Community Development

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TO: City Council May 1, 2013

FM: Kamuron Gurol

RE: Staff Responses to City Council Questions on the Environmental Critical Area (ECA) regulations

The City Council has identified a number of questions through their review of the Planning Commission recommended amendments to the ECA regulations. The following is intended to address questions identified by the City Council prior to April 15, 2013. Additional responses will be provided to any remaining questions the week of May 13.

Don Gerend

Frequently Flooded Areas:

1. *What is the flood hazard area?*

The City of Sammamish 100-year FEMA floodplain areas (flood hazard areas) are located entirely along the shoreline of Lake Sammamish. The FEMA floodplain location varies with elevation, with areas below elevation 33' NGVD 1929 within the floodplain. These areas are also considered critical areas, and are subject to several overlapping state and federal requirements. The City's Shoreline Master Program regulates uses and standards for these areas, including critical areas requirements (adopted into the SMP). In addition, FEMA requires the City to meet regulatory standards in order to provide federal flood insurance availability to residents, and more recently, to meet the requirements of the Endangered Species Act.

Wetlands:

2. *On p. 2 "Wetlands also provide value to community such as recreation, open space and other aesthetic functions." What recreation if we are even restricted on trails in the buffers of wetlands?*

SMC 21A.30.210(5) allows trails in the outer 25% of buffers. SMC 21A.50.300(8) and (10) allow trail crossings, spur trails, and viewing platforms where these proposals meet code criteria. One of the common recreational wetland uses is bird watching, which, depending on the surrounding topography and vegetation, can often be conducted from outside the wetland buffer.

3. *On p. 2 Hruby 2004 Functional Classification: Can I get a copy of this to see what the methods and approaches are that are "considered best available science."*

A copy has been provided.

4. *On p. 3 and p. 5. Can I see copies of NRC 2001 and Sheldon, et. al. 2005?*

A copy has been provided.

5. *On p. 9 Clustered in R-1 zone.* ***Question:*** *So does that include cottage housing? I believe we concluded that it doesn't. Should we change this?*

Cottage housing is currently only allowed under the pilot program within the R-4 through R-18 zones. The R-1 zone mandates clustering and council may want to consider code revisions to allow cottage housing in the R-1 zone after an evaluation has been completed for the current cottage housing pilot program.

6. *Did the Planning Commission support a Fee in Lieu option to be a way to buy into compliance by financially supporting off site mitigation (I believe that we were told that this would be an expensive alternative), whereas the 4,000 foot wetland proposal would allow 2,500 square feet filled with proper on-site mitigation without requiring Fee in Lieu in addition?*

To be answered the week of May 13.

Wildlife habitat and corridors:

7. *On p. 19 Development Standards. "...preserve and enhance wildlife function"* ***Question:*** *Why "enhance" in urban areas? That is the point of the UGB, in my opinion; habitat enhancement <u>outside</u> of urban areas.*

Part of the basis for providing wetland buffers under Best Available Science is to provide habitat for wildlife that is dependent upon wetlands. The adopted Sammamish Comprehensive Plan contains policy guidance directing the city to provide for wildlife habitat within Sammamish; the council would need to identify a policy basis for pursuing the relocation of habitat enhancement outside of the urban growth area.

8. *Which wildlife species did the Planning Commission feel are of greatest interest to the City to protect, what are the management recommendations for those species and what existing constraints make these protections not reasonable?*

The Planning Commission considered expanding the list of protected species, to include identified species of significance to the city of Sammamish. The Planning Commission initially considered a species identified from a list based upon the East Sammamish Basin and Non Point Action Plan. Among those species considered, staff recalls that there was specific discussion of Red Tail Hawk, Great Blue Heron, Mountain Beavers, Bobcats, and Black bears. Ultimately, the Planning Commission did not recommend that the City Council identify any species of special significance to Sammamish as part of the recommended amendments.

9. *Regarding the wildlife corridors, ….. the general theme could be to try not to encourage wild animals to find urban (or even suburban) areas attractive, since the cost/benefit ratio is very high. So, why are we so concerned about maintaining wildlife corridors? I understand that we can't resolve this in the ECA update, since, as Kamuron pointed out our Comprehensive Plan is*

rife with wildlife corridors, but I would like this to be a topic for discussion and potential policy change when it comes to the Comp Plan update. Once again, I ask for examples of wildlife habitat which require wider buffers.

Staff Response: A large number and variety of large and small mammals, amphibians, reptiles, birds, and fish benefit from, or are dependent on, larger buffer widths for survival, population sustainability, and/or species richness. For those that are interested in learning more about the habitat size needs of specific species, the following best available science documents may be consulted and are available on the Washington Department of Fish and Wildlife website. Due to the large size of these documents, it is suggested that these be viewed online to reduce printing and resource costs; however, copies can be provided upon request.

I) Landscape Planning for Washington's Wildlife: Managing for Biodiversity in Developing Areas and related appendices (Washington Department of Fish and Wildlife, 2009); and
II) Management Recommendations for Washington's Priority Habitats and Species (Washington Department of Fish and Wildlife, 1995 revised and expanded multiple times through 2011)

Comments related to the comprehensive plan update are noted and will be relayed to the Comp. Plan update project manager.

Some considerations in the comprehensive planning process include state law requirements to protect Fish and Wildlife Habitat Conservation areas, which are designated as critical areas under WAC 365-196-830. Additional related requirements are located in WAC 365-196-130, including:

a) A requirement to consider creating a system of fish and wildlife habitat with connections between larger habitat blocks and open spaces, integrating with open space corridor planning where appropriate,

b) Counties and cities may protect critical areas in different ways or may allow some localized impacts to critical areas, or even the potential loss of some critical areas, development regulations must preserve the existing functions and values of critical areas. If development regulations allow harm to critical areas, they must require compensatory mitigation of the harm. Development regulations may not allow a net loss of the functions and values of the ecosystem that includes the impacted or lost critical areas,

c) Functions and values must be evaluated at a scale appropriate to the function being evaluated. Functions are the conditions and processes that support the ecosystem. Conditions and processes operate on varying geographic scales ranging from site-specific to watershed and even regional scales. Some critical areas, such as wetlands and fish and wildlife habitat conservation areas, may constitute ecosystems or parts of ecosystems that transcend the boundaries of individual parcels and jurisdictions, so that protection of their function, and values should be considered on a larger scale.

Nancy Whitten

Logistics / PC review:

10. *Provided to us an identification of each item where the Planning Commission changed the rating on the evaluation form from that recommended by staff, and a description of those changes (ROADMAP)*

A road map for the proposed major amendments has been provided to the City Council.

Wetlands:

11. *What it would take to adopt a watershed approach to items such as fee in lieu and isolated wetlands filling with no mitigation sequencing. If, e.g., a wetland filling took place in the Beaver Lake basin, what mitigations on site or within that watershed would be possible and feasible to mitigate this action.*

According to ECY guidance (Ecology Publication #09-06-032), a watershed is defined as the area contributing water, organic matter, dissolved nutrients, and sediments to aquatic resources. Watersheds can be defined at a small drainage subbasin scale or can be defined at a large drainage basin scale.

Taking "a watershed approach" to selecting mitigation sites is described in referenced ECY guidance as being based on analysis of the ecological processes in a drainage basin/watershed; determining what ecological processes have been altered (i.e. change in groundwater flows from loss of forest cover); identifying where these processes can be most effectively restored and protected; and assessing the role mitigation can play in repairing those processes. Taking a watershed approach to selecting mitigation sites can result in a mitigation site being located in a different drainage subbasin than the impact site. Therefore, selecting a mitigation site for an impact in the Beaver Lake drainage basin may or may not result in a mitigation site being established in the Beaver Lake drainage basin.

The code, as currently proposed, requires that mitigation first occur on-site. If it can be demonstrated that on-site mitigation is not feasible and that off-site mitigation will achieve a better outcome, then off-site mitigation is to first occur within the same drainage subbasin, then within city limits. If it can be demonstrated that off-site mitigation within the same drainage subbasin or within city limits cannot be accomplished, the applicant can propose mitigation through use of credits purchased from an approved in-lieu fee program or mitigation bank.

Depending on the definition of "watershed," a watershed approach may, or may not, be possible with the use of mitigation credits purchased from an in-lieu fee mitigation program or a regional mitigation bank. The County's in-lieu fee mitigation program coordinator has relayed to staff that the County can work with the City to establish a mitigation reserve site(s) within the City depending on the availability of land suitable and available for this purpose. It is unlikely that an in-lieu fee mitigation reserve site(s) could be established in every drainage subbasin within the City, and it is possible that no suitable sites can be feasibly acquired for establishment of an in-lieu fee mitigation reserve site within City limits. This possible limitation is the same whether or not the City works to establish our own in-lieu fee mitigation reserve program or if the City takes advantage of the County's efforts and resources already expended to establish their program.

There are currently no mitigation banks established with Sammamish within the bank's approved service area; however, one private mitigation banking company is working to establish a mitigation bank north of the city that is expected to include Sammamish within the bank's service area. Although the City would be within the bank's service area, the bank would be located outside of the city; hence, mitigation would be outside of the drainage subbasin for most impact sites.

12. *In determining if a wetland is of no or low value, why could we not look to all functions of the wetland, not just habitat? What is the justification for limiting the determination of the value of an isolated wetland to only a habitat score?*

Landscape position, water quality functions, hydrologic functions, habitat functions, and special characteristics are all considered in the classification of a wetland using the Washington State Wetland Rating System devised by the Washington State Department of Ecology. The proposed limited wetland exemption for isolated, non-riparian wetlands under 4,000 square feet in size is only available for use with Category III or IV wetlands, which typically have a lower score for all of the functions rated using Ecology's wetland rating methodology when compared to Category II or I wetlands.

Use of the proposed limited wetland exemption for isolated, non-riparian wetlands under 4,000 square feet in size is further limited by a low habitat score of 15 because it is thought that the lower rated hydrologic functions lost through filling up to 2,500 square feet of wetland can be mitigated on-site somewhat through on-site stormwater management practices, while lost habitat functions cannot be easily mitigated outside of the remaining wetland or on-site mitigation area. Therefore, the added low habitat score limitation was intended to ensure that there was not much habitat function present to lose or mitigate for.

13. *What other jurisdictions use only habitat in determining a low value wetland? What other jurisdictions use all functions in determining a low value wetland?*

All Washington jurisdictions that utilize the Washington State Wetland Rating System devised by the Washington State Department of Ecology use the habitat rating as part of the overall classification of wetlands. The wetland's classification, as determined through use of this rating system, is then utilized to determine which wetlands have higher or lower function overall with respect to all functions, or with respect to specific functions like habitat. Several jurisdictions, including Sammamish, utilize the habitat function score as derived from the Washington State Wetland Rating System as part of the determination of the required buffer width because best available science indicates that wider buffers are needed to support greater habitat function. No other jurisdictions were identified as having a limited wetland exemption for isolated with the same set of limitations (e.g. riparian, <15 habitat score, etc) under consideration by Sammamish.

14. *Please explain the water quality function of a nearly 4000 square foot wetland that is isolated but that keeps untreated storm water from entering a small lake sensitive to P input. Could the water quality be quantified? Could we look at factors, such as the depth and size of the wetland, the volume of water it holds, its ability to infiltrate, its trans evaporation of water into the air, and quantify that and determine a value of that wetland for water quality and quantity purposes?*

The City utilizes the Washington State Wetland Rating System devised by the Washington State Department of Ecology to evaluate the water quality function of a wetland. The size of the wetland does not play a significant role in this evaluation method. Water volume can be estimated, but does not in itself determine the water quality function.

15. *How much would it cost and how much staff time would it take to adopt an watershed approach to fee in lieu and dealing with isolated wetlands?*

Please see above description of what taking a "watershed approach" to selecting mitigation sites entails. Staff already applies this approach to mitigation site selection and this approach is built into the in lieu fee program as well as mitigation bank programs.

It appears that this question may have instead been meant to ask about adopting a "same drainage subbasin as the impact site" approach to mitigation? Please also see the above discussion related to this topic.

It does not appear that there will be any significant added cost to the City to work with the County in establishing an in-lieu fee mitigation reserve site in the City. The costs of using this County program will be assumed by individual applicants that purchase mitigation credits through the program. There will be additional time demands on City staff to work with the County on establishing the in-lieu fee program for use by Sammamish applicants and added staff review time needed when applicants propose to utilize this program, but the amount of time this will add is difficult to quantify at this time.

Utilizing the County's in-lieu fee mitigation program will take less staff time and resources than if the City were to try to establish a separate in-lieu fee mitigation program. It appears that there would be no added benefits for the City to establish an in-lieu fee program since the County is willing to work with the City to establish in-city mitigation reserve site(s) utilizing the County's program and the County's program has already been established and approved by applicable state and federal agencies.

EHNSWB overlay:

16. *What are our erodible slope development regulations OUTSIDE of the no disturbance area?*

To be answered the week of May 13.

Ramiro Valderrama

Wetlands:

17. *There are several references in regards to wetlands to Renton and King County regulations. Unless I missed it I did not see their regulations in Volume 2 - can you forward them to the Council please so we can better understand why they don't or do apply.*

Ecology has suggested that the city focus on comparing ECA regulations on an "apples to apples" basis, rather than on focusing on specific aspects of each jurisdictions' regulations (e.g. for isolated wetlands). The city has asked AMEC to complete an "apples to apples" evaluation, which has been provided to the City Council as part of the May 7, 2013 Council packet.

- City of Renton Environmental Regulations: http://www.codepublishing.com/wa/renton/?Renton04/Renton0403/Renton0403.html

- King County Critical Area Regulations: http://www.kingcounty.gov/council/legislation/~/media/Council/documents/Clerk/CodeFiles/2--KCCode_PDF/24-30_TITLE_21A.ashx (pages 147 - 198)

18. *On the one known isolated wetland in the city - I understand the hydrology score of this wetland is also low - and that the benefit to water quality though in an urban area is unknown - is that correct?*

Although the total number of hydrologically isolated wetlands in Sammamish is unknown, we do know that there is more than one. Although this type of wetland has not historically been tracked by the City, staff has identified several applications that included hydrologically isolated wetlands under 1,000 square feet that were filled utilizing current City Code provisions. Staff has also identified approximately 7 times as many applications, approximately 42, that included properties with likely hydrologically isolated wetlands under 4,000 square feet in size, with habitat scores under 15. This information is from a recent review of permitting files, and therefore only quantifies this specific subset of isolated wetlands (under 4,000 square feet with habitat score below 15) on a subset of city properties (those subject to a development application). It is difficult to extrapolate these numbers to all parcels in the City. To date, staff has not identified any hydrologically isolated wetlands located within the shoreline jurisdiction. The shoreline jurisdiction includes associated wetlands, and wetlands in shoreline jurisdiction are unlikely to meet the isolated, non-riparian criteria.

A review of BAS confirms that the benefits of a wetland, even with a low hydrology score, are greater and more valuable in an urbanizing area than in a rural area because there is more pressure on, and more need for, a wetland's hydrology functions in an urbanizing area. As described in the Western Washington Wetland Rating System manual, a key part of characterizing the function of a wetland is related to the "opportunity" that the subject wetland has to perform that function. For example, wetlands found in a polluted watershed have a higher opportunity to perform water quality functions than a wetland that has few if any pollutant sources in the surface or groundwater hydrologically associated with the wetland. Therefore, a wetland in a pristine watershed with no pollutant sources has less opportunity to provide water quality functions such as removing pollutants regardless of how capable the wetland is of performing this function.

19. *Can we request that King County apply the money from a fee-in-lieu program to treat an approved water basin in Sammamish?*

Yes, the County's in-lieu fee mitigation program coordinator has relayed to staff that the County can work with the City to establish a mitigation reserve site(s) within the City depending on the availability of land suitable and available for this purpose. It is unlikely that an in-lieu fee mitigation reserve site(s) could be established in every drainage subbasin within the City, and it is possible that no suitable sites can be feasibly acquired for establishment of an in-lieu fee mitigation reserve site within the City. This possible limitation is the same whether or not the City works to establish our own in-lieu fee mitigation reserve program or if the City takes advantage of the County's efforts and resources already expended to establish their program. Staff is meeting with King County staff to get more information about what this coordinated effort will involve.

20. *What are the pros and cons on wetland and stream buffer delineation?*

To be answered the week of May 13.

EHNSWB:

21. On the no disturbance area - this was inherited from King County - were there other cities that had designated no disturbance areas? If so is their status today - are they still in place? If not what made Sammamish so distinct from all others.

The Erosion Hazard near Sensitive Water Body (EHNSWB) overlay and the associated no-disturbance area were not identified in other portions of King County. King County initiated the review of Lake Sammamish water quality protection of what was then reviewed to as the East Sammamish Community (now Sammamish) in the late 1980s. The review culminated in the adoption of several plans, including the East Lake Sammamish Basin and Non Point Action Plan in 1994, which focused in part on the protection of water quality in Lake Sammamish. The East Lake Sammamish Basin and Non Point Action Plan provides the policy and regulatory direction to create what is now known as the EHNSWB overlay.

When the East Lake Sammamish Basin and Non Point Action Plan was adopted, King County was the agency with jurisdiction on land use development for the area now known as Sammamish, which was largely undeveloped. Issaquah, Redmond, and Bellevue were already incorporated and largely, though not completely, developed when the overlay was first established by King County.

22. IF - the Council approved all the pilots on the no-disturbance area what developments would be left to develop in that area?

Staff cannot predict with precision the amount of land that may be consumed through the development authorized by the pilot program; at this time there is not an overall limit on the amount of land used as part of a subdivision. The staff are aware of two or three possible projects within the no-disturbance area, including the Probst property (approximately 26 acres), the Osgood property (approximately 3.8 acres), and the Morelli property (approximately 9.6 acres).

23. Is there any significant difference between Mr. Carson development site and the current development taking place on ELSP in Redmond less than a mile north from Mr. Carson's property?

To be answered the week of May 13.

Tom Vance

Logistics:

24. Would like to review minor items that are substantial in nature.

The city has presented a list of the “minor items” that represent a substantial amendment to the ECA regulations, although these items did not require increased scrutiny by the Planning Commission and were generally not controversial. These included the following:

- Introduce thresholds to trigger stormwater treatment for redeveloped sites and pervious pollutant generating areas (3-12)

- Revise the standard within SMC 21A.50.260(1) such that landslide hazard area buffers extend from top and toe of slope (instead of from edge) (4-7)
- Revise SMC 21A.50.260 (2)(b) to include specified minimum static and seismic factors of safety for slope stability. (4-11)
- Add functional criteria for allowing buffer reductions or increases (2-4, 2-5).
- Specify under what conditions construction is allowed during the wet season in the Erosion Hazard area. (4-1)
- Clarifying the location of the "top" of the no-disturbance area in the EHNSWB (4-3)
- Clarifying the definition of landslide hazard areas related to steep topography (4-12)

EHNSWB Overlay:

25. *What is the effect of the tightline discharging into Lake Sammamish in terms of an effect on "stirring" phosphorous up from the lake bed?*

Tightline drainage discharges into Lake Sammamish are normally designed to dissipate energy associated with the tightline at the edge of the lake. The Planning Commission and City Council have received public comments / testimony, which is supported by the BAS Reports, that water quality in Lake Sammamish is sensitive to phosphorous. There is a risk that the proposed tightline approach could "stir up" sediment on the lake bottom, that may contribute to the amount of phosphorous in Lake Sammamish. One possible option is to include language requiring the installation of an energy dissipater at the end of the tightline drainage system to minimize this risk further (e.g. by directing discharge towards the surface of the lake at the very end of the pipe).

Other – March 19, 2013 email from Megan Gee

Wetlands:

26. *"…if a small isolated wetland is found and is determined to be 3000 sf in size and meets the standards for exemption of the avoidance criteria, under the current proposed code, only 2500 can be filled. If mitigation is not feasible on site, does DOE expect the applicant to leave a 500 sf wetland on the property and fee-in-lieu for the fill? Wouldn't the applicant then have to pay the fee-in-lieu as well as monitor the 500 sf wetland on-site?..."*

As currently proposed, the applicant must first mitigate for the fill on-site, preferably adjacent to the remaining wetland area to be retained on site where this mitigation can provide connectivity to other natural resource areas and provide equal or better functions and values. If it can be demonstrated that on-site mitigation is not practicable per the criteria outlined in the proposed code language, then off-site mitigation within the same drainage sub-basin must be considered. If it can be demonstrated that off-site mitigation within the same drainage sub-basin is not feasible, then off-site mitigation within the city's limits must be considered. If off-site mitigation within the City's limits is demonstrated unfeasible, then credits from a fee-in-lieu program or an approved mitigation bank can be utilized where a Sammamish service area has been established.

In the scenario described, the applicant would have to pay for the fee-in-lieu or mitigation bank program costs and would also have to protect the remaining un-filled portion of wetland. The latter would not require added monitoring costs for the applicant unless a mitigation or restoration plan was needed related to the retained wetland area on the site.

27. *"…What's the environmental benefit of leaving and monitoring a 500 sf low function/low value wetland?..."*

Information has been previously provided related to the functions and values of small wetlands. In summary, BAS indicates that it is not possible to conclude from size alone what functions a particular wetland may be providing.

28. *"…What did DOE say is their expectation if the mitigation is beyond 2500 sf and cannot be done on-site?..."*

To be answered the week of May 13.