

# Agriculture Stormwater Sub-Committee

## Revision of Pesticide Monitoring Recommendations

The Agricultural Stormwater Sub-Committee discussed the changes suggested by the Puget Sound Stormwater Workgroup and have revised the pesticide monitoring recommendations accordingly. The changes are discussed below by topic. The bold text is the change desired by the Puget Sound Stormwater group. The regular text following the bold type is the revision by the Agricultural Stormwater Sub-Committee.

1) **Provide additional information on program for contextual understanding.** The following citation and web link provides detailed background information on the pesticide monitoring program: Sargent, D. et al. 2010. Surface water monitoring program for pesticides in salmonid-bearing streams 2006-2008 triennial report. WA State Dept. Ecology and WA State Dept. of Agriculture. Pub. # 10-03-008. 305 pp. <http://agr.wa.gov/FP/Pubs/docs/302-SWM2006-2008Report.pdf>

2) **Articulate the monitoring questions & consider rotating panel sampling.**

Revised Recommendation 1: Broad scale monitoring such as status and trends is not the most cost-effective method to monitor pesticides in Puget Sound water bodies. We recommend a more targeted approach that combines source ID and program or watershed scale effectiveness monitoring. The Dept of Agriculture and Ecology's current program provides a valuable foundation for pesticide monitoring in the state and uses source ID and effectiveness monitoring. We recommend continued reliance and funding for this program to serve as the baseline for stormwater agricultural pesticide monitoring. This program answers the following questions: Are pesticide levels in salmon-bearing surface waters within acceptable levels throughout the pesticide usage period in the Puget Sound region? Which chemicals are above acceptable levels? For any high level of detected pesticide, which crops are the likely contributors?

Revised Recommendation 2: The current pesticide monitoring program samples agricultural lands on a weekly basis from March through mid-September, but does not specifically sample peak flow events. We recommend seeking funding to augment the current Ag/ECY pesticide monitoring program to use existing data to develop a model to estimate impacts due to peak flow events, then increase surface water sampling to test the model. This could start as a pilot program in the Skagit Basin because that is where the baseline data exists. The monitoring questions addressed are: Are the pesticide levels in salmon-bearing surface waters within acceptable levels during peak flow events? If not, which chemicals and crop type are associated with higher levels?

Revised Recommendation 3: The current pesticide monitoring program samples water bodies susceptible to agricultural runoff in Skagit County. However, these water bodies may not be representative of areas where cropping patterns are significantly different. We recommend seeking funding to conduct pesticide monitoring throughout other areas of the Puget Sound region using a rotating panel of randomly-selected sites that are associated with different cropping patterns. The monitoring question that would be answered is: Are monitored pesticide levels in salmon-bearing surface waters associated with cropland throughout the Puget Sound region similar to those in extensively-monitored Skagit County? Based upon existing

information, the rotation period per site will need to be a minimum of three years and may need to be longer to account for annual variability. There may also be practical limitations with laboratory capacity.

**3) Reflect on Overlap Between Agricultural, Residential, and Commercial Pesticide Uses.**

The Agricultural Stormwater Sub-Committee considered the issue of pesticide impacts from other land uses and appreciates the need to include these. It will be important to highlight this data need as the strategy is developed. However, the sub-committee will not be able to address other land use issues within its existing priorities and work plan.