Jim Osgood  
19661 SE 24th Way  
April 2, 2013

Over the past year plus we have been engaged, first with the Planning Commission and now with you, the City Council, to get a serious injustice corrected. To do so we have presented many comments and had many experts testify on our behalf and on the behalf of other property owners in the overlay who have unjustly had their property rights infringed upon. Today I hope you will continue to move forward in correcting this injustice.

During this process we have presented evidence about our property that demonstrates that development can take place without any more adverse effects to Lake Sammamish than any other development outside the overlay that drains into the lake. Our property is not the only property in the overlay that could meet this standard. If a property in the overlay can demonstrate that development can take place without any more adverse effects to Lake Sammamish than any other development outside the overlay, they should be allowed to do so. Otherwise, it is an injustice.

You have just heard from our engineer that the ditch is capable of handling our stormwater based upon the King County Storm Water Manual required level one analysis (CC027). We have a full Geotech study that confirms our slope and soils are satisfactory for development and during the course of this process, we have had many experts comment and confirm that erosion control on our property will not be a problem especially since our property does not have any steep slopes.

In addition to all of that, the proposed pilot program will require that we remove more phosphorus than is typically required by other developments outside of the overlay. We will be incorporating many low impact development techniques, again not required for other developments, to significantly reduce water volume. This will include rainwater harvesting, which will effectively negate the storm water coming off the roofs of homes by redirecting it to the sewer through recycling.

The bottom line is that an injustice has occurred to property owners in the overlay that can now be rectified by your approving the proposed Pilot Program. It is a small step in the right direction, but a safe one I urge you to take.

Attachments:
Rationale for Support for Development in the EHNSWB Overlay (CC003)  
Erosion Control Effectiveness Review (CC010)  
Icicle Creek Engineers Geotechnical Critical Areas Study - Conclusions and Recommendations

Received at Reg Meeting  
April 2, 2013  
Public Comment
Rationale for Support for Development in the EHNSWB Overlay
Prepared by: James Osgood 2/20/2013

Pilot Program (21A.50.225 5) 4-15G Evaluation Form

- No other jurisdiction in the State has similar prohibitions.¹
  - Nearby jurisdictions use the most recent King County Storm Water Manual to protect the environment. ²⁻⁵

- Very limited program – 9 developments total. (21A.50.220 5 (c))
  - Earth moving will only occur during the dry months. (221A.50.220 1)

- Growth Management Act - GOAL HG-4: Avoid creating regulations that have an unnecessary impact on the cost or supply of housing.
  - Failure to do so will not “permit urban densities” as required in a very large portion of the city. (RCW 36.70A.110)

- No Development will be allowed on steep slopes. (21A.50.225 5)
  - Much confusion between EHNSWB and Steep Slopes. They are not the same. (Minority Report, page 5, p 1 is an example)
  - Primary erosion concern comments are based on steep slopes. (e.g. Welch comment 128)
  - Many areas with the EHNSWB are not steep with gradual downstream slopes. (e.g. Osgood Property and it’s downstream conveyance slope at an average of 15% or less)
  - A portion of the BAS definition of Erosion Hazard Area is slopes of 15% or greater. (AMEC Matrix Response #132)

- Erosion Control technologies are reliable per Department of Ecology (AMEC report EHNSWB Page 3).
  - Very Low Risk of erosion after development.

- 2009 King County Surface Water Design Manual more stringent and protective than when overlay put in place (Comment 207, page 2, p 3) and since 2005 CAO implemented.

- Main concern should be water quality, NOT Volume. (Rick Tomkins PE, Triad Associates)
  - Lake Sammamish is designated as a receiving body without receiving volume limits.
  - Program includes a 60% Phosphorus removal requirement.
  - Lake Sammamish is on the Department of Ecology’s 303(d) list, as a Category 5 water body for ammonia N, dissolved oxygen, and fecal coliform10, not Phosphorus (in 2012 varied between Category 1 and 2).
  - Limnologist report: Small construction sites runoff of Pilot Program would not affect the Phosphorus Level in Lake Sammamish. (Herrera Environmental Consultants, Comment 193)

- AMEC BAS Available Science report on EHNSWB referenced No BAS², only opinions, other jurisdiction’s actions and generalities. (AMEC report EHNSWB Page 12).
  - Assuming BAS used in 2005 as complete and accurate is contrary to the reason the City Council established the Sunset Clause; to fix inequities.
  - BAS available science used in 2005 related to landslide, stream bed erosion shoreline or maps.⁶
  - Consultants did not evaluate any technologies that may be used to mitigate risk.
• Property Rights are constitutionally protected and should not have unreasonable or unfounded regulations attached to them. ²
  ○ Need to balance the government’s intended purpose in a regulation with the means used to accomplish it and the financial impact on the landowner
  ○ BAS (peer reviewed) needs to show that harm would be done
  ○ The absence of BAS is NOT a good reason for regulation.
  ○ City Attorney prepared a response not released to public (Verbal Public Comment/Question and Answer – follow up: #4). We assumed there were issues of over regulation.

Open Channel Manual Conveyance (21A.50.220 5 (c) iii) 4-15F Evaluation Form

• Comprehensive conveyance analysis required. (221A.50.220 5 (c) (iii) D)
  ○ Repair or upgrade, as necessary, is required to support that water flow and volume will ensure that conveyance will handle the additional storm water that will be produced as a result of subdivision development during and after a large storm or similar event (Minority Report 1 Concern) and protect downstream properties (Minority Report 2 #5 concern).
  ○ Third party peer review is required.
  ○ Result is significantly more protection than required in the 2009 King County Surface Water Design Manual.

• Peak Water Flows will be less than the current flows. (Rick Tomkins PE, Triad Associates Comment 276)
  ○ Flow 3 control will balance release to lower volume levels than currently exist
  ○ More overall volume, but less burden on the manmade conveyance (ditch)
  ○ Less risk of catastrophic event

• Only site areas of less than 5 acres can qualify for the Pilot Program. (221A.50.220 5 (c) (iii) A)

• Hard Pan Soil at short depth does not allow Infiltration for Low Impact Development. ⁴

• Many Low Impact Development techniques are included: (221A.50.220 5 (c) (iii) F-J)
  ○ Require level 3 flow control on all projects (current requirement is level 2)
  ○ Minimum of 15% open space (in addition to required recreation space)
  ○ Limit individual site impervious surface to 50%
  ○ Revegetation of all open space
  ○ 15% of each lot shall contain drought resistant/tolerant plantings
  ○ Rainwater Harvesting
  ○ These techniques reduce overall water volume by 30% or more. (Rick Tomkins PE, Triad Associates)

Footnotes
¹ EHNSWB Comparison table 11-30-12 Prepared by Evan Maxim, Sam Rodabaugh Verbal Public Comment/Question and Answer – #30, Carson Comment 222
² Washington State Attorney General Advisory Memorandum: Avoiding Unconstitutional Takings of Private Property 2006
³ Best Available Science defined by WAC 365-195-905
⁴ Public Comment 132 6/13/2012 Icicle Creek Engineers, Inc. (Brian Beaman)
⁵ City Council Tab 1 - (E) Lipinsky Minority Report #3 - 2-1-13
⁶ Comment 160 2005 Best Available Science Resource List
Erosion Control Technologies Effectiveness Review (since 2005 ECA and 1997 Overlay Creation)

- **Erosion Control Technologies Reliability**
  - [AMEC report EHNSWB Page 3] “There are presently six technologies for removing sediment designated for General Use. These technologies have been refined and added to Ecology’s list of approved BMPs more recently than the 2005 update to the ECA, and can be categorized as either chitosan-enhanced sand filtration or electro-coagulation treatment technologies. These BMPs, together with the erosion and sedimentation control BMPs of the most recently published Stormwater Management Manual for Western Washington (Ecology, 2011), constitute the best available science for treatment of sediment-laden runoff.”
    - **Purpose** This BMP applies when using stormwater chemicals in batch treatment or flow-through treatment.
    - Turbidity is difficult to control once fine particles are suspended in stormwater runoff from a construction site. Sedimentation ponds are effective at removing larger particulate matter by gravity settling, but are ineffective at removing smaller particulates such as clay and fine silt. Traditional erosion and sediment control BMPs may not be adequate to ensure compliance with the water quality standards for turbidity in receiving water.
    - *Chemical treatment can reliably provide exceptional reductions of turbidity and associated pollutants. Chemical treatment may be required to meet turbidity stormwater discharge requirements, especially when construction is to proceed through the wet season.*

- **2009 King County Surface Water Design Manual more stringent and protective than in 1997 when overlay put in place and since 2005 CAO implemented.**
  - [Comment 123 & Comment 207, page 2, p 3] “AMEC, the city’s consultant, has based its conclusions on the nearly twenty year old East Sammamish Basin and Non Point Action Plan without taking into account the advances in storm water management and regulation since then that protect critical areas by reducing flows, controlling erosion, and minimizing the release of phosphorous. AMEC’s analysis also fails to consider the scientific information presented by Mr. Zisette of Herrera and Mr. Krabbe, demonstrating that development can occur without creating undue risk to the health of the lake.”

- **Limnologist reports:**
  - [Comment 207 & Comment 193] Mr. Zisette analyzed the potential effect of a complete failure of erosion control (a highly unlikely scenario). He concluded that “high rates of soil erosion from a 5-acre construction site over an entire year would not have a measureable impact on water quality in Lake Sammamish.”
  - [Comment 207] Strict limitations and controls on new development within the current "no disturbance area," that would assure protection of the lake both during and after development are required. These restrictions go far beyond the already stringent best management practice requirements under the NPDES Construction General Storm Water Permit and the Western Washington Storm Water Manual, which have proven effective in controlling phosphate during construction of properties within the Lake Sammamish basin (Comments 145).
roughly occurs in a north-south trending band across the central portion of the site. As previously mentioned, wet, spongy surface soils were observed in the vicinity of the water well which suggests perched ground water conditions that is expected to dry out by the late summer months.

LANDSLIDE HAZARD AREAS

Slopes on the site are relatively moderate; typically less than 30 percent grade with a majority of the site less than 15 percent grade. Regionally, slopes more than 40 percent grade are considered sensitive to slope instability. However, based on the site topographic plan, no slopes more than 40 percent grade occur within the property.

Based on our observations, no landslides such as slumps, earthflows or mudflows occur on the property. We did not observe evidence of slope instability such as bare soil scarps, hummocky topography, groups of leaning or topped trees. We did observe wet, spongy soil conditions in the south-central portion of the property (in the area of the shallow water well).

The property is mantled with native soils referred to as ice-contact sediments that, under some circumstances, are susceptible to instability because of 1) poor drainage, 2) relatively low soil strength, 3) local shallow ground water and 4) erosion potential.

Landslide Hazard Areas, as defined by SMC 21A.15.680(3), occur at the project site at the locations shown on Figure 2.

EROSION HAZARD AREAS

We did not observe evidence of adverse erosion, such as gulies and rills, on the property in its present condition. According to regional soils mapping by the U.S. Department of Agriculture, Soil Conservation Service (1971), the property contains Alderwood Series soil types referred to as AgC (moderate erosion hazard – slopes less than 15 percent grade) and AgD (severe erosion hazard – slopes more than 15 percent grade). Erosion Hazard Areas, as defined by SMC 21A.15.680(3), occur at the project site at the locations shown on Figure 2.

CONCLUSIONS AND RECOMMENDATIONS

GENERAL

It is our opinion that subsurface conditions at the site are satisfactory for the proposed residential development. Based on the results of our explorations, it appears that the majority of the site soils (medium dense or denser fill, ice-contact sediments and advance outwash) will be suitable for support of conventional spread footings.

The near-surface soils have sufficient fines (soil particles passing the U.S. Standard No. 200 sieve) content to be moisture-sensitive. These soils will be difficult or impossible to compact when the moisture content is more than a few percent over the optimum moisture content. We recommend that the earthwork portions of the project be completed during the drier summer months to reduce costs. The ice-contact sediments, which likely underlie the entire site at a relatively shallow depth, are highly variable in their ability, both vertically and laterally, to infiltrate water. Adequate drainage (footing drains, French drains, etc.) should be planned to reduce the risk of ponded water.

ICE should be allowed to review the design plans, when available, to evaluate if our recommendations have been interpreted and implemented correctly.

As previously described, Landslide and Erosion Hazard Areas occur within the property. In our opinion, these Critical Areas can be adequately mitigated such that no significant adverse impacts to the property and contiguous properties should occur provided that the recommendations presented in the following sections of this report are implemented for design and during construction.

Icicle Creek Engineers

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CRITICAL AREAS

In our opinion, Landslide and Erosion Hazard Areas can be adequately mitigated by implementing the recommendations presented in this report. These mitigations are intended to 1) enhance the stability of Landslide Hazard Areas, and 2) decrease the potential for erosion (in Erosion Hazard Areas) and sedimentation to an acceptable level within and adjacent to the property. Downstream monitoring of surface water discharge from the site during earthwork will likely be required.

SITE PREPARATION

Temporary erosion control measures such as silt fences, straw bales, and detention structures should be installed to local standards prior to the start of construction.

We recommend that the vegetation, topsoil and existing fill containing deleterious material, should be stripped and removed from the site and/or stockpiled for use in landscape areas, if appropriate. Tree stumps and roots over 2 inches in diameter should be grubbed and removed from areas where houses, roadways, driveways and utilities will be located.

During dry weather conditions, the depth of stripping is expected range from 1 to 2 feet unless excessive disturbance is caused by the clearing operations. Stripping to a greater depth should be expected near grubbed tree stumps or if these operations are done during wet weather. After stripping and grubbing is completed, a representative from ICE should evaluate the exposed ground surface in building, roadway and driveway areas to identify areas that are soft, loose or otherwise unsuitable and to advise the earthwork contractor regarding removal and replacement of unsuitable soils.

The foundations for the existing structures should be completely removed in areas where new structures will be built. In nonstructural areas, these foundation elements more than 3 feet below finished grade may be left in place. The water well should be decommissioned in accordance with Washington State Department of Ecology Standards (Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells).

STRUCTURAL FILL

New fill in the building site area on each lot, and roadway and driveway areas should be placed as compacted structural fill. The suitability of soil for use as structural fill will depend on its gradation and moisture content. As the amount of fines increases, soil becomes increasingly more sensitive to small changes in moisture content and adequate compaction becomes more difficult to achieve.

The on-site soils contain a sufficient amount of fines to be moisture-sensitive. During dry weather, the on-site soils can be used as structural fill, provided that these materials are conditioned to the proper moisture content for compaction. The on-site soils will not be suitable for use as structural fill during wet weather. On-site soils considered unsuitable for use as structural fill during any weather conditions include the topsoil and soils containing debris, organic contaminants or rocks greater than 6 inches.

If structural fill must be placed during wet weather, we recommend the use of imported sand and gravel containing less than 5 percent fines by weight relative to the fraction of the material passing the ¼-inch sieve. The imported sand and gravel should be moisture-conditioned as necessary for proper compaction.

Structural fill should be mechanically compacted to a firm, nonyielding condition. Structural fill in the building areas should be compacted to at least 95 percent of the maximum dry density (MDD) obtained by ASTM Test Method D 1557. Structural fill in roadway and driveway areas, including utility trench backfill, should be compacted to at least 95 percent of the MDD. As a guideline, structural fill should be placed in loose lifts not exceeding about 8 inches in thickness. The actual loose lift thickness will depend on the quality of the fill and compaction equipment. Each lift should be conditioned to the proper moisture content and compacted to the specified density.