WHATCOM COUNTY
Planning & Development Services
5280 Northwest Drive
Bellingham, WA 98226-9097
360-676-6907, TTY 800-833-6384
360-738-2525 Fax

J.E. "Sam" Ryan
Director

Memorandum

TO: Whatcom County Council Natural Resources Committee

FROM: Peter Gill, Senior Planner

THROUGH: Mark Personius, Long Range Planning Manager

DATE: April 9, 2013

SUBJECT: Developing Phosphorus neutral Stormwater Runoff Standards in the Lake Whatcom Watershed

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OVERVIEW: Staff will bring forward to the Natural Resources Committee on April 9, 2013 an update of our progress on the proposed WCC 20.51 Lake Whatcom Watershed Overlay District. The purpose of this meeting is to (1) get direction on the need to exempt small lots from phosphorus specific stormwater standards and (2) describe how the proposed code differs from existing standards.

BACKGROUND: In a March 2011 letter to the Department of Ecology, Whatcom County committed to accelerating implementation of the Lake Whatcom 2010 five year work plan (WC Res2010-031) by implementing regulations that address phosphorus loading from new development in the Lake Whatcom watershed. This was followed by the introduction of new development regulations to Planning Commission in November of 2011. Code was reviewed at five work sessions, comments taken at two hearings, and reviewed by a sub-committee of engineers and planning commissioners. The proposal was first presented to Council Natural Resource Committee in April of 2012. At the last Committee meeting in November 2012, council asked for an analysis of small lots.

Since Planning Commission review, new NPDES standards have come into effect and the Lake Whatcom draft TMDL has been published. This TMDL requires lowering the total phosphorus entering the lake by 87%. These proposed stormwater regulatory changes will help meet the TMDL phosphorus reduction goals for new development and reduce the amount of public investments otherwise needed to reduce phosphorus runoff into Lake Whatcom.

Code Objectives: The new stormwater standards around Lake Whatcom are being proposed in order to help limit phosphorus runoff from new development beyond a natural vegetated condition from entering a significant public urban and rural drinking water source. The second objective is to make the code more predictable, streamlined, and clear. The third objective is to comply with state mandated NPDES permit requirements.

EXEMPT LOT DISCUSSION: Council has asked for an evaluation of the effects of exempting small lots from phosphorus specific stormwater regulations. In December, Whatcom County staff visited parcels representative of the vacant lot inventory left in the Lake Whatcom watershed with staff from the City of Bellingham, Sudden Valley Community Association, and the Conservation District. Based on these site visits, County, City, and Conservation District engineering staff have agreed on an approach to phosphorus neutral stormwater facility designs that are economical and effective.

We were asked to provide analysis on exempting lots less than 10,000 ft^2 from phosphorus specific stormwater regulations. The analysis included three points:

a. *Cost differential of applying current stormwater regulations to lots less than 10,000 sq. ft. to stormwater regulations proposed in WCC 20.51 Lake Whatcom Watershed Overlay District*

A handout on phosphorus neutral stormwater designs is attached as **exhibit A**. Four designs are described in detail, three phosphorus neutral approaches, and one that represents the current minimum standard. While there were a wide range of stormwater systems that the engineering staff might have included, the examples were chosen because they are cost effective, phosphorus neutral, and meet existing state NPDES standards. In the coming weeks staff will be reaching out to the local engineering community to review the plans and develop a cost estimate of the designs. These cost estimates will be incorporated into the handout and reported back to the Committee at the next meeting.

b. *Estimated amount of phosphorus contributed from lots exempted from developing under the proposed regulations*

An initial estimate of phosphorus contribution from exempt lots will be presented for Council consideration.

c. *Identification of potential offsets for the additional phosphorus loading resulting from potential exemption*

We are working to determine whether additional funding will be required for this part of the project and will be incorporated into staffs' work plans.

We anticipate presenting updated findings on feasibility and cost, phosphorus loading estimates, and code change recommendations to the County Council in May of 2013.

CODE CHANGE DISCUSSION: The proposal differs from existing code in its layout and its stormwater management standards.

One of the benefits of the proposal is the consolidation of the many existing rules land owners must follow for a permit. The existing code regulating stormwater in the Lake Whatcom watershed is spread across several different Whatcom County code sections:

1. 20.71 - Water Resource Protection Overlay District
2. 20.80.630 – NPDES standards
3. 20.80.635 - Stormwater Special Districts
    - Development Standards Ch. 2, Section 221
4. 20.80.735 - Water Resource Special Management Areas

Proposed WCC 20.51

The public interest is served by consolidating these sections into one clear and consistent standard that applies throughout the watershed.

A significant change with this code is the approach to stormwater management. Protection in the watershed has traditionally taken a preventive approach to managing stormwater runoff, the proposed code takes a more managed approach. For example, tree canopy retention and maximum impervious surface limits in existing code are regulatory measures focused on preventing the potential impacts. The proposed code would eliminate clearing restrictions, but would require a managed stormwater system to prevent impacts. While the "managed" approach provides less regulatory restrictions, the more the site is changed from a native vegetated condition, the greater the cost of the stormwater system. For example, if an entire three acre parcel were cleared, a significant investment would be needed to build a stormwater system. Conversely, if the majority of the same property were maintained in a native vegetated condition, runoff from the cleared area could be dispersed through it for little, or no, added cost. The proposed approach provides financial incentives to minimize changes to the landscape. The following chart compares general differences between proposed and existing standards:

Existing Standards	Proposed Standards
Stormwater Management[1]	Yes[2]
Seasonal Clearing Limitations (Oct. 1–May 31)	Yes
Impervious Surface Limitations	No
Erosion and Sediment Control	Yes
Tree Canopy Retention[3]	No
Open Space Requirements	No
Stormwater Site Plan Recording	No
Protective Native Growth Area Covenant[3]	No
Subdivision clustering	Yes

The Planning Commission recommended code will be presented at a subsequent Committee meeting. We will also provide a list of potential changes intended to address new requirements of the NPDES permit and the Lake Whatcom TMDL.

[1] Permanent on-site stormwater quality and quantity facilities are required on all lots less than five acres in size for projects that increase impervious surfaces by more than 500 ft^2 or when renovation costs exceed 50% of assessed value. (These facilities do not necessarily treat for phosphorus.)

[2] Stormwater must fully infiltrate or disperse, per the per the Washington State Department of Ecology Stormwater Management Manual for Western Washington (WSDOE SWMMWW), or be designed by a licensed engineer that may employ all techniques and all technologies available to not exceed the phosphorus loading profile of the property from its native vegetated condition (See examples in Exhibit A).

[3] All parcels can clear up to the greater of 35% or 5,000 $ft^2$of the existing tree canopy. For parcels 2-5 acres, the remaining canopy must be kept as a Protected Native Growth Area (PNGA)