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April 23, 2013

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

Subject: Ecology Review of Proposed Environmentally Critical Areas Ordinance

Dear Mr. Maxim:

Thank you for the opportunity to provide comments on the proposed amendments to the City's Environmentally Critical Areas Ordinance. The draft we reviewed is dated February 12, 2013, and is the Planning Commission-recommended draft. We are submitting the attached comments on the proposed wetland regulations for consideration by the City Council at the public hearing on May 7, 2013.

We appreciate the effort that has gone into the current draft, especially with regard to regulating small wetlands. However, we believe that some aspects of the current draft will result in a high risk of degradation to the City's wetland resources. We continue to be concerned about the City's strategy for protecting small wetlands and allowing buffer reductions.

Our Water Quality Program wrote the second half of this comment letter on the Pilot Project to Develop in the No Disturbance Area.

Please do not hesitate to contact me at (425) 649-4447 or patrick.mcgraner@ecy.wa.gov if you have any questions about these comments. You may also contact Donna Bunten at (360) 407-7172 or donna.bunten@ecy.wa.gov.

Sincerely,

Patrick McGraner
Wetland Specialist
Shorelands and Environmental Assistance

ecc: Heather Ballash, Department of Commerce
Theresa Nation, WDFW
Joe Burcar, Ecology SEA Program
Donna Bunten, Ecology SEA Program
Erik Stockdale, Ecology SEA Program
Kevin Fitzpatrick, Ecology WQ
Dave Garland, Ecology WQ Program
Brent Carson, VanNess Feldman GordonDerr Attorneys at Law

21A.15.1415 Wetlands

We believe that, as written, the definition of wetlands may be confusing. We recommend the following:

> Wetlands in the City of Sammamish include all areas meeting the definition provided by RCW 36.70A.030(21), specifically: "Wetland" or "wetlands" means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from non-wetland areas created to mitigate conversion of wetlands. Wetlands shall be delineated in accordance with federal 1987 *Wetland Delineation Manual* (Environmental Laboratory, 1987) and the United States Army Corps of Engineers (USACE) *Interim Regional Supplement for Western Mountains, Valleys, and Coast Region* (USACE, 2010).

21A.15.1410 Isolated Wetlands

Please see our previous comments and recommendation in the letter dated October 3, 2012. In order to re-emphasize and to provide additional clarity, we again recommend making the following revisions to this definition:

> "Wetland, isolated," means a wetland that is hydrologically isolated from other aquatic resources, as determined by the United States Army Corps of Engineers (USACE). Isolated wetlands may perform important functions and are protected by state law (RCW 90.48) whether or not they are protected by federal law.

21A.50.060 Allowances for Existing Urban Development and Other Uses

This section of proposed code has multiple allowances for expansions and additions that could impact critical area buffers. The concern that Ecology has with this section is the use of the overly broad term of "building(s)." Does this include small outbuildings, sheds, well-pump houses, garages or any and all structures? Is the term "buildings" defined in code anywhere?

The allowed expansions to buildings as outlined in 21A.50.060(2)(b) should only be applied to dwelling units. Ecology further recommends that 21A.50.060(2)(b)(3)(b) be eliminated from the draft code. A variance process is a more appropriate way to handle such a situation. Subsection 21A.50.060(2)(b)(3)(c) would thus need to be revised accordingly.

21A.50.320 Development Flexibilities

A qualified professional does not have the *authority* to determine whether or not a wetland is isolated with regards to federal jurisdiction under the Clean Water Act. Only the USACE can make this determination based on its interpretation of the Clean Water Act. The language under .320(1) that refers to a qualified professional should be deleted accordingly. Codifying this language as currently drafted could lead citizens to falsely believe that a determination by a private consultant would preclude the need to comply with federal and/or state regulations with regards to filling small wetlands.

Paragraph (2) exempts certain small wetlands from mitigation sequencing and from the provisions of SMA 21A.50.290. As has been stated previously by Ecology (October 3, 2012), the scientific literature does not support exempting wetlands that are below a certain size. While we continue to recognize the ongoing administrative desire to place size thresholds on wetlands that are to be regulated, Ecology re-emphasizes that it is not possible to conclude from size alone what functions a particular wetland may be providing.

Ecology has already suggested (October 3, 2012) that the City adopt the language found in the *Guidance for Small Cities* which allows for exemptions to isolated Category III and Category IV wetlands less than 1,000 sf that meet specific criteria. Ecology continues to support this approach.

Paragraph (3) requires a 15-foot buffer on Category III and IV wetlands scoring 15 or fewer habitat points. This is not consistent with the best available science (BAS), and this provision will likely result in an unmitigated loss of wetland function. The City's stated purpose (21A.50.010(6)) in this ordinance is to prevent overall net loss of wetland functions.

In Section 8E.2.7.1 of *Wetlands in Washington State, Volume 2: Managing and Protecting Wetlands* (Publication # 05-06-008, April 2005), the smallest recommended buffer is 25 feet for a Category IV wetland *with low-intensity adjacent land use*. The fact that a wetland receives a Category III rating indicates that it already provides a moderate level of functions.

We recommend deleting this provision (paragraph 3) from the draft and requiring the standard buffers in 21A.50.290(1) for these wetlands. The City should limit exemptions to isolated Category III and IV wetlands less than 1,000 square feet as discussed above and described in the *Guidance for Small Cities*. Otherwise, development applications that seek to reduce buffers below those supported by (BAS) should be reviewed through a reasonable use exception or variance process.

21A.50.290 Development Standards

Ecology is concerned that the strategies for reducing wetland buffers contained in the draft proposal will not protect wetland functions and will result in degradation of the City's wetland resources. Buffer reductions should be achieved only through averaging or tied to reducing impacts from the adjacent land use that will have negative effects on the wetland's functions.

The draft ordinance allows buffer averaging to 50 percent of the standard buffer width. We are concerned that this will result in buffers that will not adequately protect wetland functions. We recommend limiting the reduction to 25 percent of the standard buffer and adding the requirement that no feasible alternatives to the site design could be accomplished without buffer averaging. Buffer averaging and buffer reduction should not be used on the same segment of buffer, as proposed in paragraph (6)(f).

Likewise, buffer reductions (paragraph (8)) should be limited to 25 percent of the standard buffer, not 50 percent as proposed. The options of allowing reduced buffer width as an incentive to reduce water quality impacts on adjacent wetlands are commendable. However, a number of the proposed incentive options are already required for stormwater treatment and should be reevaluated as an incentive for buffer reduction. However, in no case should a buffer width based on the habitat function of a wetland be reduced in exchange for reductions in water quality impacts from adjacent land uses. Buffer reductions under these circumstances should be limited to wetlands that score <19 points for habitat function.

Requiring replanting when a substantial portion of the remaining buffer is degraded is not consistent with Ecology's guidance. One of the most critical elements of Ecology's buffer widths is the assumption that the buffers are well-vegetated with a relatively intact, native plant community (8C.2.5.1 of *Wetlands in Washington State, Volume 2)*:

> If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.

In other words, the buffer should be well vegetated; if it is not, it should be widened or replanted—but not reduced.

Paragraph (9) states that the use of hazardous substances "may" be prohibited by the City. Under what conditions? Ecology recommends that any pesticides used within 25 feet of a wetland (or 100 feet if spraying) have to be listed in their MSDS as non-toxic to fish and aquatic invertebrates, and that Integrated Pest Management practices be used when working in or near wetlands.

21A.50.300 Permitted Alterations

Who will determine whether a wetland or buffer is "used" by a listed species (paragraph (5)(b))? How will this use by a T/E species be determined? Generally speaking, most data collected for a required critical areas study is collected in one or two brief site visits depending upon the size of the project so how will it be known whether or not the project site is being used by a T/E species? Does the proposed code define "actual habitat?"

Paragraph (7) addresses the use of wetlands and wetland buffers for stormwater. Ecology recently updated its Stormwater Manual for Western Washington. This manual has very specific requirements for the use of wetlands and buffers for stormwater management. Ecology recommends that stormwater management activities follow the guidance found in **Appendix I-D: Guidelines for Wetlands when Managing Stormwater** from *Stormwater Management Manual for Western Washington, Volume I, August 2012, Publication #12-10-030.* The guidance contains four Guide Sheets that were developed based on BAS. This publication is available on Ecology's web-site at https://fortress.wa.gov/ecy/publications/publications/1210030part1.pdf.

Paragraph (8) allows trails in wetland buffers. What are the development standards in Chapter 21A.30? The scientific literature is clear that at least 150 feet is required to prevent the disturbance associated with human intrusion from affecting wildlife. The decision to allow trails should be based on the size of the buffer, habitat function, and the societal need. Ecology recommends that trails be limited to the outer 25% of the buffer.

Ecology recommends changing the language in paragraph (13)(a) to be more inclusive rather than restricted only to sponsorship by a public agency. This sentence could simply read that restoration is allowed if approved by all agencies with jurisdiction. This approach would allow any entity to propose restoration.

The language in paragraph (13)(d) seems to imply that no contact with critical areas or their buffers is allowed during restoration. How is it feasible to restore a critical area without contact and temporal impacts? Both federal and state agencies routinely approve mitigation and restoration plans with temporal impacts during construction. These impacts are minimized through of number of best management practices (BMPs) including such things as limiting construction to the dry season, using pressure mats, large rubber tires on equipment, special rough terrain excavators, standard erosion control measures to mention a few examples.

Ecology recommends revising (13)(d) to read "restoration should be completed in accordance with best management practices (BMPs) and acceptable standards consistent with wetland science to minimize impacts to wetlands" or similar language. The draft language as written has the potential to limit the opportunity to improve the functions of degraded wetlands within the City's jurisdiction.

21A.50.310 Mitigation Requirements

The correct citation in paragraph (1) should be to Publication No. 06-06-11a and b.

21A.50.322(3)(d)(4) – This subsection within the section for **Wetland management area – Special district overlay** requires the planting of native conifers not less than three feet tall and native deciduous trees to be not less than five feet tall. While Ecology understands the intention and desire to establish larger trees sooner as a goal for restoring forested communities within wetlands, there is substantial evidence based on years of monitoring mitigation sites that planting smaller trees yields the same or better results. Small stock has a better chance to spread roots in a manner that allows each individual plant to adapt to the specific spot in which it was planted.

It has been widely observed by wetland restoration scientists that smaller stock will quickly overtake and outgrow the larger stock in a few short years even when planted side by side. This is likely because it takes larger stock longer to adapt to the new environment. Larger stock often needs to be irrigated until fully established. Not all sites and situations are the same. There may be times when planting larger stock is preferred but Ecology recommends that this decision be made on a case by case basis and not as a code requirement.

21A.50.145 Mitigation Plan Requirements

We recommend revising paragraph (7) to require monitoring for 10 years if a forested or scrub-shrub wetland is the goal. These communities take at least eight years after planting to reach 80-percent canopy closure. Having a ten-year monitoring program need not require biologists to collect data and produce a report every year. That could be done in years 1, 2, 3, 5, 7, and 10, for example. It may be more appropriate to include this requirement under 21A.50.310, since it pertains to wetland mitigation.

<u>Ecology Water Quality Program Comments on the Pilot Project to Develop in the No Disturbance Area</u>

Ecology's Water Quality Program reviewed the implementation language on the pilot program in the draft City of Sammamish (City) Critical Areas Ordinance (CAO) 21A.20.220 and 21A.20.225. We are also in receipt of a letter dated April 8, 2013 from Brent Carson, attorney of VanNess Feldman GordonDerr, representing a Lake Sammamish area landowner. Mr. Carson's letter describes the City's plans to conduct a pilot project to develop within areas designated as No Disturbance Areas of the City's existing Erosion Hazard Near Sensitive Water Bodies Overlay (EHNSWB).

We recognize that the City is not the only jurisdiction permitting construction along Lake Sammamish and understand its interest in exploring the value in retaining these specially designated areas. Overall we appreciate that the City is proposing to go beyond the required minimums for some stormwater management control elements such as requiring a 60% total phosphorus reduction treatment in stormwater runoff for those projects where access to Lake Sammamish is only available via connection to an existing offsite, manmade conveyance.

We do, however, maintain the concern expressed in our letter of October 17, 2012 that the City needs to be vigilant about minimizing phosphorus loading to Lake Sammamish from all development and redevelopment projects. Cumulative development by all Lake Sammamish jurisdictions without water quality control can potentially lead to excessive nutrients in the lake which leads to algal blooms and low dissolved oxygen in the water. With this caution in mind we offer the following comments on proposed pilot program:

(1) NPDES Construction Permitting: It will be necessary for qualifying pilot projects to comply with applicable construction stormwater permits and use all best management practices. For projects that will directly discharge to Lake Sammamish via a bypass pipe, it will be critically important to install any bypass pipes prior to construction. Under the Construction Permit, Ecology requires turbidity monitoring. During construction, Ecology also recommends monitoring for pH rather than the temperature monitoring found in the draft CAO. Further, Ecology will require that any project with the potential to pollute such as those projects in the EHNSWB, regardless of project size will be required to get a construction permit.

(2) Municipal Stormwater NPDES Permit, WAR04-5540: In developing requirements for projects in erosion hazard areas, erosion hazard areas near sensitive water bodies, and no-disturbance areas, the City should be careful not to violate any provisions of its Municipal Stormwater NPDES Permit, WAR04-5540. We draw your attention, in particular to two provisions in the permit effective August 1, 2012:

    a. Proposals to tightline stormwater directly to Lake Sammamish may be approved only if the criteria under the Applicability section of Minimum Requirement #7 are fully met. See Section 4.7 in Appendix 1 of your current permit. If the City wishes to allow direct tightlines to Lake Sammamish that do not meet the cited criteria, or criteria in the 2009 King County Surface Water Drainage Manual, it must develop a water quality and quantity plan that supports the proposal. The plan must receive Ecology approval prior to being implemented. See Section S5.C.4.a.i. and, as appropriate, Appendix 1, Section 6 or 7 of your current permit.

    b. Because the City has adopted the King County Surface Water Drainage Manual, direct or indirect discharges to Lake Sammamish must comply with Section 1.2.8.1.B "Sensitive Lake WQ Treatment Areas." Ecology reminds the City that the treatment goal for facility options in the Sensitive Lake Protection menu is 50% annual average total phosphorus removal assuming typical pollutant concentrations in urban runoff. Mr. Carson's letter proposed that discharges from developments in the no-disturbance area be provided with treatment systems that remove 60% total phosphorous. To Ecology's knowledge, a listing of technologies that remove 60% total phosphorus has not been established. Development of such a list would require Ecology approval.

(3) Pilot Project Sampling: Ecology recommends use of a Quality Assurance Project Plan (QAPP) (Ecology Publication No. 04-03-030) for pilot project sampling. The sampling should include a pre-construction baseline, include soluble reactive phosphorus, and define the monitoring as seven rain events rather than monitoring seven times per year. The monitoring should have an end date and make recommendations for local decision makers for future best development practices.

(4) Pilot Project Sizing: By definition, a pilot project is tested on a smaller scale before being placed in practice on a larger scale. Ecology recommends that draft CAO pilot project language define the scale as a smaller percentage of the EHNSWB developable acreage.

(5) Ecology supports infiltrating as much water onsite as possible to recharge groundwater and maintain stream baseflow. In addition CAO21A.50.220 (1)(iii) language Ecology recommends adding that the engineer or geologist will determine how much water can safely be infiltrated on site before making recommendations for tightlines.

(6) Native Growth Protection Easement: The 1994 East Lake Sammamish Basin and Nonpoint Plan has recommendations for base flow maintenance of 25% Native Growth Protection Easement (NGPE) in forested open space and less than 35% impervious area for new developments. 21A.20.225 (5)(c)(iii)(G) of the draft CAO calls for a 15% NGPE. Ecology recommends that the draft CAO language be updated to stipulate that all pilot projects maintain at least 25% NGPE forested open space. (5)(c)(iii)(F) limits impervious area for tightline projects to 50%. Ecology recommends that the selected projects be required to maintain at least 35% NGPE forested open space.

Thank you for the opportunity to provide comment on the pilot program. We are available to discuss these comments and provide guidance on recommended sampling and NPDES stormwater and construction permit requirements. We want keep careful track of maintaining the Lake Sammamish water quality goals. We know that it is in the interest of all who enjoy Lake Sammamish to keep our water clean.