Recommendations for Regional Stormwater Monitoring

May 14, 2014

___ Decision

_X_ Discussion

___ Information

SUBJECT: **Scope of RSMP Status and Trends Monitoring**

ISSUE: **Meeting SWG objectives within final RSMP budget**

BACKGROUND AND CONTEXT:

What monitoring and assessment information is needed and why?

Four components of Regional Stormwater Monitoring Program (RSMP) status and trends monitoring were detailed in the *2010 Strategy* and *Recommendations for Municipal Stormwater Permit Monitoring*: small streams (WQI and B-IBI and sediment chemistry); marine nearshore bacteria; shallow nearshore sediment chemistry; and contaminants in nearshore mussels.

Who was involved in the Subgroup, and how were decisions made?

The Pooled Resources Oversight Committee (PROC) discussed a detailed budget spreadsheet prepared by the new RSMP Coordinator. The PROC made all but one of the recommendations by consensus; one recommendation had a single dissenter and a reasonable alternative recommendation is included.

Where are we in the SWG approval process, and when are decisions needed?

To successfully launch the small streams monitoring the SWG must approve a scope for that monitoring component at the meeting on June 11. Decisions on the scopes of the other components are not needed as soon but they will be affected by the streams scope.

How and when are recommendations envisioned to be implemented?

An implementation plan for the streams monitoring has been under development by interested jurisdictions, but the final scope is needed for contracting processes to take place over the summer.

What are the funding implications?

The final budget was determined by permittees' individual "opt-in" or "opt out" decisions. These decisions are needed to use the available pool of money most wisely to meet the highest priority objectives for the RSMP.

ALTERNATIVES CONSIDERED:

The Scope of Work (SOW) for the RSMP proposed to be funded by the pooled resources was posted by Ecology in July 2013. We looked at the cost of fully funding that work, and we looked at various scenarios with reductions in the numbers of sites and the parameters monitored.

RECOMMENDATIONS AND REASONING:

Strategically reduce the scope for RSMP status and trends monitoring to stay within budget and meet our most important objectives for monitoring receiving waters to provide information relevant to understanding stormwater impacts and to adaptive management of stormwater.

RECOMMENDATIONS

(scheduled for approval – as revised per feedback provided today – by the SWG on June 11, 2014)

By consensus, the Pooled Resources Oversight Committee recommends:

1. Maintain a budget buffer of 10-15% for Regional Stormwater Monitoring Program (RSMP) cost overruns.
2. Keep stream benthos, ~~habitat,~~ and sediment chemistry monitoring at all 100 sites because these are of greatest interest to understanding stormwater impacts to biota and informing stormwater management.
3. Reduce Water Quality Index (WQI) sampling sites to 30 inside and 30 outside Urban Growth Areas (UGAs), from 50 inside and 50 outside UGAs, because additional monitoring of WQI is available to leverage and because the monthly site visits are a substantial expense.
    a. Add metals and PAHs to WQI sites because these are of great interest to stormwater management.
    b. Reduce periphyton sampling from 100 sites to just enough sites (30 inside the UGA) for a pilot study and see what we learn from those results to improve understanding of stormwater impacts to biota and inform future monitoring designs.
        i. Analyze chlorophyll a at Manchester Environmental Laboratory (MEL) not Rhithron because MEL costs less.
4. Monitor sediment chemistry and mussels a total of 40 nearshore sites (inclusive of opt-out sites in the list of 40 or 50).
5. Continue to develop the budget with additional detailed information.
    a. Identify the number of "opt-out" sites that are in the top 30 RSMP sites (versus the top 50).
    b. Fully load all FTEs and ensure that each is the correct type of FTE for each task and clarifying what the cost estimate includes.
    c. Look at detailed budgets for data management and analysis tools.
        i. Revised estimate for Puget Sound Stream Benthos database coming from King County.
        ii. More detailed budget for EIM quality assurance, habitat data uploading, and portal development coming from Ecology
    d. Include development of fact sheets for reporting outcomes.
    e. Consider opportunities to coordinate with USGS NAWQA study and Cooperative funding program.

By majority, the Pooled Resources Oversight Committee recommends:

1. Eliminate nearshore bacteria sampling because it is very expensive (nearly $~~1M~~ 700K for just one parameter), and the WDOH program outside UGAs has been discontinued.
    a. Suggested alternative: King Co volunteered to work on a summary of BEACH monitoring in urban areas. This sampling is not year round but might provide useful insight for our management questions about bacteria in urban areas. Additional monthly monitoring is taking place (20 sites in King Co, 12 in Bainbridge, some in Kitsap…), as well as ongoing WDOH monitoring of

Comment [KD1]: Part of benthos monitoring, don't list out separately

Comment [KD2]: These are monthly visits. Ecology, local jurisdictions, others collecting this type of information next year. Being strategic.

Comment [KD3]: Quantify this if possible. How can we incorporate this targeted data? PSEMP FWG has been looking at this question.

Comment [KD4]: Balanced tradeoff – this is really important information.

Comment [KD5]: Drastic reduction from $180K to $5K or $10K

Comment [KD6]: Also webpage maintenance

commercial and recreational shellfish beds. Recommend setting RSMP funds aside to collate these data (in 2017), analyze them, and make recommendations for future study.

Discussion: Contact Jerrod Davis and/or Bob Woolrich at WDOH. WDNR is interested in the data for broader management questions.

ADDITIONAL BACKGROUND INFORMATION

The PROC's main role is to ensure that the funds contributed by permittees to the RSMP Pooled Resources Account(s) are spent wisely to follow the SWG's recommendations and to meet the monitoring objectives that the SWG has prioritized and agreed upon.

The PROC reviewed the budget estimates the SWG provided Ecology in 2010, changes to the budget made in the permit issuance process, and the final RSMP budget based on permittee opt-in decisions. The new RSMP coordinator has been reviewing and researching budget estimates to provide more certainty for final budget and scope decisions.

We have four status and trends monitoring components to accomplish: small streams (which includes WQI, stream benthos, habitat, and sediment chemistry), nearshore bacteria, shallow nearshore sediment chemistry, and contaminant levels in mussels. The $3,454,966 in the Pooled Funds Account for status and trends monitoring is not sufficient to fully fund all of the recommended monitoring. The PROC needs SWG approval of major changes in scope as compared to the draft SOW published by Ecology for the permit. (Ecology published two SOWs in July 2013, one for "opting in" and another for "opting out" to assist permittees in making their permit-required decisions to opt in or out of the RSMP for the duration of the permit.)

The PROC explored options for allocating the Pooled Funds for status and trends and has provided recommendations for the SWG make a final decision that best fulfills the SWG's objectives. It makes sense to adjust the number of sites and the list of parameters to recommend to the SWG as an affordable and credible scope for this first round of monitoring funded by the pooled resources account to which the permittees are contributing.

Our recommendation considers past SWG decisions; the specific need for various pieces of information to improve stormwater management and/or answer important policy questions about whether we are protecting resources over time; and the current knowledge and efforts to monitor and assess status and trends in Puget Sound's small streams and marine nearshore.

REFERENCES

Scope of work for RSMP Status and Trends Monitoring to be funded by pooled resources. On Ecology's webpage http://www.ecy.wa.gov/programs/wq/stormwater/municipal/status.html at http://www.ecy.wa.gov/programs/wq/stormwater/municipal/RSMPSOW22July2013.pdf

APPENDICES

See attached Excel spreadsheet.