

Debbie Beadle

From: Evan Maxim
Sent: Wednesday, October 17, 2012 4:07 PM
To: Debbie Beadle
Cc: Kamuron Gurol; Susan Cezar; Kathy Curry; Carl de Simas
Subject: FW: Emailing: ECOLOGY WATER QUALITY REVIEW.pdf
Attachments: ECOLOGY WATER QUALITY REVIEW.pdf

FYI - Public Comment

Evan Maxim
Senior Planner
City of Sammamish
425.295.0523

-----Original Message-----

From: Avanzino, Cindy (ECY) [<mailto:cava461@ECY.WA.GOV>]
Sent: Wednesday, October 17, 2012 3:08 PM
To: Evan Maxim
Cc: Garland, Dave (ECY); Nolan, Joan (ECY); McGraner, Patrick (ECY)
Subject: Emailing: ECOLOGY WATER QUALITY REVIEW.pdf

10/17/2012

Attached is a letter for your information.

Sincerely,

Cindy Avanzino
Shorelands and Environmental Assistance Program WA State Dept of Ecology Northwest Regional Office
3190 160th Avenue SE
Bellevue WA 98008-5452
Phone 425-649-7244
Fax 425-649-7098

EXHIBIT NO. 0229



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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October 17, 2012

Mr. Evan Maxim
Senior Planner
City of Sammamish
801 228th Avenue, SE
Sammamish, WA 98075

RE: Ecology Water Quality Review of Proposed Amendments to the Environmentally Critical Areas Regulations

Dear Mr. Maxim:

Thank you for the opportunity to provide comments on proposed amendments to the City's Environmentally Critical Areas Ordinance and add to the comments already submitted on October 3, 2012 by Patrick McGraner, Ecology Shorelands and Environmental Assessment Program. Ecology appreciates the scope and thoroughness of the proposed CAO amendments.

However, Ecology's Water Quality Program is also concerned that the proposed revised critical area ordinance may not adequately provide for phosphorus control. An increase in phosphorus loading from planned areas of new development should be factored into the overall strategy for controlling the phosphorus load to Lake Sammamish.

Background:

Lake Sammamish water quality is discussed under the *Lake Sammamish Water Quality Management Plan – 1996*. The 1996 plan was originally adopted by King County under authority of a 1991 interlocal agreement between King County and the cities along Lake Sammamish. That agreement acted to implement a *1989 Lake Sammamish Water Quality Management Report*. In 1995 a task force including King County and the Lake Sammamish cities updated the 1989 plan with the *Lake Sammamish Water Quality Management Plan - 1996*. In 1998, the 1996 plan goals and best management practices for phosphorus removal consistent with Sensitive Lake Protection Standards were adopted as part of *King County Surface Water Design Manual -1998* required under the 1995 King County NPDES Phase I Stormwater Permit.

The 1996 plan linked erosion related to development and loss of forest cover to increasing amounts of phosphorus in the stormwater discharging to Lake Sammamish. The plan stated that without significant development controls and even with conventional stormwater treatment such as biofiltration swales and wet ponds, the lake would be headed towards nutrient enrichment and eutrophication.

The 1996 plan set Lake Sammamish water quality goals as follows:

- Mean summer (June - September) transparency of 4.0 meters or greater measured at mid-lake stations 611 and 612,



- Mean summer (June - September) chlorophyll-a concentrations of 2.8 µ/L or less,
- Annual mean volume weighted total phosphorus concentration of 22 µg/L or less.

Currently the City of Sammamish is regulated under National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit. Under the Phase II permit, the City adopted the 2009 *King County Surface Water Design Manual*, equivalent to 2005 Ecology *Western Washington Stormwater Management Manual* (WWSWMM), to control runoff from new and redevelopment projects that discharge to the City's municipal stormwater system. The 2009 King County manual designates Lake Sammamish as a sensitive lake, stating further that the lake is "particularly prone to eutrophication induced by development." The sensitive lake designation requires the City implement pollution control strategies including phosphorus control strategies.

If the City and other jurisdictions draining to Lake Sammamish intend to require the phosphorus reduction BMPs in the WWSWMM or an equivalent, there will still be an increase in phosphorus loading to the lake, significant degradation of the watershed and to the salmonid resources. The equivalent WWSWMM suggests phosphorus strategies to limit the increase in total phosphorus loading from new development to 50% of what it would be without those strategies.

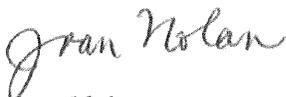
The stormwater manual prescriptions or strategies, even if applied to all new and redevelopment projects that occur in the Lake Sammamish basin regardless of size and connection to the municipal stormwater system, do not address the cumulative hydrologic and pollutant impacts of land development. This is true even with the addition of LID requirements and other nonconventional stormwater treatments. Further, the LID requirements are not required under the Phase II permit until 2017 so any protection from these would not be seen until projects approved after January 2017 are constructed.

Recommendations:

Ecology recommends that the City of Sammamish not allow increased development in sensitive areas as it cannot assure additional activity will not add phosphorus loads to Lake Sammamish. The WWSWMM or the King County equivalent manual implementation strategies without stringent local protection of steep slopes, riparian, wetland, and lake buffers does not prevent increased pollutant loading to water bodies to the extent that Lake Sammamish should be protected. The 1996 *Lake Sammamish Water Quality Management Plan* water quality goals should not be exceeded.

I hope the Planning Commission finds these comments helpful. Please do not hesitate to contact me at (425) 649-4425 or joan.nolan@ecy.wa.gov if you have any questions.

Sincerely,



Joan Nolan
Cedar and Green TMDL Lead
Water Quality Program

JN:BL:

ecc: Dave Garland, Ecology WQ Program
Patrick McGraner, Ecology SEA Program