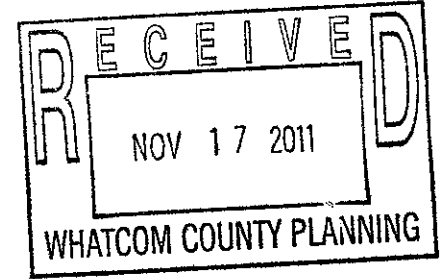


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November 17, 2011

Whatcom County Planning Commission



**RE: Comments on Draft Code
Chapter 20.51 Lake Whatcom Watershed Overlay District**

Dear Commission Members,

As a new wholesale zoning overlay, it appears this code section needs additional time for review to ensure consistency with other zoning sections and overlays already in place. As drafted, it will be difficult and confusing to decipher what is actually allowed on a property. Additional time and review is also needed to revise the phosphorus control requirements to make them workable.

Section 20.51.400, regarding street standards, should specifically approve the 18-foot reduced-width street sections that were specifically developed and adopted for the Lake Whatcom Watershed, and are already in the County standards.

Section 20.51.420(e)-2 says engineered designed systems must *"Not increase the phosphorus loading profile from the development from the portion of the development that occurs within the geographical area of the Lake Whatcom Watershed beyond the pre-development natural condition phosphorus loading profile for the portion of the development that occurs within the geographical area of the Lake Whatcom Watershed based on a monthly mass balance supported by a Washington State Department of Ecology-approved continuous runoff model."*

This requirement cannot be met using currently available science or engineering methods. The DOE approved continuous runoff models (WWHM, MGSFlood) do not model pollutant loadings. No reasonable method of computing a monthly mass balance for phosphorus on a site-specific basis is available. No baseline of phosphorus loading profiles for natural conditions is available on a site-specific basis.

The 2005 DOE Stormwater Management Manual for Western Washington (SWMM) includes several approved Best Management Practices for phosphorus reduction treatment in watersheds with phosphorus load limitations. The SWMM states these are intended to achieve a goal of 50% phosphorus removal for a range of influent concentrations of 0.1 to 0.5 mg/L total phosphorus. These BMPs can currently be designed and installed using the "best available science" as provided in the SWMM guidelines. However, it is not at all clear that they will meet the draft standard in 20.51.420(e).

As currently written, it is highly unlikely that any engineering design would be able to demonstrate compliance with 20.51.420(e). The language needs to be revised to provide a standard that can be met.

In order to be practicable, and in order to achieve the goal of net phosphorus reduction, the standards need to allow and encourage off-site mitigation for phosphorus. By providing treatment of off-site runoff from existing roads and developed areas (using the DOE phosphorus removal BMPs and standards already in place), new developments could demonstrate compliance with a standard of no net addition of phosphorus.

One option for a workable standard would be County-implemented phosphorus control "banking" where targeted existing developed areas would be provided with phosphorus control runoff treatment, and new developments could buy into proportionate shares of the phosphorus reduction benefit. This type of program could actually reduce the net phosphorus loading of Lake Whatcom, while still allowing reasonable development.

The threshold in the standard requiring engineering review and design for creation or replacement of 200-sf of impervious surfaces is not reasonable. Under this standard, a 10'x20' sidewalk or patio could not be built or replaced without an engineering design that will comply with the phosphorus control standard. Many existing homes in the watershed would be unable to replace failing impervious surfaces, or construct small home improvements.

However, most residential impervious surfaces do not contribute to phosphorus loadings. For instance, a home roof would not normally be expected to generate any phosphorus whatsoever, but a native vegetation area would always be expected to generate a naturally occurring amount of phosphorus in runoff.

Typical nitrogen and phosphorus loading from residential areas is non-point source pollution, from fertilizers, detergents, failing septic systems, etc. Small impervious areas do not generate it, and it is difficult to see how the proposed program of detailed engineering design and review of these surfaces will help reduce phosphorus inputs to the Lake.

The standards appear targeted at a goal of rigidly controlling and preventing home construction, rather than actually reducing phosphorus loading in Lake Whatcom.

It is my suggestion that the Commission send this Draft Chapter 20.51 Overlay code to a technical workshop where it can be peer reviewed, similar in nature to what the Commission is doing with the Birch Bay Low Impact Development regulations. The record should be left open until a review can be completed and recommendations come back to the Commission.

Thank you for your consideration.

Sincerely,


Douglas N. Campbell, P.E.
Principal