

The following information is requested of organizations. Statement of interest is due February 1, 2012. Please submit one page description using the following outline by February 15, 2012.

Topic/Title: Analysis of rooftop, road, driveway/parking lot, sidewalk, lawn, pasture/agricultural, and forest areas in WRIA 9

Organization: King County

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Personnel from organization to be involved: Jim Simmonds and Curtis DeGasperi

Data available: Orthophotos, land use/land cover layers, zoning layers, parcel layers

Project Description: This project entails digitizing rooftop, road, driveway/parking lot, sidewalk, lawn, pasture/agricultural, and forest areas from orthophotos from randomly selected subareas of WRIA 9. The digitized areas would be turned into a GIS layer for future use by King County. Ideally, the subareas would be randomly selected to represent different land use categories, such as single family residential, commercial, medium/high density residential, industrial, agricultural, and forestry. The calculated areas would be compared to impervious layer covers derived from remote sensing. Field groundtruthing would occur for a random subset of the digitized areas. If this is too big, the digitizing could be prioritized in a couple of ways, such as by type of area (maybe only do rooftops to start and driveways/parking lots to start) or by land use category (maybe start with single family residential).

Benefits to organization: As part of an EPA grant-funded project, King County, in cooperation with EPA, Ecology, UW, and the Cities of Auburn, Covington, and SeaTac, is evaluating future stormwater control needs in WRIA 9. The project area includes all of the Green/Duwamish River watershed and direct drainages to Puget Sound in WRIA 9, excluding the area above the dam, the city of Seattle, and Vashon-Maury Island. Each type of land cover has different types of stormwater treatment options available. For example, there are more stormwater treatment options available for rooftops than for other impervious areas on the ground surface (such as roads and driveways). Rooftops may have green roofs or may discharge in large cisterns, neither of which is a practical option for ground surface impervious area. The information generated by this class project would provide the most site-specific data available for estimating impervious area, and hence stormwater needs, in WRIA 9. These data will be used to adjust the modeling exercise being conducted as part of the project.