



LOWER WINDSOR TOWNSHIP

Board of Supervisors

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Via Email

October 9, 2023

DEP SCRO
Clean Water Program
909 Elmerton Avenue
Harrisburg, PA 17110
RA-EPNPDES_SCRO@pa.gov

***Re: Comments on Proposed NPDES Permit PA0046680
For Modern Landfill, Republic Services of Pennsylvania, LLC***

Dear Department of Environmental Protection:

As the Chairman of the Board of Township Supervisors I am writing behalf of Lower Windsor Township ("Township"), one of the host municipalities for the Modern Landfill ("Modern Landfill" or "the Landfill") operated by Republic Services of Pennsylvania, LLC ("Republic Services"), to provide comments and express concerns regarding the proposed NPDES permit renewal for the Landfill ("the proposed Permit"). These comments have been developed in consultation with the Township's outside environmental counsel.

The Landfill is an important subject of concern to the Township and its residents, and we urge the Department to ensure that our residents, our natural resources, and our environment are protected to the maximum extent provided by the Constitution and laws of the Commonwealth of Pennsylvania.

The followings comments include recommendations and requests for changes to the requirements of the proposed Permit, as well as number of questions where we ask that the Department provide a more detailed explanation of the basis for the choices made in developing the proposed Permit. We are aware that the Department will provide a Response to Comments document upon permit issuance and encourage the Department to treat that as more than a box-checking exercise and instead as an opportunity to more fully inform and educate the citizens who are mostly directly impacted by the Landfill of the reasoning and analysis behind the requirements of the Permit. We would request that effort not only for the comments set forth in this letter, but in response to all comments and questions submitted by our residents.

Our specific comments are as follows:

Conestoga Landfill Leachate

1. The Township has a general objection to the transfer of leachate from the Conestoga Landfill (“Conestoga Leachate”) to the Modern Landfill. The Fact Sheet for the proposed Permit does not offer any explanation as to why this has been requested by Republic, or why it should be allowed. Presumably this is a circumstance where cost savings are being sought by Republic despite the increased risk and threat to the environment from the additional pollution that will be introduced to the Township by the transfer of the Conestoga Leachate. Presumably the Conestoga Leachate will be transferred by truck, yet the Fact Sheet evidences no consideration of the amount or timing of the truck traffic that shipping the Conestoga Leachate will impose on the community around Modern Landfill. The impacts to the Township and its residents from the shipment of the Conestoga Leachate, in the form of traffic, noise, accident risk and potential for spills and releases, should be fully evaluated in all respects before any such authorization is granted.
2. Modern Landfill’s recent compliance history demonstrates that the Landfill has been challenged to meet the limits in its current NPDES permit. The proposed Permit appropriately includes new and additional limits that are being made applicable to the Landfill’s discharge. The Landfill is attempting to solve its pre-existing compliance challenges with the installation and operation of a new reverse osmosis treatment system. While such upgrades to wastewater treatment at the Landfill are welcome, they are as of yet unproven. The Landfill should be required to demonstrate that it can consistently meet the existing limits in its current permit, and the new limits in the proposed Permit before it is allowed to introduce a new waste stream into its already challenging wastewater discharge situation. Accordingly, the request to transfer leachate from Conestoga Landfill to Modern Landfill should be denied at this time.
3. The Township is aware that the Fact Sheet indicates that the Landfill will require other permitting before the Conestoga Leachate can be brought to Modern Landfill. However, the fact that other permits are required is not a basis to rubber-stamp the request to import Conestoga Leachate to Modern Landfill by issuing approval to do so with this NPDES permit. The importing of the Conestoga Leachate would appear to have a much more direct impact on the wastewater discharge from Modern Landfill than it will on other Landfill operations, and accordingly this NPDES approval process is the most important stage at which to draw the line and prohibit the leachate from being imported until and unless the issues noted in these comments are addressed and resolved.
4. The proposed Permit does not appear to include any limits on the amount of Conestoga Leachate that can be imported to Modern Landfill. Flow/volume limitations to ensure that the amount of Conestoga Leachate brought to Modern Landfill does not exceed the volumes assumed or expected by the Department in its review of the Landfill’s permit application should be incorporated into the permit.
5. The proposed Permit also does not appear to include any requirements to measure, record or report the amount of Conestoga Leachate that is brought to Modern

Landfill, or the dates and times that it is received, or when it is introduced into the wastewater treatment system. The Landfill should be required to collect, record and report all such information.

6. There is no correlation or coordination required by the Permit as between the importing of Conestoga Leachate and its introduction into the Modern Landfill wastewater treatment system, and the dates and times of effluent monitoring. If, for example, Conestoga Leachate always arrives on a Monday, and Modern Landfill always takes its samples on a Friday, the monitoring results would essentially always miss the impact of the Conestoga Leachate on the Modern Landfill discharge. Alternatively, if Conestoga Leachate is always introduced to the Modern Landfill discharge when effluent samples are being collected, then the Conestoga Leachate could dilute and mask problems with the Modern Landfill leachate. Accordingly, should the Conestoga Leachate be brought to Modern Landfill, enhanced effluent monitoring should be included in the final permit to ensure that the quality of discharge from Modern Landfill is sampled and evaluated both i) by itself and ii) if and when combined with Conestoga Leachate.
7. It does not appear that any antidegradation analysis was conducted in the context of the new and increased discharge and pollutant loadings that would result from transfer of Conestoga Leachate to Modern Landfill. The Antidegradation discussion in the Fact Sheet (page 57) is extremely cursory. The Department should require an antidegradation analysis prior to any approval for the importation of Conestoga Leachate to Modern Landfill to ensure that existing and designated uses of the receiving water are protected. The requirement exists regardless of whether any High Quality or Exceptional Value waters are affected by the discharge. *See* 25 Pa. Code § 93.4a(b). The Department should clearly identify what existing and designated uses are at stake, and how they will be protected even if Conestoga Leachate is brought to Modern Landfill.
8. It is not clear from the Fact Sheet whether Conestoga Leachate will introduce any additional PFAS loading to the Modern Landfill effluent. The extent of any PFAS loading from the Conestoga Leachate should be fully understood before it is allowed to be introduced to Modern Landfill. This would include ensuring the existence of a statistically significant data set that includes testing and analysis for a wide range of PFAS chemicals (e.g., the 40 PFAS compounds that can be tested by draft method 1633), over multiple samples, to determine the PFAS speciation, concentration and loading from the Conestoga Leachate.
9. The Fact Sheet (page 28) says the TDS loading of the Landfill discharge is not expected to increase by more than 5000 lbs./day, even if Conestoga Leachate is brought to Modern Landfill, based on the TDS *concentrations* in the Conestoga Leachate being lower than TDS concentrations from Modern Landfill. But this analysis confuses *concentration* with *mass loading*. The Department should evaluate the mass loading of TDS from the Conestoga Leachate in order to determine the extent that the TDS loading from the combined Modern and Conestoga Leachate will increase. Based on the TDS baseline discussion (Fact Sheet at p. 51) it would appear that if a loading of 1,247 lbs. of TDS per day or greater is contributed by the

Conestoga Leachate, this would result in an exceedance of the 5,000 lb. threshold established in 25 Pa. Code § 95.10(a)(7).¹

10. The Fact Sheet (page 2) speculates that cadmium from the Conestoga Leachate will be diluted by the ML wastewater and imposes only a monitor and report requirement. In order to protect water quality, there should be a cadmium effluent limit if Conestoga Leachate is brought to Modern Landfill. Since Modern Landfill will already be monitoring for cadmium, the imposition of a limit does not increase the Landfill's costs, unless of course it turns out the effluent is exceeding that limit, in which case having a limit established will be imperative. If it later turns out that discharge of Conestoga Leachate produces effluent well below any applicable Water Quality Based Effluent Limit (WQBEL) for cadmium, then it might be appropriate to consider reducing that limit to a monitor-only requirement in future permits.
11. The Fact Sheet indicates that the Department is relying on an SDS for information on the toxicity of tetrahydrofuran. However, this appears to assume no cumulative effect with other toxic components in the Landfill discharge. It is suggested that the Department conduct a more thorough evaluation of the toxicity and potential effects of tetrahydrofuran from the Conestoga Leachate. See also the TRE comments below.

PFAS Concerns

12. The PFAS monitoring requirements are limited to just PFOA, PFOS and Total PFAS. Given that a broader range of PFAS compounds has been detected in Kreutz Creek and given the emerging nature of PFAS as a pollutant, a larger speciated data set should be collected of the specific PFAS compounds in the discharge. The monitoring requirements should require periodic testing of all PFAS compounds for which there are established testing and analysis methodologies. US EPA guidance² recommends that monitoring include each of the 40 PFAS parameters detectable by draft method 1633. It appears that even one single sampling event detected some 21 (out of 40) PFAS compounds. (Fact Sheet at 115). There is no basis to conclude that the other 19 PFAS compounds currently testable by draft method 1633 are never present in the discharge based on just this one single sample. Accordingly, US EPA's recommendation to monitor for all 40 PFAS compounds should be followed here.

¹ Specifically, the Fact Sheet at page 51 indicates a TDS authorization of 5,504 lbs./day as of August 2010, and states the current TDS load as being 9,257 lbs./day. The increase from August 2010 to the present is thus less than 5,000 lbs./day. Yet, $9,257 - 5,504 =$ an existing increased loading to-date of 3,753 lbs./day, and thus a margin of 1,247 lbs./day before the 5,000 lb./day increase threshold is exceeded. ($5,000 - 3,753 = 1,247$).

² See *Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment and Monitoring Programs*, U.S. EPA Office of Water, December 5, 2022. While this EPA guidance document is referenced and summarized on page 40 of the Fact Sheet, the Department's summary of the guidance memo unfortunately omits any reference to EPA's recommendation of testing for the 40 PFAS parameters.

13. The proposed Permit only requires sampling of PFAS on a quarterly basis. A greater frequency of PFAS sampling should be required for the Landfill. (Page 40 of the Fact Sheet misquotes EPA guidance³ on sampling frequency; the Fact Sheet contends that EPA recommends quarterly sampling, while in fact EPA recommends sampling “at least quarterly”, but in no way recommends against more frequent sampling.) While quarterly sampling might be appropriate as a check on a discharge that is not known to contain PFAS, the situation is different here. The Landfill’s own testing has clearly demonstrated the presence of PFAS in the discharge See Fact Sheet at 42-43 and 115. Routine sampling on a much more frequent basis should be required, at least until a robust baseline data set has been collected to better understand the PFAS content of the Landfill effluent.
14. There is a reopener clause for PFAS in Section C.II.E of the Proposed Permit, but the reopener requires further DEP action before any additional permit requirements are put into place. Instead, provisions should be included in the Permit that would automatically trigger applicability of PFAS limits, or other PFAS requirements, in the event of circumstances such as the detection of PFAS above certain thresholds, the issuance of water quality standards for PFAS compounds, etc.
15. In order to determine the PFAS removal effectiveness of the Landfill’s wastewater treatment system, including its new reverse osmosis equipment, internal monitoring points should be established to evaluate the PFAS concentrations in the effluent at multiple stages in the treatment process, including before RO filtration.
16. It is likely that the RO filtration system will remove some amount of PFAS. The RO reject should be tested on a routine basis as a check on the quantity (mass) of PFAS being removed from the effluent stream, and the PFAS concentrations in the RO reject.
17. Additionally, the Fact Sheet does not indicate what will happen to the RO reject. While the actual handling of the RO reject may be a solid/hazardous waste issue, it is of concern to the NPDES permitting process since the treatment process for the discharge that is authorized by the NPDES permit will collect and concentrate PFAS. The fate of that RO reject is of importance to the community because the collection of PFAS in one setting (the RO system operation) that may then be released into the environment or into the community in another form or fashion (i.e., disposal or other disposition of the RO reject) is ultimately detrimental to the interests that the NPDES permitting process is intended to protect. The Landfill should be required to identify how the RO rejection will be handled, with an approach that is reasonable and environmentally protective, before the final permit is issued.

³ See *Id.*

Interim Limits

18. While the incorporation of effluent limits for additional pollutants is welcome, the 3-year compliance schedule is disappointing, appears arbitrary, and does not appear to be justified by any information presented in the Fact Sheet. Following prior enforcement actions and the installation of a new wastewater treatment system, it is surprising that the Landfill is not prepared to meet all necessary and appropriate effluent limits now. The permit review and development process for this permit has been very lengthy, and the new effluent limits can hardly be a surprise to the Landfill at this point in time. At a minimum, the Landfill should be required to convincingly demonstrate why the new limits cannot be met as of the date the final permit is issued. If any interim limit compliance period is appropriate, the Landfill should be required to make a clear and definite showing as to the necessary time period for interim limits, rather than having the Permit default to an otherwise unjustified 3-year compliance schedule.
19. To the extent the 3-year interim period is primarily to allow data collection for some of the additional parameters, it is objectionable that this did not happen during permit development. Surely there has been more than adequate time for the Department and the Landfill to conduct any necessary sampling and/or to determine the expected effectiveness of the RO system on the parameters being given interim limits. To the extent the goal of the interim period is data collection to refine WQBELs for newly added toxic pollutants, then more frequent sampling should occur to generate a robust data set in shorter amount of time. For example, sampling once per week rather than once per month.

Toxic Pollutants and Toxics Reduction Evaluation (TRE)

20. DEP should have a goal of requiring efforts to reduce all toxic discharges, even where such discharges are within permit limits. The proposed Permit does not require a TRE for toxic pollutants that are subject to limits in the current permit, and instead only imposes TRE requirements for toxic pollutants that have newly established limits. The Fact Sheet does not indicate whether whole effluent toxicity (WET) testing has been conducted on the Landfill effluent. The proposed Permit does not appear to impose any WET testing obligations, and thus does not address the cumulative effects of the toxic pollutants in the Landfill's effluent. WET testing of the effluent produced by the upgraded wastewater treatment plant should be conducted, with TRE or equivalent obligations imposed on all toxic components of the discharge depending on the results of the WET testing.
21. The Fact Sheet states that where there is no WQBEL for certain substances that have no surface water criteria and uses this circumstance as a basis to not impose any limits for such substances. (Fact Sheet at 33, 38). As noted in DEP guidance,⁴ "In other cases, a specific water quality criterion may not be established or listed in

⁴ *Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits*, 386-0400-001

Chapter 93 or 16 for a pollutant. The Regional Planning Section identifies the need for the criteria and coordinates its development with the Regional Biologist and/or the Bureau of Clean Water. In some cases, it may involve literature searches. It may also involve bioassays by the applicant in accordance with section 93.5(d) or 93.8 of the regulations.” It does not appear that any effort was made to develop an appropriate standard or conduct bioassays for the toxic substances that do not have surface water criteria. It is requested that all toxic pollutants in the discharge be subject to appropriate effluent limitations. Alternatively, DEP could potentially establish a technology or best professional judgment-based limit for these substances.

22. The TRE requirements should include PFAS compounds. Although there are no WQBELS yet issued for PFAS compounds, given the nature of PFAS compounds and the exceedingly low concentration levels identified in existing and proposed regulations related to PFAS, it appears likely that any PFAS in the discharge may exceed future water quality standards for PFAS. The data collection, source inventory and source reduction evaluation components and concepts of a TRE can and should be applied to any PFAS compounds in the discharge now, rather than deferring such effort into the future.
23. The Fact Sheet indicates that radioactive substances such as tritium and uranium were evaluated based on the scenario of their impact on use of Susquehanna River water for drinking water purposes, which allowed for dilution of the effluent into the much greater flow in the Susquehanna River. (Fact Sheet at 38-39). However, the radioactivity of the effluent was not considered in terms of its impact on recreational users of Kreutz Creek. While exposure of a recreational user to the radioactive components of the effluent in Kreutz Creek will obviously not be continuous, the concentration of the radioactive components will be several orders of magnitude higher in the absence of the dilution by Susquehanna River. There may be no risk to recreational users, but radioactive components in an NPDES permitted discharge are relatively rare, and the Department has a responsibility to evaluate this question and provide information to the public regarding the safety or threat presented by recreational exposure to these pollutants.

Specific Pollutant and Compliance Issues

24. U.S. EPA’s ECHO database states that the Landfill is in “Significant/Category I Noncompliance” for the first and second quarters of 2023.⁵ The database does not yet have data for the third quarter. It appears that the Significant Non-Compliance status is based on exceedances of the boron limit in the current permit. However, the Fact Sheet (page 3) indicates that there are no outstanding Clean Water Program violations for the Landfill. This discrepancy should be explained. Does the Department have information that shows that the boron exceedances have been fully resolved (as might be the case with the operation of the new RO system) or is U.S. EPA reading the discharge monitoring reports more closely than the Department? In either case, and especially for a facility under recent Department compliance orders, the public is entitled to more complete and accurate explanations and information in a Fact Sheet.

⁵ https://echo.epa.gov/detailed-facility-report?fid=110028048716&ej_type=sup&ej_compare=US

25. CBOD5 and TSS have identical effluent limits. This seems an unlikely coincidence, especially given that BOD and TSS have different allowable concentrations in the ELG. Please confirm whether these limits are accurate.
26. The daily max loading and concentration limits for Total Zinc appear to be less restrictive than the prior permit. According to the Fact Sheet the current Daily Maximum loading limit is 0.416 lb./day, while the proposed Permit has a 0.47 lb./day limit. Similarly, the current Daily Maximum concentration limit is 0.0998 mg/L, while the proposed Permit has a 0.11 mg/L limit. The Fact Sheet, at page 26, asserts that the proposed new limits for Total Zinc are more stringent than the current limits, but this does not appear to be the case if the table of exiting permit limits on Fact Sheet pages 11-12 is accurate. This apparent use of less restrictive Total Zinc limits is inconsistent with anti-backsliding. It is requested that the Department review this issue and ensure that the limits imposed are appropriate and are no less restrictive than the current limits.
27. A number of limits in the proposed permit utilize one less significant digit to the right of the decimal point. This results in a relaxation of some limits where the limits were rounded up. Why is this relaxation being allowed, and how is this consistent with anti-backsliding requirements? The Fact Sheet does not appear to recognize or explain this change. It is requested that none of the effluent limits be made less restrictive in this manner, and instead at a minimum be at least as restrictive as in the current permit.
28. The ammonia limit is understood to be less restrictive during cooler months, which are identified in the permit as November – April. It may be inappropriate to consider November, March and April as cooler months, given warming trends and the potential for unseasonably warm weather in these border months. Please consider allowing the less restrictive ammonia limits to apply only in the months of December – February.
29. Part A of the proposed Permit (at page 9) contains standard language stating that the discharge of substances that “produce an observed change in the color” of the receiving water is prohibited, unless “otherwise controlled through effluent limitations or other requirements in the permit.” However:
 - a. The proposed Permit contains monitor and report requirements for color, but no limits. Since no limits are applied, it would appear that discoloration of the stream by the discharge is not “otherwise controlled” and that the prohibition on color change stated on page 9 remains in effect. Please confirm that this is an accurate understanding of the proposed Permit. If not, please explain why the Landfill is being allowed to discolor the receiving stream.
 - b. The color monitoring requirements state that the upstream and downstream samples must be taken within a 3-hour window. This appears to be unnecessarily long, and it should be possible to take more representative samples that are collected at essentially the same time. It is requested that essentially simultaneous monitoring be required.

Flow

30. The Fact Sheet indicates that the treatment plant has a design flow of 0.5 MGD, and that this flow volume has not been exceeded by the landfill. However, the modified ELG calculations on pages 25-26 of the Fact Sheet utilize a landfill wastewater volume of nearly 3 million gallons. This volume, described as an “Avg. Vol. of Landfill Wastewater” is not explained – it is unclear what this is an average of, or what units this amount is measured in. It appears to be too small for a monthly flow volume, while being much higher than the design flow if this is a daily volume. However, since the “Avg. Vol. of Landfill Wastewater” is used to calculate daily loading and concentration limits, it is presumed that it might be a daily volume amount. In any case, the Fact Sheet does not explain the relationship between the “landfill wastewater” volume and the treatment plant design flow.

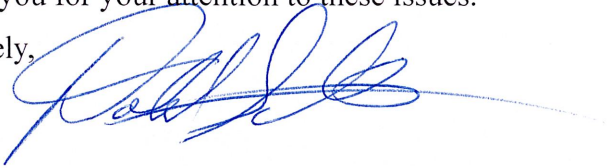
It appears that if a reduced landfill wastewater flow was used in the modified ELG calculations (i.e., either actual flow volumes or the 0.5 MGD discharge flow limitation rather than the “landfill wastewater” volume of nearly 3 MGD), the resulting effluent limits would be considerably more stringent. It is requested that: i) the Department explain the landfill wastewater volume terminology utilized in the modified ELG calculations; ii) the Department not use a wastewater volume to calculate limits that would exceed the permitted discharge flow; and iii) that the Department recalculate the modified ELGs to the extent necessary.

Stormwater

31. The proposed Permit only requires stormwater sampling at Outfall 005. The Fact Sheet does not appear to include any justification for the apparent conclusion that Outfall 5 is representative of the other stormwater outfalls, beyond the fact that “the permittee contends” that Outfall 5 is representative of the others. (Fact Sheet at 56). The Fact Sheet omits any discussion of whether there is reliable and recent data to support this assertion, or if the Department merely accepted the permittee’s contention at face value. The Department should more closely examine this issue and provide the public with an adequate justification of the decision that Outfall 5 is representative, or it should impose monitoring requirements on all outfalls.
32. The Fact Sheet discussion indicates that monitoring requirements at Outfall 2 are being removed due to drainage from off-site areas. However, the Fact Sheet implies that at least some portion of the Outfall 2 discharge originates at the Landfill. The mere presence of off-site drainage contributing to a stormwater outfall would not appear to be (and historically has not been) a basis to avoid monitoring requirements. Monitoring requirements for Outfall 2 should be reinstated.

Thank you for your attention to these issues.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Donald Schock', with a long horizontal flourish extending to the right.

Donald Schock, Chairman
Board of Supervisors
Lower Windsor Township