

Draft Bear Creek Watershed Management Study

Public Meeting

March 7, 2018, 6:30 – 8:30 pm

Brightwater Education & Community Center

Meeting Summary Notes

Attendees (at least 75)

Sign-ins from the public (54 in total): 25 noted found out about meeting from postcards, 7 from online source, 1 from news source, 9 by word of mouth, and 12 provided no comment.

Representatives were present from:

WaterTenders, Mid Sound Fisheries, Sno-King Watershed Council, WA DOT, Snohomish County, City of Redmond, City of Woodinville, and WA Ecology.

Elected Official Attendees

Kathy Lambert, King County Councilmember
Andy Rheame (Andy R), City of Bothell Mayor
Paula Waters, Woodinville City Council Member

KC and Partners Attendees (19 in total):

Partners:

Andy Rheame, City of Redmond
Asha D'Souza, City of Woodinville
Bill Leif, Snohomish County
Rick Roberts, City of Woodinville
Elsa Pond, Washington State
Department of Transportation

King County Team:

Josh Baldi	Water and Land Resources Division
Sevin Bilir	Science and Technical Support
Jeff Burkey	Science and Technical Support
Tim Clark	Science and Technical Support
Jessica Engel	Stormwater Services
Jeanne Dom	Stormwater Services
Eric Ferguson	Science and Technical Support
Josh Kubo	Science and Technical Support
Megan Moore	Rural and Regional Services
Doug Navetski	Stormwater Services
Mary Rabourn	Stormwater Services
Ashley Wilson	Natural Resources and Parks
Dave White	Science and Technical Support
Mark Wilgus	Stormwater Services

Facilitation and Support Provided by: (2 in total):

Tamie Kellogg, Kellogg Consulting
Martha Tuttle, Kellogg Consulting

Workshop Purpose: Share information on the Bear Creek Watershed Management Study and why it matters. Get comments on the recommended actions to help restore and protect Bear Creek.

1. Open House

Participants had an opportunity to review posters, reports, and booths on information about the Bear Creek Watershed Study and talk directly with the project team, partners, and other attending King County staff.

2. **Welcome & Introductions – Tamie Kellogg**

- Call to order 7:02 pm
- Tamie Kellogg (Tamie K) introduced herself and reviewed comment submission process and housekeeping rules.
 - Elected officials present were noted: Kathy Lambert - KC Councilmember, Andy Rheume (Andy R) – Mayor of Bothell (also works for City of Redmond stormwater utility), Paula Waters - Woodinville City Council Member.
- Team members were asked to stand and be acknowledged.
- Study Partners were asked to give some comments.
 - Andy R, City of Redmond: Commented that The City of Redmond is unique in that it has well-funded stormwater utility. Situation in Redmond is unfortunate re: stormwater. He is excited about this project. King County only local government to initiate such a study with such collaboration.
 - Bill Leif, Snohomish County Public Works: Snohomish County is another entity that has led a NPDES permit required watershed study. Commented that these plans are cutting edge in scientific analysis of watersheds to date and set numeric targets that use up to date modeling. Little Bear Creek and Bear Creek provides a chance for the study of two similar adjacent watersheds and the ability to use this information in other watersheds.
 - Asha D’Souza, City of Woodinville Public Works director: Woodinville has smallest portion of study area. The City of Woodinville will continue to contribute to study and health of watershed.
 - Elsa Pond, WSDOT, TMDL lead: invited to participate in Study, and is only in a small portion of study area. No highways in this area. However, there is wetland mitigation area in southern end.
- Audience was asked to hold comments during the presentation but that if they had questions during it, to raise hand. Tamie K gave an overview of the evening and then introduced Jeff Burkey.

3. **Presentation on Project Overview & 4 Ways to Restore and Protect Bear Creek Presentation – Jeff Burkey**

Brief summary was given of the Study, key problems identified and Study recommendations. The presentation included directions on how to provide comments on the Study.

4. **Community Questions and Comments (Questions come from the Public)**

- **Q:** Focusing on Bear Creek – how are you handling this with dense urban growth, how does it feedback to watersheds?
 - A:** Redmond and other jurisdictions have stormwater management programs. Stormwater fee covers other things. Complementary efforts.
 - A:** All municipalities in WA are required to account for population growth. This is done in development of Comprehensive Land Use plans. Stormwater mitigation for new development is 100 percent paid for by the developer.

- **Q:** (Councilmember Lambert) Two questions: are we looking to coordinate for tribal requirements for fish passes/culverts and is there a plan for noxious weeds?

A: Culverts: Yes. One of the near term recommendations in the study includes looking into fish passages issues in the tributaries. Weeds: didn't differentiate between weeds and other vegetation aside from was it treed or not during the analysis. There are programs that exist now that do that work, so we would coordinate those activities.

- **Q:** I live near Redmond watershed. What should my strategy be as far as management of water? Should I be trying to get the water to stay on my property?

A: Infiltrate into ground as near to source as possible is best. Raingardens, dry wells, anything to keep water from running off your property is what we are recommending.

- **Q:** How deep can a dry well be?

A: They typically 48 inch in deep and filled with wash rock. However, the depth can vary with the base above groundwater level, no less than one foot. The overall size depends on how much impervious area is being routed to the well.

- **Q:** Who decides what happens here? Someone else is deciding zoning and how much development happens. That's where this begins. I would like to understand who decides how much development and where it occurs.

A: People that plan/zone are local governments such as a city council, and unincorporated areas by county council. Sometimes planners do not think things through, and things need changing. Overall, there was the law passed called the Growth Management Act (GMA). That drew the line where urban and rural development can occur. This was done to prevent urban sprawl, like you see in Los Angeles, etc.

- **Q:** When I think of groundwater as compared to surface water – I think groundwater supposedly is more pristine. When I think of drinking water wells and hear about gravity wells – what are they, what are the hazards of contaminants?

A: A gravity well is a hole in the ground that collects water, using gravity (i.e. not being pumped). To use a gravity well, it is required to pre-treat and remove pollutants in the water entering the well. Where appropriate: one can drill through less-permeable soils down to say 40 to 60 feet or so below ground surface. Of course there has to be a feasibility done. For example it may not be appropriate install a gravity well near a steep slope. And Redmond is very sensitive to any stormwater being put into the ground because of their revised aquifer recharge area. And the groundwater is very shallow in the Bear Creek valley, so it would make more sense to have gravity wells in the tributary basins and not in the valley floor.

- **Q:** Some of the public here tonight don't live in the basin, but downstream – our concern is water that comes down into Sammamish River. Your modeling goes into flow characteristics that look at what happens today...are you seeing any chance to mitigate future and current conditions?

A: Yes, even with future developments if the study is fully implemented, future flood frequencies will be less than existing conditions today.

- **Q:** How much volunteer work can you rely on?

A: Just coordinating and doing things smartly are very big tasks. We have one basin steward for all of WRIA 8 (i.e., the Greater Lake Washington watershed which includes the Cedar River), and he is way overtaxed. We would like to add more basin stewards in future budget, hopefully one for Bear Creek.

- **Q:** I see that the big issue is stormwater runoff. What is being done about road runoff? Are swales in the plan?

A: Primary way to handle this is through bio-swales and infiltration trenches. Then at a larger scale building detention ponds (or vaults). Yes, Swales are in the study.

- **Q:** Septic systems are a source of pollutants. Are you looking to get rid of septic systems in the rural area and add sewers to the rural areas?

A: Urban and rural growth boundary is a sensitive topic and Andy R is going to answer this question.

A: Depending on where you are, the urban growth boundary is a very tricky thing. Sewers are not allowed to extend beyond the urban growth boundary, because that would induce higher density development which is counter to the intent of the GMA.

- **Q:** Rivers have flood stages. Any regulatory features like dams on Bear Creek?

A: There are no major features on creek, now or planned. Long term most effective way is to treat water at source. If a stormwater pond is 10 acre-feet or bigger, technically the state sees it as a dam though.

- **Q:** Is elimination of flooding in the creek not part of the study recommendations?

A: It is, retrofitting to fix current and future conditions will help with flooding concerns. All the work with habitat will also help with flooding.

- **Q:** Infiltration – not being mentioned here, but the value of coniferous trees removing water is not understood. People still don't know that over half of the water coming from the sky can be trapped by these trees. Tree retention is very important.

Soils are getting supersaturated to where they can't hold water anymore, causing slides. Are you doing studies to determine whether you can put all this water back in the ground without causing problems like slides? I have seen climate changes in my work and are you doing any studies to see who putting all this water into the ground will impact the slopes and possible cause diseased trees?

A: This will require feasibility assessments. There are many things to consider. If something is found to not be feasible, we must come up with other strategy. With respect to climate change, we are working with UW and Climate Impacts Group, have modelled impacts for King County. This is part of later phase in another Study.

- **Q:** How will you be doing your studies? Will you be doing any automated measurements, or humans measuring?

A: Both. We expect to use many monitoring sensors, and water quality sampling, and bug samples by field staff. Likely it will be a year is needed to ramp-up and develop a monitoring plan before we actually start sampling.

- **Q:** Study in response to a national question on stormwater. WA one of few states responding. How are other counties responding to this?

A: One intent of permit requirement is finding what works. It's hard to say what the next permit will be.

A: This is a key question. Snohomish County has had transferrable results from this study. We hoping we can find results here that we can apply elsewhere in other watersheds without repeating these steps again and again.

- **Comment:** Sammamish Lake is essentially a big retention pond. But the only way this will work is if a variable weir exists (instead of the fixed COE one that is there right now) is allowed to control flow from creeks. This flow is causing flooding in our lake.

A: This study is tackling smaller flashy floods that can impede outflow from the lake.

- **Q:** How many in audience live in this watershed?

A: Looks like nearly all raised their hands

- **Q:** How many in audience live on 1-5 acres

A: (~12 raised their hands)

- **Q:** How many in audience live on less than 1 acre

A: (~8 raised their hands)

- **Q:** How many in audience have a drinking well

A: (~8 raised their hands)

- **Q:** How many in audience a have a dry well

A: (~6-7 raised their hands)

Tamie K indicated to direct follow up questions to experts and comment cards and then to place them in the comment boxes in the room. The audience was invited to take the plants in the room home and plant on their property.

Q&A period ended at 8:15 pm

5. Open House

Participants had an opportunity to review posters, reports, and booths on information about the Bear Creek Watershed Study and talk directly with the project team, partners, and other King County staff.