# Bear Creek Watershed Plan

## Public Meeting #2

### Woodinville City Hall, Council Chambers

### Meeting Summary

### October 13, 2016 from 6:30-8:30 p.m.

**Attendees:** 36 people from the public attended the meeting.

Time was allotted for light refreshments, an interactive tour of relevant displays, maps and materials organized around the 5 things needed to create a healthy watershed, a meet and greet with the Project Team and Partners, Q&A with Team Leads and to record questions for further discussion.

**Poster Station Questions and Responses:**

1. ***Natural Streamflow and Good Water Quality:*** *On a scale of 1-10, How important to you is the water quality in Bear Creek?*
    a. 9 stickers placed under 10 – Very Important
2. ***Habitat for Fish and Animals:*** *What do you think is the largest factor impacting habitat in the Bear Creek?*
    a. 2 stickers placed under Run-off
    b. 1 sticker placed under Roads
    c. 1 sticker placed under Loss of Forest
    d. 3 stickers placed under Population Growth
    e. 3 stickers placed under Land Use Changes
    f. Other:
        i. Climate Change
        ii. Poor Stewardship
        iii. Erosion Control
3. ***Tracking Progress:*** *What do you think is the cause of flooding?*
    a. Lots of rain
    b. Climate
    c. Too much development/clearing/impervious surfaces - II
    d. Road drainage
    e. Normal flooding expected in natural flood plains; New flooding because of clearing forested areas and replacing it with impervious surfaces
    f. Hard surfaces and "fast" storm drains
    g. Not enough small water gardens on small properties and not enough education
    h. King County should send new owners of property on Bear Creek info
4. ***Solutions Toolbox:*** *What solutions do you believe are the most important?*
    a. Watch out for NIMBY
    b. Pushback; eg Tosh Creek
    c. Stormwater vaults
    d. Stream Restoration - II
    e. Change existing transportation paradigm – II
    f. Road improvement; eg NE 165$^{th}$ at Basset Pond
        i. * careful knotweed factor
    g. Land Conservation – IIII
    h. Limit Development – I
    i. Purchase conservation riparian area – II
    j. Buy more forests

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| | 5. ***Stewardship and Partners:*** *What do you value most about living around/near Bear Creek?*<br>a. Open space / undeveloped area – III<br>b. Salmon habitat<br>c. Salmon and wildlife<br>d. Cool weather<br>e. Protected trail systems, wildlife and trees!!!<br>f. Groundwater storage / aquifer, water quality<br>g. Redmond watershed trails<br>h. Beauty, privacy, wildlife, salmon<br>i. Trees, wild, natural, wildlife<br><br>**From the Public Comment Sheets:** |
| **Tamie Kellogg, Jeff Burkey** | **Welcome, Introductions and project overview**<br>Brief introductions of Partners and Project Team were provided by: Tamie Kellogg, Consultant, Jeff Burkey, PM, Bill Leif, Snohomish County Surfacewater Management, Andy Rheaume, Watershed Planner City of Redmond, Tom Hansen, Public Works Director, Woodinville, Dick Gersib, Washington State Department of Transportation |
| **Jeff Burkey** | **Plan Goals, Objective and Project Overview: Presentation**<br><br>**Goals for this specific workshop:**<br>• Share the water quality problems we are intending to solve with the Bear Creek Stormwater Plan.<br>• Gather feedback and generate interest in what it will take to create a healthy watershed.<br>• Solicit input about potential stormwater mitigation strategies in the Bear Creek basin. |
| **Jeff Burkey** | **Bear Creek Watershed-scale Stormwater Management Plan: Presentation**<br><br>**<u>Q&A</u>**<br><br>**Q.** What is the web address<br>**A.** The website address is printed on the agenda handout |
| **Eric Ferguson** | **Summary of Findings: Presentation**<br><br>**<u>Q&A</u>**<br><br>**Q.** What policies were put in place that would cause such a dramatic drop? Ecologies TMDL?<br>**A.** Maybe the Department of Ecologies TMDL or it could be stream corridor management practices, animal fencing<br><br>**Q.** Where do zinc and copper come from and where does the tan-ish foam come from?<br><br>**A.** Zinc and copper from break dust, oil from cars or roof shingling<br>**A.** The foam is caused by turbulence in the water, its naturally occurring<br><br>**Q.** In 1975 was there a higher standard<br>**A.** There are different requirements depending on the type of stream you have.<br><br>**Q.** What does the red line mean?<br>**A.** It means that humans and animals are safe to be in and come in contact with the water. |

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| | **Q.** I would like more details?<br>**A.** We will make all data available online when it's appropriate to share it. Draft reports by the end of this year<br><br>**Q.** What are the names of the bacteria that you studied?<br>**A.** We did storm sampling for a year, found high fecal counts, and we did tests to identify where it has come from. We did not find that they came from a human source.<br><br>**Q.** Can we be emailed and notified when more information is available?<br>**A.** yes<br><br>**Q.** What is the time frame for seeing results after the work has been done?<br>**A.** We don't have that information.<br><br>**Q.** Curious about the red line in the middle of the map?<br>**A.** That one picked up an instream barrier, potential barrier in the river for migration<br><br>**Q.** How does low habitat quality factor in the fish population?<br>**A.** There is annual variability, this is part of a lake Washington chinook population that is decreasing.<br><br>**Q.** What are the blue lines on the salmon map?<br>**A.** Those are the streams areas that they did not do mapping on<br><br>**Q.** The study did not include Cottage Lake and that could be a cause?<br>**A.** When we chose Bear Creek we had to limit it and Cottage Lake was a natural place to stop. We could include it in the recommendations for the plan<br><br>**Q.** Why is it red in this area?<br>**A.** At the time that it was mapped it had something to do with some kind of instream barrier, possibly a beaver dam.<br><br>**Q.** North in the study area, you've got the PVCA there and major development, did you study there?<br>**A.** This was only in King County. These were previously done studies so that we could get a sense of existing data.<br><br>**Q.** Will you work with Snohomish County on studying this area in the North?<br>**A.** Yes, we are working with Snohomish County on this study. We are evaluating things.<br><br>**Q.** We're confused about the timing of the data on this map?<br>**A.** The map represents results from 1989, we added layers of data from 2001, 2005, and current studies. This map represents multiple years' worth of study.<br><br>**Q.** Did you identify the reasons for the decline in salmon?<br>**A.** I don't think we know. Stream conditions are one factor. The development that we've had in the area over the last 15 years likely had an impact.<br><br>**Q.** I saw on your studies that the water temperatures are going up, isn't that part of what is killing the salmon?<br>**A.** yes it's likely having an impact |
| **Andy Rheaume** | **Strategies, Implementation and Next Steps: Presentation**<br><br>**<u>Q&A</u>**<br><br>**Q.** Is the primary operation of these ponds that the water infiltrates the ground or does it outlet? |

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| | **A.** Both, if you have good soil then you can let it penetrate the ground if not then it would outlet through an orifice.<br><br>**Q.** I've heard that vaults are mosquito attractors, is that true?<br>**A.** That's not actually the case, more so with ponds but we have data that says that is only for the first 3 years.<br><br>**Q.** Aren't you concerned about contaminating drinking water with the deep penetration solution?<br>**A.** We wouldn't do it near a drink water aquifer<br><br>**Q.** What do you to the material you remove in street cleaning?<br>**A.** We decant it, it's a process of treating it.<br><br>**Q.** Do they have a name for the filter system shown on the right?<br>**A.** Those are called contact filters<br><br>**Q.** Do those filters need to be replaced?<br>**A.** Yes, and that can be an issue. So we need to think about appropriate locations to install those<br><br>**Q.** Are they underground?<br>**A.** yes<br><br>**Q.** What does it cost to replace the filters?<br>**A.** About $300-400 per filter, including labor and materials. Those vaults have 40 filters each<br><br>**Q.** Do you have any metrics on the effectiveness of the various solutions.<br>**A.** The most effective and most costly is controlling the stream flow/hydrology.<br>**A.** A lot of the engineered solutions have an effectiveness curve, meaning effectiveness declines over time<br>**A.** For small municipalities we tend to look at the cost of maintenance when considering solutions<br><br>**Statement:** Funding is an issue with plans. This plan is likely a 20-40-year effort. There will likely be money up front to get it started and then you will have to find ways to get it completed.<br><br>**Statement:** You should favor things that are simple, low maintenance and effective. Balance simplicity, low maintenance and effectiveness.<br><br>**Q.** How many vaults with filters vs vaults without filters have been built recently<br>**A.** In Redmond we built one<br><br>**Statement:** An integrated approach seems like a good idea but first and for most you need to slow the flashiness.<br><br>**Statement:** I don't know how to provide you input until you tell us what you think is the best for each area and what makes the most sense.<br><br>**Statement:** If you know what is causing a problem in each area then you also know what is the optimal solution for each area.<br><br>**Statement:** Preservation should be on your list because if you restore it will all eventually get washed away.<br><br>**Q.** Is there a cost in the permit process for all of this new development to contribute?<br>**A.** Yes, but we only implemented that permit fee 4 years ago so that will take time. That's why we're thinking it will take public funding to get things started.<br><br>**Statement:** More info about specific solutions would be useful in order to comment. The County has done a huge |

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| | amount of restoration along the stream. The outreach that has been done has been super helpful. So, keep that up. Community engagement is really important.<br><br>**Q.** If I have 5 acres of trees and pasture and no close streams, can I consider that hill slope of trees as a functioning rain garden? How far away do I have to consider my pollution affecting surface water?<br>**A.** If you kept 65% of your property as forest and your stormwater drains into it then you don't have do anything else.<br>**A.** It really depends on the type of chemicals; some have a longer half-life than others |
| **Tamie Kellogg** | **Wrap up:**<br><br>**How did people hear about this meeting?** *By show of hands:*<br><br>• 3 - newspaper<br>• 8 - email<br>• everybody else - postcard<br><br>**Continued input and involvement in this Stormwater Management Plan is appreciated.** *Send input or questions to - Jeff Burkey, Jeff.Burkey@kingcounty.gov* |