



## King County

Department of Natural Resources and Parks

### Wastewater Treatment Division

King Street Center, KSC-NR-5501  
201 South Jackson Street  
Seattle, WA 98104-3855

June 30, 2021

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VIA ELECTRONIC MAIL

RE: Comments on Draft General Permit for Biosolids Management

Dear Mr. Dorsey and Ms. Kijowski:

Thank you for the opportunity to comment on the Washington State Department of Ecology's (Ecology) draft General Permit for Biosolids Management (general permit). We appreciate your work to streamline requirements and reduce regulatory burden for some facilities in our state.

King County's Wastewater Treatment Division (WTD) serves about 1.8 million people within a 424 square mile service area. In 2020, our three regional treatment plants and two smaller treatment plants together produced 117,092 wet tons of biosolids that were land applied to forests and farms in Washington as a beneficial soil amendment. As one of the largest wastewater treatment utilities in the state, changes to the general permit have potential to significantly impact our 1.8 million wastewater ratepayers and the agriculture and forestry customers that beneficially use 100 percent of WTD's biosolids.

Thank you again. If you have any questions please contact Resource Recovery Research and Policy Project Manager Erika Kinno at [erika.kinno@kingcounty.gov](mailto:erika.kinno@kingcounty.gov) or 206-477-0942.

Sincerely,

DocuSigned by:  
  
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Kamron Gurol  
Division Director

Enclosure

cc: Rebecca Singer, Resource Recovery (RR) Section Manager, Wastewater Treatment Division (WTD), Department of Natural Resources and Parks (DNRP)  
Erika Kinno, Research and Policy PPM, RR, WTD, DNRP  
Diane McElhany, Manager, King County Environmental Lab  
Erin McCabe, Laboratory Project Manager, King County Environmental Lab

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### **Specific Comments on draft General Permit for Biosolids Management**

We offer comments on four areas: 1) changes to permit structure; 2) requirements for sampling, analysis, and process monitoring; 3) second-generation biosolids products definition; and 4) biosolids and environmental justice.

#### Changes to Permit Structure

WTD supports Ecology's changes to the structure of this general permit, and specifically separating out "Baseline" category facilities to streamline and reduce the reporting requirements for these facilities. WTD agrees with Ecology that this will reduce the administrative burden for some facilities to apply for coverage under the general permit without compromising any environmental protection. WTD also appreciates the benefit of the resulting reduced administrative burden to Ecology, which should speed the process of granting approval and allow ECY to focus on the permit reviews that need the most attention.

Under this proposal, WTD's Carnation and Vashon are now recategorized as "Baseline" facilities. WTD supports this changed designation. Both facilities send their biosolids to WTD's South Treatment Plant for further treatment, meeting the requirement for Baseline classification. Clearly, South Treatment Plant's categorization as an "Active Management Facility" allows for ample regulation and reporting of those biosolids under the general permit. This change is practical without compromising any of the rigor of the permit process.

#### Requirements for Sampling, Analysis, and Process Monitoring

More specifics are needed in two permit sections related to sampling, analysis, and process monitoring (Sections 3.4.6 and 4.4.6). Section 3.4.6 states that 40 CFR 136 methods are approved for use. However, 40 CFR 136 primarily lists methods for effluent testing, not biosolids. Having a specific list of methods included in this permit will avoid confusion about which methods are allowed for biosolids testing. The 2015 permit included a table of "Analysis Methods, Preservation and Holding Times." It would be helpful to add a similar, updated table to this permit, as well. The updated table should note the changes to approved methods listed for Total Phosphorus since 2015. Please see enclosure for a proposed table to add.

Sections 3.4.2 and 4.4.2 regarding lab accreditation requirements should also be more specific. The permit includes general language noting the requirement to be analyzed by a lab properly accredited in the appropriate matrix. It would be more effective and helpful if this were more specific as follows:

- Labs must be accredited by the Ecology Lab Accreditation program; and
- Permit should list type of accreditation required for each matrix being tested (Biosolids/Soil = Solids and Chemical Materials Accreditation; Surface/Groundwater = Non-Potable Water Accreditation).

#### Second-generation biosolids products definition

The permit is clear that second-generation exceptional quality biosolids products are not regulated under the general permit. However, a more thorough and careful definition of "second-

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generation exceptional quality biosolids products” would be helpful, particularly clarifying where the point of compliance occurs for these products.

Biosolids and positive outcomes on environmental justice

King County shares Ecology’s commitment to environmental justice. King County also agrees that there are many positive outcomes from beneficial use of biosolids, including building organic matter in soils and providing a comprehensive suite of micro- and macro-nutrients that crops need at a relatively low cost. For this reason, at the request of priority communities in underserved areas of King County, WTD has partnered with community gardens to provide donations of biosolids compost. We wish to underscore Ecology’s commitment, as stated in the Fact Sheet on the general permit, to examining biosolids and environmental justice comprehensively, including opportunities for positive outcomes.

**Table 3 Analysis Methods, Preservation and Holding Times (adapted from [WAC 173-308-140](#))<sup>1</sup>**

Parameter	Methods	Basic Preservation	Maximum Holding Time
Arsenic	SW-846 6010 SW-846 6020 SW-846 7010 SW-846 7061	Cool to ~4° C	6 months
Cadmium	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Copper	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Lead	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Mercury	SW-846 7470 SW-846 7471	Cool to ~4° C	28 days
Molybdenum	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Nickel	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Selenium	SW-846 6010 SW-846 6020 SW-846 7010 SW-846 7741	Cool to ~4° C	6 months
Zinc	SW-846 6010 SW-846 6020 SW-846 7000 SW-846 7010	Cool to ~4° C	6 months
Total Kjeldahl Nitrogen (TKN)	SM 4500, N <sub>org</sub> B SM 4500, N <sub>org</sub> C ASTM D3590-89 ASTM D3590-02	Cool to ~4° C	28 days
Nitrate-nitrogen	EPA 353.2 SM 4500-NO <sub>3</sub> E, F, or H	Cool to ~4° C	28 days
Ammonia-nitrogen	SM 4500-NH <sub>3</sub> B + C, D, E, or G	Cool to ~4° C	28 days
Organic Nitrogen	Calculated: TKN minus NH <sub>3</sub> -N	Not applicable	Not applicable

Total Phosphorus	EPA 365.1 EPA 365.3 SM 4500-P B + E or F SW-846 6010 SW-846 6020	Cool to ~4° C	28 days
PCBs	EPA 1668 SW-846 8082	Cool to ~4° C or Freeze at -18° C	1 year
Dioxins and Furans	EPA 1613 SW-846 8280 SW-846 8290	Freeze at -10° C	1 year
Semi-volatile Organic Compounds	SW-846 8270	Cool to ~4° C Freeze at -18° C	14 days 1 year
Volatile Organic Compounds	SW-846 8260	Cool to ~4° C Freeze at -7° C or preserve with methanol	48 hours 14 days
Total Solids, Fixed Solids, or Volatile Solids	SM 2540 G	Cool to ~4° C	7 days
Volatile Solids Reduction	EPA/625/R-92/013 (Appendix C)	Not applicable	Not applicable
Additional Volatile Solids Reduction for Anaerobically Digested Solids	EPA/625/R-92/013 (Appendix D.1)	Hold at temperature of digester Maintain anaerobic conditions	6 hours
Additional Volatile Solids Reduction for Aerobically Digested Solids	EPA/625/R-92/013 (Appendix D.3)	Cool to 20° C Maintain aerated conditions	As soon as possible
Specific Oxygen Uptake Rate (SOUR)	EPA/625/R-92/013 (Appendix D.2) SM 2710 B	Hold at temperature of digester (10-30° C) Maintain aerobic conditions	As soon as possible
pH	SW-846 9040 (if <80% solids) SW-846 9045 (if >80% solids)	Not applicable	15 minutes
Fecal Coliform	EPA 1680 EPA 1681 EPA/625/R-92/013 (Appendix F) SM 9221 C and E SM 9222 D	Cool to ~4° C	Analysis within 8 hours from time of collection. Extended to 24 hours if using EPA 1680 or EPA 1681 for Class A compost or Class B from a digester SM 9222 D is not recommended and may only be used for Class B
Salmonella bacteria	EPA 1682 SM 9260 D EPA/625/R-92/013 (Appendix G)	Cool to ~4° C	6 hours
Helminth Ova	EPA/625/R-92/013 (Appendix I)	Cool to ~4° C	1 month
Enteric Viruses	ASTM D4994-89 EPA/625/R-92/013 (Appendix H)	Cool to ~4° C Freeze at -18° C	<24 hours 2 weeks

1. This permit will allow changes and updates to this table based upon EPA and WDOE method updates.