

## STORMWATER WORK GROUP

# 201~~32~~-201~~43~~ WORK PLAN

### KEY ACCOMPLISHMENTS EXPECTED IN 201~~32~~

Continue to implement our 2010 recommendations and update others on our progress:

- ~~Finalize~~ Prepare to launch pooled resources oversight committee ~~charter~~
- ~~Publish~~ Continue streamflow gauging network analyses and recommend next steps
- Finalize small streams status and trends Quality Assurance Project Plan (QAPP)
- Finalize marine nearshore sediment sampling QAPP, mussel sampling QAPP, and bacteria QAPP
- ~~Mussel Watch workshop and recommendations for site selection~~
- Design and implement pre-proposal process for effectiveness studies
- ~~Complete source identification literature review and R~~ ecommend a voluntary permittee report form and an implementation plan for the source identification information repository (SIDIR)
- Data management plans for each component of the Regional Stormwater Monitoring Program (RSMP)

Continue to develop and expand our regional stormwater monitoring strategy and gather support:

- Approve new recommendations for agricultural runoff
- Approve new recommendations for runoff from roads and highways
- New topic areas according to priorities set by work group and champion interest

### PURPOSE AND OBJECTIVES

In 2010, the Stormwater Work Group (SWG) recommended a scientific framework, priorities, and specific steps to implement a broad, comprehensive regional stormwater monitoring and assessment strategy for Puget Sound. The strategy is focused on enabling us to know whether or not our management actions are successfully reducing harm caused to Puget Sound by stormwater from developed and developing lands. This document is intended to guide the SWG's near-term role in implementing the strategy and future expansion of the monitoring program.

The SWG's goals for 201~~32~~ and 201~~43~~ are:

1. Continue to implement the 2010 Strategy and our October 2010 *Recommendations for Municipal Stormwater Permit Monitoring*. Specifically:
  - Recommend a process and criteria for soliciting proposals and selecting effectiveness studies that will be conducted by the regional stormwater monitoring program.
  - Recommend specific next steps to create the regional Methods/Approaches and Results/Findings sides of source identification and diagnostic monitoring information repository SIDIR. Develop a reporting form for the Results/Findings side of the repository that permittees can choose to use to submit permit-required annual reporting.
  - Oversee the creation and administration of the pooled resources approach.
    - Be briefed regularly by Ecology as to the status of creating and implementing the pooled resources approach, and particularly in making contracting decisions to conduct monitoring and assessment activities.
  - Identify priorities and develop recommendations for regional monitoring of runoff from agricultural areas and from roads and highways.
  - Oversee the implementation of SWAMPPS.

## STORMWATER WORK GROUP

- Advise Ecology and PSP on tasks conducted in advance of permittee pay-in to the regional stormwater monitoring program (RSMP) and SWAMPPS activities conducted outside the permit-required RSMP.
  - Advise Ecology in selecting entities to implement ramp-up tasks using pooled resources.
  - Hear from experts on implementation of our recommendations.
2. Communicate and coordinate with policy makers, monitoring groups and other interested parties in Puget Sound.
    - Educate elected officials, city and county staff, and others about our recommendations and findings.
    - Participate in the Puget Sound Ecosystem Monitoring Program (PSEMP) as a topical work group.
    - Hear from other topical work groups at regular SWG meetings.
    - ~~Engage in development of stormwater and monitoring sections of the Action Agenda update.~~
  3. Continue to discuss strategic expansions of the 2010 Strategy to other water bodies, types of NPDES-permitted activities, land uses, or geographic areas of Puget Sound.

This draft work plan lays out the proposed tasks that need to be completed, their timelines, and the roles and responsibilities of various parties in completing the work. This work plan is meant to be a starting point for work planning discussions of the SWG and will be modified based upon their input and progress toward completing the identified tasks.

### WORK TASKS AND SUBGROUPS

Work tasks: The following ten tasks are proposed to be accomplished during 2012-2013:

- Task 1: Support, manage, staff, and lead the SWG in implementing the Stormwater Assessment and Monitoring Program for Puget Sound (SWAMPPS)
- Task 2: Recommend and implement a well-defined process and criteria for selecting effectiveness studies to be conducted in the next 5 or more years
- Task 3: Oversee creation and administration of the pooled resources approach
- Task 4: Oversee implementation of SWAMPPS small streams status and trends
- Task 5: Oversee implementation of SWAMPPS marine nearshore status and trends
- Task 6: Communicate with policy makers and other interested parties in Puget Sound
- Task 7: Participate fully in the new Puget Sound Ecosystem Monitoring Program (PSEMP) and communicate and coordinate with other monitoring groups in Puget Sound
- Task 8: ~~Continue to d~~Discuss further expansions of SWAMPPS; ~~scope and launch one or two new subgroups~~
- Task 9: Expand the SWAMPPS framework to address agricultural lands and issues
- Task 10: Oversee the implementation of a source identification and diagnostic monitoring information repository
- Task 11: Define monitoring needs related to roads and highways

Existing SWG Subgroups (as of the date of this work plan adoption):

- Agricultural Runoff
- Communication
- Effectiveness Study Selection

## STORMWATER WORK GROUP

- Marine Nearshore Status and Trends
- Pooled Resources Oversight
- Roads and Highways
- Small Streams Status and Trends
- Source Identification Information Repository
- Work Plan

### **Task 1: Support, manage, staff, and lead the SWG in implementing the Stormwater Assessment and Monitoring Program for Puget Sound (SWAMPPS)**

A broad, diverse membership has been used since 2008 to engage regional stakeholders in the process of developing a regional stormwater monitoring program. The SWG will continue to use their perspectives to implement SWAMPPS and demonstrate its success as a functional, meaningful, and cost-effective regional program. Ecology has assigned staff to support the work group. Participating entities and caucuses also provide support, expertise, and services.

The terms of service of the SWG chair and vice chair that were selected in February 2011 will end in February 2013. A chair and vice chair for 2013-2015 will be selected before the current terms expire. The chair executes the duties described in the SWG's bylaws.

This work plan update will be officially adopted by the SWG and submitted to Ecology and the Partnership in February 2012. The SWG will continue to evaluate its progress and adapt this work plan as needed. SWG meeting dates and proposed agenda topics are listed in the appendix to this document.

To implement this work plan, and full set of the SWG's October 2010 recommendations, the SWG staff and members will pursue opportunities for additional funding and resources to implement SWAMPPS.

Subgroup: Work Plan, and chairs of all other SWG subgroups  
SWG staff and SWG chair to coordinate and assist as needed

Deliverables: SWG work plan for 201~~32~~-201~~43~~  
Annual work plan updates  
Products as described in Tasks 2 through 11 below  
Grant proposals, interagency agreements, etc.  
Chair and vice-chair nominated in January-November in even years and selected in ~~Febr~~January; in odd years

Timeline: Adopt the SWG work plan update for 201~~32~~-201~~43~~ in ~~Febr~~January 201~~3~~  
Subgroups propose 201~~43~~-201~~54~~ work plan updates in November-December 201~~32~~  
~~2013-2014 work plan~~; updates discussed in January-November 2013 and adopted in ~~Febr~~January 201~~43~~  
Vote on candidates for chair/vice chair January 2013  
Nominate ~~and vote on~~ candidates for chair/vice-chair January-November 2014

## STORMWATER WORK GROUP

and February 2013

Pursue funding/leveraging opportunities as they become known/available

### **Task 2: Recommend and implement a well-defined process and criteria for selecting effectiveness studies to be conducted by SWAMPPS in the next 5 or more years.**

In October 2010 the SWG tasked a subgroup to define and clarify the criteria and process for selecting effectiveness studies that will be conducted during the next NPDES municipal stormwater permit term and beyond using the pooled resources of permittees and others. The SWG approved a prioritized list of effectiveness study topics and questions and submitted them to Ecology in September 2011; the list was included in the formal draft NPDES permits out for comment from October 19, 2011 through February 3, 2012, and was referenced in the fact sheet but not included in the final permits issued August 1, 2012. A literature review was completed in early 2012 and in fall 2012 the subgroup oversaw the scope of work and selection of contractors for a synthesis of the findings of the literature review. The subgroup will evaluate and update the list of proposed studies using the syntheses of the findings of the literature review (which is due to be complete in January 2012) and relevant public comments Ecology received. The subgroup will develop and recommend a transparent process for soliciting, evaluating, and selecting proposals for design and implementation of studies that rank high on the list.

Subgroup: Effectiveness Study Selection

Deliverables: ~~Transparent process for updating effectiveness list and adding new questions~~  
~~Updated list (result of transparent evaluation against literature review)~~  
~~Recommendations for entire selection process~~  
~~Process for workshop or pre-proposals developed and implemented~~  
~~Data management plan and recommendations~~

Deliverables: Updated list (result of transparent evaluation against literature review)  
Update recommendations for entire selection process  
Process for workshop or pre-proposals developed (ready for 2014 implementation)  
Data management discussion and recommendations

Timeline: Expanded literature review delivered January 2013  
Meet with consultant to go over lit review findings Feb 2013  
Discuss any proposed updates to selection process Feb 2013  
Literature review crosswalk and update topic list March 2013

- Present comparison to lit review and revised list of topics to SWG in June 2013  
Tuesday, February 19 by noon: contractors deliver draft synthesis papers to Karen Dinicola to distribute to SWG effectiveness and communication subgroup members via email
- Week of February 25: contractors present synthesis findings at joint meeting of SWG effectiveness and communication subgroups (Seattle)
- Wednesday, March 6 by noon: revised papers out to subgroups for email review
- Monday, March 11 by COB: deadline for subgroup members to raise any remaining issues for contractors to address

Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-

Page 4 of 19

## STORMWATER WORK GROUP

- ~~Wednesday, March 13 by noon: contractors deliver final synthesis papers to Karen Dinicola for distribution to SWG members via email~~
  - ~~Wednesday, March 20: contractors present synthesis findings to SWG (Tacoma)~~
- ~~Present plans for workshop or request for pre-proposals to SWG in Sept 2013~~  
~~Begin work on data management plan in late 2013~~

**Comment [kd1]:** Above highlighted timeline items likely will be replaced with these bulleted items per updated contractor schedule

~~Timeline: Final literature review delivered February 2012  
Subgroup develop transparent selection process February-May 2012  
Literature review crosswalk and update topic list February-April 2012  
Present selection process for SWG review and discussion in March 2012  
Present comparison to lit review and revised list of topics to SWG in April 2012  
Present plans for workshop or request for pre-proposals to SWG in May 2012  
Implement process after permits are issued in July 2012  
Data management plan in 2013~~

### Task 3: **Oversee creation and administration of the pooled resources approach**

The SWG recommended that Ecology serve as the administrative entity for pooling NPDES municipal stormwater permittees in Puget Sound. The SWG also recommended that the SWG have an oversight role, ~~but did not define that role and approved a pooled resources oversight committee charter in 2012.~~ Ecology ~~should will~~ regularly brief the SWG as to the status of creating and implementing the pooled resources approach, and particularly in making contracting decisions to conduct monitoring and assessment activities. ~~The SWG should deliver to Ecology a proposal for how SWG will oversee RFPs and pay-out.~~

~~A subgroup will recommend a process and timeline for the oversight of the pooled resources approach, particularly the pay-out contracting decisions. (This subgroup will also evaluate and recommend other options for administering the funds for the subsequent permit as they become available, although this task is not envisioned to be conducted during the time period covered by this SWG work plan.)~~

~~The SWG will review the preliminary informal draft permit monitoring language that Ecology plans to release in May 2011 for NPDES municipal stormwater permits; and also the final draft monitoring permit language that Ecology plans to release in October 2011 for NPDES municipal stormwater permits. The SWG will provide Ecology with feedback as to our committee's overall assessment of their proposed approach to implementing our recommendations and consider whether additional recommendations from our committee might be necessary or helpful. (This subgroup will also evaluate and recommend other options for administering the funds for the subsequent permit as they become available, although this task is not envisioned to be conducted during the time period covered by this SWG work plan.)~~

Subgroup: Pooled Resources Oversight

Deliverables: ~~Select a subgroup chair  
Recommendations for SWG role in overseeing pooled resources approach (technical and fiscal); revised, final charter.  
Review the boilerplate cost-share agreement between Ecology and permittees  
Comments on draft NPDES municipal stormwater permit monitoring language~~

~~Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-~~

Page 5 of 19

## STORMWATER WORK GROUP

~~Options besides Ecology for administering pooled funds~~

Written job description for a monitoring program director

### Timeline:

~~Comments on permit monitoring language due February 3, 2012~~

~~Revised charter to SWG in spring 2012~~

~~Position description presented to SWG in May 2013~~

~~Review cost-sharing agreement in summer 2013~~

Implement full oversight process after permit is ~~issued effective in July-August 2012-2013~~ – ongoing

~~Position description presented to SWG in October 2012~~

Evaluate administrative entity options after this work plan period

### **Task 4: Oversee implementation of SWAMPPS small streams status and trends components**

The SWG in prior recommendations outlined a number of ramp-up tasks necessary prior to implementation of regional monitoring activities. Some of these are envisioned to be conducted with federal and/or state funding in advance of permittees pooling their resources. Others will be implemented through the pooled resources approach. The SWG has a role in overseeing all SWAMPPS “ramp-up” and implementation activities.

Implementation of any or all of these tasks will be opportunistic, and backed by strategic planning. This list is not considered to be all-inclusive, and it is focused on activities needed to move forward with status and trends monitoring. See the *Recommendations for Municipal Stormwater Permit Monitoring* for more specifics.

- ~~Coordination: In 2012 the subgroup convened with the PSEMP Salmon Recovery Workgroup’s Habitat Monitoring Subgroup and the PSEMP Freshwater Workgroup to discuss overlap and coordination of RSMP monitoring with salmon recovery monitoring and other freshwater monitoring.~~
- QAPP development and site selection for status and trends monitoring: ~~First and revised drafts were reviewed by the subgroup. Ecology has promised a final QAPP by July 2013.~~
  - ~~Small streams: Draft final QAPP was published by Ecology in October 2011 for public comment coincident with the formal draft municipal stormwater NPDES permits. Subgroup will help evaluate comments on the draft QAPP and tee up recommendations for responses.~~
- ~~Second phase streamflow network analysis and recommended next steps: USEPA funded USGS to do the preliminary analysis, which is due to be published at the end of March-June 2012. The subgroup will meet to discuss how much of the lowlands needs to be gaged, the importance of trying to estimate streamflow (or streamflow statistics) in ungaged areas, and the acceptable level of accuracy/uncertainty. Subcommittee agreement on guidance/standards is needed to proceed with stream gaging recommendations.~~
- ~~By the end of 2014 the subgroup will recommend next steps for proposing monitoring locations and a stream gauging program design to support SWAMPPS. Follow up analyses will include evaluation of basin attributes; recommendations as to whether to pursue index site identification; analysis of existing water quality data; and cross-walk between flow and water quality sites.~~

## STORMWATER WORK GROUP

- Coordination of data management for all SWAMPPS components: Ecology's EIM and King County's stream benthos database are envisioned to house the recommended stream status and trends monitoring. The subgroup will make recommendations for managing proposed SWAMPPS stream gauging data.
- Possible pilot studies

The SWG should also provide and pursue ongoing opportunities to hear from experts on implementation of our recommendations.

Subgroup(s): Small Streams Status and Trends

Deliverables: ~~Recommendations for responses to comments~~[Identify/confirm subgroup chair](#)  
[Continue meeting jointly with other PSEMP workgroups](#)

Streamflow gauging network analysis and recommendations/follow-up analyses  
Briefings by lead implementers at SWG meetings  
QAPP, SOPs, site selection  
Data management plan and recommendations  
Oversight of ramp-up and implementation tasks

Timeline: [Confirm subgroup chair by email in advance of first meeting in Feb 2013](#)  
~~Second phase~~ streamflow network analysis ~~published~~[presented to work group in March-June 2013](#)  
~~Evaluate comments in April and recommend responses in May 2012~~  
Final QAPP approved before permit ~~issued effective in July-August 2013~~  
Further analyses related to stream gauging to SWG by end of 2013  
Recommendations for [RSMP](#) data management by ~~end-of-spring 2013~~  
Begin preparation for training and RFPs for monitoring in [late 2013](#)  
[Recommendations for flow data management in late 2013 or early 2014](#)  
[Recommendations for stream gauging and implementation plan in 2014](#)  
~~More b~~riefings TBD  
Oversight of ramp-up and implementation tasks as needed, ongoing

### **Task 5: Oversee implementation of SWAMPPS Marine Nearshore Status and Trends components**

The SWG in prior recommendations outlined a number of ramp-up tasks necessary prior to implementation of regional monitoring activities. Some of these are envisioned to be conducted with federal and/or state funding in advance of permittees pooling their resources. Others will be implemented through the pooled resources approach. The SWG has a role in overseeing all SWAMPPS "ramp-up" and implementation activities.

Implementation of any or all of these tasks will be opportunistic, and backed by strategic planning. This list is not considered to be all-inclusive, and it is focused on activities needed to move forward with status and trends monitoring. See the *Recommendations for Municipal Stormwater Permit Monitoring* for more specifics.

- QAPP development and site selection for marine nearshore status and trends monitoring

## STORMWATER WORK GROUP

- Sediment sampling: Ecology EAP recommended sampling the 0-2m depth range and is developing GIS tools to support probabilistic sampling location selection.
- Mussel sampling: WDFW staff determined approximate expected locations of populations of mussels in Puget Sound that would be adequate for sampling, and proposed criteria for selecting mussel sampling locations for status and trends.
  - [In mid-2012 WDFW announce plans for a Puget Sound mussel contamination survey using caged mussels. As of the writing of this work plan, the mussel cages had been deployed for nearly two months, and retrieval was imminent. The subgroup will hear lessons learned from this project and determine which sampling approach to use for the RSMP.](#)
- Bacteria sampling: the subgroup recommended in 2011 that these sites be co-located with mussel sampling stations.
- Coordination of data management for all SWAMPPS components: The subgroup will make recommendations as to what combination of Ecology's EIM and WDFW and WDOH databases is most appropriate for SWAMPPS data management.
- Possible pilot studies

The SWG should also provide and pursue ongoing opportunities to hear from experts on implementation of our recommendations.

Subgroup(s): Marine Nearshore Status and Trends; additional subgroups specific to each component of this monitoring might be formed

Deliverables: [Identify a subgroup chair or co-chairs](#)  
Delineation of nearshore areas inside/outside Urban Growth Areas  
[Recommendation as to whether to use caged or wild mussels in the RSMP](#)  
[Mussel Watch workshop: recommendations for coordination and build-out](#)  
[Recommend who/when QAPPs will be written and approved, and how funded](#)  
QAPPs, SOPs, site selection, data management recommendations  
Briefings at SWG meetings by lead implementers

Timeline: ~~0-2m UGA boundaries nearshore sampling stratum delineated in January 2013 and approved in early 2012~~  
[Sites selected using new GIS layer in January-February 2013](#)  
[Mussel Watch workshop in spring 2012](#)  
[Sediment sampling QAPP reviewed in spring 2012](#)  
[Specific recommendations for site selection to SWG by September 2012](#)  
~~Specific recommendations~~  
[Select chair or co-chairs via email in Feb 2013](#)  
[Recommendation whether to use caged or wild mussels by March 20, 2013](#)  
[Additional needs for data management to SWG identified by November spring 2013](#)  
All ~~draft~~ QAPPs [final](#) before permit effective in [July-August 2013](#), or other timeline specified  
[Final QAPPs should be approved at least six months prior to sampling in 2015](#)  
Briefings TBD

## STORMWATER WORK GROUP

### **Task 6: Communicate and coordinate with policy makers and other interested parties in Puget Sound**

The SWG released its recommendations for SWAMPPS in October 2010, and has successfully used the caucuses to communicate our key decisions, and the reasons behind them, to staff members at a large number of organizations and entities across Puget Sound. A generic PowerPoint presentation is currently available and will be maintained as the basis of briefing others on our recommendations. To augment the communication and outreach that takes place through the caucuses represented by SWG members, the SWG has a standing Communication Subgroup that will develop draft presentation and briefing materials, and continue to develop and implement a communication strategy for other audiences.

**Outreach to Elected Officials:** Work remains to successfully communicate our recommendations to policy makers, specifically local elected officials and state legislators. The subgroup will continue to develop draft presentation and briefing materials and implement a communication strategy targeted to local elected officials.

**“SWG Reporter”:** The subgroup has also delivered regular updates through “SWG Reporter” editions delivered by email to hundreds of individuals. The SWG will continue to send out SWG Reporters on at least a quarterly basis, and more often as needed. All editions are archived on the SWG’s webpage.

**Workshops:** Before writing the draft scientific framework for SWAMPPS in 2009, the SWG hosted a “sprint” workshop of technical experts to inform priority-setting for a regional monitoring program. The SWG also hosted three successful public workshops in 2009-2010 to discuss development of the regional stormwater monitoring and assessment program. The SWG may use either of these formats again as specific needs are identified and resources become available and hopes to have at least one regional workshop in 2012-2013 to update interested parties on the status of SWAMPPS implementation. The SWG needs more resources to successfully host future workshops.

Subgroup: Communication

Deliverables: [Identify new subgroup chair](#)  
SWG Reporters and archives  
[With Effectiveness Subgroup, disseminate findings of literature review syntheses](#)  
[SWG webpages revised to make the Google site more user friendly to subgroup members and the Ecology site more useful to all interested parties](#)  
Workshop(s)  
Other briefings

Timeline: [New subgroup chair selected via email in advance of February meeting](#)  
[Feb-March 2013: coordinate with Effectiveness Subgroup to review talking points for literature review synthesis findings](#)  
[AWC webpage live with literature review syntheses in June 2013](#)  
Outreach to elected officials as needed  
Bi-monthly or quarterly SWG Reporters ongoing

[Adopted on February 15, 2012](#) [Submitted for SWG approval on January 16, 2013-](#)

Page 9 of 19

## STORMWATER WORK GROUP

SWG webpages updated in summer 2013  
Workshop(s) TBD

### **Task 7: Participate in PSEMP and communicate and coordinate with other monitoring groups in Puget Sound**

~~As of the date of this work plan update,~~ The SWG is one of five-many topical work groups that have been formally commissioned by the Steering Committee for the new Puget Sound Ecosystem Monitoring Program (PSEMP). The SWG will deliver regular briefings to the steering committee.

~~The SWG will benefit from a more formalized means of exchanging information with the other topical work groups. The Puget Sound Monitoring Consortium (disbanded in July 2009) had proposed that the SWG and other work groups would select delegates to populate a Technical Committee to improve coordination and cross topic exchange and analysis of information. The Steering Committee proposes to fill this role without creating another committee. In early 2012,~~ The SWG will designate an official spokesperson to deliver briefings to the steering committee, and the chair and staff continue to coordinate with the other technical groups. The SWG may identify official delegates to these workgroups as needed.

The ~~most recent communication from PSEMP staff at the Partnership indicates that the~~ SWG and other work groups will have been asked to:

- Take “ownership” of relevant dashboard indicators/targets,
- Identify/inventory the main monitoring efforts relevant to stormwater,
- Identify cross work-group and other sorts of questions beyond the dashboard,
- Identify monitoring gaps and priorities, and
- Make recommendations for improving data-sharing, including what data streams need to be developed to make dashboard reporting easier.

The SWG will continue to coordinate with other work groups, particularly freshwater, toxics, salmon habitat, and marine waters as those groups develop new recommendations.

Subgroup: None. Rely on chair, vice chair, staff, and official delegate and alternate as liaisons. Each is expected to provide the SWG with opportunities to comment on presentation materials. Additional points of communication/coordination with other PSEMP topical work groups may be named in the future.

Deliverables: Presentations and briefing materials  
Participate in the ecosystem monitoring program as a topical work group  
~~SWG spokesperson to PSEMP Steering Committee and alternate~~  
Exchange of information with related work groups  
Regular updates from Steering Committee

## STORMWATER WORK GROUP

Timeline: ~~Official delegate to Steering Committee named in January 2012~~  
Standing agenda item for regular SWG meetings  
Other briefings TBD

**Task 8:** ~~Begin to discuss further expansions of SWAMPPS; scope and launch one or two new subgroups~~

The *2010 Strategy* described a comprehensive regional framework and set priorities for early implementation. The October 2010 *Recommendations for Municipal Stormwater Permit Monitoring* further narrowed down what monitoring activities to implement when and where in Puget Sound. In the draft scientific framework and in our communications to others, we specifically stated the need to expand this framework and priorities to other water bodies (*i.e.*, lakes, groundwater, wetlands, open marine, rivers), land uses (*i.e.*, industrial, forested), permit types (*i.e.*, WSDOT, industrial, construction), combined sewers, and geographic areas in Puget Sound. The status and trends monitoring that will be implemented via the NPDES municipal stormwater permit monitoring requirements addresses all land uses in two strata: inside and outside the Urban Growth Area boundaries.

The SWG needs to devote most of a meeting to an expansion priorities/capacity discussion in early 2012. Other permits, combined sewers, additional water bodies, more parameters are all possible expansions of the *2010 Strategy*. The work plan subgroup will tee up this discussion and invite interested parties to champion their issues. The SWG will set priorities for the next 12-24 months.

It is most important to successfully implement our 2010 recommendations in advance of expanding program implementation, but parallel processes can be launched using additional capacity. The SWG should recommend specific next steps to PSP and Ecology before the end of this work planning period. The recommendations need to include funding and implementation strategies.

~~During this work plan period~~In 2012, the Work Plan Subgroup ~~will tee up~~led a discussion and ~~suggested details for a well-defined~~ process to make new recommendations. The SWG adopted a boilerplate document for subgroups to use. Criteria for launching a new technical subgroup might include timing of permit issuance or other pressing need, capacity to staff and populate a subgroup, etc. Criteria for new recommendations might include: articulation of the priority questions to be answered; specific elements of current monitoring efforts that should continue to provide information to answer monitoring questions; targeted additional monitoring needs to answer the questions; and a means of implementing the new monitoring over time (including funding, staff, and other resources). The Roads and Highways Subgroup was formed in 2012 and other subgroups were postponed until a staff person could be identified to lead them.

Expansion topics ~~that may continue to~~will be brought up for discussion at any time. These could include:

- ~~• What would a monitoring program that informs highway stormwater management look like? What monitoring requirements should be included in the next WSDOT permit?~~
- What would a monitoring program that informs stormwater management at industrial and/or construction sites look like?

## STORMWATER WORK GROUP

- What are the next priority water bodies to address and what would be the means for implementing status and trends monitoring in these water bodies?
- What effectiveness studies should be done in addition to evaluating municipal stormwater management programs?
- What are other priority parameters or media that should be included in SWAMPPS based on our discussions with other work groups in the past months?
- How might SWAMMPS address combined sewer overflows? Clean-up efforts?

The SWG should also consider what topics are being addressed by other PSEMP work groups and discuss how we can best support those efforts to expand SWAMPPS.

Subgroup: Work Plan

Deliverables: ~~Evaluation of stakeholder representation in subgroups~~  
~~Updated description of implementation of SWAMPPS strategy components and~~  
~~Gap analysis to articulation of~~ components of strategy not being implemented  
~~Criteria for prioritizing which new tasks to address~~  
~~Recommendations to PSP and Ecology~~  
~~Form additional subgroups as needed~~

Timeline: ~~Evaluation of subgroup composition in February 2012~~  
~~Draft explanation of SWAMPPS implementation in March 2012~~  
~~Discussion of draft criteria for expansion in March 2012~~  
~~Tee up transportation, industrial, and other topics for discussion in spring 2012~~  
~~Applying new criteria to topics at May meeting; decisions in June 2012. Ongoing~~  
~~as needed or requested~~

### **Task 9: Expand the SWAMMPS framework to address agricultural lands and issues**

Stormwater runoff from agricultural lands is partly addressed by the prior recommendations of the work group, but new recommendations are needed to address agricultural runoff issues in a broader, more comprehensive way. The SWG commissioned a subgroup in early 2011 to propose expanding the *2010 Strategy* and building upon the *Recommendations for Municipal Stormwater Permit Monitoring* and other efforts to address agricultural issues. Due to limited SWG staff capacity, this subgroup is supported primarily by Washington State Conservation Commission staff. The subgroup presented draft recommendations to the SWG in October 2011 and will continue to meet approximately bi-monthly. The subgroup's materials, draft reports, and meeting agendas and summaries will be posted on the SWG webpages. Specifically, this subgroup is expected to:

- Review the small streams and nearshore status and trends monitoring parameter lists and consider adding agricultural pesticides and or other parameters for analysis at status and trends sites located outside Urban Growth Area (UGA) boundaries.
- Design a regional source identification and diagnostic monitoring strategy for agricultural issues.
- Design effectiveness studies for agricultural BMPs.
- Describe how the monitoring might be funded and conducted.

Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-

Page 12 of 19

## STORMWATER WORK GROUP

In 2012 the SWG approved the subgroup's preliminary recommendations for monitoring pesticide runoff from croplands, habitat, and nutrients and bacteria from animal sources.

Subgroup: Agricultural Runoff

Deliverables: Monitoring strategy for potential stormwater impacts from agricultural activities  
Scientific framework, implementation plan, and funding approach  
Recommendations to PSP, WCCC, WSDA, and Ecology

Timeline: ~~Pesticide and habitat monitoring recommendations presented to SWG in January or February and approved in March 2012~~  
~~Nutrient and bacteria monitoring recommendations to SWG in September and approved in October 2012~~  
Cropland nutrient and sediment runoff recommendations to SWG in Sept 2013 and approved in Nov 2013.  
~~Effectiveness monitoring recommendations to SWG in November 2012~~September 2013 and approved in January-November 2013  
Data management discussion and p~~Prioritized list of data gaps for agricultural runoff to SWG in February-January 2014 and approved in March 2014~~  
Overall strategy including implementation and funding recommendations to SWG in September-March 2014 and approved in October-2013June 2014

### Task 10: Oversee implementation of source identification and diagnostic monitoring

SWG oversight will be helpful for defining and implementing the process for developing the information repository described in our October 2010 recommendations. In February 2012 the SWG approved a scoping memo that defined the Source Identification Information Repository (SIDIR) as having two main components: Methods and Approaches, and Results and Findings. The memo also envisions a peer network for sharing information. The subgroup will continue to make recommendations about developing the content of SIDIR. These new recommendations will provide a foundation for the development and implementation of the SIDIR in 2015.

- The Field Screening Manual currently being developed by King County under a GROSS grant will be a key entry in SIDIR Methods/Approaches and a helpful starting point for identifying new guidance documents that need to be included or developed. Other existing and evolving resources will continue to be reviewed and considered as well.
- The NPDES permits that were issued last year include a requirement that permittees submit IDDE findings with their annual reports. The subgroup might review and advise Ecology on a voluntary reporting form for permittees to use in 2014 for their 2015 annual reports; the process to develop the form should define the basic types of information that are needed for SIDIR Results/Findings. The first step of commissioning a literature review to guide the creation of the source identification and diagnostic monitoring repository took place in Fall 2011. In early 2012 a process to involve all interested parties in developing the repository itself will be outlined and implemented over the next 2-3 years.

## STORMWATER WORK GROUP

Subgroup: Source Identification and Diagnostic Monitoring

Deliverables: Identify new subgroup chair or co-chairs  
Review new IDDE Field Screening Manual and recommend new guidance documents that need to be included or developed to build on that effort  
Recommendations for a voluntary annual report form for permittees  
New recommendations on the content of the SDIR.

- ~~Literature review for source identification repository (Washington Stormwater Center)~~
  - ~~Summary of interviews of a subset of key local staff~~
  - ~~Definitions of the types of data to be handled by the repository~~
- ~~Clear description of the desired outcome of the Source Identification & Diagnostic Monitoring (SIDDM) component of the regional monitoring program, and the purposes of the SIDDM repository~~
  - ~~Identify the SIDDM repository's specific goal and objectives~~
  - ~~Identify the primary initial purposes for which the data will be used:~~
    1. ~~Determine the performance, planning and operational survey questions that past Permit implementation experience could inform~~
    2. ~~Survey Phase I & II Permittees and Ecology program managers about the types of questions/searches for which the SIDDM database could be used to identify which questions most likely to be useful~~
- ~~Description of the type of relational database needed to meet objectives~~
  - ~~Determination of whether an existing database can be adapted for this need~~
- ~~Recommendations for process to define fields and meta data needs for database~~
- ~~Description of data quality needs and importance of uniformity in meta data~~
- ~~Implementation of process to define fields and meta data needs for database~~
- ~~Recommendations for maintaining the repository~~

Timeline: Identify new subgroup chair at next subgroup meeting  
Specific timing of deliverables will be opportunistic, as more resources are made available and as documents are made available for review  
January-October 2012: ~~subgroup oversee literature review and development of program goals and recommendations; brief SWG regularly~~  
October-November 2012: ~~literature review, initial interviews, program specific goals and objectives, and description of initial database objectives complete (deliver to SWG for review and discussion at October meeting; approval at November meeting)~~  
2013-2014: ~~subgroup oversee development and maintenance of the repository~~

### Task 11: Define Monitoring Needs Related to Roads and Highways

In May 2012, the SWG launched the Roads and Highways Subgroup and directed it to:

## STORMWATER WORK GROUP

Take a holistic approach to defining monitoring needs related to roads and highways across the full spectrum of urban to rural roads in Puget Sound, and to make specific recommendations as to how WSDOT's permit-required monitoring should address a subset of those needs. The big picture of monitoring needs should include status and trends monitoring, effectiveness studies, and source control.

### Subgroup: Roads and Highways

#### Deliverables:

- Stormwater management monitoring strategy for roads and highways including, but not limited to:
  - Priority BMP effectiveness studies
  - Priority source identification and diagnostic studies
  - Priority characterization studies
  - Additional monitoring needs, if any, specific to the Puget Sound basin (e.g., do any other road and highway-related parameters need to be included for analysis at Puget Sound status and trends sites?)
- Recommendations for monitoring requirements to consider for inclusion in:
  - The 2014 reissued WSDOT municipal stormwater permit
  - Future reissuance of other stormwater permits
  - At Puget Sound status and trends monitoring sites

Timeline: January to Mid-March 2013: subgroup hones in on priority road and highway-related research needs and discusses WSDOT and non-WSDOT stormwater monitoring (permit and non-permit driven) efforts related to roads and highways  
March 20, 2013: subgroup progress briefing to SWG  
April to Mid-June 2013: subgroup continues to develop and refine recommendations  
June 12, 2013: subgroup presents draft recommendations to the SWG  
Mid-June 2013: WSDOT and Ecology begin conversations regarding monitoring requirements for the reissued WSDOT municipal stormwater permit in 2014; issues emerging from these discussions shared with subgroup  
Mid-June to Mid-September: subgroup further refines recommendations  
Early September: WSDOT share draft WSDOT water year 2011 monitoring report with subgroup  
September 18, 2013: Anticipated SWG approval of subgroup recommendations  
Fall 2013: SWG submits recommendations to Ecology

# STORMWATER WORK GROUP

## APPENDIX TO THE 2013-2014 WORK PLAN: PROPOSED SWG MEETING DATES AND AGENDA ITEMS

The SWG will meet on the following dates in 2013-2014 to discuss the following general topics- from 9:00 am to 12:00 pm (two exceptions noted) at the USGS office at 934 Broadway in Tacoma. Meetings may occasionally be extended to 1:00pm or later as warranted by the work group's need to discuss and approve recommendations under development.

Note to work group members: Revisions to this Appendix are still under construction ☺

### February 15, 2012 from 9:00 am to 1:00 pm at the USGS office at 934 Broadway in Tacoma

- Approve 2013-2014 work plan updates and discuss subgroup composition (Tasks 1 and 8)
- Discuss agricultural runoff pesticide and habitat monitoring recommendations (Task 9)
- Discuss proposed seeping paper for source identification literature review and interviews (Task 10)
- Name official delegate to PSEMP Steering Committee (Task 7)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### March 21, 2012 from 9:00 am to 1:00 pm at the USGS office at 934 Broadway in Tacoma

- Approve agricultural runoff pesticide and habitat monitoring recommendations (Task 9)
- Discuss proposed seeping paper for source identification literature review and interviews (Task 10)
- Discuss proposed nearshore UGA boundary delineations (Task 5)
- Discuss visual presentation of SWAMPSS implementation (Tasks 1 and 8)
- Hear about findings of effectiveness literature review and discuss crosswalk with list of topics (Task 2)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### April 18, 2012 from 9:00 am to 12:00 pm at the USGS office at 934 Broadway in Tacoma

- Discuss revised pooled resources oversight committee charter (Task 3)
- Approve revised list of effectiveness study topics (Task 2)
- Discuss proposal for overall process to solicit and select effectiveness studies (Task 2)
- Hear about streamflow gauging network analysis and discuss recommended next steps (Task 4)
- Approve nearshore UGA boundary delineations (Task 5)
- Discuss plans for Mussel Watch workshop (Task 5)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### May 16, 2012 from 9:00 am to 12:00 pm at the USGS office at 934 Broadway in Tacoma

- Discuss pre-proposal request for effectiveness studies (Task 2)
- Discuss priorities for expanding SWAMPSS (Task 8)
- Approve revised pooled resources oversight committee charter (Task 3)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### June 13, 2012 from 9:00 am to 12:00 pm at the USGS office at 934 Broadway in Tacoma

- Approve pre-proposal request for effectiveness studies (Task 2)
- Hear report about the Mussel Watch workshop (Task 5)
- Agree on priorities for expanding SWAMPSS (Task 8)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### July 2012

- No SWG meeting

Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-

## STORMWATER WORK GROUP

### August 2012

- No SWG meeting

### September 19, 2012

- Discuss agricultural runoff nutrient and bacteria monitoring recommendations (Task 9)
- Discuss high scoring pre proposals for effectiveness studies (Task 2)
- Discuss nearshore biota monitoring site selection recommendations (Task 5)
- Discuss newly issued muni permits (Tasks 1, 2, 3, 4, and 5)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### October 17, 2012

- Approve agricultural runoff nutrient and bacteria monitoring recommendations (Task 9)
- Approve nearshore biota monitoring site selection recommendations (Task 5)
- Discuss source identification and diagnostic monitoring findings and recommendations (Task 10)
- Discuss proposed position description for monitoring program manager (Tasks 1 and 3)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### November 14, 2012

- Approve source identification and diagnostic monitoring findings and recommendations (Task 10)
- Discuss agricultural runoff effectiveness monitoring recommendations (Task 9)
- Discuss data management recommendations (Tasks 2, 4, 5, 10, 11)
- Direct subgroups to propose 2013-2014 work plan updates
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### December 2012

- No SWG meeting

### January 16, 2013

- Select chair and vice-chair (Task 1)
- Approve 2013-2014 work plan (Task 1)
- Approve agricultural runoff effectiveness monitoring recommendations (Task 9)
- Discuss timing of RSMP small streams status and trends monitoring (Task 4)
- Tee up decision on whether to use caged or wild mussels for RSMP sampling (Task 5)
- Approve/Discuss data management recommendations (Tasks 2, 4, 5, 9, 10, 11)
- Discuss 2013-2014 work plan (Task 1)
- Nominations for chair and vice chair for 2-year terms (Task 1)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)
  - Discuss Toxics Workgroup inventory, gap analysis, and prioritization

### February 2013

- Select chair and vice chair (Task 1)
- Approve 2013-2014 work plan (Task 1)
- Discuss prioritized list of agricultural runoff data gaps (Task 9)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7) No SWG meeting

### March 20, 2013

- Hear about mussel survey project & decide whether to use caged or wild mussels for RSMP sampling (Task 5)
- Discuss agricultural runoff effectiveness monitoring recommendations (Task 9)
- Approve prioritized list of agricultural runoff data gaps (Task 9)
- Hear findings of effectiveness literature review syntheses (Tasks 2 and 6)
- Be briefed on progress of Roads and Highways Subgroup (Task 11)

Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-

## STORMWATER WORK GROUP

- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### April 2013

- ~~No SWG meeting~~ ~~Hear status of implementing this work plan (Task 1)~~
- ~~Hear from PSEMP Steering Committee and other work groups (Task 7)~~

### May 1, 2013

- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### June 12, 2013

- Discuss recommendations for monitoring Roads and Highways (Task 11)
- Hear findings of second phase stream gauging network analyses (Task 4)
- Hear update on web posting of effectiveness literature review syntheses (Tasks 2 and 6)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### July 2013

- No SWG meeting

### August 2013

- No SWG meeting

### September 18, 2013

- Discuss overall agricultural runoff monitoring strategy implementation recommendations (Task 9)
- Approve recommendations for monitoring Roads and Highways (Task 11)
- Discuss SIDIR results/findings reporting form for voluntary use by permittees in 2014 (Task 10)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### October 2013

- ~~Approve overall agricultural runoff monitoring strategy implementation recommendations (Task 9)~~
- ~~Hear status of implementing this work plan (Task 1)~~
- ~~Hear from PSEMP Steering Committee and other work groups (Task 7)~~ No SWG meeting

### November 13, 2013

- Approve
- Discuss work plan updates and direct subgroups to propose specific 2014-2015 work plan updates (Task 1)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### December 2013

- No SWG meeting

### January 15 or 22, 2014

- ~~Discuss~~ Approve 2014-2015 work plan updates (Task 1)
- Determine messages and timing for next SWG Reporter (Task 6)
- Hear status of implementing this work plan (Task 1)
- Hear from PSEMP Steering Committee and other work groups (Task 7)

### TASK TIMELINE FOR 2012-2013:

Adopted on February 15, 2012 Submitted for SWG approval on January 16, 2013-

## STORMWATER WORK GROUP

	2012					2013					2014													
Task	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1,8	Updates	Priorities for expansion											Work plan updates											Work plan updates
2		Effectiveness list update and pre-proposal											RFP for study designs											permit oversight
3	Permit comments	Oversight charter											Position description											permit oversight
4	Network analysis	Streams QAPP																						permit oversight
5	UA delineation	MW workshop											QAPPs											permit oversight
6	Communication																							
7	Coordination with PSEMP																							
9	Pesticides	Nutrients/bacteria											Effectiveness											Agricultural lands framework
10	Source ID lit review and recommendations												Create repository											