



## King County

### Water and Land Resources Division

Department of Natural Resources and Parks

King Street Center

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Seattle, WA 98104-3855

**206-477-4800**

TTY Relay: 711

October 31, 2013

Rachel McCrea  
Water Quality Program  
Washington State Department of Ecology  
Northwest Regional Office  
3190 - 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008-5452

RE: Notification of Selection of Watershed for Watershed-Scale Stormwater Planning (S5.C.5.c.i)

Dear Ms. McCrea:

King County is selecting Bear Creek watershed for watershed-scale stormwater planning to satisfy permit obligations under section (S5.C.5.c.i) in the National Pollutant Discharge Elimination System (NPDES) Phase I Municipal Stormwater Permit issued by the Washington State Department of Ecology (Ecology), effective August 1, 2013 through July 31, 2018. King County is defining the Bear Creek watershed for the watershed-scale stormwater planning purposes as including Bear Creek and lands that drain to Bear Creek, with the following constraints:

- The Evans Creek basin (a tributary to Bear Creek) is not included in King County's selection
- The reach of Bear Creek downstream of the confluence to Evans Creek, along with small direct drainages and tributaries to this reach of Bear Creek, is not included in King County's selection
- Cottage Lake and the area that drains to Cottage Lake are not included in King County's selection.

The Bear Creek basin as defined (Figure 1) also meets the criteria for an alternative watershed. This basin encompasses about 26 square miles, which is substantially larger than the 10 square mile requirement for alternative watersheds stipulated in Section S5.C.5.c.i(1). About 2.4 square miles are in the City of Redmond, 1.1 square miles are in the City of Woodinville, 3.7 square miles are in unincorporated Snohomish County, and 18.9 square miles [73 percent] are in unincorporated King County. The majority of the unincorporated King County area is designated rural except for about 1.9 square miles residing on the urban side of the Urban Growth Boundary (Figure 1).

Substantial development has already occurred, and more is expected in the Bear Creek watershed selected for watershed-scale stormwater planning. The basin currently supports a population of about 50,000. Land use, based on satellite imagery from 2007<sup>1</sup>, is comprised largely of a mixture of light urban, medium urban, deciduous/mixed forest, and grass (Figure 2). Modeled 2040 land use conditions, assessed using a land cover change model (LCCM) and an urban socio-economic and transportation model (UrbanSim) set to run a “business as usual” scenario based on existing zoning and regulations and projected population growth<sup>2</sup>, show a substantial shift to heavy urban and medium urban land use due primarily to population growth in the urban areas and increased impervious area associated with redevelopment in the rural areas (Figure 3). This shift in land use demonstrates the substantial growth pressures anticipated in this basin.

Even with the current population, Bear Creek contains many miles of high-quality aquatic resources, and is known to support a wide range of salmonids, including Chinook, sockeye, coho, kokanee, coastal cutthroat, and steelhead<sup>3</sup>. Recently, the Bear Creek watershed was identified by Ecology as a targeted watershed for stormwater retrofit planning, with a watershed integrity index of 9 on scale of 1 (low integrity) to 9 (high integrity). Completing a watershed-scale stormwater plan for Bear Creek will help preserve and restore these aquatic resources. Jeff Burkey, Hydrologist in the Water and Land Resources Division is the project manager for this watershed planning effort.

Thank you for your attention to this matter. For more information, please do not hesitate to contact Douglas Navetski at 206-477-4783 or [doug.navetski@kingcounty.gov](mailto:doug.navetski@kingcounty.gov). Thank you.

Sincerely,



Mark Isaacson  
Division Director

Enclosures

cc: Curt Crawford, Manager, Stormwater Services Section (SWSS), Water and Land Resources Division (WLRD), Department of Natural Resources and Parks (DNRP)  
Doug Navetski, Environmental Programs Managing Supervisor, Water Quality Compliance Group, SWSS, WLRD, DNRP  
Jim Simmonds, Environmental Programs Managing Supervisor, Water Quality and Quantity Groups, Science and Technical Support Section (STSS), WLRD, DNRP  
Jeff Burkey, Hydrologist, STSS, WLRD, DNRP

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<sup>1</sup> University of Washington. 2007. Central Puget Sound 2007 Land Cover Classification. Puget Sound Regional Synthesis Model (PRISM). University of Washington.

<sup>2</sup> Alberti, Marina. 2009. NSF Biocomplexity II Grant. 2005-2009. Urban Landscape Patterns: Complex Dynamics and Emergent Properties. Dr. Marina Alberti, Principal Investigator

<sup>3</sup> Kerwin, J., 2001. Salmon and Steelhead Habitat Limiting Factors Report for the Cedar - Sammamish Basin (Water Resource Inventory Area 8). Washington Conservation Commission. Olympia, WA

Figure 1. Bear Creek Watershed Planning Area



Figure 2. Bear Creek Watershed 2007 Land Use and Land Cover

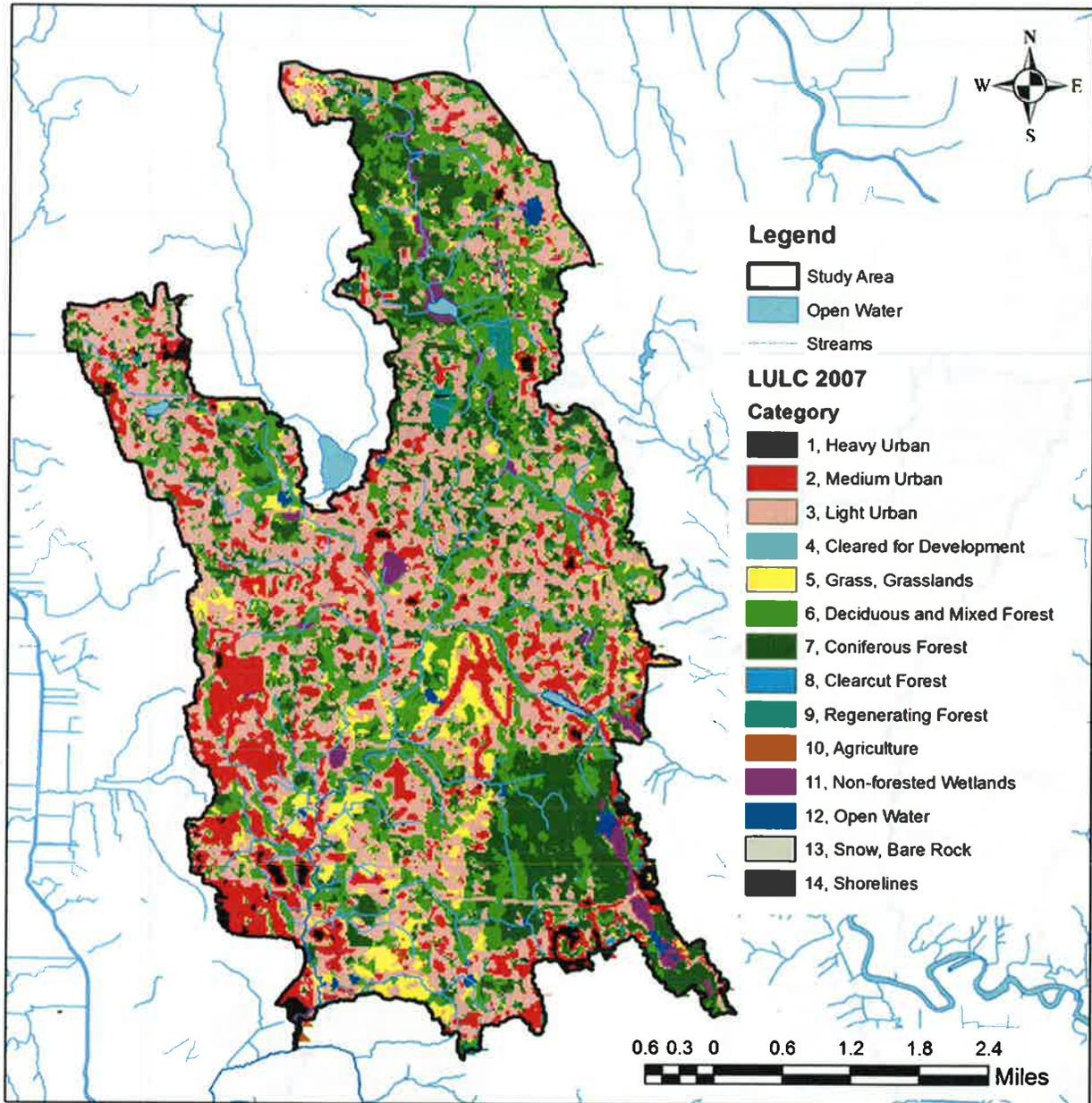


Figure 3. Simulated 2040 Bear Creek Watershed Land Use and Land Cover

