



## King County

Department of Natural Resources and Parks

### Wastewater Treatment Division

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# MEMO

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June 17, 2020

TO: Dustin Bilhimer

FM: Rebecca Singer, Manager, Resource Recovery Section

RE: Nutrient Management Plan Outline – Review Comments

On behalf of the King County Wastewater Treatment Division (WTD), thank you for the opportunity to comment on the Washington State Department of Ecology's (Ecology) "Puget Sound Nutrient Management Plan Outline" (May 2020).

WTD operates five wastewater treatment plants, four of which discharge directly to Puget Sound: West Point, South Plant, Brightwater, and Vashon Island facilities. Collectively, these facilities serve a residential population of approximately 1.7 million people. Along with wastewater treatment, other environmental resource programs such as stormwater management, habitat restoration and conservation, agricultural assistance, and water quality monitoring are part of King County's efforts to have clean water and healthy habitat.

WTD recognizes Ecology's responsibility to develop a comprehensive planning and regulatory framework to address compliance with water quality standards and address the dissolved oxygen (DO) impairment concerns in sensitive areas of the Sound. We appreciate Ecology's solicitation of early input on the content requirements for such a framework via the Nutrient Management Plan Outline.

Based on the County's experience and expertise with Puget Sound water quality issues and the work of our wastewater treatment and water and land resources divisions, we understand that there remain significant scientific uncertainties and gaps in available information that need to be addressed to assure ratepayers across Puget Sound that new regulatory actions will substantively improve Puget Sound's water quality. Accordingly, we provide the following detailed comments and recommendations on the approach and content of the Nutrient Management Plan Outline to address these interests.

### **Section 2 (Scope of the Problem-Where we are seeing impairments and geographic area for the Plan)**

1. We support that the intent of Section 2 will be an exhaustive "existing conditions" analysis to document the known sources of nutrients to Puget Sound and the mechanisms leading to DO impairment conditions.

2. For both the sections that characterize conditions based on monitoring data (§2.2) and the Salish Sea Model (SSM) analyses (§2.3), the outline should include a description of uncertainties that exist with accurately characterizing the location, timing, and magnitude of DO impairments. A thorough characterization of the level of certainty of sources and causal mechanisms is important for any proposed regulatory and non-regulatory approaches as it relates to the margin of safety that is included in the regulatory framework. Explicitly identifying the uncertainties and data gaps in this regulatory document also will support Ecology being able to prescribe adaptive implementation approaches and NPDES permit conditions over time as new information is developed.

### **Section 3 (Water Quality Standards)**

3. The outline should include a description of the state water quality standards that pertain to naturally impaired background conditions to reflect the situation that exists in Puget Sound, where DO is primarily reduced from the oceanic influence and influx of low-DO and nutrient-rich water. The state standards recognize that existing natural background impairment conditions should define the “reference condition” when establishing target values for improvement.
4. The outline should include a description of the state’s responsibilities under Section 303d for locations in Puget Sound that are listed as impaired by low DO conditions, and the associated approach under the Nutrient Management Plan to monitor and delist locations as nutrient reduction actions are implemented and progress is achieved.

### **Section 4 (Nutrient Forum stakeholder process)**

5. The outline should include descriptions of the other stakeholder engagement and planning for nutrients that will have occurred by the time the Nutrient Management Plan is completed. The Ecology-led Marine Water Quality Implementation Strategy process is identified in Appendix F of the outline. However, the Nutrient Management Plan should address how that multi-stakeholder process to identify overarching scientific and strategic approaches to nutrients in Puget Sound relates to regulatory and non-regulatory approaches that are adopted.

### **Section 5 (Salish Sea Model)**

6. The discussion of the SSM should describe how the modeling will be used as a “tool” for managing and adapting nutrient reduction strategies as the plan is implemented over time.
7. There also should be a discussion of how Ecology will modify and adapt the SSM over time in response to improvements in data, scientific understanding, or modeling improvements.

### **Section 6 (Nutrient Load Reduction Targets)**

8. Section 6 should identify all the categories of point and nonpoint sources that are known to contribute nutrients to Puget Sound. A full list of sources needs to be acknowledged in the Nutrient Management Plan to account for the total amount of nutrient sources and nutrient reduction allocations for them. This full accounting of sources also will allow the plan to consider potential innovation and cost-effective regulatory and non-regulatory source control approaches in the future.

9. In §6.4, it appropriately identifies that seasonality will be considered as a factor in the nutrient reduction allocations. The effects of the location of nutrient sources within Puget Sound, and their relative magnitude of effect on DO conditions, should also be identified as specific factors to be considered.

### **Section 7 (Marine Source NPDES Nutrient Control Strategy)**

10. The section title states that the “structure and content of this section is dependent on the outcome of the Nutrients General Permit development process”. We agree that the General Permit development process will generate important principles and processes for regulating nutrient reductions. However, we understand and support the concept that the Nutrient Management Plan should provide the broader framework and elements of regulatory and non-regulatory nutrient reduction strategies. The Nutrient Management Plan also should address overall technical feasibility, socio-economic considerations, and prioritization of nutrient reduction actions and outcomes for Puget Sound. A comprehensive framework will best facilitate a complementary and legally defensible General Permit renewal process over time that is adaptive to scientific and management improvements.
11. Related to the comment above on §6.4 and the consideration of seasonality and location of discharges in the setting of nutrient reduction allocations, the approach to addressing the location-specific and time-specific value of a unit of load reduction will need to be included here.
12. The Nutrient Management Plan should include strategies and actions that incentivize implementation of reductions by dischargers, such as funding opportunities or time schedule accommodations. For example, favorable treatment of voluntary planning and engineering studies, or interim treatment improvements, could be useful in achieving early cumulative nutrient reductions and provide valuable information for program planning purposes if it were to support permitting concessions and compliance with a more feasible and affordable schedule for full-scale reduction requirements.
13. The concept of “Trading” (§7.3) is only identified under the marine sources section. We support the concept of trading (or offsets) as a broader implementation tool that should address point and nonpoint nutrient sources, or other potential strategies (e.g., natural stream, wetlands, and floodplain nutrient attenuation processes). A comprehensive approach and plan for point and nonpoint, and regulatory and non-regulatory, implementation strategies would be more suitable in a separate section of the Nutrient Management Plan such as Section 9, which could be renamed as “Implementation Strategies, Tracking, and Accountability”. Both §7.3 (Trading) and §7.4 (Recycled Water) also would fit better in a separate implementation discussion.

### **Section 8 (Watershed Source Nutrient Control Strategy)**

14. Similar to comments #6 and #7 above (Section 5), there should be discussion in §8.2 (Long-term Strategy for Watersheds) to describe how watershed modeling, and its use in establishing nutrient load reduction allocations or as a tool for developing reduction strategies, will be adapted as data and scientific understanding evolves and the plan is implemented over time.

15. As noted in comment #12 (Section 7) above, the use of nutrient trading should be addressed either in this section as an implementation strategy, or in a separate discussion of implementation tools.

**Section 10 (Monitoring Marine WQ Improvement and Adaptive Management)**

16. As written, the intent and scope of the “Adaptive Management” element identified under §10.4 is unstated. In general, we would be concerned if only marine receiving water monitoring were considered in an Adaptive Management process for the Nutrient Management Plan. Importantly, because the contribution of anthropogenic nutrient loads to Puget Sound is relatively small compared to the total amount of nutrient loading, the proposed nutrient reduction programs are unlikely to result in any substantive or observable changes in monitoring data of DO conditions in the short term. Therefore, receiving water monitoring should be recognized as primarily being able to inform adaptive approaches over longer term timeframes, but is unlikely to be helpful in managing and adapting the Nutrient Management Plan and outcomes for short term needs.

Furthermore, we believe an Adaptive Management program for modeling tools, regulatory and non-regulatory strategies, and implementation programs should consider a variety of monitoring elements including targeted studies to address the recognized data gaps and uncertainties, studies to improve scientific understanding of DO conditions, and effectiveness monitoring of implementation actions.

Additionally, DNRP has appreciated Ecology’s efforts to convene stakeholders via the Nutrient Forum, the Marine Water Quality Implementation Strategy, and currently the Advisory Committee process to develop the Nutrients General Permit. Once completed via the Forum stakeholder process, the Nutrient Management Plan also would benefit from the assembly of steering and technical advisory stakeholder groups to provide ongoing review and oversight of the implementation and adaptive management actions.

Finally, as the Nutrient Management Plan continues to be refined, WTD looks forward to providing additional input on the approach and content of the plan for nutrient reduction requirements.

cc: Mark Isaacson, Division Director, Wastewater Treatment Division (WTD)