



MEETING TIME AND LOCATION

Wednesday, July 14, 2021, 9:00 a.m. – 12:00 p.m.

Microsoft Team information:

Join on your computer or mobile app: [Click here to join the meeting](#)

Or call in (audio only): [+1 564-999-2000, 823330222#](tel:+15649992000) , Phone Conference ID: 823 330 222#

PURPOSE OF THE MEETING

- Discuss watershed model assumptions and output dashboard
- Discuss watershed model management scenarios
- Discuss watershed model calibration results

MEETING AGENDA

Time	Topic	Discussion Items	Lead
9:00 a.m.	Welcome and Introductions	<ul style="list-style-type: none"> • Introductions • Meeting objectives 	<ul style="list-style-type: none"> • Cleo Neculae
9:10 a.m.	Project update	<ul style="list-style-type: none"> • Outreach • Model assumptions • Preliminary Load Comparison • Discussion 	<ul style="list-style-type: none"> • Bo Li
9:50 a.m.	Break		
10:00 a.m.	Management Scenarios	<ul style="list-style-type: none"> • Watershed model management scenarios • Modeling strategy • Discussion 	<ul style="list-style-type: none"> • Bo Li
10:30 a.m.	Break Out Session	<ul style="list-style-type: none"> • Which scenarios will be important for your organization? • What challenges can you identify with these scenarios? • Any information or resource that you can provide? 	
10:50 a.m.	Management Scenarios Open Discussion		
11:10 a.m.	Break		
11:20 a.m.	Calibration Results	<ul style="list-style-type: none"> • Watershed model calibration results recap&discussion 	<ul style="list-style-type: none"> • Bo Li • Yi Xiong
11:55 a.m.	Wrap up		<ul style="list-style-type: none"> • Bo Li
12:00 a.m.	Adjourn		



COMMITTEE MEMBERS

Entity	Representative
City of Auburn	Jeff Dixon, Planning Services Manager
City of Kent	Mike Mactutis, Environmental Engineering Section Mgr
City of Kent	Shawn Gilbertson, Environmental Supervisor
City of Renton	Ron Straka, Utility Engineering Manager
City of Seattle	Kevin Buckley, Strategic Advisor
City of Seattle	Pete Rude, Strategic Advisor
City of Tukwila	Ryan Larson, Senior Surface Water Program Manager
Duwamish River Cleanup Coalition	James Rasmussen, Coordinator
Duwamish River Cleanup Coalition	Heather Trim, Board Member
King County	Blair Scott, Assistant Municipal Stormwater Permit Coordinator
King County	Jeff Stern, Sediment Management Program Manager IV
Muckleshoot Tribe	Glen St. Amant, Habitat Program Manager
Muckleshoot Tribe	Nancy Rapin, Water Team Leader
Port of Seattle	Kathy Bahnick, Environmental Program Manager
Suquamish Tribe	Rich Brooks, Environmental Program Manager
WSDOT	Elsa Pond, TMDL Lead
US Army Corps of Engineers, Seattle District	Kristen Kerns, Physical Scientist
USEPA Office of Water	Ben Cope, Environmental Engineer
Ecology Environmental Assessment Program	Will Hobbs, Environmental Engineer
WRIA 9 Watershed Ecosystem Forum / King County Department of Natural Resources	Matt Goehring, WRIA 9 Manager

PROJECT TEAM

Entity	Representative
Ecology Water Quality Program	Cleo Neculae, TMDL Lead
Ecology Water Quality Program	Bo Li, Environmental Engineer
Ecology Water Quality Program	Yi Xiong, Water Quality Modeler
Ecology Water Quality Program	Jessica Huybregts, Regional Planner
USEPA Office of Water	TBD
USEPA CERCLA	Elly Hale, Remedial Project Manager & Source Control

COMMITTEE GROUND RULES

- Come to committee meetings prepared
- Treat one another with civility
- Respect each other’s perspectives
- Listen and participate actively
- Honor time frames
- Silence electronic devices during meetings
- Speak from interests, not positions



MEETING NOTES

QUESTIONS FOLLOWING PROJECT UPDATE:

Q: Debra Williston– When you talk about Effective Impervious Area (EIA), what happens with the model from the flows from those areas? What does the model do with rainfall that hits those areas?

A: Jeff Burkey – Not 100% of the impervious surface goes to the stream. In the mode, of the total impervious surface, X% is effective and behaves like impervious.

Q: Jeff Stern – For each Hydrologic Response Unit (HRU), do you need to pick an average for each combination?

A: Jeff Burkey – We are differentiating an area by rainfall zone, then within a rainfall zone a particular HRU has the same parameters. The inputs are on 30 meter pixel/grid, so we can differentiate the landscape with that resolution.

Q: Blair Scott – How the % of impervious is determined? Is that calibrated to actual flow in the stream?

A: Jeff Burkey – Assumptions of how much impervious/pervious based on studies, and there are rules of thumb/institutional coefficients.

Q: Debra Williston – Can you relate Jeff’s diagram to the dashboard pie chart segments?

A: Jeff Burkey - Pollutants bound to particles before washoff happens is classified differently now. When we update the atmospheric component, we will revise and it will include the particulate deposition in other ways.

Q: Will Hobbs – Is there a possibility in the current model to consider bulk deposition (particulate and dissolved)?

A: Jeff Burkey – In the model, the true atmospheric deposition is in dissolved, but we know it’s also particulate, and in soil.

Q: Kevin Schock – Is the washoff a land use characterization?

A: Jeff Burkey - Yes

Q: Kevin Schock – How will we be able to identify in the mgmt. scenario which land use is contributing the most contaminants?

A: Jeff Burkey – This is a question we should cover in the management scenario discussion.



Comment: Jeff Stern – Think about the message perspective. E.g. defining it as atmospheric deposition, the community will see that as a big source.

Bo – We may need to reconsider how we should represent this in the dashboard.

Q: Debra Williston – We know for some of these contaminants, that point sources are a key component, but they are not included in the model.

A: Bo - We will address the point sources in the receiving water model.

MANAGEMENT SCENARIO DISCUSSION

Q: Blair Scott – Bioretention BMPs example – Does it include multiple BMP types?

A: Bo – The BMPs would not be lumped into one.

Q: Debra Williston & Pete Rude– Do we have empirical data on PCBs in building materials?

A: Jessica Huybregts – There is currently a lot of work beginning and gaining momentum on PCBs in building materials in the state, so there may be data collected in the near future to link reduction in PCBs in building materials to reductions in stormwater PCB concentrations. San Francisco Bay has a PCB TMDL and part of the implementation includes looking at PCBs in building materials as part of their regional MS4 permit. We will attempt to find data as part of that work.

Comment: Jeff Stern – Concern with modelling when you haven't ground-truthed.

BREAKOUT SESSIONS, DISCUSSING MANAGEMENT SCENARIOS–

Jessica's Group:

WSDOT noted it's hard to connect the PCB in BM item and site cleanup to the work that WSDOT does.

Elly – asked about a scenario that incorporates reduced emissions on highways.

Elly's Group:

Need a systematic way of addressing the issues. The model can inform you to look at an area.

Kevin Schock – two items: (1) the model output will tell you about loading from an HRU but it's not refined enough to tell you how well it will handle specific BMPs in place, and (2) as a comment, you have told the model what to do and it does that.



Will's Group:

Volunteer cleanup program was not required to log all its data in EIM in the past (before 18 months ago). We would want to know if there are implications of missing some data from these sites.

Sensitivity of methods will dictate data quality/usability.

Lack of baseline data and ambient monitoring data will impact usability.

Cleanups require removal to background concentrations, so there will still be some concentration left after a site received a No Further Action determination.

Cleo's Group:

Focused on discussing implementation. What would it mean for the Port of Seattle to cleanup an area and you still have remnants onsite?

Elly asked if there are plans for more water quality data collection. Will Hobbs said that there are no current efforts planned for it.

Bo's Group –

No notes available.

CALIBRATION DISCUSSION

Comment: Jeff Stern - PCB Calibration – We are underpredicting high concentrations and overpredicting low concentrations.

Yi Xiong – Remember that the model doesn't account for the point sources, so that may be why we don't have the best calibration for high concentrations.

Q: Debra Williston – You see the high concentrations of PCBs when you have a low releases from Howard Hansen Dam and a storm event. Can the model account for the different flow regimes?

A: Jeff Burkey – The model takes into account increases and decreases in flow, but it depends on how it moves and the impact on transport.

<12:07 pm end of meeting>