

# STORMWATER WORK GROUP

September 30, 2013

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Dear Bill and Ken,

The Stormwater Work Group (SWG) is pleased to submit to you recommendations for stormwater monitoring associated with Puget Sound roads and highways. These recommendations build on SWG's overarching stormwater monitoring strategy presented in June 2010 to the Puget Sound Partnership (PSP) and the Department of Ecology (Ecology) and October 2010 and subsequent stormwater monitoring recommendations for municipal stormwater National Pollutant Discharge Elimination System (NPDES) permits for local jurisdictions. These recommendations concern both broad monitoring needs for roads and highways as well as specific recommendations regarding the role of the Washington State Department of Transportation's (WSDOT) stormwater monitoring program under their next stormwater NPDES permit.

The SWG is one work group in the Puget Sound Ecosystem Monitoring Program (PSEMP). The SWG is a caucus-based stakeholder group that was convened by the PSP and Ecology in October 2008 to develop a regional stormwater monitoring strategy and set priorities for implementation, including via stormwater National Pollutant Discharge and Elimination System (NPDES) permits issued by Ecology.

In May 2012 the SWG launched a new Roads and Highways Subgroup (RHS) and charged the group with identifying regional monitoring needs and priorities for understanding impacts from road and highway runoff and evaluating effectiveness of management approaches. The RHS reported its progress to the SWG on several occasions and the SWG provided feedback to help the RHS develop a complete package of recommendations. The RHS supplied a set of 15 detailed recommendations to the SWG in early September, 2013. On September 18, 2013 the SWG formally approved the five recommendations listed below.

The first three recommendations concern broad monitoring needs for roads and highways; they are not listed in priority order but are all considered important gaps to be strategically filled. The last two recommendations apply to the role the WSDOT should play in implementing regional monitoring via effectiveness studies and participation in Puget Sound status and trends monitoring.

By consensus agreement (all present in favor), work group members approved the following recommendations as important components of an overarching strategy for monitoring stormwater runoff from roads and highways:

1. It is important to conduct the following types of studies related to transportation systems. An updated literature review should inform study designs.
  - a. Effectiveness studies:
    - i. Evaluate stormwater treatment performance of modified vegetated filter strips.
    - ii. Evaluate the effectiveness of roadside ditch water quality enhancements for pollutant removal from rural roads.
    - iii. Evaluate the water quality treatment benefits of porous asphalt on road shoulders, and the optimization of its performance through operations and maintenance.

To: Bill Moore and Ken Dzinbal  
From: Jim Simmonds  
September 30, 2013  
Page 2

- iv. Evaluate the use of compost-amended biofiltration swales to reduce pollutant concentrations at road maintenance yards.
- v. Evaluate stormwater best management practice (BMP) performance in ultra-urban settings.
- b. Source identification, diagnostic, and source control studies:
  - i. Identify and characterize stormwater pollutant hotspots in roads and highways.
  - ii. Test for the levels of polychlorinated biphenyl compounds (PCBs) in motor oils and fuels.
- 2. It is important to consider the attached list of parameters in designing studies related to runoff from roads and highways. This list expands and updates our framework and strategy for the Stormwater Assessment and Monitoring Program for Puget Sound (SWAMPPS).
- 3. A statewide workshop focused on monitoring and research related to runoff from roads and highways should be convened annually. To the greatest extent possible, the workshops should be coordinated with other stormwater monitoring topics of interest.

By consensus agreement (all present in favor with 1 abstention), work group members approved the following recommendation for monitoring requirements in the next WSDOT permit:

- 4. As part of the requirements of the next permit WSDOT should continue and complete current permit-required studies, and apply findings to their stormwater management program. The Stormwater Work Group would like to participate in the process of identifying future permit-required studies.

By majority agreement (1 dissenting vote and 1 abstention), work group members approved the following recommendation for monitoring requirements in the next WSDOT permit:

- 5. WSDOT should participate in Status and Trends monitoring in Puget Sound as part of the Regional Stormwater Monitoring Program (RSMP).

Because of their role as the WSDOT permit regulator, the Ecology representative abstained from voting on the last two recommendations for WSDOT permit monitoring requirements. The WSDOT representative cast the dissenting vote for the last recommendation. WSDOT representatives expressed concern that the RHS had not developed this recommendation and that participation in RSMP status and trends monitoring would stretch their resources too thin and not provide their agency with actionable information or findings that are meaningful for carrying out or improving their stormwater management program.

We understand that Ecology expects to issue a draft WSDOT stormwater NPDES permit for public comment in early November. Last year Ecology informed us that input received by the end of this month would be considered in drafting permit language. We encourage Ecology to solicit further public input on WSDOT's permit-required monitoring during this draft comment period.

To: Bill Moore and Ken Dzinbal  
From: Jim Simmonds  
September 30, 2013  
Page 3

If you have any questions about our recommendations please feel free to contact me at (206) 296-1986 or SWG staff Karen Dinicola at (360) 584-7052.

Sincerely,



Jim Simmonds, Chair  
PSEMP Stormwater Work Group

cc: Karen Dinicola, SWG Staff  
Rob Duff, PSEMP Steering Committee Chair  
Andy James, PSEMP Toxics Workgroup Staff

attachment: SWAMPPS Roads and Highways Monitoring Parameters (4 pp.)