

Appendix Q
Flow Exemption on Sammamish River
Letter from Department of Ecology



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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Stormwater Managers:

The Washington State Department of Transportation and King County have requested that the Department of Ecology add the Sammamish River to the list of surface waters exempt from flow control requirements. For the reasons listed below, Ecology will add the Sammamish River to the list.

This decision is based upon the results of a relatively simplistic but conservative hydrologic and hydraulic study of the Sammamish basin performed by Northwest Hydraulic Consultants. The study showed and recommended that detention facilities for flow control were not necessary to prevent scour of the Sammamish River below its confluence with Little Bear Creek. The study also predicted small increases (2% to 8%) in what are normally considered channel forming flow rates, and an increase of 0.26 feet in the elevation of Lake Sammamish if a flow control exemption applied to the entire river. Because more accurate analyses are likely to predict



lower increases in flow rates, and because these increases are not seen as substantial, extension of the exemption to the entire river seems reasonable.

Also considered in this decision are the following observations:

Due to the significant time delays in flows from the upper watershed, direct discharges to the river may actually help reduce high flows in some common rainfall situations.

The increase in flow velocities as a result of a river exemption are likely insufficient to cause scour and marginally more effective at transporting fine sediment from the river to Lake Washington.

At a meeting on this topic in April, the participants (King County, WSDOT, Bothell, and Ecology) also discussed the related issue of water quality standards exceedances for temperature in the Sammamish River. The participants agreed that a viable strategy to reduce river temperatures is to require infiltration of stormwater runoff wherever feasible in the valley. Infiltrating stormwater will also have the result of reducing discharge flow rates and significantly delaying stormwater discharge to the river. All municipalities in the basin, including WSDOT, should require infiltration of stormwater wherever feasible as determined by techniques advocated in the Stormwater Management Manual for Western Washington. King County and WSDOT have indicated their intentions to do so, but have not yet incorporated the requirement into their stormwater codes/manuals. The Department of Ecology will consider incorporating infiltration of stormwater as part of a Total Maximum Daily Load strategy for the Sammamish River temperature problem.

The addition of the Sammamish River to the list of waters exempt from flow control is effective immediately. Appendix I-E of Volume I of the 2005 Stormwater Management Manual for Western Washington will be amended to add the Sammamish River, and will eventually be posted at the Ecology stormwater web page. Please remember that projects requesting a flow control exemption for discharge to the Sammamish River must still meet the criteria listed in Appendix I-E.

If you have any questions concerning this decision, please contact me at eo461@ecy.wa.gov, or 360/407-6438.

Sincerely,



Ed O'Brien, P.E.
Municipal Services Unit
Program Development Services
Water Quality Program

EO:mw

cc: Dave Garland, Ecology, NWRO, WQ - TMDL/Watershed Unit