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Clean Air Agency**

1904 3rd Ave #105
Seattle, WA 98101

206-343-8800

pscleanair.gov

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By US Mail & Web Portal Electronic Submittal

January 28, 2025

Patrick Merscher
Washington Department of Ecology – SWM
PO Box 47600
Olympia, WA 98504-7600

Re: Comments of Organics Materials Management Model Ordinances (Jan. 2025, Publication 25-07-003)

Mr. Merscher,

Thank you for the opportunity to comment on the DNS and SEPA checklist(s) issued by the Washington Department of Ecology in Publication 25-07-003 regarding the proposed model ordinances (referenced above). The Puget Sound Clean Air Agency (“Agency”) is a local air authority under the Washington Clean Air Act, ch. 70A.15 RCW. We are responsible for enforcement of certain of the Dept. of Ecology’s regulations regarding outdoor burning and we implement the Notice of Construction (“NOC”) requirements in our four counties.

While the Agency generally speaking supports organics recycling, increased recycling should be done consistent with existing requirements. For example, the increase in availability of organics recycling, particularly of yard waste, at the curbside level may provide reasonable alternatives to outdoor burning and the Agency seeks to minimize outdoor burning wherever possible. However, the expansion of organics recycling combined with the addition of food waste will almost certainly increase air emissions at existing facilities and may create demand for new facilities. It is well known that the recycling and treatment of organics causes air emissions, including volatile organic compounds (VOCs) hazardous air pollutants (HAPs), toxic air contaminants (TACs) and odors. Expansion of and new facilities therefore must be reviewed specifically pursuant to applicable SEPA and NOC requirements at the time of the specific proposal (not pursuant to the proposed model ordinances). For these reasons, the Agency would like to provide comment on and seeks written clarification from the Dept. of Ecology on a few points made in the DNS and corresponding SEPA checklists (signed and dated Dec. 16, 2024).

Comment 1 - Agency Comment on text highlighted in yellow:

From SEPA Checklist:

From Background, §6 (Proposed Timing of schedule (page 4)):

“Section .540 requires the city or county to offer curbside organics collection to all single-family residences and non-residential customers that generates more than 0.25 cubic yards (96 gallons) of organic waste per week located within the Organics Recovery Collection Area (ORCA). By 2030, this service must include food waste as an accepted material and become non-elective for affected residents and businesses.”

The legislative direction that leads to these model ordinance proposals represents both an increase in organics collection overall and, within that increase, the addition of food waste. Food waste in organics recycling substantially changes the overall emissions. As these model ordinances are implemented within the described areas, organics recycling (including food waste) can be expected to increase substantially. The impacts of this increase must be evaluated and mitigated at the project level.

Comment 2 - Agency Comment on text highlighted in yellow:

From SEPA Checklist:

From Environmental Elements § 2 (page11-12):

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

The proposal is not project or site specific. This project does not propose new facilities or development. New facilities and development would be subject to the relevant local and state permit approvals as well as project-level SEPA review for the specific proposal and its planned activities, especially for the special event and building design model ordinances.

For the mandatory organics collection model ordinance, foreseeable emissions would come from hauling trucks who will have more routes, customers, and tonnage of organic materials they transport to an organics management facility.

Organics management facilities will be processing larger volumes of organic materials, and these facilities release some methane. Anglou et al. (2024) report that composting food waste produces 38-84% less methane compared to putting it in the landfill.

In response to SEPA Checklist §2.a, we agree that future organics management facilities likely will be processing larger volumes of organic materials as a result of this action. Additionally, the increase in food waste as part of these volumes will impact the emission profile of these facilities and will result increased emissions of many pollutants other than methane including, but not limited to Volatile Organic Compounds (VOCs) and various Hazardous Air Pollutants (HAPs) and Toxic Air Pollutants (TACs), as defined by the federal Clean Air Act and the Washington State Clean Air Act, respectively. Please revise the checklist to more completely describe the types of emissions to be created by any increased organics recycling. This would include a recognition that this proposal should reflect broadest scope of organics diversion technologies possible. While the documents do indicate that composting and digesters may be used to process these diverted waste streams, there seems to be a disproportionate amount of discussion in the documents specific to composting. This proposal documents should be agnostic and/or balanced regarding the project specific technologies selected for entities implementing those projects.

In addition, please revise the language in this section to add language to make more clear and/or emphasize that the DNS issued for the model ordinances and the associated checklists are not evaluating any new site-specific project (to include existing site changes/modification) or its specific impacts or emissions and that this DNS and associated checklists cannot be used in the future by any government entity (including the Dept. of Ecology) in lieu of project specific review.

Comment 3 - Agency Comment on text highlighted in yellow:

2. Air

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Organics management facilities can release nuisance odors, particularly when they accept food waste.

In response to SEPA Checklist §2.b, we would not categorize odors (or any air emissions) related to organics management facilities as “offsite”, but rather originating “onsite” and impacting others off-site. Additionally, these odors, and their impacts on the surrounding communities, may be significant even without processing additional food waste. Please revise this section to more completely identify the air

emissions created by organics recycling, as discussed in our Comment 2 above. Additionally, since this is not a project specific proposal being evaluated, the answer to this question should be discussing the potential for projects that may be sited with other solid waste handling facilities (e.g. landfills, transfer stations), wastewater utility operations, or energy processing locations.

Comment 4 - Agency Comment on text highlighted in yellow:

2 Air

.c. Proposed measures to reduce or control emissions or other impacts to air, if any:

All the model ordinances are designed to facilitate diverting organic waste out of the landfill for a higher and better use at an organics management facility (composting facility or an anaerobic digester).

Organic materials degrading anaerobically (i.e., in a landfill) generate methane, a potent greenhouse gas. Landfills in Washington are required to have a methane capture system, however alternative management at an organics processing facility is still calculated as better for emissions reduction (Anglou et al., 2024). EPA's Waste Reduction Model (WARM, version 16) considers the methane capture at landfills and the additional transportation emissions from collection and hauling. Reaching Washington's goal of reducing organics in the landfill could reduce over 450 metric tons of CO2 equivalent (EPA, 2023).

Organics management facilities are regulated by local health jurisdictions and Regional Air Agencies. Permits set capacity limits for incoming feedstock with consideration to odor and emissions. These local agencies respond to complaints and work with the facility to reduce odors on an individual level. Facilities have several techniques they can use to decrease odor and emissions including aeration, biofilters, wetting, and timing of turning.

To reduce emissions from transportation and hauling, local governments can use renewable diesel or electric vehicles. Investing in route optimization to reduce distances and making collection routes more efficient could also reduce emissions from collecting organic materials.

In response to SEPA Checklist §2.c, while the Agency supports measures to reduce or control air emissions, the response to item 2.c in the checklist minimizes the air impacts of organics recycling facilities. As previously stated, the increase in food waste as part of increased recycling volumes will impact the emission profile of these facilities. We would like to note that the resulting increased emissions include many pollutants other than methane including, but not limited to Volatile Organic Compounds (VOCs, a precursor to ozone formation) and various Hazardous Air Pollutants (HAPs) and Toxic Air Contaminants (TACs), as defined by the federal Clean Air Act and the Washington State Clean Air Act, respectively. Emission data has been shown that food waste can increase the emissions of all the parameters identified in this comment, in addition to odor, beyond the emissions from processing yard waste alone. More emission data is being collected at this time by Ecology which will further clarify these emissions and there is also anecdotal evidence that some composting processes produce levels of methane. Please revise the language in this section to better describe the variables described above.

Additionally, please revise the language in this section to add language that this DNS issued for the model ordinances and associated checklists are not evaluating any site-specific project or its specific impacts or emissions and that this DNS and associated checklists cannot be used in the future by any government entity (including the Dept. of Ecology) in lieu of project specific review.

Comment 5 - Agency Comment on text highlighted in yellow:

From the Supplemental Sheet for nonproject actions, § 1 (page 29); this section states:

This nonproject action would increase emissions associated with collecting organic materials and transporting them to an organics management facility. Noise from more collection trucks and existing facility operations may increase for residents and businesses. Processing organic waste into compost or digestate can produce its own emissions and hazardous substances like leachate. These facilities are regulated by Regional Air Agencies as well as local health jurisdictions, who inspect facilities to make sure they are following their operations plan.

Please revise the language in this section to add language that this DNS issued for the model ordinances and associated checklists are not evaluating any site-specific project or its specific impacts or emissions and that this DNS and associated checklists cannot be used in the future by any Regional Air Agency (including the Dept. of Ecology) in lieu of project specific review pursuant to SEPA and the Clean Air Act.

Comment 6 - Agency Comment on text highlighted in yellow:

From Appendix A SEPA nonproject Review Form Part II -Impact Analysis and Alternatives § 7 (pages 9-10); this section states:

This nonproject action would increase emissions associated with collecting organic materials and transporting them to an organics management facility. Noise from more collection trucks and existing facility operations may increase for residents and businesses. The EPA's Waste Reduction Model (WARM, version 16) shows an overall decrease in greenhouse gas emissions when organic materials are composted instead of landfills. This analysis considers emissions from transportation, processing, and methane capture systems at landfills.

When land applied, carbon is sequestered in soil and eventually plants and animals. Applying compost to agricultural and forest lands improves soil qualities and properties by improving soil fertility, supporting microbial life, reducing erosion and soil compaction, improving water holding capacity, suppressing plant disease and pests, encouraging plant growth, and reducing expenses associated with other inputs like fertilizers and pesticides.

These generalized statements above regarding the emission benefits of this policy directive are overly simplistic and appear to ignore a large number of factors that could render them moot. Without a project specific proposal, the distance for hauling wastes and product are unknown. The effectiveness of the operations and emission control measures in any existing or proposed operation also would affect the potential benefits. For example, assumptions about the landfill gas collection and control measures are site specific. There is also anecdotal evidence that some composting processes produce levels of methane. Assumptions of recycled organic product reuse are site and market specific, with some instances of the produced materials looking for end users to complete the carbon sequestration goal.

Since it is clear that these documents cannot adequately address all of the upstream, processing, and downstream factors for any project proposal, please revise the language in this section to add language that this DNS issued for the model ordinances and associated checklists are not evaluating any site-specific project or its specific impacts or emissions and that this DNS and associated checklists cannot be used in the future by any government entity (including the Dept. of Ecology) in lieu of project specific review.

Comment 7- Agency Comment on text highlighted in yellow:

From Appendix A SEPA nonproject Review Form Part II -Impact Analysis and Alternatives § 9 (page 11); this section states:

Over time, there will be need for more organics management facilities or for current facilities to expand. This may require development, including permits at the state and local level. Local permit processes and SEPA review associated with development should account for and review environmental concerns when new sites/facilities are proposed.

Please revise the language in this section to add language to make more clear and/or emphasize that the DNS issued for the model ordinances and the associated checklists are not evaluating any future, site-specific project or its specific impacts or emissions and that this DNS and associated checklists cannot be used in the future by any government entity (including the Dept. of Ecology) in lieu of project specific review.

Conclusion

The Agency thanks the Department of Ecology for the opportunity to comment on this action and we look forward to seeing your responses to our comments in writing.

Sincerely,

A handwritten signature in blue ink, appearing to read "Steven M. Van Slyke". The signature is fluid and cursive, with the first name "Steven" and last name "Van Slyke" clearly legible.

Steven M. Van Slyke, PE
Director of Compliance

