The proposed expansion will cut down 4.2 acres of forest. Cutting down a forest and taking on methane generating waste will increase the likelihood of Gardner residents being at risk for urban heat island effects and more intense heat waves⁹, which is one of the largest risks climate change poses to human health.¹⁰ Trees and other plants naturally cool their surrounding area through evapotranspiration, which is evaporation of the water from the leaf during the process photosynthesis. Many cities are looking to add more trees to their city landscape to help protect residents from the increasing frequency of heat waves¹¹, yet Gardner is proposing cutting down 4.2 acres of forested land. As fossil fuel produced energy becomes more expensive, the real cost of the landfill will be transferred to the residents through their increased cooling energy costs that will come from additional localized climate warming due to methane production and tree removal.

Air Pollution: Warmer temperatures and methane also increase the generation rate of photochemical air pollutants, which are created through chemical reactions of other pollutants in the air, like Ozone.^{12,13} Ozone negatively affects human health through irritating our respiratory system making us more susceptible to other air pollutants.¹⁴ Trees are also capable of removing air pollution and can improve air quality.¹⁵

Water Quality: The current sludge landfill has had issues in the past with erosion from the top of the landfill.¹⁶ The area surrounding the landfill is a wetland. Any chemicals that may be in sludge waste could find their way into the natural water system in Gardner and affect drinking water.¹⁷ Some of the human health-harming chemicals that have been identified in the water quality samples taken from around the current sludge landfill include Nitrates, Arsenic, Chloride, Chloroform, Barium, Cadmium, Chromium, Copper, Iron, and Lead; amount and presence of these chemicals vary from sample to sample.¹⁸

Recreation and Access to Green Spaces: Public health scientists have identified the importance of open space and local, free opportunities for recreation and exercise to prevent obesity, cardiovascular disease, metabolic diseases, and other chronic diseases, as well as reduce stress and improve psychological health. Green spaces also create a sense of belonging and community identity by creating places for residents to be physically active and socialize with neighbors.¹⁹ The area of the proposed

⁹ Edmondson, J.L. et al. 2016. Soil surface temperatures reveal moderation of the urban heat island effect by trees and shrubs. *Scientific Reports*. 6: 33708.

¹⁰ Tong, S. et al. 2021. Urban Heat: and increasing threat to global health. *The BMJ*. 375:n2467.

¹¹ US EPA. 2021. Reduce Urban Heat Island Effect. <https://www.epa.gov/green-infrastructure/reduce-urban-heat-island-effect>

¹² Coates, J. et al. 2016. The influence of temperature on ozone production under varying NOx conditions. *Atmospheric Chemistry and Physics*. 16, 11601-11615.

¹³ Isaksen, I.S.A. et al. 2014. Atmospheric Ozone and Methane in a Changing Climate. *Atmosphere*. 5, 518-535.

¹⁴ Nuvolone, D. et al. 2017. The effects of ozone on human health. *Environmental Science and Pollution Research*. 25, 8074-8088.

¹⁵ Nowak, D.J. et al. 2006. Air pollution removal by urban trees and shrubs in the U.S. *Urban Forestry and Urban Greening*. 4: 115-123.

¹⁶ McClure Engineering. (2021) 2020 Operations Report for Municipal Sludge Landfill Facility Gardner, MA. 310 CMR 19.130(34)(d) , p. 159

¹⁷ Lu, J.C.S. et al. 1983. A critical review of wastewater treatment plant sludge disposal by Landfilling. US EPA. EPA-600/S2-82-092.

¹⁸ McClure, pp. 44-140.

¹⁹ Rodriguez, R. 2021. Improving Urban Health through Green Space. USDA <https://www.usda.gov/media/blog/2017/11/28/improving-urban-health-through-green-space>

landfill expansion hosts a well-established and popular hiking trail. Not only would the expansion remove portions of the trail, but it would decrease the enjoyment of this area due to the increased noxious smells and noise.

Author:

Jennifer M. Albertine, PhD

Climate and Land Justice Specialist, Conservation and Stewardship Associate

Mount Grace Land Conservation Trust

For additional information:

Millers River Watershed Council (MRWC): council@millersriver.net; www.millerswatershed.org

Coalition members:

MRWC, Gardner Clean Air, Athol Bird and Nature Club, Clean Water Action, Connecticut River Conservancy, MassPIRG, Mass Rivers Alliance, Mount Grace Conservation Land Trust and North County Land Trust

1/28/2023

Rebecca Tepper, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
EEA No. 16643 (Alexander Strysky)
100 Cambridge Street, Suite 900
Boston MA 02114
Subject: ENF Comment / Gardner Sludge Landfill Expansion
Sent via email to: alexander.strysky@mass.gov

Dear Secretary Tepper,

On behalf of Gardner Clean Air (GCA), we are submitting these comments on the Gardner Sludge Landfill Expansion Environmental Notification Form (ENF). GCA (211 Betty Spring Road, Gardner MA 01440) is a local citizens group formed by Alan & Susan Rousseau in 2014 to support clean and sustainable solutions for wastewater sludge management as an alternative to expansion of the Gardner Sludge Landfill. Alan Rousseau owns property abutting to the south of City parcel H32-16-4 where the expansion is proposed.

This expansion project raises the following significant issues:

1. Failure of the City of Gardner to present a thorough and accurate examination of various sludge management alternatives which would be less harmful to the environment.
2. Risk of ground water contamination with impact to drinking water and watershed.
3. Negative impacts to the public recreational use of the Wildwood Cemetery Forest, Cummings Otter River Conservation Area, and the Ebenezer Keyes Conservation Area.
4. Continued source of ongoing poor air quality for the entire area.
5. Destruction of 6 acres of natural resources including wildlife habitat, forest, a natural esker, and close-proximity to two certified vernal pools.

The ENF is missing key relevant data. This missing information must be made available to you, state agencies, and the public through a more thorough Environmental Impact Report (EIR).

Also, the 41.4-acre project site is within a mile of one of Gardner's Environmental Justice (EJ) populations. Based on the lack of key information in the ENF and the proximity to an EJ population, I request that an Environmental Impact Report (EIR) be required for this project.

Comments on specific sections of the ENF are on the following pages along with relevant attachments.

Respectfully,

Alan Rousseau, Co-Chair

Susan Rousseau, Co-Chair

Project Description

According to the Woodard & Curran Gardner Sludge Landfill Expansion Engineering Report January - 2022 (referred to as the 'Engineering Report' in this document) included with the ENF, the Sludge Landfill expansion project will result in the dumping of approximately 4,000 cubic yards per year of sludge over a 17-year period from 2024 to 2041. A total of approximately 68,000 cubic yards of sludge will be dumped at this location in the Wildwood Cemetery Forest (WCF).

The ENF project description is incomplete as it does not adequately describe important information about the project and its potential impacts on the environment. The ENF does not include information on the existing conditions and land uses within the 41.4-acre project site boundary and within the project locus area depicted in the Engineering Report Appendix D: Drawings G-002 Vicinity Map – One Mile Radius:

Geological & Hydrogeological Features

There was no attempt to model a release of contaminants to groundwater from the project. The Engineering Report, Appendix F: Hydrogeological Evaluation Report describes conditions at the site that do not support the expansion. Specific site geology indicates the near surface geology consists mostly of mostly glacial outwash sand and gravel. Beneath the glacial outwash is a bedrock that is fractured and weathered in places. Therefore, contaminants can travel faster and further through such subsurface conditions. Landfills are typically located in areas that have extensive clay deposits and/or a large separation between the bottom of the landfill and the water table. See attachment #7 - Gardner, MA Proposed Landfill Expansion-Hydrological Review, Mike Wilczynski, Certified Professional Geologist, Pangea Environmental, LLC, May 9 2022. **More study and information is needed to understand the hydrology of the area as this appears to be a poor location for a landfill expansion to prevent damage to the environment.**

Gardner Sludge & PFAS

The Gardner Wastewater Treatment Plant (WWTP) receives leachate pumped from the now-closed Solid Waste Gardner Sanitary Landfill, a Significant Industrial User (SIU). The SIU leachate is not tested for PFAS. There is a high probability that this SIU and the resulting leachate contains significant PFAS given the materials deposited in the landfill. The sludge that is currently dumped in the existing Sludge Landfill is not tested for PFAS. **PFAS testing must be done in order to determine the current level of PFAS in Gardner sludge in order to evaluate the risk of dumping 68,000 cubic yards of this material at the proposed location.** See bullet points #1, #2, & #3 in attachment #8: Comments Regarding the expansion of the City of Gardner Municipal Wastewater Sludge Landfill, by Denise Trabbic-Pointer, MS, CHMM Emeritus, Sierra Club – MI, May 5 2022.

Groundwater Protection

The ENF mentions a double composite groundwater protection system (GWPS). This liner is not guaranteed to never fail and manmade infrastructure ultimately fails. As such, State regulations prohibit landfills from being sited in a Zone II area for an existing or potential public water supply well (310 CMR 19.038 (2)(c)(1)(a)). **No corrective action and remediation procedure, if nearby wetland resources are contaminated, is provided if this system fails in 1, 5, 10, 25, or 100 years.** No City bonding or funding has been designated to support corrective action and remediation procedures. The Engineering Report, Appendix F: Hydrogeological Evaluation Report, submitted to MA DEP with the WP33 permit application, indicates that groundwater in the expansion area flows south and southeast toward water resources.

Ms. Denise Trabbic-Pointer (Sierra Club – MI) has reviewed the Engineering Report, along with current and historical reports on the existing Gardner Sludge Landfill and now-closed Gardner Solid Waste Municipal Landfill, and found monitoring wells indicating groundwater contamination. See bullet points #4, #5, & #6 in attachment #8: Comments Regarding the expansion of the City of Gardner Municipal Wastewater Sludge Landfill, by Denise Trabbic-Pointer, MS, CHMM Emeritus, May 5, 2022.

Alternatives

According to the Mass Sludge Survey 2018 v1.1 (published in September 2019) by the North East Biosolids and Residuals Association (NEBRA) for the Massachusetts Clean Energy Center, **only 18%** of the wastewater sludge produced in Mass was sent to landfills. The other 82% was disposed of through incineration or applied to soils. This proves that there are viable alternatives to this Project. According to Jennifer Wood (Environmental Engineer with Mass DEP NPDES and Residuals Program), no other Mass city or town is seeking to create or expand a sludge landfill. Athol, MA discontinued use of their sludge landfill roughly 20 years ago due to public outcry resulting from their inability to control odors. Athol currently hauls out for incineration to Upper Blackstone in Millbury MA.

If sludge landfills were a good solution, then most communities with a waste water treatment plant would be trying to construct a sludge landfill. Alternatively, conversion of wastewater sludge to energy and recycling of the residual material is the future and is consistent with the Massachusetts 2030 Solid Waste Master Plan: Working Together Toward Zero Waste – October 2021.

The ENF Report Section 4 Alternatives Analysis contains an analysis of 9 alternatives. **This analysis is inadequate so should not be accepted by the MEPA office.** It contains no detailed references, financial data, or calculations to back it up.

Over the past 10 years, the City has not completed a single feasibility study on any alternative to the expansion. The City has not looked at public/private sector partnerships or grant programs that could assist the City in properly exploring alternatives to the proposed expansion.

Alternatives #1 and #2 in the ENF are not really alternatives because Gardner has a wastewater treatment plant and the City can't dump untreated wastewater into the Otter River.

Alternative #3 and #4 involve land application and a composting facility. These alternatives should not have been dismissed. According to The Mass Sludge Survey 2018 v.1.1, these methods are utilized for 38% of the sludge disposal in Massachusetts. Composting is currently done by Ipswich, MA utilizing a private contractor (Agresource). Montague, MA recently received \$150K for an in-depth feasibility study grant and is currently evaluating feasibility studies for a new compost facility. Previously, Montague had a compost capability that earned over \$1.2 M for a 7-year period.

Alternative #5 mentions Anaerobic Digestion (AD) which is done on a large scale at Deer Island in Winthrop, MA and Greater Lawrence Sanitary District in North Andover MA. Residual material is converted to fertilizer by a private contractor. In Dartmouth, MA, Commonwealth Resource Management Corporation successfully operates a private sector AD facility at smaller scale.

Fitchburg MA is implementing a private sector run AD facility at the West Fitchburg wastewater treatment plant with a scheduled start-up of December 2025, which would be a disposal option for Gardner. Thus, AD is a feasible alternative.

Alternative #6 involves constructing an incinerator, a process which is utilized for 43% of the sludge disposal in Massachusetts according to The Mass Sludge Survey 2018 v.1.1. To utilize this alternative, Gardner would need to do a feasibility study for an incinerator.

Alternative #7 involves Gasification which is currently being pursued by Taunton, MA. The Taunton project is currently in MEPA review and more information will be forthcoming about this project and in general about the viability of this new technology, so this alternative should not be dismissed so quickly. **The ENF does not mention that, in October 2022, Gardner contracted with SoMax for a feasibility study of a hydrothermal carbonization (HTC) facility, which So-Max is piloting in Phoenixville, PA, a town similar in size to Gardner.** The Gardner study is now under way. Hydrothermal carbonization (HTC) converts organic waste, recovering valuable resources and creating clean, useful bioproducts that can be used to produce biogas, fertilizers, concrete, and other products. The energy produced from HTC can be used to power a wastewater treatment plant. In November 2021, the U.S. Department of Energy (DOE) awarded SoMax a Water Recovery Prize for small- and medium-sized facilities based on their work on HTC in Phoenixville, PA.

Alternative #8 involves constructing a new SLF elsewhere in the City. Although we do not see this as a good solution, we have seen no analysis of this alternative.

Alternative #9 involves hauling out the sludge for disposal. Many communities utilize this alternative which results in incineration or fertilizer conversion/composting at another facility in or out of Massachusetts. PFAS concerns have created a challenge in the sludge disposal industry equally for all methods of sludge disposal. However, because PFAS has such a wide impact, solutions will be forthcoming to deal with this challenge.

Overall, the City has not completed a sufficient alternative analysis to the Sludge Landfill expansion. (SLF). Instead, the City seems to have chosen to continue on the SLF path, primarily due to a 37-year-old site assignment for a portion of the Wildwood Cemetery Forest.

The City has not explored the alternative of partnering with any neighboring communities or pursued a private sector partnership for a viable alternative to the SLF expansion.

In addition, the City has rejected pursuit of a phased construction of the SLF expansion and therefore will be committing the City to a 17-year SLF solution to the year 2042. Phased construction will limit environmental damage and allow Gardner to take advantage of innovation in the other alternatives or partner with other communities in pursuit of a sustainable solution prior to 2042.

Community Use of the Site

The Sludge Landfill Expansion project site location is within Gardner's Wildwood Cemetery Forest, a parcel that is currently used for community recreation. This property abuts and connects with a network of trails on the Cummings Otter River Conservation Area. A blazed trail along the property's glacial period Esker provides year-around use by the public for hiking, snow-shoeing, cross-country skiing, and hunting. The Gardner Conservation Department, North County Land Trust, and Millers River Watershed Council have conducted guided hikes to this property. (See attachment #1: Guided Hikes) The goals for community use of this property are included in the [Wildwood Forest Stewardship Plan](#), which is referred to in [Gardner's Open Space Plan 2015](#) and which states on pages 3 & 4: "The Forest Stewardship Committee has developed the following goals for the Wildwood Cemetery property. Management will focus on promoting a healthy forest environment for the safety and enjoyment of the residents of Gardner and others who will visit the property." One of the goals states: "Improve hiking trails for public recreational use." **The landfill expansion plan is contrary to the forest stewardship plan goals and future community use of the site.**

Residential Neighborhoods include Environmental Justice Populations.

The ENF fails to state that the zoning for the project site and one-mile radius around it is mostly Rural Residential (R2) with a small portion zoned as Single Family Residential (R1) and General Residential (G3). There are residential neighborhoods with approximately 563 adult residents with 272 homes per the street listings for Gardner and Templeton. The one-mile radius is also home to facilities owned by 13 businesses, 3 social organizations, and 3 religious' organizations. This includes 3 Catholic Cemeteries owned by Annunciation Parish. Importantly, Environmental Justice populations, just within the 1-mile radius are in Block Group 2, Census Tract 7073. (See attachment #5) In 2020, this block group had a population of **1,829** in **843 households**.

Private Water Supplies

The ENF does not identify all private drinking water wells within one mile of the project. There are approximately 65 Gardner homes and 6 Templeton homes with private drinking water wells within one mile according to assessor property cards. See Attachment #2: Private Drinking Water Wells, which has a summary of the street locations of private wells. The ENF does not cover potential impact to these wells.

Air Quality

The ENF does not mention historical odor problems with the existing Sludge Landfill. Air quality has been a consistent problem over many years and numerous odor complaints have been submitted by residents and visitors to the nearby cemeteries and conservation areas. McClure Engineering inspects the existing Sludge Landfill on a bi-monthly basis and the results are published in the Sludge Landfill Annual Operations Reports. The 2020 and 2021 Annual Operations Reports indicate that odor was present at 100% of the 12 inspections in 2020 and 2021. There was not one inspection that indicated odors as “not detected.” Per the McClure Engineering 2020 Operations report, landfill operators had found a source of odors to be runoff on the east side that stinks of old sludge. The landfill expansion will perpetuate odors and increase the odor problem. As part of the Project, the City must be required to install odor emissions monitoring equipment that is able to measure and report gases causing the odors on a 24/7 bases prior to permitting of this expansion project. In order to mitigate odors, the City must be required to cap the existing landfill footprint and install a gas management system as part of the expansion.

DEQE site Assignment

The 41.4-acre project site boundary in the ENF does not match the 37.36-acre parcel (see attachment 4 map) referred to in the 1985 DEQE Site Assignment Letter (attachment #4, page 1 & 2) which was included in the CDR Maguire WP44 Application Gardner Landfill Vertical Expansion for United Water – August 7, 2014 that was used for the Sludge Landfill Vertical Expansion approved by MA DEP in 2016. **The ENF provides no explanation for this discrepancy.**

Water Resources

Groundwater flows exist in this area such that landfill leachate liner leakage will eventually pose risk to several surface water resources within a one-mile radius. These surface water resources exist in all directions within one-mile around the expansion site.

Hilchey Pond – The ENF indicates that Hilchey Pond is an impaired water body within half mile radius of the project site. It is located approximately 2,151 feet to the North of the site. The ENF did not include the information that this pond is fed by nearby Bailey Brook and the outlet feeds Bailey Brook and eventually flows to the nearby Otter River.

The following other important water resources are located within one-mile. Distances to the expansion site were approximated using MassMapper.

Rousseau Ponds – The Rousseau ponds, wetlands, and perineal streams are to the south and in the watershed of the Otter River. The three Rousseau ponds are spring-fed. The nearest Rousseau-pond is approximately 700 feet to the South of the site.

Otter River – The Otter River is the only river that flows through Gardner. The Wildwood Cemetery Forest (including the Project site) and Cummings Otter River Conservation Area are in the watershed. The Cummings Otter River Conservation Area has a substantial frontage length of 2,500 feet on the Otter River. The Otter River is to the South and West with two locations within ½ mile with the closest distance of approximately 1,607 feet to the West of the site. The Millers River Watershed Council has established a recreational Blue Trail on the Otter River in this area.

Bailey Brook – Bailey Brook is approximately 1,647 feet to the Northwest of the site. Bailey Brook is a cold-water fisheries brook. Bailey Brook flows from North Gardner to the Otter River and a portion of this brook is within the Wildwood Cemetery Forest. Gardner has recently invested in the creation of the new Bailey Brook Conservation Area and Open Space Park. Gardner also has invested recently in the Bailey Brook Greenway project with the goal of conservation of properties along Bailey Brook from Winchendon town line to the Otter River.

Wilder Brook – Wilder Brook is approximately 4,015 feet to the East of the site. Wilder Brook flows from North Gardner to Parker Pond.

Parker Pond – Parkers Pond is approximately 4,980 feet to the East of the site. At 29 acres, this is Gardner’s 5th largest water body. This pond is fed by Wilder Brook and Perley Brook and the outlet feeds the Otter River.

Unnamed EKCA Pond – An unnamed Ebenezer Keyes Conservation Area (EKCA) pond is approximately a distance of 1,960 feet to the South of the site. An outlet from this pond flows through a perennial stream to the Otter River. The EKCA was established in 2021 and owned by the North County Land Trust.

Stormwater Management

The ENF and Engineering Report Section 6 Stormwater Management does not address the following issues:

Does not comply with performance standards for work in buffer zone because the extensive work in and the lack of adequate proposed natural vegetation within the Buffer Zone, where some portions are steeply sloped, will result in an increase in stormwater and sediment flow to BVW and the warming of water temperatures in BVW.

The project should be considered LUHPLP under the Stormwater Management Standards and comply with Stormwater Standard 6.

The project did not review all impacts to resource areas by addressing an existing erosion problem at the existing vertically expanded sludge landfill at outfall pipe 002.

The Engineering Report Section 6 Stormwater Management not include alternative locations for the two stormwater infiltration basins such that outfall pipes that would not be located within the 100-foot buffer zones for Wetland C and Wetland D.

Land Section

II. C. The project site is currently and proposed to be in active Forestry use. A copy of the Forest Management Plan is available on the Gardner City website at: [Wildwood Forest Stewardship Plan](#).

II. D. This project involves conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth. See attachment #3 “Plan of Taking by the Town of Gardner for Cemetery and Park Purposes” dated July 14, 1919.

III. B.1) The project is not consistent with the [Gardner Community Development Plan -2006](#). Operation of a landfill, with continual odor problems for a 17-year period, will impede development of open land north of route 68 in this area.

III. B.2) The project adds leachate infrastructure that will increase the input to Gardner’s existing Waste Water Treatment Plant. The project adds the infrastructure maintenance cost of 3 stormwater basins / ponds that will require perpetual maintenance.

III. B.3) The project is within an area currently used for open space and recreation. The [Wildwood Forest Stewardship Plan](#) for the Wildwood Cemetery Forest has specific goals on the conservation value of the project site.

III. B.4) The project is not compatible with adjacent land uses. In 2012, the City utilized State and Federal funding to acquire the abutting Cummings Otter River Conservation Area for open space and recreation as well as water supply protection. The purchase was made using a \$197,625 Mass Drinking Water Supply Protection Grant, along with a Northwestern Area Forest Legacy Project grant awarded to the North County Land Trust. The [Gardner Open Space Plan – 2015](#) Map 9 identifies this area as an Aquifer Protection Area.

Climate Change Adaption and Resiliency Section

Greenhouse Gas Emissions

Ms. Denise Trabbic-Pointer, MS, CHMM Emeritus, Sierra Club – MI has reviewed the Engineering Report and provided comments on greenhouse gases emissions that are reflected in attachment #8 entitled: Comments Regarding the expansion of the City of Gardner Municipal Wastewater Sludge Landfill, by Denise Trabbic-Pointer, May 5, 2022 & Attachment 1 - Gardner SLF GHG Emissions Calculations.

Excerpts from her review are as follows:

“Greenhouse gas emissions are of concern at all landfills. According to the EPA, “Municipal solid waste (MSW) landfills are the third-largest source of human-related methane emissions in the United States, accounting for approximately 15.1 percent of these emissions in 2019.” We have assessed CO₂ equivalents (Mg/year) emissions from each process at a sludge landfill and land disposal of WWTP sludge. Attachment 1 are the calculations and results for the Gardner SLF. The Biosolids Emissions Assessment Model (BEAM) Version 1.1 © 2011 Canadian Council of Ministers of the Environment was used to derive these results. Note that calculations are based on the reported design flow of the Gardner WWTP of 5 million gallons per year as well as the metric tons/year – dry (Sludge). The Woodward & Curran Supplement No. 1 to Gardner Sludge Landfill Expansion Application Record No. 22-WP33-0003-APP indicates that “The average amount of sludge to be disposed of at the landfill on a daily basis is 5 dry tons per day, five days per week” and this is what was used in the attached calculations”

*“Our results for the Gardner SLF GHG emissions have been compared to reported GHG emissions from similar sized municipal solid waste (MSW) landfills and found to be similar. **Final assessed annual GHG emissions from operations at the Gardner SLF are 7,257 CO₂eq (Mg/year).**”*

“We have reviewed the documents Gardner SLF Expansion Engineering Report, Section 8 and Appendix M. Woodward & Curran seem to be dismissing the impact of gas emissions as not measurable. We disagree with this determination and believe that there are flaws in the methods and data used by Woodward & Curran. That is, the LandGEM – Landfill Gas Emissions Model, Version 302, does not factor in all potential point sources of GHG emissions and the assessed annual Mg/year of sludge to be disposed are significantly underestimated. To truly assess the impact of a project, maximum possible emissions should be assessed. “

Green Infrastructure

The ENF does not recognize that the Wildwood Cemetery Forest (WCF) is an important part of Gardner’s Green Infrastructure. Using Mass Audubon’s MAPPR Tool 2.0, attachment #10 illustrates the value of Wildwood Cemetery Forest. The WCF scored as a high priority parcel with a total score of “11” and is equal or higher than other parcels in this area of Gardner.

In 2019, Gardner applied for and was awarded a grant for Municipal Vulnerability Preparedness (MVP) Planning from the Executive Office of Energy and Environmental Affairs (EEA) MVP program. The project was led by Lyndsy Butler and Jeff Legros, supported by a core team which included Rachael Catlow (Department of Public Works), Dane Arnold (DPW), Robert Oliva (DPW), Chris Coughlin (City Engineer), Anna Wilkins (North County Land Trust), David Beauregard (Conservation Commission), Paul Topolski (Emergency Management), Ivan Ussach (Millers River Watershed Council), and Trevor Beauregard (Department of Community Development & Planning). Andrew Smith, Massachusetts EEA’s regional MVP coordinator for this project, provided additional support.

The following are two excerpts from the Community Resilience Building Workshop, Summary of Findings, September 30, 2020 (filename: [Gardner MVP Report 2020 0930 DRAFT](#))

Environmental Vulnerabilities

“Cummings Conservation Area. 122 acres that were acquired with Forest Legacy and Water Supply Protection funds. The land includes an undisturbed glacial esker, wetlands, vernal pools, floodplain, and riparian habitat of Otter River. Large, protected forest landscapes, flood zones, and connected riparian corridors increase Gardner’s resilience to climate change. Development pressure outside of the protected areas threaten the resource functions and values within the Conservation Area.”

Areas of Concern (Specific Locations)

- “Sludge landfill, whose on-site stormwater system may be threatened by increasing storms”

Environmental Justice Section

I.A. The ENF statement that there are no EJ populations within 1 mile of the project site is incorrect. The project site boundary, indicated in Engineering Report G-002 Vicinity Map – One Mile Radius, is identified as a 41.4-acre parcel. This parcel is approximately 0.934 miles from an EJ population. (See attachment #5: Proximity to Environmental Justice Populations, Aaron Nelson, Project Manager, Mount Grace Conservation Land Trust, December 20, 2022.) This location also roughly coincides with the 37.36-acre parcel referred to in the 1985 DEQE Site Assignment (attachment #3 & #4) and included in the CDR Maguire WP44 Application Gardner Landfill Vertical Expansion for United Water – August 7, 2014.

According to the Engineering Report: Section 7 Landfill Closure Plan: “Closure of the sludge landfill expansion is proposed to occur as a single event together with the original landfill closure, after filling has been completed in all landfill cells.” Therefore, the original Sludge Landfill will remain part of the expansion project until the predicted date of closure in 2041. The fence line of the original landfill, is 0.999 miles from an EJ population. (See attachment #5: Proximity to Environmental Justice Populations, Aaron Nelson, Project Manager, Mount Grace Conservation Land Trust, December 20, 2022)

Therefore, this project meets the definition of a Designated Geographic Area per MEPA regulation 11.02(2) and meets the mandatory threshold for an Environmental Impact Report (EIR).

Use of this site for a landfill expansion removes 6.0-acres of City land that has been utilized for recreational purposes by Gardner residents and subjects this population to the continued poor air quality generated by the Sludge Landfill.

Additional information on Environmental Justice concerns is in attachment #9: Environmental Justice Concerns regarding the expansion of the Gardner Sludge Landfill, Jenn Albertine, PhD, Climate & Land Justice Specialist, Conservation & Stewardship Associate, Mount Grace Land Conservation Trust.

III. A. 2. The ENF “description of activities conducted prior to filing to promoted involvement by EJ populations” is inadequate. The ENF is missing the dates for public meetings (held 7 years ago in 2016) and a description of issues of concern raised at these meetings and steps taken to address the concerns. The recent project’s “Notice of Intent (NOI)” public meetings were of a narrow scope to only include issues related to the Mass Wetland Protection Act and Gardner Wetland Protection Ordinance and not the project’s wider impact. The ENF is missing a description of issues raised at these NOI meetings and steps taken to address the issues.

ENF Distribution List

The ENF distribution list does not include community organizations within or near the one-mile distance of this project and all the abutting property owners.

Religious organizations not included are:

[Bethany Baptist Church](#) – 72 Ryan Street, Gardner, MA 01440

[Jehovah's Witnesses - Kingdom Hall](#) – 1071 West Street, Gardner, MA 01440

[Annunciation Parish](#), 135 Nichols Street, Gardner, MA 01440. This parish has an active Hispanic Ministry and 3 Cemeteries located on West Street.

Social organizations not included are:

[Gardner Fish & Gun Club](#) – 538 Clark Street, Gardner, MA 01440

[West End Beagle Club](#) – Off Clark Street, Gardner, MA 01440

[Gardner Trout Club](#) – 44 Watkins Road, Gardner, MA 01440

[Otter River Sportman’s Club](#) - PO Box 28, Baldwinville, MA 01436

The ENF distribution list does not include any departments from the Town of Templeton, a Municipality affected by this project. [Templeton Town Officials](#) including the Select Board, Conservation Commission, Light & Water Commission, etc were not properly notified in the ENF.

The ENF distribution list does not include abutters to the City property Parcel ID H32-16-4, the location of the existing sludge landfill and expansion. Attachment #6: City of Gardner Certified Abutters List. This is the certified abutters list that was included in the Notice of Intent submitted for the Project to the Gardner Conservation Commission on 6/23/22.

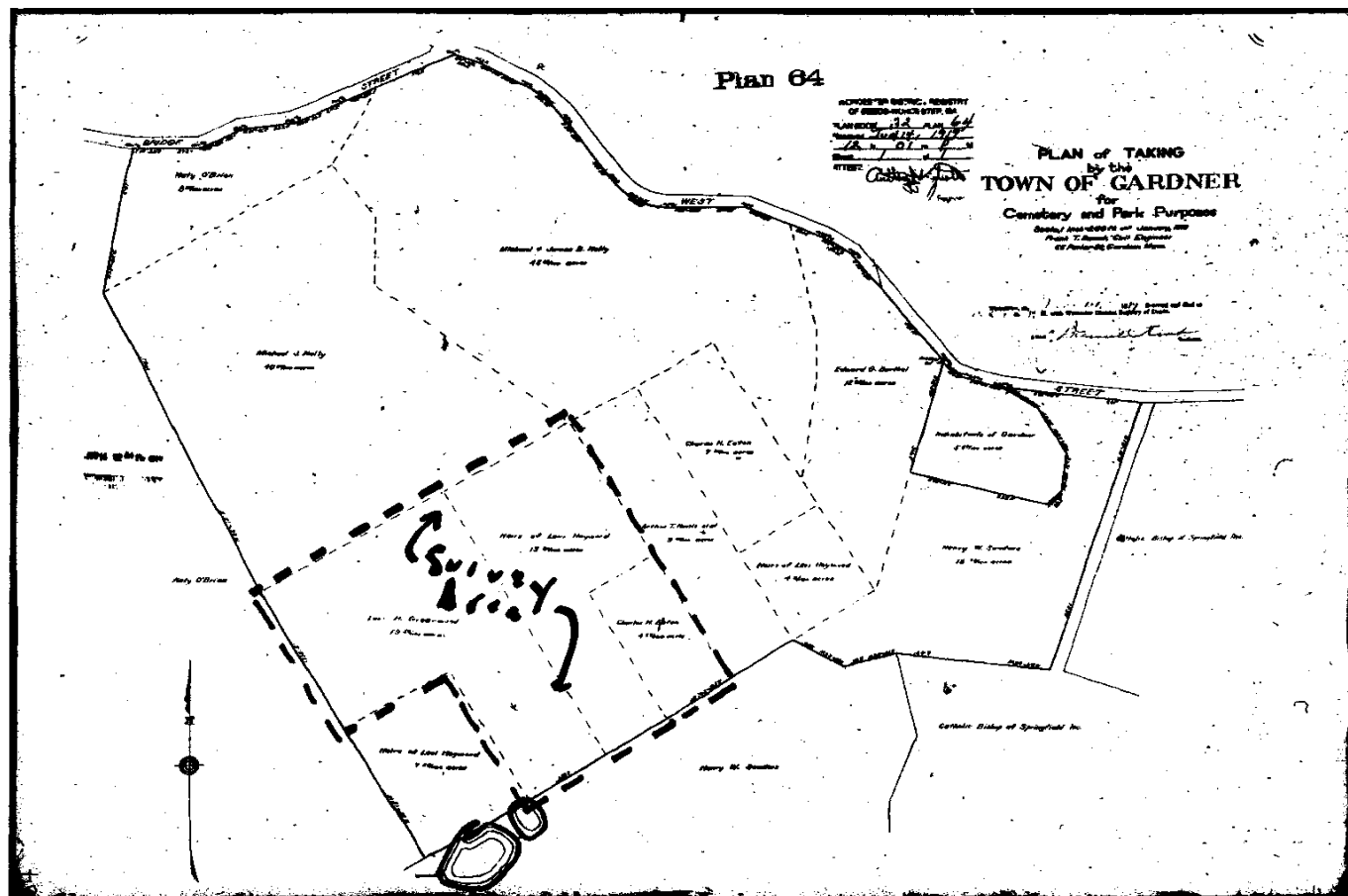
Attachment #1: Guided Hikes



Attachment #2: Private Drinking Water Wells

1/18/2022 (updated 1/26/22, 2/7/22) Private Wells within the 1-Mile Radius of Gardner Sludge Landfill				
<u>Street Name</u>	<u>Community</u>	<u>Total Private Wells</u>	<u>Approximate Distance to Sludge Landfill (miles)</u>	
CLARK ST	Gardner	1	1.0	
EDGEHILL AVE	Gardner	3	0.8	
KEYES RD	Gardner	9	0.75	
NOTRE DAME RD	Gardner	1	0.3	
PRINCETON ST	Gardner	24	0.9	
RICHARDSON ST	Gardner	2	0.9	
RIVERSIDE RD	Gardner	7	0.75	
RUGBY ST	Gardner	2	0.9	
WATKINS ST	Gardner	11	0.9	
WEST ST	Gardner	5	0.3	
RIVERSIDE RD	Templeton	3	0.9	
TURNER ST	Templeton	3	0.75	
	Gardner Total	65		
	Templeton Total	6		
	Total	71		
list of private drinking water wells project sorted by water utilities column 26Jan2022				
Approximate Distance to Sludge Landfill estimated using vacinity map filename: SludgeLandfill with Labels 8Oct2016 updated 12Mar2021 v3.				

Attachment #3: Plan of Taking



Attachment #4: DEQE Site Assignment Letter (page 1)



The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Central Region
75 Grove Street, Worcester, Massachusetts 01605

November 21, 1985

John W. Meany, Director
Department of Public Works
City Hall
Gardner, MA 01440

Re: GARDNER-Water Pollution Control
Chapter 83, Section 6 Hearing
for sludge-only landfill

Gentlemen:

In accordance with Section 6 of Chapter 83 of the General Laws, the Department of Environmental Quality Engineering held a public hearing on October 31, 1985 relative to the use of certain land in the City of Gardner for the proposed construction of a wastewater treatment facility sludge only landfill. The hearing was held in the Department's office at 75 Grove St., Worcester.

The land in question, which is located at the southwest edge of the City's sanitary landfill near the cemeteries and the Otter River, consists of one parcel containing 37.36 acres and is depicted on drawings in a report entitled:

Report of Sludge Disposal Site Evaluation
Gardner, Massachusetts
Feasibility Study-EID
January 1985

Oral testimony was heard and recorded at the hearing; no written testimony was received. The hearing tape and support documentation are on file at the Department of Environmental Quality Engineering, Central Regional Office.

Proponents of the project indicated the proposed site was the only economically and environmentally acceptable site.

Reviewers have expressed concern about the loss of wildlife habitat and protection of potential water supplies.

Attachment #4: DEQE Site Assignment Letter (page 2)

GARDNER-WPC
Page 2

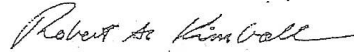
After reviewing the information submitted, it is the opinion of the Department that the above concerns must be addressed during design to assure that the sludge landfill can be constructed and operated at the proposed site in a manner acceptable to all environmental concerns. The city shall therefore submit during design a summary of all measures being taken to mitigate impacts of the project on wildlife habitat and potential water supplies.

The Department conditionally approves the use of land in accordance with Section 6 of Chapter 83 of the General Laws of the Commonwealth subject to review of the summary document described above.

Be advised that detail plan approval, a Sewer Connection Permit, and an amended Finding of No Significant Impact must also be approved prior to construction of the landfill.

Very truly yours,

For the Commissioner



Robert A. Kimball, P.E.
Deputy Regional Environmental Engineer

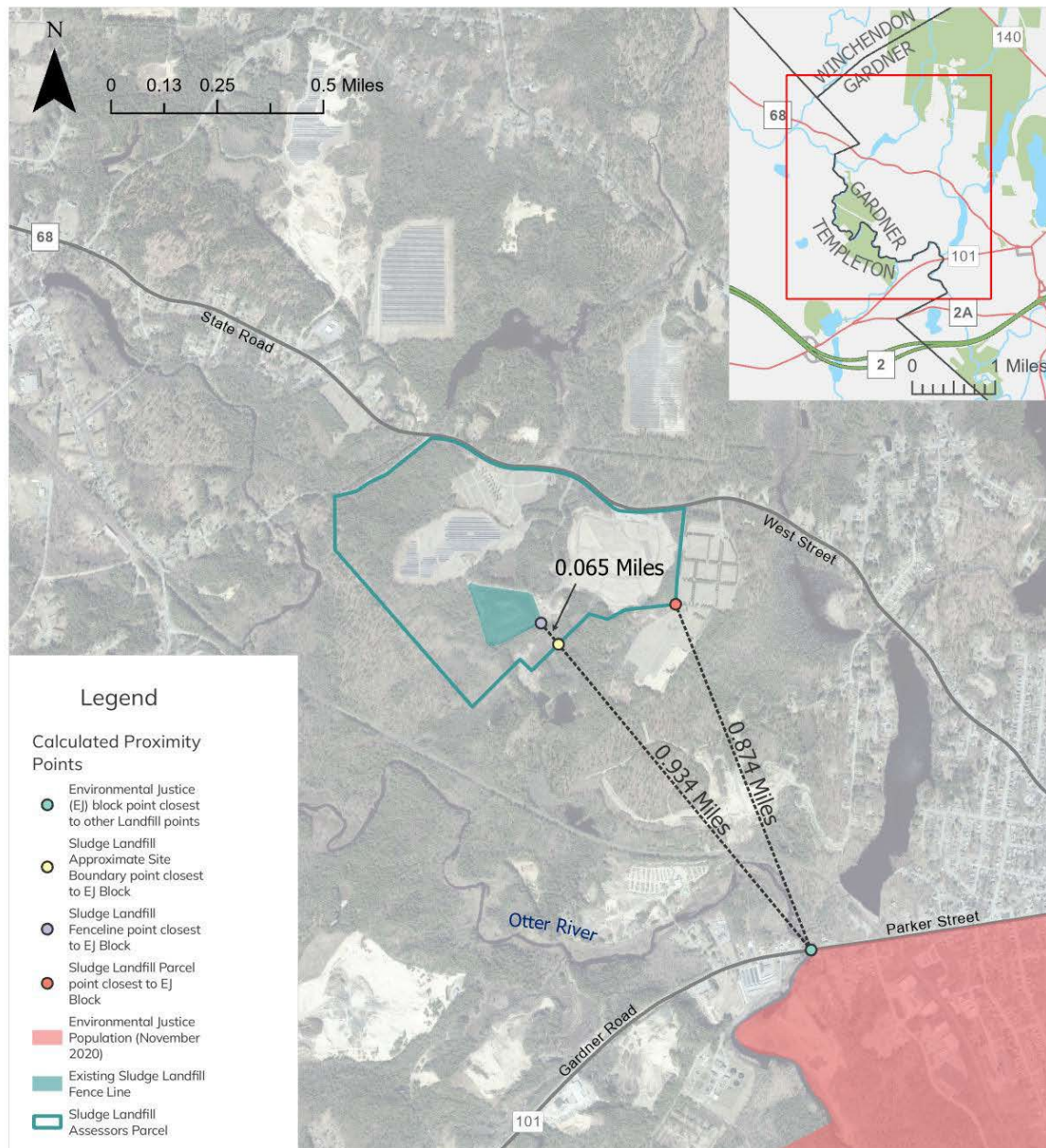
KM/mjm

cc: William Gaughan, DWPC-Boston
Stan Linda, DWPC-Boston
Ed Benoit, DREE-Worcester
Steve Seigal, Whitman & Howard, Inc.
Conservation Commission-Gardner
Board of Health-Gardner
City Council-Gardner

Attachment #5: Proximity to Environmental Justice Populations

Gardner Sludge Landfill Proximity to Environmental Justice Populations Aaron Nelson, Project Manager, Mount Grace Land Conservation Trust, December 20, 2022.

Gardner Sludge Landfill Proximity to Environmental Justice Populations



Methodology -

- Sludge Landfill parcel sourced from MassGIS L3 Assessors Data.
- Existing Sludge Landfill Fence Line created based on MassGIS 2021 Orthoimagery
- Environmental Justice Populations Layer (2020) sourced from MassGIS
- Parcel Boundary, Fence Line and EJ Block nearest points calculated using ArcGIS Pro
- Site Boundary nearest point based on a reasonable interpretation of Gardner Sludge Landfill Vicinity Map - 1 Mile Radius, revised March 2022 prepared by Woodard & Curran. Site Boundary appears to run along parcel boundary for section nearest the EJ Block. Nearest point was calculated at parcel boundary point along shortest distance line from EJ Block to the Fence Line.
- Distances displayed calculated using ArcGIS Pro

THIS MAP IS NOT A SURVEY.

This map was prepared without the benefit of field measurements and it and the calculations presented are intended solely for illustrative purposes.

Map created by Aaron Nelson, Mount Grace Land Conservation Trust



Attachment #6: City of Gardner Certified Abutters List

CITY OF GARDNER CERTIFIED ABUTTERS LIST

Parcel ID	Location	Owner	Owner2	Mailing Address	City	State	Zip
H27-7-2	500 Notre Dame Rd	Alan Rousseau		211 Betty Spring Rd	Gardner	MA	01440
H27-7-6	Keyes Rd	Roman Catholic Bishop of Worcester		49 Elm St	Worcester	MA	01609
H32-19-2	West St	Roman Catholic Bishop of Worcester		49 Elm St	Worcester	MA	01609
C32-19-2	Bridge St	City of Gardner		95 Pleasant St	Gardner	MA	01440
C32-14-18	West St	Roman Catholic Bishop of Worcester		49 Elm St	Worcester	MA	01609
H32-17-11	West St	D&E Realty Corp		PO Box 752	Hudson	MA	01749
C32-15-21	939 West St	West Street Realty Trust	Albert F Yraola - Trustee	PO Box 315	Westminster	MA	01473
H32-11-5	929 West St	West Street Realty Trust	Albert F Yraola - Trustee	PO Box 315	Westminster	MA	01473
C32-15-22	West St	West Street Realty Trust	Albert F Yraola - Trustee	PO Box 315	Westminster	MA	01473
H32-11-7	West St	West Street Realty Trust	Albert F Yraola - Trustee	PO Box 315	Westminster	MA	01473
H32-11-8	911 West St	Peter F Yraola	Kimberly Yraola	PO Box 315	Westminster	MA	01473
H32-11-9	West St	Peter F Yraola	Francis A Yraola	PO 315	Westminster	MA	01473
H32-11-10	West St	Mass Elec Co.		40 Sylvan Rd	Waltham	MA	02451
H32-17-11	D&E Realty Corp			PO Box 752	Hudson	MA	01749

Location: 850 West St

PID:

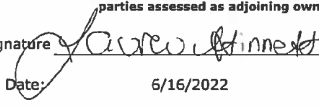
Special Considerations: H32-16-4

Type: Conservation

GIS Date: 6/16/2022

CAMA Date: 6/16/2022

This is to certify that at the time of the last assessment for taxation made by the City of Gardner, the above names and address and the parties assessed as adjoining owners to the proposed property.

Assessors Signature  Lauren Stinnett

Date: 6/16/2022

Attachment #7: Gardner, MA Proposed Landfill Expansion-Hydrological Review

Gardner, MA Proposed Landfill Expansion-Hydrological Review, Mike Wilczynski, Certified Professional Geologist, Pangea Environmental, LLC, May 9, 2022



gardner report
v2.pdf

Attachment #8: Comments Regarding the expansion of the City of Gardner Municipal Wastewater Sludge Landfill

Comments Regarding the expansion of the City of Gardner Municipal Wastewater Sludge Landfill, by Denise Trabbic-Pointer, MS, CHMM Emeritus, Sierra Club – MI, May 5 2022



Comments
Regarding the Gardn

Attachment 1 - Gardner SLF GHG Emissions Calculations, Denise Trabbic-Pointer, MS, CHMM Emeritus, Sierra Club - MI, May 5, 2022



Gardner SLF
Estimated GHG Emiss

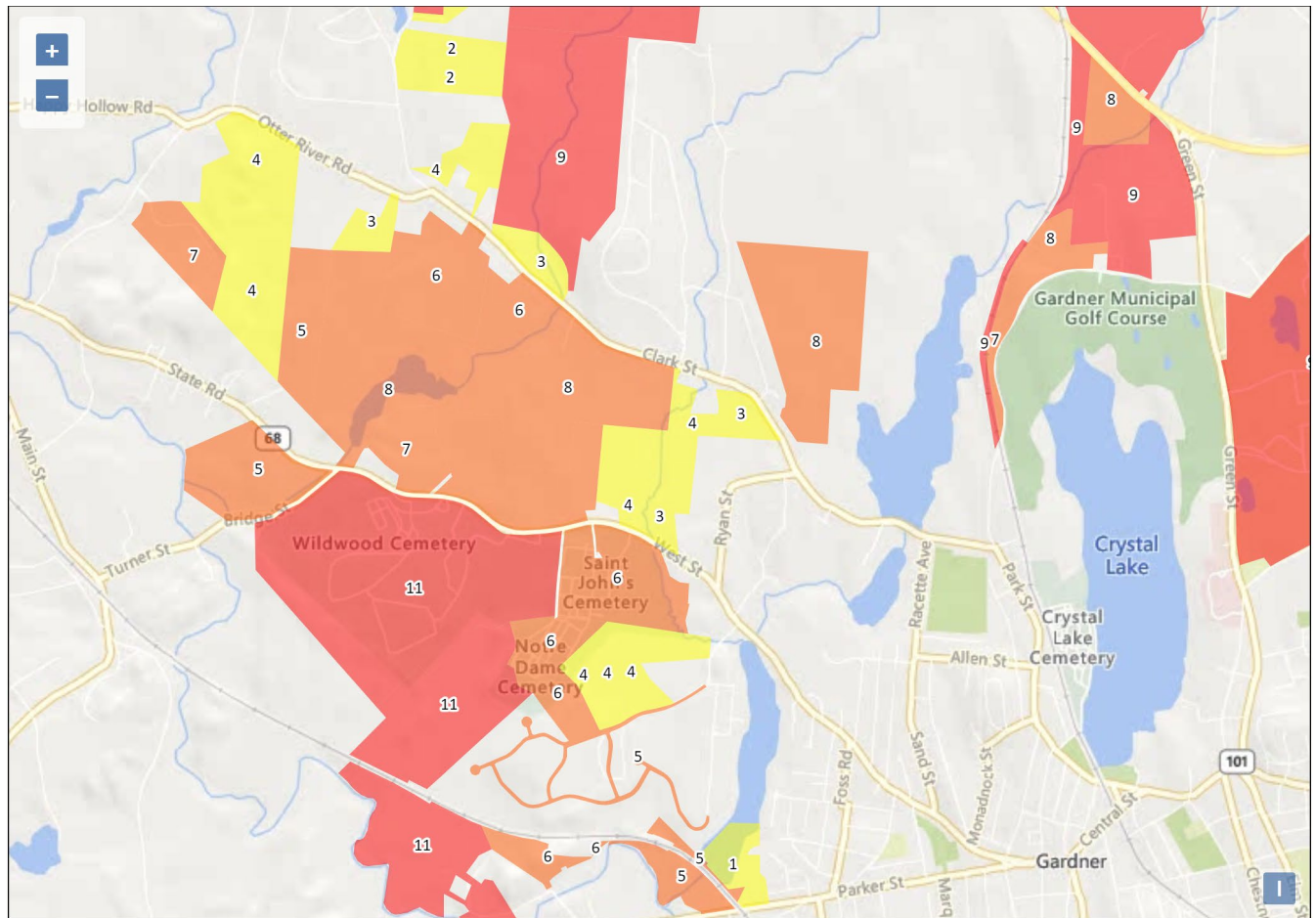
Attachment #9: Environmental Justice Concerns regarding the expansion of the Gardner Sludge Landfill

Environmental Justice Concerns regarding the expansion of the Gardner Sludge Landfill, Jenn M. Albertine, PhD, Climate & Land Justice Specialist, Conservation & Stewardship Associate, Mount Grace Land Conservation Trust, December 2021



Environmental
Justice Concerns the

Attachment #10: Wildwood Cemetery Forest Vicinity Map (Mass Audubon MAPPR Tool 2.0)



Priority

- High Priority Parcels
- Medium Priority Parcels
- Lower Priority Parcels

29 January, 2023

Ms. Bethany A. Card, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky EEA No. 16643
100 Cambridge Street, Suite 900
Boston MA 02114
Subject: ENF Comment / Gardner Sludge Landfill Expansion
Sent via email: alexander.strysky@mass.gov

Dear Secretary Card:

As a concerned citizen of the City of Gardner, I am submitting to you this letter with my comments regarding the Gardner Sludge Landfill Expansion, Environmental Notification Form (ENF). This expansion project raises important concerns with the ENF and the need for further in-depth analysis via an Environmental Impact Report (EIR).

The comments in this letter mirror those sent to you by Gardner Clean Air (GCA) of Gardner. As a result, and in respect of your time, I will include the shared concerns, but will ask you to refer to the GCA letter submitted to you. To give you a bit of background on why I share GCA's concerns, my 1940's era house is within a mile of the City of Gardner's former dump and landfill, which emitted different noxious odors until it was ultimately capped. The current sludge landfill now emits odors routinely blown across my property, necessitating closing windows in the house so that I can try to escape. However, this is only one of the concerns about the proposed expansion of the current sludge landfill. My other concerns are as follows:

1. Risk of ground water contamination with impact to drinking water and watershed.

The project Vicinity Map – One Mile Radius (G002) does not identify all of the approximate 70 private drinking water wells. The ENF does identify the two Town of Templeton Public Drinking Water Wells within one mile of the site. As the structure standing between the waste, likely containing PFAS and other toxins, is man-made, there is always a risk of failure of containment. PFAS contamination has become a growing concern in Massachusetts and the Country. According to the US EPA, peer-reviewed studies have shown that PFAS may lead to increased risk of some cancers, reproductive effects in pregnant women, and developmental delays in children. There are “forever” chemicals that can be leached into our groundwater permanently. This is not acceptable. There have, in recent years, been earthquakes centered in Athol and in Templeton, which caused minor damage on my property. Although rare, earthquakes in the area do have the potential to damage the liner of the landfill. During the recent MEPA site visit to the landfill and its proposed extension area, which we were not actually allowed to view, questions arose about the monitoring of, and response to, any incidents which could overwhelm or breach the liners of the current and proposed modules. These questions about a response plan in the case of a breach of the liners, directed to the Gardner city officials, went unanswered.

2. Negative impacts to the public recreational use of the Wildwood Cemetery Forest, Cummings Otter River Conservation Area, and the Ebenezer Keyes Conservation Area.

Once again, the foul odors that the landfill emits deter people from extended visits with loved ones, or from hiking in Gardner's conservation areas, negating part of the purpose of this land.

3. Continued source of ongoing poor air quality for entire area.

The ENF does not mention historical odor problems with the existing Sludge Landfill. Air quality has been a consistent problem over many years and numerous odor complaints have been submitted by residents and visitors to the nearby conservation areas and cemeteries, includes three Roman Catholic Cemeteries owned by the Diocese of Worcester and maintained by Annunciation Parish. The cemeteries and conservation areas are visited by thousands of people. They abut residential neighborhoods with approximately 563 adult residents with 272 homes per the street listings for Gardner and Templeton. The one-mile radius is also home to facilities owned by 13 businesses, 3 social organizations, and 3 religious organizations. According to the recent 2020 Census, 79.8% of Gardner's population qualifies for the Environmental Justice (EJ) community designation, through the criteria of income and minority populations.

The odors are nauseating to those who visit this area. The City has not installed air quality monitoring devices in order to determine the frequency and intensity of odors. Instead, the City has depended on residents and visitors filing odor complaints, a process neither effective and widely known. Vile odors emanate from the current sludge landfill and the expansion will perpetuate and increase the odor problem. It is so heartbreaking to visit my parents', grandparents', great grandparents' and friends' graves at St. John and Notre Dame Cemeteries, only to have to abort my visit because the foul odor is overwhelming. This occurs routinely during the spring, summer, and fall.

4. Destruction of 6 acres of natural resources including wildlife habitat, forest, a natural esker, and close-proximity to two certified vernal pools.

These land features assist in filtration of rainwater through to the water table. The more land that is unnecessarily destroyed, the more unfiltered rain run off occurs.

5. Failure of the City of Gardner to present a thorough and accurate examination of alternative sludge management options.

This is such an important concern. The alternatives analysis dismisses sludge disposal alternatives without completing a single feasibility study of any such alternative. The alternatives analysis fails to consider partnering with any neighboring communities or pursuing a private sector partnership for a viable alternative to the project. The City has rejected pursuit of a phased construction of the project which will, in effect, commit the City to the 17-year landfill expansion. **This effectively prevents the City from migrating to an economically and environmentally better alternative within 17 years. With this Project, Gardner will not be able to take advantage of innovation in the other alternatives or partner with other communities in pursuit of a sustainable solution prior to 2042.**

This truly is unacceptable, because if Fitchburg's proposed sludge processing facility is built, and Gardner is one of the communities that can utilize it, and will likely be needed by Fitchburg to help support the operation, it will be too late for us. The damage will already have been done to our environment as acres of forest are razed.

The presence of an Environmental Justice community is within one mile of the project site and should trigger the threshold for requiring an Environmental Impact Report (EIR). An EIR will provide more in-depth analysis of the environmental and human impacts and alternatives to this project.

Thank you for your time and consideration. Please feel free to contact me with any questions about my concerns.

Sincerely,

Mary E. Marsh

150 Acadia Road
Gardner, MA 01440
Cell: 1-508-612-9882
Home: 1-978-632-1711
mary.marsh@shutr.net

Rebecca Tepper, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Stryisky EEA No. 16643
100 Cambridge St. Suite 900
Boston, MA 02114
Subject: ENF Comment/Gardner Sludge Landfill Expansion
Sent Via email:alexander.stryisky@mass.gov

01/28/2023

Dear Secretary Tepper,

Please consider my comments and concerns, shared in this letter, with respect to the Gardner Sludge Landfill Expansion Environmental Notification Form. I am a citizen in Templeton, MA. I am concerned with this project's ENF. I believe that there is a need for further analysis via an Environmental Impact Report (EIR). I attended the recent MEPA tour of the proposed Landfill Expansion site, and have walked the trails on the backside of the proposed site through the Cummings Forest.

My concerns are as follows :

1.) Zone Two Wells, and the risk of contamination to drinking water sources and the watershed.

The ENF identifies two of Templeton's Public Drinking Water Wells within one mile of the site. It does not include any private wells on the Templeton side. Neither Templeton nor its private well owners have been notified as abutters.

I would reference the Templeton Water Report from June 2022, on page 5: www.mass.gov/dep/water/drinking/swap/2294000pdf. **The SWAP Program** clearly states: "These wells supply ground water from an aquifer of high vulnerability because of an absence of barriers such as clay." Local temperatures are changing rapidly in the Northeast. Has any consideration been given to Climate Change, or to how extreme weather events will affect the landfill's lining system over time?

Landfills are known for producing tremendous volumes of leachate, an aqueous fluid containing high concentrations of ammonia and natural organic matter. They are also known to

contain man-made chemicals such as polyfluoroalkyl substances (PFAS). They do not degrade naturally and are persistent in the environment. The EPA has found PFAS to be detrimental to human health, and will be issuing contaminant limits in 2023. A failure to the landfill's lining could cause the aquifer to become contaminated, and compromise drinking water sources for the entire community of Templeton. Clean-up of the aquifer may not be feasible, and, at the least, be extremely costly. There are no controls in place that require Gardner to maintain insurance or hold a bond in the event that Templeton is affected by a landfill failure.

The loss of natural cooling forests is also a major concern. The landfill expansion plans to remove both trees and a natural esker. Removal of these resources will add heat to the area. The removal of the esker as a barrier is also detrimental to the water supply and wetlands if the Otter River floods. In total this expansion will remove 4.3 acres of natural resources, including a hardwood forest, a wildlife habitat, and the above mentioned esker. It comes in close proximity to two certified vernal pools.

Please consider an EIR to assess the risks posed to local water supplies by contamination from the landfill, and how Climate Change over time will impact the Otter River, vernal pools, and local wildlife habitat.

2.) Air Quality and Public Recreational Land Use

The ENF does not mention odor problems with the existing Sludge Landfill. Air quality has been a consistent problem over the years. Numerous complaints have been filed.

This property abuts and connects to Wildwood Cemetery and Forests, Cummings Otter River Conservation Area, and the Ebenezer Keyes Conservation Area. There are also three local cemeteries. Residents with loved ones in these cemeteries are put off by the smell when visiting and are forced to limit the duration of their stay at the gravesite. The smell is nauseating and a deterrent to how often they go. The odor also detracts from the recreational use of the hiking trails in the aforementioned forests and conservation areas. Odors travel through these areas and extend through Turner Lane in Templeton, whose residents have complained since the first sludge landfill went in.

The City of Gardner has no measures in place to assess air quality. There are no monitoring devices to quantify the frequency and intensity of odors. The City leaves it to the community to file complaints, and most citizens are unaware of the protocols. Residents from Templeton are concerned about retaliation if they call attention to any issues. The City of Gardner does not maintain open communications with Templeton. They have not established

protocols if problems do arise. These are major concerns.

As a citizen with grandchildren, I consider the current 17 year plan a band-aid that could have disasterous effects on the land, air, and water quality for our future residents. If you proceed with an Environmental Impact Report, I would ask that you study the land area on both sides of the river, and sincerely hope that any projected impacts would be forecast beyond the current term. Regardless of duration, I respectfully ask that you consider the impacts from these landfills to Templeton, its public and private wells, neighborhoods, and abutting land.

Sincerely,
Theresa Griffis
12 Drury Lane
Templeton, Ma 01468
978-939-7370
t.griffis@gmail.com

From: [Tom Esposito](#)
To: [Stryisky, Alexander \(EEA\)](#)
Subject: Gardner Sludge Landfill EEA#16643
Date: Saturday, January 28, 2023 3:01:24 PM
Attachments: [Gardner Sludge Landfill EEA No 16643 ENF General Comment Letter 6Jan2023.docx](#)

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

I thank you for your time in the matter of the Gardner Sludge Landfill expansion and opposed to it for many reasons.

Attached are my sentiments of such along with a general message of such as well.

Sincerely,

Thomas B. Esposito
20 Becky Ave
Gardner, MA 01440

t1/6/2023

Bethany A. Card, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alexander Strysky EEA No. 16643
100 Cambridge Street, Suite 900
Boston MA 02114
Subject: ENF Comment / Gardner Sludge Landfill Expansion
Sent via email: alexander.strysky@mass.gov

Dear Secretary Card,

I first want to thank you for your time in this matter of the Sludge Landfill Expansion here in Gardner, MA.

Albeit a general letter sent to your administration amongst many others for this matter I would like to offer my sense of such an atrocity as well for this project to go forth.

Imagine for a moment this is done in your backyard of your property or family member or friends home. What would you do to protect the nature of such?

We all need to worry about waste from any aspect of life from this to trash, recyclables or any other waste as well.

There is another way for this sludge to be taken care of for a more appropriate and far less financial existence that was proposed to the town. There is no need whatsoever to decimate acres of land for this project that would potentially upset the water supply, decimation of acres of land and livelihood of the towns own people who live close and or near to this supposed project.

I have hiked and hunted within this area for many years and to decimate such land for this project goes against all that is near and dear to myself along with multitudes of residents within the town of Gardner.

Please keep the integrity of the woods, forest, wildlife, water supply, vernal pools and all that is dear for this rural community to be as pure as it can be in the times we live in.

I again thank you for your time and care for this matter of the people in this town and perhaps other towns within Massachusetts who care for the land and nature of such.

Sincerely,

Thomas B. Esposito

This letter contains my comments on the Gardner Sludge Landfill Expansion Environmental Notification Form (ENF). This expansion project raises important concerns with the ENF and the need for further in-depth analysis via an Environmental Impact Report (EIR). My concerns are:

1. Risk of ground water contamination with impact to drinking water and watershed.

The project Vicinity Map – One Mile Radius (G002) does not identify all of the approximate 70 private drinking water wells. The ENF does identify the two Town of Templeton Public Drinking Water Wells within one mile of the site.

The Hydrogeological Evaluation Report (Appendix F) describes the geology of the site as having glacial outwash sand and gravel atop fractured and weathered bedrock. Therefore, this geology does not provide any natural containment and allows contaminants to travel faster and further. The ENF shows no attempt to model the release of contaminants to groundwater from the sludge landfill.

The ENF mentions a double composite groundwater protection system (GWPS). The GWPS's life expectancy is not specified and not guaranteed for any time period. Manmade infrastructure ultimately fails. If this system fails in 1, 5, 10, 25, or 100 years, no remediation procedure is specified to deal with contaminated private wells, public wells, or wetland resources. No bonding or reserve funding has been designated for remediation.

PFAS contamination has become a growing concern in Massachusetts and the Country. According to the US EPA, peer-reviewed studies have shown that PFAS may lead to increased risk of some cancers, reproductive effects in pregnant women, and developmental delays in children. According to the Gardner Wastewater Treatment Plant (WWTP) NPDES Permit (No. MA0100994), the now-closed Gardner Sanitary Landfill discharges an average of 1,182 gallons of non-process leachate to Gardner's WWTP. It is highly likely that this landfill leachate contains PFAS and this leachate is not tested for PFAS. Neither Gardner sludge or the Sludge Landfill monitoring wells are tested for PFAS. PFAS testing must be done in order to determine the level of PFAS and evaluate the risk of dumping 4,000 cubic yards of sludge per year for 17 years at this site.

2. Negative impacts to the public recreational use of the Wildwood Cemetery Forest, Cummings Otter River Conservation Area, and the Ebenezer Keyes Conservation Area.

For many years, the community has used the Sludge Landfill Expansion project site location, within Gardner's Wildwood Cemetery Forest, for community recreation. This property abuts and connects with a network of trails on the Cummings Otter River Conservation Area. A blazed trail along the property's glacial period esker provides year-around use by the public for hiking, snow-shoeing, cross-country skiing, and hunting. The Gardner Conservation Department, North County Land Trust, and Millers River Watershed Council have conducted guided hikes to these properties. Destruction of 6 acres of forest and the persistent odors from the Sludge Landfill negatively impacts the use of both of these beautiful properties and the new NCLT-owned Ebenezer Keyes Conservation Area, located to the east of the expansion site.

3. Continued source of ongoing poor air quality for entire area.

The ENF does not mention historical odor problems with the existing Sludge Landfill. Air quality has been a consistent problem over many years and numerous odor complaints have been submitted by residents and visitors to the nearby conservation areas and cemeteries, includes 3 Catholic Cemeteries owned by Annunciation Parish. The cemeteries and conservation areas are visited by thousands of people. There are residential neighborhoods with approximately 563 adult residents with 272 homes per the street listings for Gardner and Templeton. The one-mile radius is also home to facilities owned by 13 businesses, 3 social organizations, and 3 religious organizations.

The odors are nauseating to those who visit this area. The City has not installed air quality monitoring devices in order to determine the frequency and intensity of odors. Instead, the City has depended on residents and visitors filing odor complaints, a process neither effective and widely known.

4. Destruction of 6 acres of natural resources including wildlife habitat, forest, a natural esker, and close-proximity to two certified vernal pools.

The planned expansion will destroy 6 acres of Gardner's natural resources, including a hardwood forest, wildlife habitat, and a geologically important esker in the Wildwood Cemetery Forest. This expansion is inconsistent with the City's own Wildwood [Forest Management Plan](#) (2012) that has the following stated goals: "The City of Gardner would like to improve and protect the forest resources on the Wildwood Cemetery property for the benefit of the residents of Gardner. Protecting water quality is a high priority. Maintaining and improving aesthetics near the Cemetery is extremely important as well."

5. Failure of the City of Gardner to present a thorough and accurate examination of alternative sludge management options.

The alternatives analysis dismisses sludge disposal alternatives without completing a single feasibility study of any such alternative. The alternatives analysis fails to consider partnering with any neighboring communities or pursuing a private sector partnership for a viable alternative to the project. The City has rejected pursuit of a phased construction of the project which will, in effect, commit the City to the 17-year landfill expansion. This effectively prevents the City from migrating to an economically and environmentally better alternative within 17 years. With this Project, Gardner will not be able to take advantage of innovation in the other alternatives or partner with other communities in pursuit of a sustainable solution prior to 2042.

The presence of an Environmental Justice community is within one mile of the project site and should trigger the threshold for requiring an Environmental Impact Report (EIR). An EIR will provide more in-depth analysis of the environmental & human impacts and alternatives to this project.

Please feel free to contact me if you have any questions.

Sincerely,

Thomas B. Esposito
20 Becky Ave Gardner, MA
tbrag_8@yahoo.com



alexander.stryisky@mass.gov

[Dashboard\(javascript:void\(0\);\)](#) > [View Comment\(javascript:void\(0\);\)](#)

Comment Details			
EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	--	--	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-30-2023	--	--	Individual
Certificate Action Date	Phone	State	Status
1-31-2023	--	--	Opened
Reviewer	Email	Zip Code	
Alexander Strysky (857)408-6957, alexander.strysky@mass.gov	--	--	

Topic: There are better alternatives to the sludge landfill.

We need to look into alternatives to the sludge landfill expansion. Shame on our elected city officials to take us backwards instead of being a leader in green energy.

<https://www.veolia.com/en/solution/sewage-sludge-green-energy-biogas-wastewater> (<https://www.veolia.com/en/solution/sewage-sludge-green-energy-biogas-wastewater>)

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Status

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Rebecca Tepper, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs (EEA)
EEA No. 16643 (Alexander Strycky)
100 Cambridge Street, Suite 900
Boston MA 02114

Secretary Tepper,

1.30.2023

I am writing on behalf of the Connecticut River Conservancy (CRC), which is the principal environmental advocate for the protection, restoration, and sustainable use of the Connecticut River and its watershed. The proposed project, Gardner Sludge Landfill Expansion, EEA #16643, is in proximity to Otter River, within the Millers River watershed; the Millers River is a direct tributary to the Connecticut River and so is of interest to CRC. The Connecticut River watershed has some of the most pristine water bodies in the state; therefore, managing water in a sustainable way is of paramount importance to our organization, and we also look at the issue from many different perspectives.

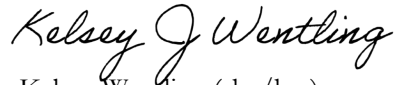
CRC recognizes the important work of wastewater operators to sustainably manage wastewater and biosolids, providing a critical service for the city. CRC is supportive of the comment submitted by Coalition for a Sustainable Alternative to the Gardner Sludge Landfill Expansion (Coalition) and will focus our comments on areas specifically related to water quality concerns.

The proposed project would impact 21,000 SF within a 100-foot Wetlands Protection Act buffer zone, representing a 30% increase in disturbance from existing conditions. As suggested in the Coalition's comments, CRC has concerns regarding potential contamination within the area that could impact surface water quality. Draft Massachusetts Integrated List of Waters for the Clean Water Act 2022 Reporting Cycle lists the Otter River in this area and downstream as impaired for Ambient Bioassays - Chronic Aquatic Toxicity, Dissolved Oxygen and Escherichia Coli (E. Coli). Given the proximity of this project to wetlands that connect to the Otter River, CRC is concerned about potential contamination from surface and ground waters that could further prolong these impairments.

CRC appreciates the consideration of alternatives to this project and understands the City's need to balance cost and environmental concerns. The report lists a number of alternatives, some of which are ultimately considered not feasible given concerns about PFAS contamination in compost and land applications. We are particularly interested in understanding more about how Alternative 5, Modify the WWTP to Add Anaerobic Digestion (AD), was assessed compared to landfill expansion. AD is not considered viable in the report due to the small scale of the WWTP, such that return on investment makes the project cost prohibitive. Given the landfill expansion is projected to only accommodate sludge disposal for the next 17 years, we would like to know over what period of time this return on investment was calculated and if cost-benefit calculations considered the monetary costs associated with the relative environmental impacts of each alternative. AD seems to provide a longer-term solution to sludge disposal and addresses CRC and the Coalitions concerns

about potential contamination of ground and surface waterbodies within the watershed. Thank you for your consideration of these comments, as well as the comments submitted by the Coalition for a Sustainable Alternative to the Gardner Sludge Landfill Expansion, which CRC fully supports.

Sincerely,

A handwritten signature in black ink that reads "Kelsey J. Wentling". The signature is fluid and cursive, with the first letters of each word being capitalized and prominent.

Kelsey Wentling (she/her)

River Steward

Connecticut River Conservancy

413-772-2020x216 | kwentling@ctriver.org

From: [Jo-Anne Burdin](#)
To: [Strysky, Alexander \(EEA\)](#)
Subject: EEA#16643-ENF Comment-Proposed Gardner Sludge Landfill Expansion
Date: Monday, January 30, 2023 7:58:58 PM

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Rebecca Tepper, Secretary of Energy and Environmental Affairs
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
Alexander Strysky EEA#16643
100 Cambridge Street, Suite 900
Boston MA 02114

Dear Secretary Tepper,

This letter contains my comments on the Gardner Sludge Landfill Expansion Environmental Notification Form (ENF). The expansion project raises important concerns with the ENF and the need for further in-depth analysis via an Environmental Impact Report (EIR).

The expansion of the current landfill depository is at best a temporary measure that could place public and private water supplies at an increased risk of permanent and irreversible contamination.

Forever chemical compounds, along with other chemical contaminants could create source pollution that could permeate the groundwater resource proximal to the public wells in Templeton and private wells in the area. Subsequent large ground water withdrawal could possibly suck up these contaminants and pollute the drinking water supply.

The expansion would further encroach upon protected conservation areas and valuable water resources such as wetlands and surface waters including the semi restored Otter River. Thanks to the Clean Waters Act there has been significant recovery in the health of the Otter River and the Otters have returned. The landfill expansion jeopardizes the continued recovery of the Otter River.

The Otter River is a major tributary of the Millers River which flows into the Connecticut River.

Degradation of water quality through contamination and pollution of the Otter River would pose a far reaching negative impact for many within the commonwealth.

Alternative solutions should be sought and a complete alternative analysis submitted.

Sincerely
Jo-Anne Burdin
299 Royalston Rd
Baldwinville (Village of Templeton)
MA 01436

From: [Ivan Ussach](#)
To: [Strysky, Alexander \(EEA\)](#)
Subject: Re: Coalition ENF comments re MEPA EEA #16643 — Gardner Sludge Landfill Expansion
Date: Monday, January 30, 2023 4:36:52 PM

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Hi Alex - There's a typo in the last paragraph of the Coalition MEPA comments document that I wish to draw your attention to:

"Thank you for your consideration of these comments. The Coalition's member organizations, listed below, agree that the ENF is **IN**adequate and a viable alternative to landfill expansion exists that will have substantially less impact on the surrounding environment."

Where I wrote "adequate" I meant to write "inadequate"--I think the context makes the meaning obvious, but it is important enough that I wanted to make you aware of it; I apologize for the inconvenience, and thank you for your attention to this matter - Ivan

Ivan Ussach
MRWC director
413-773-3830 - c

On Fri, Jan 27, 2023 at 12:36 PM Strysky, Alexander (ENV)
<alexander.strysky@state.ma.us> wrote:

Thanks, Ivan.

Alex Strysky

MEPA Office

100 Cambridge Street

Boston, MA 02114

Cell: (857) 408-6957

Please note that the EEA EJ Maps Viewer was updated and will apply to MEPA filings starting January 4, 2023. See [here](#) for additional guidance.

The MEPA Office has amended 301 CMR 11.00 for promulgation on January 6, 2023. See [here](#) for details.

From: Ivan Ussach <ivan@millersriver.net>
Sent: Friday, January 27, 2023 12:26 PM
To: Strysky, Alexander (EEA) <alexander.strytsky@mass.gov>
Subject: Coalition ENF comments re MEPA EEA #16643 — Gardner Sludge Landfill Expansion

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Strysky,

Please find attached the following documents submitted by MRWC for the **Coalition for a Sustainable Alternative to the Gardner Sludge Landfill Expansion (Coalition)**; MRWC may submit its own comments separately:

* COALITION MEPA EEA #16643 COMMENTS 1-27-23

--This document makes reference to the following attachments:

- * Gardner SLF 1-mile Radius Site Map
- * Comments by Mike Wilczynski
- * Comment by Denise Trabbic-Pointer
- * Comments on Project Alternatives
- * Plan of Taking by the Town of Gardner for Cemetery and Park Purposes
- * Gardner SLF Proximity to Env. Justice
- * Environmental Justice Concerns

Kindly acknowledge receipt if possible.

Thank you - Ivan

Ivan Ussach, director

Millers River Watershed Council

413-773-3830 - c



alexander.stryisky@mass.gov

Dashboard(javascript:void(0);) > **View Comment**(javascript:void(0);)

[View Comment](#)

—

Topic: No sludge landfill

Please do not expand the sludge landfill. It will bring more pollution and health problems to the residents of this city.

Attachments

Update Status

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alexander.stryisky@mass.gov

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View Comment

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Topic: Gardner Sludge Landfill

It is disappointing that city officials had 9 years (since 2014) to come up with a solution. The best they could come up with is start a larger dehydrated poo pile closer to the river. The current poo pile can be smelled by residents in the area. The addition of a larger poo pile will only increase the bad aroma issue. I do not think that the plan to add a larger dehydrated poo pile (only good for 17 years) next to the old poo pile is in the best interest of the city residents. This is a short term solution to a long term problem. The residents of Gardner are requesting from the State of Massachusetts a grant for a more environmentally friendly long term solution.

Attachments

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Comment Details

EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	erin	--	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-31-2023	kiewel	--	Individual
Certificate Action Date	Phone	State	Status
1-31-2023	+19786606170	MASSACHUSETTS	Opened
Reviewer	Email	Zip Code	
Alexander Strysky (857)408-6957, alexander.strysky@mass.gov	erin.kiewel@gmail.com	01440	

Comment Title or Subject

Topic: WhAt ThE sLuDgE?

Comments

To those who may be concerned

Gardner has been my hometown my entire life excluding my time in Boston for college and my time in Texas working for AmeriCorps and the NPS. I chose to return as an adult and buy a house here with my spouse. Since I have spent many years living here I have had the opportunity to see how the city is run and the ramifications of the decisions of those in power. To my observation we as a city have decided to plan and execute projects which ultimately leave people feeling unheard and bullied and our woodlands ravaged and turned to well lit parking lots. We never talk of the cost to our forest critters and waterways, only in the language of dollars and cents (but often without sense).

From the information I learned at the site visit I cannot support this project. The project will cost over \$4million and only buy us 17 more years of sludge storage. The area surrounding the current set up is conservation land and wetlands and cemeteries, all places to contemplate our short existence on this planet. Expanding the current sludge landfill feels like a betrayal to all the babies and children around me. I cannot in good conscience look at them in their faces and tell them that the only solution we could dream up was to poop in the river for 17 more years, knowing that its bad for nature and for us.

I wish for once people who run this city realize they are the ones with the power to make a better and healthier decision instead of saying there are no other options. It's time to grow up, get creative, and figure out a viable solution. The future of our health and out part of the planet depends on it. I pray the days of sh*tting in the river are over.

Attachments

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Comment Details

EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	Hugh	--	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-31-2023	Jardon	--	--
Certificate Action Date	Phone	State	Status
1-31-2023	--	--	Opened
Reviewer	Email	Zip Code	
Alexander Strysky (857) 408-6957, alexander.strysky@mass.gov	markmonahan4gardner@gmail.com	--	

Comment Title or Subject

Topic: It's Poop Again!

Comments

Hi, this is a big stinking issue in our city! The neighbors don't want our city making their water and air shitty! In all seriousness, there has got to be a better way but at what cost? My understanding is that any alternative would be outrageously expensive with no ROI or possibly negative ROI! Now that sounds like a shitty investment! Everything in economics is a tradeoff! However, our city would be creating a negative externality for the surrounding towns. Many stakeholders, both in our city and outside would potentially be affected if it were to somehow contaminate the surrounding environment. Both second and third level consequences need to be considered, not just the first level ones. Also, if we were to go a different way then what is the tradeoff and opportunity cost? Will we take money away from the schools, raise taxes or not fix the roads to pursue a different option? Considering this issue has the potential to negatively impact a region rather than just a city, it seems like it should be a prime candidate for a federal or state grant to help come up with an option that won't shit on our neighbors.

Attachments

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Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

100 Cambridge Street 9th Floor Boston, MA 02114 • 617-292-5500

Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

Gary Moran
Acting Commissioner

January 31, 2023

Rebecca Tepper
Secretary of Environment and Energy
Executive Office of Energy and
Environmental Affairs
100 Cambridge Street, Suite 900
ATTN: MEPA Office
Boston, MA 02114

RE: ENF Review. EOEEA 16643
GARDNER. Gardner Sludge Landfill at
808 West Street, Gardner
Date noticed in Monitor: December 23, 2022

Dear Secretary Tepper:

The Department of Environmental Protection (MassDEP), Boston and Central Regional Office (CERO) have reviewed the Environmental Notification Form (ENF) for the Gardner Sludge Landfill Expansion Project at 850 West Street, Gardner, Massachusetts (EOEEA 16643). The Project Proponent provides the following information for the Project in the ENF:

The City of Gardner, Massachusetts (the City) is proposing to construct a 4.3-acre expansion to the existing sludge landfill located off West Street (Route 68.) The landfill receives biosolid residuals (sludge) from the City's Wastewater Treatment Plant (WWTP) and is anticipated to reach maximum capacity in the next few years. The landfill expansion will increase the capacity of the landfill by approximately 276,500 cubic yards, which is conservatively projected to accommodate the City's sludge production for at least seventeen years. The proposed expansion is immediately to the west of the existing landfill with filling continuing as an extension of the western face.

Further details are provided below:

- **Existing Site Conditions.** The site of the proposed landfill expansion was designated for use as sludge landfill operations in 1985 by the Massachusetts Department of Environmental Quality Engineering Central Region. The nearby wetland resources delineations and designation depicted on the project drawings were approved by MassDEP in a Superseding Order of Resource Delineation (SORAD), dated September 17, 2021.

This information is available in alternate format. Please contact Melixza Esenyie at 617-626-1282.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

- **Groundwater Protection System.** The expansion will be constructed with a double composite groundwater protection system (GWPS) with leak detection.
- **Landfill Operations.** Sludge placement in the landfill is anticipated to continue at the current rate based on population projections remaining constant for the next twenty years, with no plans to expand the sewerage collection system, and no plans to import sludge from other sources. Inspections and monitoring will continue to be performed to control access, odor, dust, vectors, leachate, stormwater, and erosion. Two additional monitoring wells will be sampled and analyzed to observe groundwater characteristics upgradient and downgradient of the landfill expansion.
- **Leachate Management.** Leachate produced by the landfill expansion will be directed to the City's existing sewerage collection system. The leachate collection and conveyance system for the expansion was designed to accommodate precipitation that would become leachate under worst-case extreme storm conditions.
- **Stormwater Management.** Stormwater runoff was modeled for various storm events under existing, filling, and closure conditions. Best Management Practices designed for stormwater treatment, attenuation, and groundwater recharge comply with the Massachusetts Stormwater Handbook.
- **Landfill Closure.** The landfill expansion was designed to accommodate a cap after it has reached capacity.
- **Gas Management.** Passive venting is proposed to manage the small amount of gas produced by the sludge decomposition.

In correspondence with the Project Proponent, MassDEP was provided the following additional information, "The total land area to be altered by the landfill expansion project is approximately 8.75 acres. This includes the area of the original landfill that will receive additional sludge from the proposed expansion, and the existing roadway that will be temporarily altered by the installation of the leachate force main. The average amount of sludge to be disposed of at the landfill on a daily basis is 5 dry tons per day, five days per week." Also, sludge at the Gardner Wastewater Treatment Plant is dried using centrifuges. MassDEP was informed that, "The centrifuges are producing a sludge cake with a solids content varying between 26.5 percent and 30.3 percent." Therefore, the sludge landfill expansion is expected to receive a maximum of 6.5 wet tons per day.

The City's existing sludge landfill has historically been the source of many odor complaints. Recently the City has improved Operation and Maintenance (O&M) practices and there have been fewer such complaints. MassDEP anticipates that a revised O&M plan will be needed to address the expansion of the sludge landfill.

MassDEP's Wastewater Program in Boston is responsible for issuance of the permit being sought through the WM33 permit application discussed in more detail in the Wastewater section

below. According to MassDEP “Policy on the Design and Operation of Sludge Landfills”, “To reduce the possibility of groundwater, surface water, and air quality degradation, sludge-only landfills should be designed and operated according to standards applicable to sanitary landfills.” Therefore, MassDEP uses solid waste regulations 310 CMR 19.00 for design criteria of sludge landfills. The Wastewater Program and the Solid Waste Program are coordinating on landfill design and monitoring requirements. MassDEP will require compliance with sampling requirements for landfills detailed in 310 CMR 19.00, and the Solid Waste Program’s policies guidance, and any future revisions thereto.

Wastewater

MassDEP Wastewater provides the following comments on the proposal:

- The project is proposed to be constructed in a single construction method for all three proposed cells. MassDEP is concerned that the single construction method will result in greater potential for erosion, operational challenges, and degradation of the landfill liner and prefers a phases approach. MassDEP will request further details on how the City will protect the landfill structure during and after construction, and how phasing of the project may minimize potential erosion, siltation and degradation of landfill liner materials.
- The City is proposing not to cap the landfill or submit the Closure Plan until 2041. The existing landfill has received several odor complaints over the past few years. Also, it is basically at capacity and should be capped in accordance with an interim capping plan. The problem with odors and/or erosion will most likely continue until the existing sections are capped. The expansion will abut the western section of the existing landfill, so that section may not need to be capped until 2041, however, it is MassDEP’s position that the remaining sides need to be capped in order to mitigate leachate production, reduce odors, stabilize slopes, and improve stormwater management.

The Proponent is seeking MassDEP Approval of Wastewater Treatment Residual Landfills through a WP33 application process. Legislative authority for this approval is stated in Massachusetts General Laws, Chapter 21, sections 27 and 43(2); Chapter 83, sections 6 and 7; and Chapter 111, sections 17.

Other applicable wastewater regulations include 257 CMR 2.00: Certification of Operators of Wastewater Treatment Facilities, 314 CMR 7.00: Sewer System Extension and Connection Permit Program, 314 CMR 12.00: Operation, Maintenance and Pretreatment Standards for Wastewater Treatment Works and Indirect Dischargers, 314 CMR 3.00: Surface Water Discharge Permit Program, 314 CMR 4.00: Surface Water Quality Standards, and 314 CMR 5.00: Groundwater Discharge Permit Program.

The Wastewater Program will coordinate with the Solid Waste Program during permitting to ensure that the current design standards for this type of landfill are fully met. This project also includes construction of a new leachate pump station for the expansion as well as upgrading the existing leachate pump station.

Stormwater Management/National Pollutants Discharge Elimination System (NPDES) Permit. The Proponent has identified that the Project may need a Construction General Permit and/or a Multisector Stormwater Permit under the NPDES program.

Solid Waste Management

MassDEP Solid Waste Management adds the following comments on the proposal:

- Section 3.3 of the ENF discusses the proposed mitigation measures for the project and mentions “environmental monitoring with sampling and analysis performed three times per year to assess potential effects on the groundwater and nearby surface waters” but does not mention environmental monitoring for landfill gas in accordance with Solid Waste Management Regulations 310 CMR 19.132(5). It is noted that Section 8 states that the groundwater protection system will restrict landfill gas from entering the subsurface and that the gas will follow the path of least resistance and migrate to the landfill surface to passively vent. However, during the winter, the ground surface may freeze, thus preventing the landfill gas from venting through the surface. During these times it would be beneficial to confirm that landfill gas is not migrating away from the landfill towards onsite structures or towards offsite properties. The applicant should revise the Application to include a detailed discussion for the proposed monitoring of landfill gas produced at the site to comply with 310 CMR 19.132(5).
- Considering the Applicant plans to construct the full expansion footprint rather than constructing the landfill in phases, if the applicant continues to pursue full construction rather than phasing, the applicant is requested to expand on the information contained in Section 3.2 of the Engineering Report contained in Appendix A of the ENF submittal to provide details on proposed additional inspection and maintenance tasks that will need to be performed to ensure the landfill cell drainage sand layer will continue to function as intended and not experience a decrease in permeability from siltation, erosion, blowing dust, vegetative growth, etc.
- Since this Application for an expansion of the Gardner Sludge Landfill proposes to place additional waste above the previously approved grades in this area, this project is considered both a horizontal and a vertical expansion and therefore shall comply with the requirements of 310 CMR 19.110. Additionally, since the existing Gardner Sludge Landfill only has a single 60-mil HDPE liner with leachate collection system, this area should have a hydraulic separation layer installed over it in accordance with 310 CMR 19.110(5)(c). Specifically, 310 CMR 19.110(5)(c)(1) which states "a hydraulic separation layer shall be constructed using technologies or components that will result in a system that prevents, to the maximum extent possible, leachate generated in areas approved after the effective date of these regulations from mixing with leachate collected in areas approved prior to these regulations. In general, such systems shall use combinations of low permeability barriers and high-capacity drainage systems. All leachate intercepted by the hydraulic separation layer shall be directed to and collected in a lined area designed in accordance with the requirements of 310 CMR 19.110(4). The applicant is requested to revise all applicable parts of the Application, including but not limited to the Drawings, to indicate that a hydraulic separation between the existing landfilled wastes and the

waste placed in the area of the proposed landfill expansion will be constructed as part of the project.

- Section 5.2.2 discusses the leachate management system stating that the HELP Model was used to evaluate the leachate collection system's performance under extreme weather conditions. It appears that version 3.07 of the HELP Model was used to perform these calculations, which is an old version of the software. The Solid Waste Management program requires the use of the most recent version of the HELP Model when performing these types of analyses. The applicant is requested to revise all HELP Model calculations performed for this design using the most recent version of the HELP Model, which, as of the time of this writing, is version 4.0.
- Section 5.3 discusses the Secondary leachate collection detection system and states that a flow meter will be used to measure the Action Leakage Rate, which is proposed to be 100 gallons of leachate per acre per day on a 30-day rolling average. The Applicant is requested to provide a detailed discussion of the steps that would be taken in the event the Action Leakage Rate is exceeded.
- Section 6.5.4 discusses the Stormwater pretreatment design and states that pretreatment of the stormwater flows to the various basins will be "in the form of deep sump catch basins installed at the low point of each grass-lined swale." The Applicant is requested to provide a detailed discussion of the proposed inspection and maintenance tasks to be performed on the swales to prevent reduced capacity in the sumps and blockages of the beehive grates due to grass and sediment buildup after periodic mowing of the grass-lined swales and landfill side-slopes.
- Section 6.6 describes the compliance of the closure condition of the landfill to the Massachusetts Stormwater Standards but does not provide any information on how the operating landfill, which will be open for seventeen years prior to the proposed closure of the expansion area. The Applicant is requested to revise the Application to provide a detailed discussion of how the operating landfill will comply with the Massachusetts Stormwater Standards.
- Section 7 of the Application states, "Closure of the sludge landfill expansion is proposed to occur as a single event together with the original landfill closure, after filling has been completed in all landfill cells" and goes on to state, "The predicted date of closure is 2041 or later." Massachusetts Solid Waste Regulations 310 CMR 19.115(e)(1)(a) state that "The application of final cover...shall begin to be applied to a section of the landfill as soon as possible, but no later than 90 days, or other schedule as approved by the Department, after...a new lift has not or will not be applied within a one year period unless the area is permitted to accept additional waste, upon reaching final approved elevations, whenever a phase of the landfill has been completed, or whenever the permit expires or terminates for any reason, or is revoked." The Applicant is requested to provide a detailed discussion of how none of the above circumstances apply to provide justification for not capping any portion of the landfill until 2041 or later or revise the Application to state that all or part of the existing landfill will be capped as part of the proposed expansion project to comply with 310 CMR 19.1155(e)(1)(a).
- Detail 5 on Sheet C-301 shows the proposed cell division berm that includes a leachate collection and removal pipe encases in 3/4-inch crushed stone. The detail also shows a "geotextile fabric separator" around the stone; however, it is difficult to determine if it completely surrounds the crushed stone. The Applicant is requested to confirm that the

geotextile fabric completely encases the 3/4" crushed stone and indicate which material is being proposed for use in this instance with a discussion of whether it will provide adequate protection from abrasion, puncture, or other damage to the 60-mil HDPE geomembrane flap. Additionally, to protect the HDPE flap from ultraviolet degradation, the HDPE geomembrane flap should be covered. The Applicant is requested to revise the detail to include a proposed method to prevent degradation of the geomembrane flap due to exposure to sunlight.

Stormwater

The Project will create 4.1 acres of new impervious surfaces and is subject to the Massachusetts Stormwater Standards (the "Standards"). The Stormwater Management Report contained in the ENF demonstrates compliance with the MassDEP Stormwater Management Regulations at 310 CMR 10.05(6)(b) and 310 CMR(6)(k-q). MassDEP will review compliance with the Standards as part of the appeal.

Air Quality

Passive venting is proposed to manage the gas produced by the sludge decomposition. MassDEP believes that rather than passive venting of gas, the sludge landfill expansion should include a gas collection system that is connected to the existing gas collection system. The additional gas generated by the expanded sludge landfill would then be burned in the existing flare that was initially approved for installation and operation in Air Quality Plan Approval TR# 067859 in 2005, and subsequently amended 2008.

Collection and control of additional gas generated by the expansion may mitigate potential odor issues and will reduce the level of methane (a greenhouse gas) emitted to the atmosphere.

Wetlands

A portion of the stormwater management system associated with the sludge landfill, as well as grading operations, will be located within the 100-foot Buffer Zone (BZ) to Bordering Vegetated Wetlands (BVW). The project will alter approximately 21,000 square feet of BZ, of which 70% was previously disturbed. No wetland resource areas are proposed to be altered by the project, and all waste will be disposed of beyond the BZ. Due to the proposed work within the BZ, the Proponent filed a Notice of Intent with the Gardner Conservation Commission (the "Commission") and MassDEP on or about June 22, 2022. The Commission issued an Order of Conditions (OOC) approving the project on November 18, 2022. On December 1, 2022 an abutter to the project submitted a Request for Departmental Action appealing the OOC (the "appeal"). MassDEP will conduct a site visit and may request additional information from the Proponent related to design components of the stormwater management system, stormwater modelling, depth to groundwater, impacts to nearby wetlands, or construction period erosion/sedimentation controls prior to the issuance of a Superseding Order of Conditions.

MassDEP appreciates the opportunity to comment on this proposal. If you have any questions regarding these comments, please contact Jennifer Wood at Jennifer.wood@mass.gov.

Sincerely,



Lealdon Langley, Director
Division of Watershed Management
Massachusetts Department of Environmental Protection

cc:

Alexander Strysky, MEPA Analyst
Lauren Saunders, Director of Public Health, Gardner Health Department
Dane E. Arnold, Director of Public Works
Janice M. Greenwood, P.E., Woodard & Curran
Ivan Ussach, Director, Millers River Watershed Council, Inc.
Kathleen Baskin, Assistance Commissioner, Bureau of Water Resources
MaryJude Pigsley, Deputy Regional Director, BWR
Deneen Simpson, MassDEP Director of Environmental Justice and BPE Program Manager
Marielle Stone, Deputy Regional Director Central Region MassDEP (CERO)
David Boyer, CERO Wastewater Section Chief
Bruce Bouck, MassDEP Hydrogeologist
Richard Friend, MassDEP Hydrogeologist
Dan Guglielmi, CERO Solid Waste Management Program
JoAnne Kasper-Dunne, CERO
Judith Schmitz, CERO Wetlands
Jennifer Wood, MassDEP NPDES and Residuals

From: [PAUL DEMEO](#)
To: [Strysky, Alexander \(EEA\)](#); [Tepper, Rebecca \(AGO\)](#)
Cc: [Alan Rousseau](#); [PAUL DEMEO](#)
Subject: EEA# 16643 Gardner Sludge Landfill Expansion
Date: Tuesday, January 31, 2023 12:47:50 AM
Importance: High

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9 Willis Road

Gardner, MA 01440

January 30, 2023

Rebecca Tepper
Massachusetts Secretary of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Tepper,

First off, let me start off by saying your office should request a full Environmental Impact Report for EEA# 16643, Gardner's Sludge Landfill expansion project to be Seventy feet in height (seven stories), covering over four acres of currently forested land and affecting six acres of land.

Mayor Michael J. Nicholson, the proponent of the landfill and the signer of MEPA Documents, chose not to attend the MEPA site visit on Tuesday January 17th organized by MEPA analyst Alexander Strysky. Not only did Nicholson not attend, not one member of Gardner's City Council and the entire Gardner Conservation Commission attended.

Gardner is a heavily populated Social Justice Community (79.8%) as designated by the Commonwealth of Massachusetts and very close to the proposed landfill expansion. The Social Justice Community (numbering 16,758) and the residents of the City of Gardner were not notified by Mayor Nicholson of the MEPA Site Visit on January 17 and that they were invited to attend. The mayor runs a weekly media program, has a City Hall Web Page, a City Hall Facebook Page, and his personal Facebook page in which he posts city business but not on one of these sources did he ever let the public know of the MEPA Site Visit or that they had an opportunity to voice their opinion on the project. Mayor Nicholson has access to The Gardner

News and failed to provide them with a Public Statement.

The MEPA Site Visit on January 17th failed to walk the proposed site of the expanded landfill. This area includes the fragile vernal pools, mature forested land, and the precious glacial esker which are very unique to the area.

The current sludge landfill has not been operating properly with numerous breaches of the storm water management system in which the EPA and DEP were notified.

Because of my complaint, the EPA found the City of Gardner to be lacking a permit in which the agency allowed Gardner to get without any sanctions or fines. (photo attached showing failure of storm management and damage to wetlands)

It has been proven that ground water flows to the Northwest of Gardner's Sludge Landfill toward Bailey Brook, Gardner's only native trout brook.

City of Gardner failed to provide alternatives along with a financial analysis of different options.

Gardner's Conservation Commission failed in their fiduciary responsibility in not upholding Gardner's Wetland Ordinance in which they swore an oath, to uphold, when they took office. The commission failed to request a site visit from the engineering firm they hired to do a peer review for the DEP, Notice of Intent. The commission approved the Notice of Intent without requesting a wildlife study of the area to include wildlife corridors.

City distribution list failed to notify all abutters and organizations within a mile, and the Town of Templeton, a municipality affected by the project. City of Gardner never consulted the Town of Templeton as to their concerns and the close proximity to Town Public Drinking Water Wells.

Air quality has been an ongoing problem with the current sludge landfill that the City of Gardner has failed to address. They keep passing the liability to the hired contractor, hired to run the landfill.

Mayor Nicholson failed to notify Annunciation Parish (Holy Rosary Church) of which he is a parishioner, of the City of Gardner's plans to expand the sludge landfill. Anyone visiting the Catholic and City Cemeteries which abut the sludge landfill, have experienced the nauseating odors from the human waste. "Pope Francis emphasizes that the protection of the poor (Environmental Justice) and of the earth are connected: The poor suffer most when the earth is abused; our indifference to the poor is reflected in our mistreatment of nature. "Solidarity" should be re-imagined to extend both to the poor and to the earth."

Unfortunately Mayor Nicholson disagrees with the teachings of Pope Francis, in protecting the earth.

Though Mayor Nicholson was invited numerous times by myself and abutter Alan

Rousseau to tour the proposed sludge landfill expansion site, to the best of our knowledge Nicholson has never walked the forested and fragile esker land.

In closing, the Office of Environmental Affairs and MEPA have an obligation to the Environmental Justice Community of Gardner, which numbers Seventy Nine Percent of the population, to require a FULL Environmental Impact Report from the City of Gardner. Failure to do so, would be an injustice to the low-income residential population of Gardner and the Commonwealth of Massachusetts, Environmental Justice initiative.

Sincerely,

Paul N. DeMeo





From: [Rice Flanders](#)
To: [Stryisky, Alexander \(EEA\)](#)
Subject: EEA#16643/ ENF Comment: Proposed Gardner Landfill Expansion
Date: Tuesday, January 31, 2023 9:13:38 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good morning, Alexander Stryisky:

In haste (for which I apologize), I am adding my whole hearted support to the recent letter from our Board president, David Brule, stating our opposition, and the reasons for that opposition, to the proposed expansion of the Gardner Landfill.

Thank you.

Rice Flanders

Vice President, MRWC Board of Directors

Sent from my iPhone



alexander.stryisky@mass.gov

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Comment Details			
EEA #/MEPA ID	First Name	Address Line 1	Organization
16643	Tim	143 Vernon St	--
Comments Submit Date	Last Name	Address Line 2	Affiliation Description
1-31-2023	Gurczak	--	Individual
Certificate Action Date	Phone	State	Status
1-31-2023	+19782048103	MASSACHUSETTS	Opened
Reviewer	Email	Zip Code	
Alexander Stryisky (857)408-6957, alexander.stryisky@mass.gov	timgurczak@gmail.com	01440	

Topic: Best Choice Or Convenient Choice?

The City of Gardner has an obligation to all of its taxpayers, but more important to protect all of its people, present and future (as well as the people of the surrounding areas). City officials must consider the effects upon those who have no say—those not-yet-born and those not old enough to participate in voting. We all must consider their lives and their health most of all.

One city representative at the site visit with MEPA on 1/17/23 said they ‘trusted the science’ in the strength of the double liner to hold and not leak into the groundwater. This science we are asked to trust will also tell us that knowingly choosing a project which increases the likelihood of groundwater contamination—however small—is to be avoided. This is an effect that cannot be undone. We cannot allow the idea of discomfort to opposing taxpayers be held above the protection of our water for the yet-to-be born citizens of Gardner the surrounding areas connected to this water source. For choices like that end up costing more in the present and in the future.

What are the criteria necessary for the DPW and the City Of Gardner to adapt their plans away from the sludge landfill expansion as it is currently proposed? They acknowledged there are alternatives that have their own sets of pros and cons but did not detail what price points or technology would need to be available for the idea to be of interest to them. They mentioned a city report that is now many years old. One official mentioned 'the city' would likely not want to pay for another analysis of alternate technology anyway. The knowledge about the current likelihood of Fitchburg’s possible Anaerobic Digestion facility coming online seemed to be cursory at best and city officials seemed unlikely in becoming more aware of its current developments.

This project is projected to accommodate disposal for only 17 years.

And then what?

The best course of action for today is the same best course of action for the next 100 years. We must be careful and not be ruled by what is deemed 'cost effective' without evidence, for losing clean water and air are far greater costs than what shows on balance sheets.

We will all be judged on whether we chose the best choice or chose the convenient choice: one that will only be of twenty years' use but has effects that could last much, much longer.

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From: [Vicki Heidorn](#)
To: [Stryisky, Alexander \(EEA\)](#)
Subject: Gardner Sludge Landfill project (EEA# 16643)
Date: Tuesday, January 31, 2023 11:01:44 AM
Attachments: [image001.png](#)

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Stryisky:

Thank you for coming to Gardner to listen to the community regarding the effects of the sludge expansion proposal. I attended the meeting.

Please issue a finding that the environmental impact of this proposed Gardner Sludge Landfill project (EEA# 16643) is SEVERE and PERMANENT.

The affected area is vital to gentle recreation and to wildlife freedom of movement.

Please see the attached map. When you look at the map of the one-mile radius of the sludge expansion area, the expansion area looks like it is a tiny dot amongst the Gardner Landfill area. It is not TINY. The sludge mountain is planned to be 70 feet up in the air, dominating the area. You can see the waterways on this map. The woods clean the rainfall on its way to the rivulets, streams, and rivers.

At the meeting we heard that the new sludge capacity will be filled after 17 years of collection. When the trees are torn out to build the sludge containment area, the natural ability to produce oxygen from the trees will be gone. The natural filtration of rainwater will be gone. The entire area offers freedom of movement for wildlife. Permanently losing beneficial woods and beautiful gentle recreation land for only 17 years is shortsighted.

I understand that Fitchburg has a sludge processing plant coming online in about 2 years that needs participation from outside communities. The amount of waste requiring disposal from the Fitchburg plant is significantly less than the proposed sludge expansion project. This new information was not available when the City Council endorsed the plan in 2016. I believe the Fitchburg facility will provide a practical alternative to the sludge expansion project. I hope the Gardner officials will pursue this and any other new technology to solve our sludge waste treatment and disposal.

The amazing attraction of Gardner is the quality of life in our landscape. Children and adults of all diversity are able to ramble on public land and conservation land. There is room for wildlife to coexist. The sludge expansion area is SO BEAUTIFUL that it breaks my heart to think it will be permanently gone. My family and I have hiked the Cummings Otter River Conservation Area, the

Wildwood Cemetery Forest, the Ebenezer Keyes Conservation Area, the Gardner City Forest, and the Gardner conservation land many times, and we have met other people on the land during our recreational walks.

Even if people did not use the land, it is being used by all kinds of animals and plants, providing clean air and natural filtration of rainwater.

Please issue a finding that the environmental impact of this project is SEVERE and PERMANENT and that an Environmental Impact Report (EIR) be required for the proposed expansion so that further analysis of proposed expansion impacts can be done.

Thank you.

Sincerely,
Gardner Resident and Gardner business owner
Victoria (Vicki) Heidorn
978-895-6115
12 Crystal Lake Dr.
Gardner, MA 01440

