

STORMWATER WORK GROUP

Appendix 1 – Revised Preliminary Assessment Questions

INTRODUCTION

This set of preliminary assessment questions for stormwater is the result of a two-step brainstorming activity by the “Stormwater Work Group Launch Committee” of the Puget Sound Monitoring Consortium at the request of the Puget Sound Science Panel. It is a quick snapshot from a limited group of people that is intended to inform future discussions of priorities for stormwater monitoring and assessment activities. Identification of data needs and appropriate study designs will be done in future steps. Following the first Work Group meeting, the Steering Committee refined and reorganized the questions to facilitate meaningful discussion and ranking of priorities.

The prioritization and refinement of these questions will be critical in the development of focused, management-driven actions at the federal, tribal, state and local levels. The Stormwater Work Group should discuss more specifically:

- Which of these questions are priorities?
- What are the testable hypotheses for the priority questions?
- Which questions should a Task Group “flesh out” first?
- What level of certainty is needed now and in the future for adapting policies and actions?

DEFINITIONS

Ambient: means in the receiving water, sediments, biota or other media

Characterization: means quantifying pollutant loads, concentrations, and mitigating factors

Effectiveness: includes evaluation of a variety of types of management activities at multiple scales and in multiple combinations, e.g. at the project, watershed, and basin scales and for cumulative projects and/or approaches at each of those scales.

Pathway: a mechanism by which pollutants move through the ecosystem. For this discussion, we consider stormwater to be a pathway for pollutants rather than a source.

Pollutants/stressors: toxics, nutrients, pathogens, temperature, sediment, and flow volume.

Source control: various means of preventing pollutants from entering stormwater and other pathways, including structural and operational practices, product substitutions, and behavior changes.

Status and Trends: means assessing the temporal and spatial distribution of both (1) the effects of pollutants in stormwater on biota and other beneficial uses and (2) the characteristics of stormwater runoff, including quantification of pollutant loads.

Stormwater: a definition appropriate for the Stormwater Work Group will be determined.

Toxic chemicals: include metals [Cu, Cd, Hg, Pb, Zn, others]; PAHs; oil; pesticides; phthalates; flame retardants; legacy chemicals; and other chemicals and categories of concern such as personal care products, pharmaceuticals, and emerging contaminants.

[Note: attach revised Appendix 1 here – line numbered document]

STORMWATER WORK GROUP

Appendix 2 – Puget Sound Science Panel Strategic Priorities for Stormwater

*From p. 13 of the 9/15/08 Draft of the Biennial Science Work Plan
(One of four topics of priority interest, subject to the Panel's revision)*

Watershed-scale study of changes in land use patterns or stormwater management strategies on pollutant loads in stormwater and biological effects

Seeking projects that address the four Partnership strategic priorities in watersheds of approximately 100 square miles in size:

1. Focus on most important/urgent problems

Measure/define the effects of stormwater on receiving waters, habitat, biota or human health in a watershed: what size, location, or other variable makes a particular stormwater discharge more or less likely to cause harm?

2. Protect intact ecosystems

Does watershed-scale application of LID maintain the hydrologic regime in a stream?

3. Restore ecosystem processes

To what extent can retrofits reverse past harm? Measure benefits of retrofitting a basin to:

(a) restore hydrologic equilibrium to an urban stream, but not return to its historic condition

(b) reduce toxics in an urban watershed

(c) reduce nutrients/pathogens in a suburban or rural watershed

4. Reduce pollution at the source

Evaluate the effectiveness of watershed-scale combinations of stormwater management actions/techniques at reducing harm in Puget Sound and identify under what conditions these findings are likely to be transferable to other watersheds.